City of Wheatland
General Plan Update

Draft Environmental Impact Report

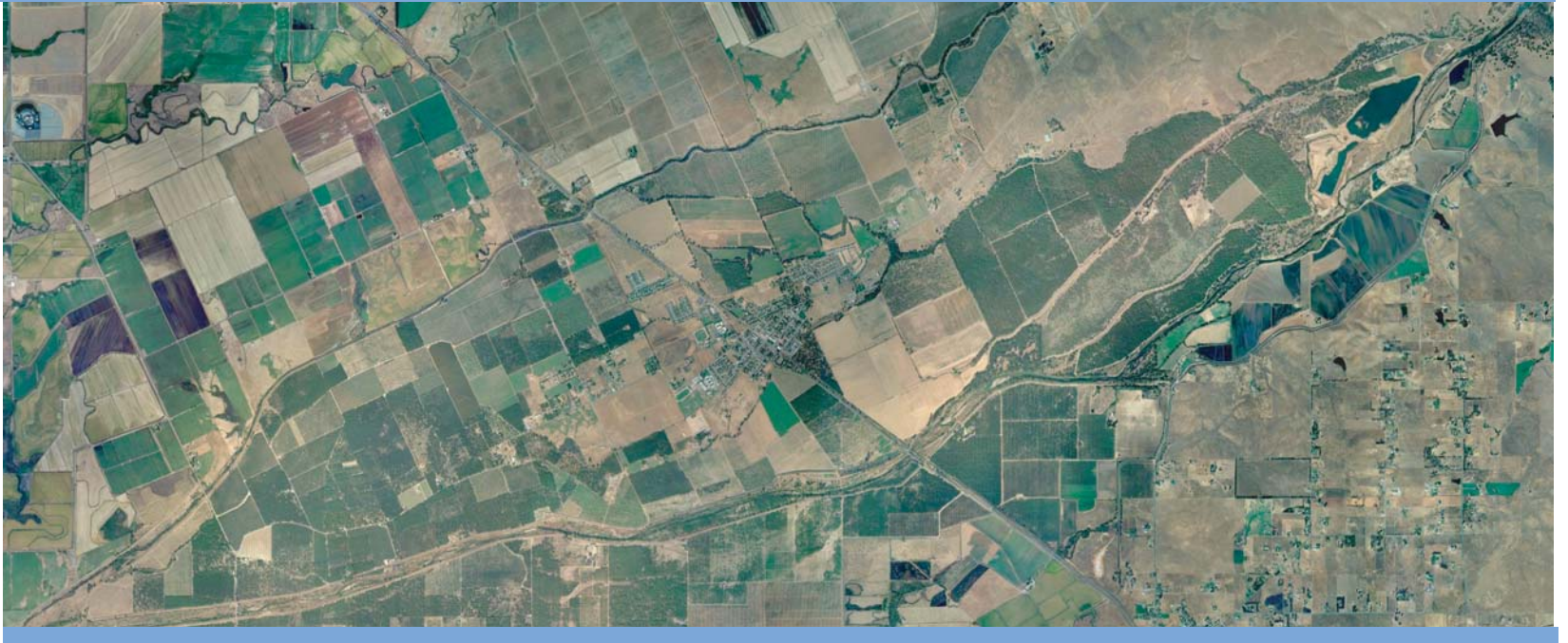

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TABLE of CONTENTS

Chapter ....Page

1. INTRODUCTION and SCOPE OF EIR 1-1

2. EXECUTIVE SUMMARY 2-1

3. PROJECT DESCRIPTION 3-1

4. ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION

4.0 Introduction to the Analysis 4.0-1
4.1 Aesthetics 4.1-1
4.2 Agricultural Resources 4.2-1
4.3 Air Quality 4.3-1
4.4 Biological Resources 4.4-1
4.5 Cultural Resources 4.5-1
4.6 Geology 4.6-1
4.7 Hazards 4.7-1
4.8 Hydrology and Water Quality 4.8-1
4.9 Land Use and Planning 4.9-1
4.10 Mineral Resources 4.10-1
4.11 Noise 4.11-1
4.12 Population, Employment, and Housing 4.12-1
4.13 Public Services 4.13-1
4.14 Recreation 4.14-1
4.15 Transportation and Circulation 4.15-1
4.16 Utilities and Service Systems 4.16-1

5. STATUTORILY REQUIRED SECTIONS

Growth Inducement 5-1
Significant Irreversible Environmental Effects 5-2
Cumulative Impacts 5-3
Significant Unavoidable Adverse Impacts 5-4

6. ALTERNATIVES ANALYSIS

Alternatives Considered But Dismissed From Further Analysis in this EIR 6-3
No Project Alternative 6-4
65 East Development Alternative 6-7
Reduced Buildout Alternative 6-11
Environmentally Superior Alternative 6-15

7. EIR AUTHORS / PERSONS CONSULTED 7-1

8. REFERENCES 8-1

Volume II: Technical Appendices A-K, Bound Separately

The Technical Appendices are separately bound and are available for review at City Hall, 313 Main Street, Wheatland, CA 956932.

A. Notice of Preparation
B. Comments on the Notice of Preparation
C. Wheatland General Plan Air Quality Report, Donald Ballanti, December 2005.
D. Biology Resource Report, Foothill Associates, October 2005.
E. Draft Drainage Report for Internal Drainage, Civil Engineering Solutions, Inc., November 2005.
F. External Source Flood Protection Plan, Mead & Hunt, October 20, 2005.
G. Noise Study, Bollard Acoustical Consultants, Inc., December 2005.
H. Traffic Impact Analysis for the City of Wheatland General Plan Update, kdANDERSON Transportation Engineers, September 2005.
I. Master Water Plan Technical Report, Terrance E. Lowell & Associates Inc., September 28, 2005.
J. Sewer Collection System Master Plan Technical Report, Terrance E. Lowell & Associates, Inc., July 22, 2005.
K. Wastewater Treatment Facilities Master Plan, CH2MHILL, September 2004.

LIST of FIGURES

Figure #	Title	Page
Figure 3-1	Regional Location Map	3-2
Figure 3-2	General Plan Study Area	3-3
Figure 3-3	General Plan Land Use Diagram	3-9
Figure 4.2-1	Important Farmland	4.2-2
Figure 4.4-1	Biological Communities in the Study Area	4.4-3
Figure 4.4-2	California Natural Diversity Database	4.4-8
Figure 4.4-3	Biological Constraints	4.4-26
Figure 4.5-1	Wheatland Historical Sites	4.5-20
Figure 4.7-1	Beale Air force Base Area of Influence	4.7-4
Figure 4.8-1	Existing Storm Drainage System	4.8-6
Figure 4.8-2	Wheatland Existing Flood Plain Map	4.8-10
Figure 4.8-3	Groundwater Recharge Areas	4.8-15
Figure 4.9-1	Revised Study Area Map	4.9-2
Figure 4.9-2	City of Wheatland Land Uses	4.9-4
Figure 4.9-3	Current/Potential Developments	4.9-7
Figure 4.9-4	General Plan Land Use Element	4.9-11
Figure 4.9-5	General Plan Land Use Diagram (Revised Draft)	4.9-20
Figure 4.11-1	Beale Air Force Base Area of Influence	4.11-9
Figure 4.13-1	Wheatland School District Sites	4.13-11
Figure 4.15-1	General Plan Circulation Diagram	4.15-19
Figure 4.15-2	Average Daily Traffic	4.15-21
Figure 4.15-3	Year 2025 PM Peak Hour Traffic Projections and Assumed Geometrics	4.15-28
Figure 4.16-1	Existing Water System	4.16-2
Figure 4.16-2	Existing Water System (Sewage)	4.16-8
Figure 4.16-3	Proposed Water System Improvements	4.16-21
Figure 4.16-4	Wheatland General Plan Update Sewer Line Exhibit	4.16-22
Figure 4.16-5	Major Infrastructure Areas, by Village	4.16-24
Figure 4.16-6	Estimated Groundwater Storage in the South Yuba Subbasin Area from 1960 to 1998	4.16-29
Figure 6-1	City of Wheatland Future Development	6-12

LIST of TABLES

Table #	Title	Page
Table 2-1	Summary of Impacts and Mitigation Measures	2-9
Table 3-1	Organization of General Plan Elements	3-6
Table 3-2	Key Concepts and Ideas for Drafting the Land Use Diagram	3-8
Table 3-3	General Plan Land Use Diagram	3-10
Table 4.2-1	Soil Capability Classification	4.2-4
Table 4.2-2	Storie Index Rating System	4.2-4
Table 4.2-3	Acres of Important Farmlands - Yuba County (2004)	4.2-6
Table 4.2-4	Wheatland Study Area Soil Capability Classification	4.2-9
Table 4.2-5	Wheatland Soil Index	4.2-10
Table 4.3-1	Federal and State Ambient Air Quality Standards	4.3-2
Table 4.3-2	Air Quality Data Summary for Yuba City, 2000-2004	4.3-4
Table 4.3-3	Predicted Year 2025 Worst-Case Carbon Monoxide Concentration, In Parts Per Million	4.3-12
Table 4.3-4	CEQA and FRAQMD Thresholds of Significance (Mass Emission, pounds per day)	4.3-15
Table 4.3-5	Project-Related Regional Emissions, Pounds Per Day	4.3-19
Table 4.4-1	Listed and Special-Status Species Potentially Occurring on the General Plan Land Use Impact Area	4.4-9
Table 4.6-1	Modified Mercalli Scale of Earthquake Intensity	4.6-4
Table 4.7-1	General Hazardous Material Categories and Hazard Nature	4.7-2
Table 4.7-2	Summary of Hazardous Materials Regulatory Authority	4.7-10
Table 4.8-1	Existing Culverts	4.8-8
Table 4.8-2	Proposed Culverts	4.8-20
Table 4.8-3	Post-Project Peak Flow Rates	4.8-22
Table 4.9-1	Acreages of Existing Land Uses	4.9-5
Table 4.9-2	Development Activity	4.9-8
Table 4.9-3	1986 Land Use Element Land Use Designations	4.9-10
Table 4.9-4	Acres By Land Use Designation1986 Land Use Element	4.9-12
Table 4.9-5	2004 Zoning by Acreage	4.9-17
Table 4.9-6	City of Wheatland General Plan Summary of Land Use Designations and Standards	4.9-19

Table 4.11-1 Typical A-Weighted Sound Levels of Common Noise Sources .4.11-3
Table 4.11-2 Acoustical Terminology 4.11-5
Table 4.11-3 FHWA-RD-77-108 Highway Traffic Noise Prediction Model Data Inputs and Distances To 60 and 65 DB LDN Contours..... 4.11-7
Table 4.11-4 Railroad Noise Exposure as a Function of the Number of Daily Trains 4.11-8
Table 4.11-5 Community Noise Measurement Survey Results Wheatland Noise Element: MAY 4-11, 2002 ..... 4.11-12
Table 4.11-6 Significance of Changes In Cumulative Noise Exposure 4.11-14
Table 4.11-7 Maximum Allowable Noise Exposure Transportation Noise Sources 4.11-14
Table 4.11-8 Noise level Performance Standards New Projects Affected by or Including Non-transportation Sources..... 4.11-15
Table 4.11-9 Construction Equipment Noise Levels..... 4.11-22
Table 4.11-10 FHWA-RD-77-108 Highway Traffic Noise Prediction Model Data Inputs, Ldn at 100 feet, and Distances to 60 and 65 dB Ldn Contours – Preferred Plan (2025) Conditions..... 4.11-28

Table 4.12-1 Wheatland Population From 2000-2005 ..... 4.12-1
Table 4.12-2 Wheatland Population From 2003-2025 ..... 4.12-2
Table 4.12-3 Historical and Projected Employment – Yuba County 4.12-3
Table 4.12-4 Projected Job to Housing Ratio 4.12-5
Table 4.12-5 Wheatland Housing Units (as of January 1, 2004)..... 4.12-6
Table 4.12-6 Projected Population and Housing Demand by County..... 4.12-7
Table 4.12-7 City of Wheatland Residential Holding Capacity Analysis 4.12-7
Table 4.12-8 Vacant Residential Sites Within Wheatland City Limits 4.12-9
Table 4.12-9 Residential Sites Outside Wheatland City Limits 4.12-10
Table 4.12-10 Wheatland and California Household Incomes (1999) 4.12-11

Table 4.13-1 Summary of Emergency Responses 4.13-8
Table 4.13-2 School Enrollment and Capacity: Wheatland School District and Wheatland Union High School..... 4.13-10
Table 4.13-3 Fire Flow & Response Time Goals 4.13-16

Table 4.14-1 City-Owned Park Development Standards..... 4.14-1
Table 4.14-2 Sports and Recreational Facility Standards..... 4.14-3

Table 4.15-1 Level of Service (LOS) Definitions 4.15-5
Table 4.15-2 Daily Traffic Volume Level of Service Thresholds..... 4.15-6
Table 4.15-3 Existing Traffic Volumes And Levels Of Service 4.15-7
Table 4.15-4 Existing Level of Service 4.15-8
Table 4.15-5 Wheatland General Plan Land Use Summary..... 4.15-15
Table 4.15-6 Wheatland General Plan Trip Generation Summary..... 4.15-15
Table 4.15-7 Year 2025 Study Area - Daily Traffic Volumes 4.15-22
Table 4.15-8 Year 2025 PM Peak Hour – Study Area – Intersection Levels of Service 4.15-29

Table 4.16-1 Wheatland Water System Major Facilities Inventory, May 2004 ..... 4.16-3
Table 4.16-2 Wheatland Domestic Water System Demand Rates 4.16-6
Table 4.16-3 Wheatland Sewer System Major Facilities Inventory, May 2004 ..... 4.16-9
Table 4.16-4 Wheatland Domestic Sewer System Demand Rates 4.16-12
Table 4.16-5 Wheatland Water Storage and Pump Capacity for Fire Flows . 4.16-14
Table 4.16-6 Acreage of Water Demand Areas in GPU Study Area 4.16-23
Table 4.16-7 Wheatland GPU – Major Infrastructure Maximum Domestic Water Demand 4.16-27
Table 4.16-8 Wheatland GPU – Major Infrastructure Average Day Domestic and Irrigation Water Demand 4.16-28
Table 4.16-9 Wheatland GPU – Major Infrastructure Sewer Domestic Demands 4.16-32

1. INTRODUCTION AND SCOPE OF EIR

Introduction

This Draft Environmental Impact Report (Draft EIR) was prepared in accordance with the California Environmental Quality Act of 1970 (CEQA) as amended. This EIR is intended to serve the City of Wheatland or lead agencies concerning the approval and implementation of the Wheatland General Plan Update, and the Yuba County LAFCO in its action as a responsible agency for the related proposed annexation request. As required by Section 15121 of the CEQA Guidelines, this EIR will (a) inform public agency decision-makers, and the public generally, of the significant environmental effect of a project, (b) identify possible ways to minimize the significant effects, and (c) describe reasonable alternatives to the project. This EIR also discloses significant environmental impacts that may not be avoided; growth inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present and reasonably anticipated future projects. This EIR is an information document used in local planning and the decision-making process. It is not the purpose of this EIR to either recommend approval or denial of the project; or to present political or social reasons for project approval or denial.

Project Location and Setting

Wheatland is located in the Sacramento Valley along State Highway 65 in Yuba County. The existing City limits are located approximately one mile north of the Bear River and the tri-county boundary of Sutter, Placer and Yuba Counties. Marysville (the County seat) and Yuba City, which are both about twelve miles to the north of Wheatland, are the closest cities of significant size. Sacramento is approximately forty miles to the south and Beale Air Force Base is located eight miles to the northeast. Wheatland is also the gateway city to Camp Far West, a recreation area of regional significance. From the City's nineteenth century agrarian roots to the community of today, Wheatland has remained valued by its residents for its small town atmosphere and rural setting.

Background

The background section of the introductory chapter includes information on current and passed policy documents pertaining to the General Plan Update. These policy documents include the 1980 General Plan, the 1986 Updated Land Use Element, the 1986 Transportation and Circulation Element, and the 2004 Housing Element Update.

1980 General Plan

The City of Wheatland's City Council adopted the second comprehensive general plan in the City's history in December 1980. Preparation of the *1980 General Plan* was guided

by an eight-member Wheatland General Plan Committee, with technical planning and funding assistance from the Sacramento Regional Area Planning Commission (SRAPC). The City updated its first general plan (adopted in 1971). The *1980 Plan* was divided into five major sections: Introduction; Background; Elements of the Plan; Implementation; and Appendices. The bulk of the document was devoted to the Elements of the Plan, which consisted of 16 separate elements, as follows:

- Land Use
- Transportation and Circulation
- Housing
- Open-Space
- Conservation
- Parks and Outdoor Recreation
- Noise
- Seismic Safety
- General Safety
- Water and Waste Management
- Water Quality
- Fire Protection
- Public Schools
- Public Facilities and Grounds
- Employment and Economic Development
- Government and Administration

All except the first three of these elements remain in effect. The Land Use Element was replaced by the *1986 Land Use Element*, the Circulation Element was replaced by the *1986 Circulation Element*, and the 1992 Housing Element was replaced by the *2004 Housing Element Update*. These elements are described later in this section.

1986 Updated Land Use Element

In October 1986 the City Council adopted the *Land Use Element and Environmental Impact Report*, which updated the land use element from the City's *1980 General Plan*. As with the *1980 General Plan*, the *1986 Land Use Element* included a set of ten basic assumptions around which the element were developed. Table 1-6 of the *General Plan Background Report (GPBR)* shows these assumptions, which in most cases simply modified the assumptions of the *1980 General Plan*.

<u>1986 Land Use Element Goals and Implementation Strategies</u>

The policy content of the *1986 Land Use Element* was presented as a series of nine goals, each of which is followed by a set of implementation strategies stating the City of Wheatland's formally adopted policy concerning a range of land-use related issues.

1986 Land Use Element Map and Land Use Categories

The General Plan Land Use Element Map was adopted as part of the *1986 Land Use Element*, distributing allowable land uses and densities for future development. The Land Use Map, which was last revised in September 1990, shows ten land use designations.

In areas with existing development, the designations shown on the Land Use Element Map (1986) are largely reflective of existing use patterns, while designations for vacant land were influenced by their proximity to the existing and future circulation network. Commercial designations were shown for the downtown area and along State Route 65. In addition to existing industrial uses, future industrial uses were planned for the west side of State Route 65 at the north end of town. The Map designated Suburban Residential uses in the area just outside of the City limits west of town on the north side of Wheatland Road. Low Density Residential uses were designated in the peripheral parts of the town on all sides. Other designations (Medium and High Density Residential, Public, and Parks) were scattered throughout the City, while Agricultural designations surrounded the town on all sides.

Table 1-8 of the *GPBR* shows how the respective acreage within each designation shown on the Land Use Map as well as the percentage of the existing city area covered by each as of January 1996. As the table indicates, approximately two-thirds of the land within the City limits is designated for residential development, almost all of which is set aside for low-density uses.

1986 Transportation and Circulation Element

The *1986 Transportation and Circulation Element*, which was adopted in August 1986, replaced the Transportation and Circulation Element from the *1980 General Plan*. The Element describes the existing movement of people and goods and seeks to provide for future conditions. It recognizes the interdependence of automobile, rail, bicycle, and pedestrian circulation systems, and relates them to the needs of the other General Plan elements.

The stated purpose of the *Transportation and Circulation Element* suggested ways to maximize effective use of the resources of the City's circulation system by anticipating the consequences of development decisions. Accordingly, the Element affords a high level of flexibility in terms of its policy statements to provide a means for a continuing balance between land use patterns and the movement of people and goods.

1990 Specific Plan

In the early 1990's, increasing development pressure in and around Wheatland prompted to the City to consider several limitations to the growth anticipated in the City's General Plan, including the following:

- The City's sewage treatment plant was near capacity;

- Drainage issues needed to be addressed in the northern half of the City if development were to proceed in an orderly fashion;

- Issues of funding ongoing services to newly developed areas had to be reviewed; and

- Adequate water supply and traffic circulation measures had to be implemented if Wheatland was to responsibly handle substantial additional growth within its existing City limits.

In order to address these issues, the City determined that the most cost effective and expeditious approach would be to prepare a Specific Plan. The *1990 Specific Plan* covers most of the large vacant developable properties within roughly the northern half of the City, but does not take into consideration development of unincorporated land that might be appropriate for future annexation and development. The decision to focus on the City limits was made in part because of the availability within City limits of a substantial amount of developable land. The City was also concerned that any major expansions of the City's boundaries would require a new wastewater treatment plant and major new arterial roads. The *Specific Plan* was adopted in 1990 and called for development of an additional 850 housing units, the vast majority of which were single-family units.

2003 General Plan Amendment for Heritage Oaks Estates and Jones Ranch

In 2003, the City approved a General Plan Amendment, annexation application request, and prezoning for the Jones Ranch and Heritage Oaks Estates projects proposed south of the City of Wheatland city limits. Prior to the approvals, the project sites were designated for agricultural uses. The General Plan Amendment established primarily urban designations for the project sites in order to accommodate the proposed uses. The Jones Ranch project involves the development of residential, commercial, park, and other uses on approximately 190.8 acres, and the Heritage Oaks Estates project involves the development of residential, commercial, park, and other uses on approximately 254 acres.

2004 Housing Element Update

The *Housing Element Update*, issued in December 2004, looks at the planning period of 2000-2007. The update serves as a replacement for the *1992 Housing Element*. The element looks at the status of current housing developments within and surrounding the City, as well as projections for the demands of future expansion.

The element focuses on four primary goals: providing for the City’s regional share of new housing for all income groups, improving/conserving the supply of existing housing, meeting special housing needs and ensuring equal housing opportunities.

Project Description

The project is an update of the current General Plan for Wheatland adopted in 1980. The major goals of the General Plan Update are to create a plan that will preserve and enhance the quality of life for Wheatland's citizens, while providing for future growth and development for employment, housing, public facilities, and community resources.

Purpose of the EIR

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues. The EIR is an informational document that informs decision makers and the general public of the potential significant environmental effects of a proposed project. An EIR must identify possible means to minimize the significant effects and describe a reasonable range of feasible alternatives to the project. The City of Wheatland, as the lead agency for this project, is required to consider the information in the EIR along with any other available information in making its decision. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, significant irreversible changes, growth-inducing impacts and cumulative impacts.

This document is considered a Program EIR as allowed by CEQA (Section 15168). CEQA requires the preparation of an EIR to discuss a series of actions, rather than an individual action, that can be characterized as one large project. A Program EIR is considered advantageous for (a) its exhaustive consideration of effects and alternatives beyond the format typically set for an individual action, (b) its consideration of cumulative impacts, and (c) its broad effect on applicable policy during the early stages of the project, when the lead agency has more flexibility to deal with basic problems or cumulative impacts. This Program EIR will identify broad impacts and identify mitigation measures that would need to be implemented with future tentative map applications.

EIR Process

This Draft EIR represents one component of the EIR process. A Notice of Preparation (NOP) of a Draft EIR was prepared for the proposed project and circulated for a 30-day public review period from August 5 to September 5, 2005 (See Appendix A). Comments provided by the public and public agencies in response to the NOP (see Appendix B) were received by the City of Wheatland and have been considered during the preparation of this Draft EIR, and are summarized later in this section. This Draft EIR is being circulated for a 45-day public review period.

Comments received during the public review period for the Draft EIR will be addressed in the Final Environmental Impact Report (Final EIR). The Draft EIR and Final EIR will be reviewed by the Wheatland City Council for certification in accordance with CEQA

guidelines. Written findings for significant effects, and, if applicable, a Statement of Overriding Considerations, will be prepared as part of the project approval process.

Scope of the EIR

Pursuant to the State CEQA Guidelines, the scope of this EIR includes specific issues and concerns identified as potentially significant. Furthermore, CEQA (§ 15120) determines that:

> an EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

Other environmental issues were determined in the Initial Study to result in no impact. The complete text of the Initial Study is contained in Appendix C.

The City of Wheatland determined that the preparation of an EIR was appropriate due to potentially significant environmental impacts that could be caused by implementing the project. This EIR evaluates the existing environmental resources in the vicinity of the project site, analyzes potential impacts on those resources due to the proposed project, evaluates project alternatives, and identifies mitigation measures that could avoid or reduce the magnitude of those impacts. Resources identified for study in this DEIR include the following:

- Aesthetics;
- Agricultural resources;
- Air quality;
- Biological resources;
- Cultural resources;
- Geology and soils;
- Hazards and hazardous materials;
- Hydrology and water quality;
- Land use and planning;
- Mineral resources;
- Noise;
- Population and housing;
- Public services;
- Recreation;
- Transportation and circulation; and
- Utilities and service systems.

Comments Received on the Notice of Preparation

The City of Wheatland received three (3) comment letters on the Notice of Preparation for the Wheatland General Plan Update. A copy of each letter is provided in Appendix B. The letters were authored by local residents and representatives of state and local agencies:

State and Local Agencies

- De Terra, Bruce - California Department of Transportation

Residents and Other Interested Parties

- Unidentified speaker at NOP Meeting - Representative of Resident
- Bear River Hop Farm - Representative of Resident

The following list summarizes the concerns in these letters; they are categorized by issue:

Land Use:	Issues related to alternate development sites within city limits (*c.f.* Chapter 4.9). • Concerns related to the inconsistency of urban reserve in the records of the General Plan. • Concerns related to the current Land Use Diagram, and the designated commercial land adjacent to the Hop Farm.
Population, Housing and Employment:	Issues related to potential for 'bedroom community' (i.e. without central industry) and increased population (*c.f.* Chapter 4.12).
Transportation and Circulation:	Issues related to increased roadway use, and subsequent congestion and safety concerns; issues related to annexation of county roads; and issues related to deleting the SR 65 bypass (*c.f.* Chapter 4.15). • Impacts related to the circulation portion of the Traffic Study. • Include discussion of alternate routes considered (SR 65 Bypass), and the pros and cons of each. • Address environmental implications of the widening of SR 65 through Wheatland. • Evaluate the use of B Street as main thoroughfare. • Evaluate the relocation of UPRR right-of-way.
Air Quality:	Issues related to impact of increased traffic on air quality; and issues related to adjacent agricultural burning during harvest (*c.f.* Chapter 4.3).

Public Services	Issues related to increased need for police and fire protection, and potential for crowded classrooms and recreational facilities (*c.f.* Chapter 4.13).
Agricultural Resources:	Issues related to encroachment of residential development upon farmland; and issues related to loss of farmland (*c.f.* Chapter 4.9).
Hydrology and Water Quality:	Issues related to storm drainage and the potential for flooding; issues related to use of agricultural water tables for residential developments (*c.f.* Chapter 4.8). • Concern of possible runoff from Grasshopper Slough into Sohrakoff drain. • Potential for runoff to flow over to the east side of railroad tracks to the Baker Ranch and potentially flood. • Include in analysis Master Plans for water and drainage. • Evaluate effects of the southern UPRR/local street grade separation on hydrology impacts. • Include the effects of regional versus distributed retention/detention drainage basins.
Cultural Resources:	Issues related to surveying the project area for existing cultural resources (*c.f.* Chapter 4.5).
Aesthetics:	Issues related to the loss of rural surroundings and scenery (*c.f.* Chapter 4.1). • Evaluate effects of the southern UPRR/local street grade separation.
Utilities and Service Systems:	Issues related to increased need for water utilities (*c.f.* Chapter 4.16) • Include in analysis Master Plans for sewer treatment and collection
Geology	Impacts related to geology and soils (*c.f.* Chapter 4.16) • Evaluate effects of the southern UPRR/local street grade separation.

ORGANIZATION OF THE EIR

This Draft EIR is organized into the following sections:

Chapter 1 – Introduction and Scope of EIR
Provides an introduction and overview describing the intended use of the EIR and the review and certification process.

Chapter 2 – Executive Summary
Summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures and indicates the level of significance of impacts after mitigation. Acknowledges alternatives that would reduce or avoid significant impacts.

Chapter 3 – Project Description
Provides a detailed description of the proposed project, including its location, background information, project objectives, and project components.

Chapter 4 – Environmental Setting, Impacts and Mitigation
Contains a project-specific analysis of environmental issue areas. The subsection for each environmental issue contains an introduction and description of the setting of the project site, identifies project-specific impacts and recommends appropriate mitigation measures. Mitigation measures that apply to the project are included.

Chapter 5 – Cumulative Impacts
Provides a discussion and summary of the cumulative impacts that would result from the proposed project.

Chapter 6 – Statutorily Required Sections
Provides discussions required by CEQA regarding impacts that would result from the proposed project, including potential growth-inducing impacts and significant irreversible changes to the environment.

Chapter 7 – Alternatives Analysis
Describes the alternatives to the proposed project and their respective environmental effects.

Chapter 8 – EIR Authors / Persons Consulted
Lists report authors who provided technical assistance in the preparation and review of the EIR.

Chapter 9 – References
Provides bibliographic information for all references and resources cited.

Appendices
Includes the NOP, responses to the NOP, and the Initial Study.

Technical Appendices
The technical studies prepared to support the findings in this Draft EIR are bound separately and are available for review and copied upon request at Wheatland City Hall. The Technical Appendices include the Traffic Impact Analysis, Air Quality Analysis, Wastewater Report, Water Supply Analysis, Drainage Study, Geologic Hazards Evaluation, Archaeological Inventory Survey, Biological Resource Assessment, and Arborist Report.

2. EXECUTIVE SUMMARY

Introduction

This summary chapter provides an overview of the Wheatland General Plan Update and the conclusions of the technical environmental analysis. This chapter also summarizes the alternatives to the General Plan Update. Table 2-1, at the end of this chapter, provides a summary of the environmental effects of the proposed project identified in each technical section of Chapter 4. The table consists of the environmental impacts, the significance of each impact, the proposed mitigation measures, and the significance of each impact after the mitigation measures are implemented.

Summary of the Project Description

The proposed project analyzed in this Draft EIR is the adoption and implementation of the *Wheatland General Plan Update.* The primary components of the General Plan Update include guiding principles, a land use diagram, and goals and policies. This chapter summarizes the provisions of the proposed General Plan Update, and presents the study area location, General Plan objectives, project components and characteristics, and key infrastructure.

Wheatland is located in Northern California's Central Valley along State Route 65 in Yuba County. The City is located approximately one mile north of the Bear River and the tri-county boundary of Sutter, Placer and Yuba Counties. Marysville (the county seat) and Yuba City, which are both about twelve miles to the north of Wheatland, are the closest cities of significant size. Sacramento is approximately 40 miles to the south and Beale Air Force Base is located eight miles to the northeast. Wheatland is also the gateway city to Camp Far West, a recreation area of regional significance. From the city's nineteenth century agrarian roots to the community of today, Wheatland has remained valued by its residents for its small town atmosphere and rural setting.

The proposed General Plan Update specifies land uses for the area within the existing city limits and the area outside the existing city limits, but within the study area. This area is expected to ultimately be built out for urban uses, but would not be developed within the 20-year planning horizon on this General Plan Update. Furthermore, General Plan amendments and environmental review would be required prior to any development in the Urban Reserve areas.

Summary of Environmental Impacts and Mitigation

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the areas affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. This Draft EIR discusses the mitigation measures that could be implemented to reduce potential adverse impacts to a level that is considered less-than-significant. These mitigation measures are also summarized in Table 2-1 at the end of this chapter. An impact that remains significant after mitigation is considered an unavoidable adverse impact of the proposed project. The mitigation measures and goals and policies presented in the Draft EIR will form the basis of the Mitigation Monitoring Program.

The Draft EIR addresses the following technical issues related to the proposed project:

Aesthetics

This section of the EIR describes the existing aesthetic values of the study area and assesses the impacts on aesthetics created by the approval of the General Plan Update. The California Environmental Quality Act (CEQA) describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a state scenic highway), and the existing visual character or quality of the study area.

The EIR concludes that the change in visual character of Wheatland doe to implementation of General Plan Update would be a *significant* impact because feasible mitigation measures do not exist to reduce the impact to a *less-than-significant* level. Therefore, the impact would remain *significant and unavoidable*. After assessing the General Plan Update impacts on scenic resources scenic vistas of the study area, the EIR concludes that buildout of the General Plan Update would have a *less-than-significant* impact on aesthetic issues with implementation of the goals and policies presented.

Agricultural Resources

The Agricultural Resources chapter of the EIR describes the soils of the study area and examines how buildout of the City of Wheatland General Plan study area will affect agricultural resources and operations within the General Plan Update study area.

The EIR concludes that the General Plan Update, even with implementation of General Plan goals and policies, would have a *significant and unavoidable* impact on the conversion of agricultural lands to non-agricultural uses; the conversion of prime farmland, unique farmland, or farmland of Statewide importance; and conflicts with existing agricultural zoning. All other impacts would be reduced to a *less-than-significant* level through implementation of mitigation measures and/or General Plan goals and policies.

Air Quality

The Air Quality chapter describes the impacts of the General Plan Update study area on local and regional air quality. The chapter was prepared using thresholds of significance recommended by the Feather River Air Quality Management District. The chapter describes existing air quality; direct and indirect emissions associated with the project; and the impacts of those emissions on both the local and regional scale. An *Air Report (2005)* prepared by Don Ballanti, certified consulting meteorologist, was prepared for the impact assessment in this chapter.

The EIR concludes that the General Plan Update, even with implementation of mitigation measures and General Plan goals and policies, would have a *significant and unavoidable* impact on regional emissions. In addition, impacts related to land use conflicts and General Plan buildout construction activities would be *potentially significant* impacts; however, implementation of mitigation measures and/or goals and policies presented would reduce the impacts to a *less-than-significant* level. All other impacts would be a *less-than-significant* level with the implementation of General Plan goals and policies.

Biological Resources

This section focuses on various biological characteristics of the proposed impact area of the *General Plan Land Use Map* for the Wheatland General Plan Update study area. Information for this analysis was largely drawn from a Biological Resources Background Report provided by Foothill Associates.

The EIR concludes that the impacts to habitat loss, including Swainson's hawk foraging habitat, with implementation of General Plan goals and policies would remain *significant and unavoidable*. All other impacts would be reduced to a *less-than-significant* level through implementation of mitigation measures and/or General Plan goals and policies.

Cultural Resources

This section discusses the impacts the Wheatland General Plan Update would have on existing cultural resources in the area. The Cultural Resources chapter evaluates known prehistoric and historic uses in the study area, and the potential for existence of currently unknown heritage sites.

The EIR concludes that the impact from General Plan Update buildout could result in *potentially significant* impacts to archaeological or paleontological resources. However, with implementation of goals and policies in conjunction with a required mitigation measure, the impact would be *less-than-significant*. Impacts to historical resources were determined to be *less-than-significant*.

Geology

This section focuses on various geological characteristics of the Wheatland General Plan Update study area. Including soil erosion, seismic activity, expansive soils, and liquefaction.

All the impacts from the General Plan Update, except for soil erosion, could be reduced to a *less-than-significant* level with the implementation of goals and policies presented in the chapter. However, implementation of the mitigation measure included in the EIR would reduce the impact to a *less-than-significant* level.

Hazards and Hazardous Materials

The hazards impact section assesses the potential for hazardous materials and wildland fires to occur on or near the General Plan Update study area. This section provides general information on hazardous materials and reviews existing information about such materials in the project area. In addition, this section provides general information on wildland fire conditions, and the proximity to Beale Air force Base and the Union Pacific Rail Road (UPRR) train tracks in the study area. Potential impacts and mitigation measures are identified.

The EIR concludes that buildout of the General Plan Update would have a *potentially significant* impact regarding the potential hazards associated with the routine use, transport, or disposal of hazardous materials. However, implementation of applicable goals and policies as well as the mitigation measures required in the EIR would reduce the impacts to a *less-than-significant* level. All other impacts were identified as *less-than-significant*.

Hydrology and Water Quality

This section of the Wheatland General Plan Update EIR describes existing drainage pattern and water resources for the study area and region, and evaluates potential impacts of the project with respect to drainage and water quality concerns. The hydrology and water quality analysis is based on information prepared for the proposed project such as a *Draft Drainage Report for Internal Drainage (2005) and External Source Flood Protection Plan (2005).*

The EIR concludes that all hydrology and water quality impacts identified could be reduced to a *less-than-significant* level, except for surface water quality. However, surface water quality impacts could be reduced to a *less-than-significant* level with implementation of the mitigation measures and goals and policies required in the EIR.

Land Use

The land use impact section describes the existing land use setting of the City of Wheatland General Plan Update study area, including the identification of existing land uses. The proposed General Plan Update land uses are defined and the Land Use diagram is analyzed for compatibility with surrounding land uses.

The EIR concludes that buildout of the General Plan Update would have a *significant and unavoidable* impact regarding the alteration of the existing character of the City of Wheatland. All other impacts would be reduced to a *less-than-significant* level through implementation the goals and policies presented.

Mineral Resources

This section focuses on various mineral characteristics of the Wheatland General Plan Update study area. Information for this analysis was based on the *Yuba County General Plan* and *Wheatland General Plan Update Background Report*.

The City of Wheatland is located outside of the recognized Mineral land Classification Area as identified in the *Yuba County General Plan Environmental Setting and Background Report*. Therefore, the study area does not contain any significant quantities of mineral resources, and the General Plan Update would have no impacts to mineral resources.

Noise

This section discusses the existing noise environment in the immediate project vicinity and identifies potential noise-related impacts associated with the proposed project. Specifically, this section analyzes potential noise impacts due to and upon development within the project site relative to applicable noise criteria and to the existing ambient noise environment. This section is primarily based on the Wheatland General Plan Background Report, and from noise level analyses provided by Bollard Acoustical Consultants, Inc.

The EIR concludes that the General Plan Update, even with implementation of a Mitigation Measure and the presented goals and policies, would have a *significant and unavoidable* noise impact related to increased traffic on City streets. In addition, a *potentially significant* impact was identified for compatibility issues with Beale Air Force Base and noise sensitive uses. However, with implementation of the mitigation measures and goals and policies presented, the impacts would be reduced to a *less-than-significant* level. All other impacts would be reduced to a *less-than-significant* level through implementation the goals and policies presented.

Population, Employment, and Housing

The Population, Employment, and Housing section analyzes existing and projected population, housing, and employment conditions for the City of Wheatland. Primary documents and information sources used to prepare this section include the *City of Wheatland General Plan Background Report and 2004 Housing Element Update.*

The EIR concludes that buildout of the General Plan Update would have a *less-than-significant* impact on Population, Employment, and Housing issues with implementation of the goals and policies presented.

Public Services

The public services section analyzes the anticipated fire, police, and school facilities needs of the Wheatland General Plan Update and describes the existing public service setting. In addition, potential impacts and mitigation measures are identified.

The EIR concludes that buildout of the General Plan Update would have impacts to law enforcement, fire, and schools resulting in a *potentially significant* impact; however, the EIR includes mitigation measures to reduce the impacts to a *less-than-significant* level. All other impacts would be reduced to a *less-than-significant* level through implementation the goals and policies presented.

Recreation

This chapter contains goals and policies that establish the framework for the provision of recreational services for Wheatland residents and visitors, as well as a description of existing park and recreational facilities.

The EIR concludes that buildout of the General Plan Update would have a *less-than-significant* impact on recreation issues with implementation of the goals and policies presented.

Transportation and Circulation

The Transportation and Circulation chapter addresses various transportation issues, including automobile travel and parking, transit, non-motorized transportation (e.g., bicycle and pedestrian travel), and freight movement (truck and rail). In addition, this chapter of the EIR analyzes transportation impacts that would result from the implementation of the General Plan Update study area. The information is based on traffic movement counts, traffic projections, and technical analyses conducted for this EIR by kdANDERSON Transportation Engineers.

The EIR concludes that the General Plan Update, even with implementation of General Plan goals and policies, would have a *significant and unavoidable* impact on the increased traffic volumes, along State Route 65 between Main Street and Olive, the intersection of North Ring Road and State Route 65, and cumulative traffic impacts. In addition, a *potentially significant* impact was identified for street safety impacts. However, with implementation of the mitigation measures and goals and policies presented, the impacts would be reduced to a *less-than-significant* level. All other impacts address in the section could be reduced to a *less-than-significant* level through implementation of the mitigation measures and/or goals and policies presented.

Utilities / Service Systems

The utilities and service system section analyzes the water system and the sewage system strategies of the Wheatland General Plan Update study area. The water system information in this chapter is based on the Master Water Plan Technical Report by Terrance E. Lowell & Associates, Inc. The sewer system information is based primarily on the Sewer Collection System Master Plan Technical Report by Terrance E. Lowell & Associates, Inc.

The EIR concludes that implementation of the General Plan Update would have *potentially significant* impacts to water as a result of the need to prepare water supply assessments for individual projects. However, with implementation of the mitigation measures and goals and policies presented within the section, the impacts would be reduced to a *less-than-significant* level. All other impacts could be reduced to a *less-than-significant* level with the implementation of goals and policies presented in the section.

Cumulative Impacts

The Citywide impact analyses in chapters 4.1 through 4.16 are effectively the cumulative impact analyses. The analyses examine the cumulative effects of each resource topic through buildout of the proposed General Plan Update. It should also be stated that other development in Yuba County would result in increased effects to the Wheatland Study Area. For example, the Transportation and Circulation chapter (see Chapter 4.15) includes a qualitative discussion of the cumulative buildout of the Wheatland General Plan Update as well as other development in Yuba County.

Summary of the Project Alternatives

The following summary describes the alternatives to the proposed project that are evaluated for environmental impacts in this Draft EIR. For a complete discussion of project alternatives, see Chapter 6, Alternatives Analysis.

No Project Alternative

The No Project Alternative would result in the continuation of the existing Wheatland General Plan. As a result, the No Project Alternative would accommodate substantially less development than the proposed project. While this Alternative would not meet the project objectives, CEQA requires the alternative to be analyzed.

65 East Development Alternative

The 65 East Development Alternative would include the same level of development as the Proposed General Plan Update, but involves shifting all future development to the east, out of the floodplain areas. It should be noted that Jones Ranch and Heritage Oaks Estates would be included as part of this Alternative.

Reduced Buildout Alternative

The Reduced Buildout Alternative would decrease the level of development by approximately 1,694 acres compared to the Proposed General Plan Update. This Alternative would include the existing city limits and several parcels to the north, northeast, west, and southwest, including Almond Estates, Heritage Oaks Estates, Jones Ranch, Nichols Ranch, Stineman Ranch, and a portion of the Bear River Hop Farm.

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(d)(2) of the CEQA Guidelines requires that if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. For this EIR the No Project Alternative would be considered the environmentally superior alternative to the Proposed General Plan Update and the other alternatives because there would be no physical changes to the environment from the existing conditions.

All of the development alternatives evaluated would generate the same types of impacts and would be expected to generate significant and unavoidable impacts similar to the Proposed General Plan Update. However, the 65 East Development Alternative would have less severe impacts to flooding and drainage, agricultural resources, and biological resources. However, impacts would still occur related to aesthetics, air quality, geology, cultural resources, hazards, noise, demand for public services and utilities, and traffic.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		4.1 Aesthetics	
4.1-1 Development associated with the proposed General Plan Update would have substantial adverse impacts on scenic vistas and natural resources within the City of Wheatland.	LTS	**Proposed General Plan Update** Goal 1.J To maintain and enhance the quality of Wheatland's major travel corridors, city entrances, landscape, and streetscape. Policy1.J.5. The City shall promote efforts to improve the visual quality of entrances to Wheatland and to Downtown. Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area. Policy 8.D.1. The City shall support the preservation and enhancement of natural landforms, natural vegetation, and natural resources as open space to the maximum extent feasible. Policy 8.D.4. The City shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems. Policy 8.D.5. The City shall encourage the development of natural open space areas in regional, community, and neighborhood parks. Policy 8.D.7. The City shall plan and establish natural open space parkland as a part of the overall City park system. **Mitigation Measures** *None Required.*	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
4.1-2 Development associated with the proposed General Plan Update would substantially damage scenic resources.	LTS	**Proposed General Plan Update** Goal 1.J To maintain and enhance the quality of Wheatland's major travel corridors, city entrances, landscape, and streetscape Policy1.J.2. The City shall encourage increased building setbacks and wider landscape areas along major corridors. Policy1.J.6. The City shall work with state highway officials concerning landscaping maintenance of state highway property. Goal 8.C To preserve and protect the valuable vegetation resources of the Wheatland area. Policy 8.C.2. The City shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands and riparian areas. Policy 8.C.3. The City shall require that new development preserve natural woodlands to the maximum extent possible. Policy 8.C.4. The City shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained. Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 8.D.1. The City shall, where appropriate, permanently protect as open space areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains. Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible. **Mitigation Measures** *None Required.*	
4.1-3 Development associated with the proposed General Plan Update would not substantially degrade the existing visual character or quality of the City or its surroundings.	S	**Proposed General Plan Update** Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance. Policy 1.A.1. The City shall strive to preserve Wheatland's traditional small-town qualities and historic heritage, while expanding its residential and employment base. Goal 1.B To accommodate the housing needs of all income groups expected to reside in Wheatland. Policy 1.B.1. The City shall require residential project design to reflect and consider natural features, noise exposure of residents, visibility of structures, circulation, access, and the relation-	SU

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			ship of the project to surrounding uses. Residential densities and lot patterns will be determined by these and other factors.	
		Goal 1.E	To designate adequate commercial land for development of local and regional commercial uses compatible with surrounding land uses, that will meet the present and future needs of Wheatland residents and visitors, and enhance Wheatland's economic vitality.	
		Policy 1.E.6.	The City shall require new commercial development to be designed to minimize the visual impact of parking areas on public roadways.	
		Goal 1.J	To maintain and enhance the quality of Wheatland's major travel corridors, city entrances, landscape, and streetscape	
		Policy1.J.1.	New development within major transportation corridors must comply with the following minimum building requirements: a. All outdoor storage of goods, materials, and equipment, and loading docks areas shall be screened from major roadways. b. Developments with multiple buildings should have a uniform design theme and sign program. c. Earth tones shall be used as the dominant color; colors such as white, black, blue, and red should be used as	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		accents. Building surfaces should have color schemes that reduce their apparent size. d. Metal buildings will be allowed only with enhanced architectural and landscaping treatment (such as use of trim bands, wing walls, parapets, and reveals). e. All exterior elevations visible from major roadways should have architectural treatment to alleviate long void surfaces. This can be accomplished through varying setbacks, breaking buildings into segments, pitched roof elements, columns, indentations, patios, and incorporating landscaping into architectural design Policy 1.J.2. The City shall encourage increased building setbacks and wider landscape areas along major corridors. Policy 1.J.3. The City shall require that all new development incorporate the planting of trees and other vegetation that extends the vegetation pattern of older adjacent neighborhoods into new development. Policy1.J.4. As a condition of the approval of larger development projects, the City shall require establishment of funding mechanisms for the ongoing maintenance of street trees and landscape strips. The City shall explore the potential for putting all new development in a master landscape and lighting district for maintenance of street trees and landscape strips.	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Mitigation Measures *None Feasible.*	
4.1-4 Development associated with the proposed General Plan Update would create new sources of substantial light and glare that would adversely affect day or nighttime views in the City of Wheatland.	LTS	**Proposed General Plan Update** Goal 1.E To designate adequate commercial land for development of local and regional commercial uses compatible with surrounding land uses, that will meet the present and future needs of Wheatland residents and visitors, and enhance Wheatland's economic vitality. Policy 1.E.7. New commercial development adjacent to residential development shall provide buffers from noise, trespassing, lighting, or other annoyances, through methods such as landscaping or fencing. **Mitigation Measures** *None Required.*	N/A
4.2 Agricultural Resources			
4.2-1 Development associated with the proposed General Plan Update would convert Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to non-agricultural use.	S	**Proposed General Plan Update** Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland. Policy 1.I.1. The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations. Policy 1.I.2. The City shall support the local agricultural economy by encouraging the location of agricultural support industries in the city, establishing and promoting marketing of local farm products, exploring economic incentives, and support	SU

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		for continuing agricultural uses adjacent to the city, and providing its fair share of adequate housing to meet the needs of agricultural labor. Policy 1.I.3. The City shall promote good neighbor policy between residential property owners and adjacent farming operations by supporting the right of the farmers and ranchers to conduct agricultural operations in compliance with state laws. **Mitigation Measures** *None Feasible.*	
4.2-2 Development associated with the proposed General Plan Update would conflict with existing zoning for agricultural use.	S	**Proposed General Plan Update** Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance. Policy 1.A.8. The City shall establish a Memorandum of Understanding with Yuba County in order to maintain agricultural preservation zoning on farmland surrounding the city. **Mitigation Measures** *None Feasible.*	SU
4.2-3 Development associated with the proposed General Plan Update would not conflict with the Williamson Act contract.	NI	**Proposed General Plan Update** *N/A* **Mitigation Measures** *None Required.*	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
4.2-4 Development associated with the proposed General Plan Update would involve other changes in the existing environment, which could result in conversion of Farmland to non-agricultural use.	S	**Proposed General Plan Update** Goal 1.H To maintain land as Urban Reserve for consideration for future development. Policy 1.H.1. No urban development of Urban Reserve areas will be permitted without a General Plan amendment. No General Plan amendment will be considered without an analysis that includes the factors listed in Policy 1.H.2. Policy 1.H.2. The City shall, when deemed necessary, consider the appropriateness of development of Urban Reserve lands based upon the following factors: a) Possible location and mix of land uses; b) Implications for overall community form and relation-ship to the existing community and Downtown Wheatland; c) Flooding and drainage implications; d) Market feasibility of development in this area, including the expected rate of absorption; e) Availability of water supply; f) Consideration of circulation patterns and improvements;	SU

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		g) Effect on and compatibility with existing City infrastructure (e.g., wastewater treatment plant); h) Implications of providing law enforcement and fire protection services; i) Potential impacts on sensitive biological resources; j) Noise contour implications of Beale Air Force Base. **Mitigation Measures** *None Feasible.*	
		4.3 Air Quality	
4.3-1 Increased Potential for Air Quality Land Use Conflicts.	PS	**Proposed General Plan Update** Goal 1.C To provide for now residential development in planned neighborhoods to be developed in an orderly style and designed to promote walking, bicycling, and transit use. Policy l.C.4. The City shall require that development plans for new residential neighborhoods address the following: a. The distribution, location, and extent of land uses, including standards for land use intensity. b. Compatibility of new development with adjacent existing and proposed development. c. Provision of a range of housing types to ensure socially and economically-integrated neighborhoods. d. Distribution and location of roadways, including design standards for and the precise alignment of	LTS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		arterial, collector, and local streets, and bikeways. e. Provisions for the extension of the existing city roadway system into new development areas. New development shall be linked to adjacent existing neighborhoods and planned neighborhoods by collector and local streets. f. Provisions for adequate schools and child care facilities. g. Distribution and location of neighborhood commercial centers, parks, schools, child care centers, and other public- and quasi-public facilities. h. Provisions for linking residential neighborhoods, parks, schools, Downtown, shopping areas, and employment centers through a system of pedestrian pathways, bicycle routes, and linear open-space corridors along sloughs, Dry Creek, and the Bear River. i. Provisions for development phasing to ensure orderly and contiguous development consistent with population projections of the General Plan, and Policy 1.A.4. j. Provisions for minimizing conflicts between new development and agricultural uses. Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality. Policy l.G.2. The City shall only approve new employment	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials. Policy 1.G.7. The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use. Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland. Policy 1.I.1. The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations. Policy 1.I.2. The City shall require residential development within or adjacent to agricultural areas to provide a buffer in order to minimize conflicts with adjacent agricultural uses. Policy 1.I.4. The City shall promote good neighbor policy between residential property owners and adjacent fanning operations by supporting the right of farmers and ranchers to conduct agricultural operations in compliance with state laws. **Mitigation Measures** *4.3-1 Add to Policy I.C.4 the following:*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		k. Provisions for minimizing the exposure of residences, schools, childcare facilities and other sensitive receptors to mobile source Toxic Air Contaminants from major traffic sources. *l. The City shall consider the recommendations of the Air Quality and Land Use Handbook (April 2005) in reviewing new development projects.*	
4.3-2 Changes in Local Carbon Monoxide Levels.	LTS	**Proposed General Plan Update** Goal 2A To provide for the long-range planning and development of the City's roadway system to ensure the safe and efficient movement of people and goods. Policy 2.A.2. The City shall develop and manage its roadway system to maintain LOS "C" or better on all roadways, except within one-quarter mile of state highways. In these areas, the City shall strive to maintain LOS " D" or better. Policy 2.A.3. The City shall identify economic, design and planning solutions to improve existing levels-of-service currently below the LOS specified above. Where physical mitigation is infeasible, the City shall consider developing programs that enhance alternative access or otherwise minimize travel demand. Policy 2.A.5. The City shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile and by promoting pedestrian,	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		bicycle, and transit connections between employment areas and major residential and commercial areas. Policy 2.A.6. The City shall require an analysis of the effects of traffic from proposed major development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others. Policy 2.A.11. The City shall ensure that highways and arterial streets within its jurisdiction provide for the efficient flow of traffic. Therefore, the following shall be undertaken: • Minimize the number of intersections along arterials. • Reduce curb cuts along arterials through the use of common access easements, backup lots and other design measures. • Provide grade separations at all major railroad crossings with arterials, except for an at-grade crossing of the major arterial in the north. • Extend arterials over waterways, railroads and through developed and undeveloped areas to provide for the continuous flow of through traffic and appropriate area access. **Mitigation Measures** *None Required.*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
4.3-3 Construction activities associated with buildout of the General Plan Update study area.	PS	**Proposed General Plan Update** *N/A* **Mitigation Measures** *4.3-3(a)* *Implement the FRAQMD Fugitive Dust Control Plan, which may be downloaded at http://www.fraqmd.org/PlanningTools.htm.* • *All grading operations on a project should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.* • *Construction sites shall be watered as directed by the Department of Public Works or Air Quality Management District and as necessary to prevent fugitive dust violations.* • *An operational water truck should be onsite at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts.* • *Onsite dirt piles or other stockpiled particulate matter should be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind blown dust emissions. Incorporate the use of approved non-toxic soil stabilizers according to manufacturer's specifications to all inactive construction areas.* • *All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a*	LTS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		manner as to minimize the free fall distance and fugitive dust emissions. • *Apply approved chemical soil stabilizers according to the manufacturers' specifications, to all-inactive construction areas (previously graded areas that remain inactive for 96 hours) including unpaved roads and employee/equipment parking areas.* • *To prevent track-out, wheel washers should be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.* • *Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.* • *Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 mph.* • *Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.*	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		• *Reestablish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.* • *Disposal by Burning: Open burning is yet another source of fugitive gas and particulate emissions and shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.* *4.3-3(b)* *Prior to construction activities, the project applicant shall assemble a comprehensive inventory list (i.e. make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that will be used an aggregate of 40 or more hours for the construction project and apply the following mitigation measure:* *4.3-3(c)* *Prior to construction activities, the project applicant shall provide a plan for approval by FRAQMD demonstrating that the heavy-duty (equal to or greater than 50 horsepower) off-road equipment to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-*	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction. A Construction Mitigation Calculator (MS Excel) may be downloaded from the SMAQMD web site to perform the fleet average evaluation http://www.airquality.org/ceqa/index.shtml.	
		4.3-3(d)	*During construction, the project contractor shall regulate construction equipment exhaust emissions, as to not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall take action to repair the equipment within 72 hours or remove the equipment from service. Failure to comply may result in a Notice of Violation.*	
		4.3-3(e)	*During construction, the project contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.*	
		4.3-3(f)	*During construction, the project contractor shall regulate construction vehicles to minimize idling time to 10 minutes.*	
		4.3-3(g)	*During construction, the project contractor shall ensure that an operational water truck is onsite at all times. Apply water to control dust as needed to prevent dust impacts offsite.*	
		4.3-3(h)	*During construction, the project contractor shall utilize*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators. *4.3-3(i)* *During construction, the project contractor shall develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.* *4.3-3(j)* *During construction, the project contractor shall ensure that no open burning of removed vegetation occurs during infrastructure improvements. Vegetative material should be chipped or delivered to waste to energy facilities.* *4.3-3(k)* *Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.* The above mitigation measures are based on current FRAQMD	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		requirements. Future development applications will be reviewed by the City and the most current air district regulations will be applied.	
4.3-4 Regional Emissions Increases.	S	**Proposed General Plan Update** Goal 1.B To provide adequate land in a range of residential densities to accommodate the housing needs of all income groups expected to reside in Wheatland. Policy 1.B.3. The City shall discourage the development of isolated, remote, disconnected, and/or gated residential projects, which do not contribute to the sense of an integrated community. Policy 1.B.4. The City shall encourage multi-family housing to be located throughout the community, but especially near transportation corridors, Downtown, major commercial areas, neighborhood commercial centers, and employment centers. Goal 1.C To provide for now residential development in planned neighborhoods to be developed in an orderly style and designed to promote walking, bicycling, and transit use. Policy l.C.1. The City shall promote new residential development in a range of residential densities that reflects the positive qualities of Wheatland's existing residential neighborhoods (e.g., street trees, pedestrian-orientation, mix of housing types and sizes). Policy l.C.2. The City shall encourage the creation of well-defined	SU

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		residential neighborhoods. Each neighborhood should have a clear focal point, such as a park, school, or other open space and community facility, and shall be designed to promote pedestrian convenience. Policy I.C.3. The City shall encourage the development of new neighborhoods that are walkable and connected to the existing City core as well as each other. Policy l.C.4. T'he City shall require that development plans for new residential neighborhoods address the following: a. The distribution, location, and extent of land uses, including standards for land use intensity. b. Compatibility of new development with adjacent existing and proposed development. c. Provision of a range of housing types to ensure socially and economically-integrated neighborhoods. d. Distribution and location of roadways, including design standards for and the precise alignment of arterial, collector, and local streets, and bikeways. e. Provisions for the extension of the existing city roadway system into new development areas. New development shall be linked to adjacent existing neighborhoods and planned neighborhoods by collector and local streets. f. Provisions for adequate schools and child care facilities. g. Distribution and location of neighborhood commercial	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		centers, parks, schools, child care centers, and other public- and quasi-public facilities. h. Provisions for linking residential neighborhoods, parks, schools, Downtown, shopping areas, and employment centers through a system of pedestrian pathways, bicycle routes, and linear open-space corridors along sloughs, Dry Creek, and the Bear River. i. Provisions for development phasing to ensure orderly and contiguous development consistent with population projections of the General Plan, and Policy 1.A.4. j. Provisions for minimizing conflicts between new development and agricultural uses. Policy 1.C.5. The City shall require residential subdivisions to provide well-connected internal and external street, bicycle, and pedestrian systems. Policy l.C.6. The City shall encourage installation of current and emerging technological infrastructure in new and existing development for home telecommuting anti electric vehicles charging. Goal 1.D To conserve and enhance the best qualities of existing residential neighborhoods as the City grows. Policy 1.D.3. The City shall encourage infill and reuse in existing neighborhoods that maintain the character and quality of the	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			surrounding neighborhood and does not negatively affect surrounding land uses.	
		Goal 1.E	To designate adequate commercial land for development of local and regional commercial uses compatible with surrounding land uses, that will meet the present and future needs of Wheatland residents and visitors, and enhance Wheatland's economic vitality.	
		Policy 1.E.4.	Commercial facilities should be designed to encourage and promote transit, pedestrian, and bicycle access. The City shall require that new commercial development be designed to encourage and facilitate pedestrian circulation within and between commercial sites and nearby residential areas.	
		Policy 1.E.5.	The City shall require pedestrian and bicycle access in the design of sound walls, buffers, detention basins, fencing or other physical features between commercial and residential uses.	
		Goal 2.E	To promote a safe and efficient transit system to reduce congestion, improve the environment, and provide viable non-automotive means of transportation in and through Wheatland.	
		Policy 2.E.1.	The City shall work with Yuba-Sutter Transit to implement bus transit services that are timely, cost-effective, and responsive to growth patterns and existing and future	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			transit demand.	
		Policy 2.E.4.	The City shall encourage the creation of rail transit to link Wheatland and Marysville/Yuba City and the Sacramento Area.	
		Goal 2.F	To provide a safe, comprehensive, and integrated system of facilities for non-motorized transportation for both transportation and recreation.	
		Policy 2.F.1.	The City shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provide connections between the City's major employment and housing areas, between its existing and planned bikeways, and between schools, parks, retail shopping, and residential neighborhoods.	
		Policy 2.F.2.	The City shall require developers to finance and install pedestrian pathways, bikeways, and multi-purpose paths in new development, as appropriate.	
		Policy 2.F.3.	The City shall encourage the development of adequate, convenient, and secure bicycle parking at employment centers, schools, recreational facilities, transit terminals, commercial businesses, the Downtown, and in other locations where people congregate.	
		Policy 2.F.4.	The City shall consider the needs of bicyclists when new roadways are constructed and existing roadways are	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		upgraded.	
		Policy 2.F.5. The City shall consider the needs of bicyclists when determining street widths.	
		Policy 2.F.6. The City shall develop safe and pleasant pedestrian ways. To this end, the City shall ensure sidewalks are wide enough for pedestrian convenience.	
		Policy 2.F.7. The City shall cooperate with the schools in maintaining and updating the Safe Routes to School program.	
		Policy 2.F.8. The City shall require crosswalks and other pedestrian safety measures be designed and installed according to City of Wheatland Ordinances.	
		Policy 2.F.9. The City shall encourage major employment centers (50 or more total employees) to install showers, lockers, and secure parking areas for bicyclists as part of any entitlement.	
		Policy 2.F.10. The City shall ensure that bikeways are maintained in a manner that promotes their local and regional use.	
		Goal 8.E To protect and improve air quality in the Wheatland area with the goal of attaining state and federal health-based air quality standards.	
		Policy 8.E.1. The City shall cooperate with other agencies to develop a	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			consistent and effective approach to regional air quality planning and management.	
		Policy 8.E.2.	The City shall support the Feather River Air Quality Management District in its development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds, and rules to more adequately address the air quality impacts of new development.	
		Policy 8.E.3.	The City shall require major new development projects to submit an air quality analysis for review and approval. Based on this analysis, the City shall require appropriate mitigation measures.	
		Policy 8.E.4.	In cooperation with the Feather River Air Quality Management District, the City shall develop emission thresholds to serve as the basis for requiring air quality analysis and mitigation.	
		Policy 8.E.5.	The City shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality. The City shall submit development proposals to the Feather River Air Quality Management District for review and comment in compliance with the California Environmental Quality Act (CEQA) prior to consideration by the City.	
		Policy 8.E.6.	In reviewing project applications, the City shall require	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		consideration of alternatives or amendments that reduce emissions of air pollutants. Policy 8.E.7. The City shall require the use of EPA-certified woodstoves and fireplace inserts in lieu of wood burning indoor fireplaces in new development. Policy 8.E.8. The City shall encourage inclusion of exterior electrical outlets and natural gas hookups in new residential development to encourage the use of electric, rather than gas-powered, equipment, and to encourage the use of natural gas-fired barbecues. Goal 8.G To encourage energy conservation in new and existing developments. Policy 8.G.1. In addition to the energy regulations of Title 24, the City shall encourage the energy efficiency of new development. Possible energy efficiency design techniques include: provisions for solar access; building siting to maximize natural heating and cooling; and landscaping to aid passive cooling and the protection from winter winds. Policy 8.G.2. The City shall encourage the planting of shade trees along all City streets to reduce radiation heating. **Mitigation Measures** *4.3-4 Revise Policy 8.E.3 as follows:*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		The City shall require major new development projects to submit an air quality analysis for review and approval. Projects whose impacts are not significant will be required to implement Standard Mitigation Measures (SMM) for construction and operation, as defined by the Feather River AQMD. Projects whose impact are significant will be required to implement Best Available Mitigation Measures (BAMM) for construction and operation as defined by the Feather River AQMD or voluntary offsite mitigation. ~~Based on this analysis, the City shall require appropriate mitigation measures.~~	
4.4 Biological Resources			
4.4-1 Development associated with the proposed General Plan Update would result in the removal of substantial flora and fauna habitat.	S	**Proposed General Plan Update** Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels. Policy 8.B.1. The City shall support preservation of the habitats of federally or state-listed rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats. Policy 8.B.2. The City shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include	SU

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		endangered, threatened, or rare species and their habitats, wetland habitats, wildlife migration corridors, and locally-important species/communities. Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species. Policy 8.B.4. The City shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats. Where possible and appropriate, such communities shall be restored or expanded. Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat. Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statues protecting special-status species and jurisdictional wetlands. Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.). Policy 8.B.8. On sites that have the potential to contain critical or	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process.	
		Goal 8.C	To preserve and protect the valuable vegetation resources of the Wheatland area.	
		Policy 8.C.1.	The City shall require developers to use native and compatible non-native species, especially drought-resistant species, to the extent possible in fulfilling landscaping requirements imposed as conditions of permits or for project mitigation.	
		Policy 8.C.2.	The City shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands and riparian areas.	
		Policy 8.C.3.	The City shall require that new development preserve natural woodlands to the maximum extent possible.	
		Policy 8.C.4.	The City shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.	
		Goal 8.D	To preserve and enhance open space lands to maintain the	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		natural resources of the Wheatland area. Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible. Policy 8.D.2. The City shall, where appropriate, permanently protect as open space areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains. Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.ned and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible. **Mitigation Measures** *None Feasible.*	
4.4-2 Development associated with the proposed General Plan Update may result in impacts to special-status vernal pool invertebrates in the General Plan study area.	LTS	**Proposed General Plan Update** Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels. Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		sensitive and special status species. Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat. Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands. Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.). Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process. Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area. Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Mitigation Measures *None Required.*	
4.4-3 Development associated with the proposed General Plan Update may result in impacts to valley elderberry longhorn beetle (VELB) in the General Plan study area.	LTS	**Proposed General Plan Update** Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels. Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species. Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat. Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands. Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.). Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process. Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area. Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible. **Mitigation Measures** *None Required.*	
4.4-4 Development associated with the proposed General Plan Update may result in impacts to special-status reptiles in the General Plan study area.	LTS	**Proposed General Plan Update** Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels. Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species. Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands. Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.). Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process. Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area. Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible. **Mitigation Measures** *None Required.*	
4.4-5 Development associated with the proposed General Plan Update may result in impacts to nesting special-status and common raptor species	LTS	**Proposed General Plan Update** Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
within the General Plan study area.		Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species. Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat. Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands. Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.). Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process. Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible. **Mitigation Measures** *None Required.*	
4.4-6 Development associated with the proposed General Plan Update would result in impacts to Swainson's hawk foraging habitat within the General Plan study area.	S	**Proposed General Plan Update** Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels. Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species. Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat. Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands. Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.).	SU

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process. Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area. Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible. **Mitigation Measures** *None Feasible.*	
		4.5 Cultural Resources	
4.5-1 Development associated with the proposed General Plan Update could cause a substantial adverse change in the significance of a historical resource.	LTS	**Proposed General Plan Update** Goal 7.A To preserve and maintain sites, structures, and landscapes that serve as significant, visible connection to the city's social, architectural, and agricultural history. Policy 7.A.1. The City shall establish a Historic Resources Inventory to include all historically and architecturally significant buildings, sites, landscapes, signs, and features within the city limits.	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
		Policy 7.A.2.	The City shall seek to develop incentives for owners of historically significant income-producing buildings to have their buildings designated a City Historic Landmark.	
		Policy 7.A.3.	The City shall give highest restoration priority to those buildings and open space areas identified as having historic, cultural, or architectural significance that are in imminent danger of decay or demolition.	
		Policy 7.A.4	The City shall encourage the incorporation of natural resources such as land and water into historic sites and structures when they are important to the understanding and appreciation of the history of the site.	
		Policy 7.A.5.	The City shall consult with property owners early in the process of designating properties or buildings as historically and/or architecturally significant.	
		Goal 7.B	To combine historic preservation and economic development so as to encourage owners of historic properties to upgrade and preserve their properties in a manner that will conserve the integrity of such properties in the best possible condition.	
		Policy 7.B.1.	The City shall consider waiving building permit fees and/or providing other appropriate incentives for owners of small properties with historic significance who are unable to benefit from other government programs for historic preservation and for historic preservation projects that	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		provide low-income housing or essential city services. Goal 7.C To promote community awareness and appreciation of Wheatland's history and architecture. Policy 7.C.1. The City shall formally recognize private and public quality rehabilitation and restoration work through awareness ceremonies. Policy 7.C.2. The City shall encourage Wheatland schools to integrate local architectural history into their curriculum. Policy 7.C.3. The City shall coordinate historic preservation efforts with other agencies and organizations, including the Yuba-Feather Historical Association and other historic societies. **Mitigation Measures** *None Required.*	
4.5-2 Development associated with the proposed General Plan Update could cause a substantial adverse change in the significance of an archeological, or unique paleontological resource.	PS	**Proposed General Plan Update** Goal 7.D To protect Wheatland's Native American heritage. Policy 7.D.1. The City shall refer development proposals that may adversely affect archaeological sites to the California Archaeological Inventory, Northwest Information Center, at Sonoma State University. Policy7.D.2. The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without first consulting the Archaeological Inventory,	LTS

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Northwest Information Center, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendations of a qualified archaeologist. City implementation of this policy shall be guided by Appendix K of the *CEQA Guidelines.* **Mitigation Measures** *4.5-1* *In the event that any archeological features or deposits, including locally darkened soil (midden), that could conceal cultural deposits, animal bone, shell, obsidian, mortars, or human remains, are uncovered during construction, work within 100 feet of the find shall cease, and the City of Wheatland and a qualified archaeologist shall be contacted to determine if the resource is significant and to determine appropriate mitigation. Any artifacts uncovered shall be recorded and removed to a location to be determined by the archaeologist.* *4.5-2* *Revise Policy 7.D.1 as follows:* *The City shall refer development proposals that may adversely affect archaeological sites to the North Central Information Center at California State University, Sacramento, and the Northeast Information Center at California State University, Chico.* *4.5-3* *Revise Policy 7.D.2 as follows:* *The City shall not knowingly approve any public or private*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		project that may adversely affect an archaeological site without first consulting the California Archaeological Inventory; North Central Information Center at California State University, Sacramento; Northeast Information Center at California State University, Chico; conducting a site evaluation as may be indicated; and attempting to mitigate any adverse impacts according to the recommendations of a qualified archaeologist.	
4.6 Geology and Soils			
4.6-1 Development associated with the proposed General Plan Update would expose people or structures to potential seismic events and related ground shaking.	LTS	**Proposed General Plan Update** Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions. Policy 9.A.1. The City shall prepare and regularly update emergency services plans. Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements. Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable. Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level. Policy 9.A.7. The City shall ensure that during natural catastrophes and emergencies the City can continue to provide essential	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			emergency public services.	
		Policy 9.A.8.	The City shall update building, fire, and other codes to address earthquakes, fire, and other hazards.	
		Policy 9.A.9.	The City shall coordinate disaster preparedness planning with other public agencies and organizations	
		Goal 9.B	To minimize the loss of life, injury, and property damage due to seismic and geological hazards.	
		Policy 9.B.1.	The City shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e., groundshaking, liquefaction, expansive soils).	
		Policy 9.B.2.	The City shall require that new structures intended for human occupancy be designed and constructed to minimize risk to the safety of occupants due to ground-shaking.	
		Policy 9.B.3.	The City shall require that new structures intended for human occupancy be designed and constructed to minimize risk to the safety of occupants due to ground-shaking.	
		Policy 9.B.4.	The City shall require that new structures and alterations to existing structures comply with the current edition of the	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Uniform Building Code. Policy 9.B.5. The City shall develop evacuation routes and a disaster plan in the remote event that an earthquake does occur, especially in the Camp Far West Dam inundation area. Policy 9.B.6. The City shall require that new structures intended for human occupancy, public facilities (i.e., treatment plants and pumping stations, major communication lines, evacuation routes, etc.), and emergency/disaster facilities (i.e., police and fire stations, etc.) are designed and constructed to minimize risk to the safety of people due to ground shaking. Policy 9.B.7. The City shall require all proposed developments, reconstruction, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed to mitigate the risk associated with the hazard (e.g., expansive, liquefaction, etc.). Policy 9.B.8. The City shall require that alterations to existing buildings and all new buildings be built according to the seismic requirements of the Uniform Building Code. Policy 9.B.9. The City shall support and encourage seismic upgrades to older buildings that may be structurally deficient.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 9.B.10. The City shall inventory unreinforced masonry structures, including emergency facilities and other critical facilities constructed prior to 1948, used for human occupancy (excluding single family residential structures), and evaluate the facilities for seismic safety. If found below acceptable standards, the City shall implement a program to mitigate potential hazards. **Mitigation Measures** *None Required.*	
4.6-2 Development associated with the proposed General Plan Update could place buildings on expansive soils, thus potentially causing structural damage.	LTS	**Proposed General Plan Update** Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions. Policy 9.A.1. The City shall prepare and regularly update emergency services plans. Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements. Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable. Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level. Policy 9.A.7. The City shall ensure that during natural catastrophes and	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			emergencies the City can continue to provide essential emergency public services.	
		Policy 9.A.8.	The City shall update building, fire, and other codes to address earthquakes, fire, and other hazards.	
		Goal 9.B	To minimize the loss of life, injury, and property damage due to seismic and geological hazards.	
		Policy 9.B.1.	The City shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e., groundshaking, liquefaction, expansive soils).	
		Policy 9.B.2.	The City shall require submission of a preliminary soils report, prepared by a registered civil (geotechnical) engineer and based upon adequate test borings, for every major subdivision.	
		Policy 9.B.4.	The City shall require that new structures and alterations to existing structures comply with the current edition of the California Building Code.	
		Policy 9.B.7.	The City shall require all proposed developments, reconstruction, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed to mitigate the risk	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		associated with the hazard (e.g., expansive, liquefaction, etc.). **Mitigation Measures** *None Required.*	
4.6-3 Liquefaction could occur in the study area, subjecting structures or people to harm and/or damage.	LTS	**Proposed General Plan Update** Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions. Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements. Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable. Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level. Goal 9.B To minimize the loss of life, injury, and property damage due to seismic and geological hazards. Policy 9.B.3. The City shall require that new structures intended for human occupancy be designed and constructed to minimize risk to the safety of occupants due to ground-shaking. Policy 9.B.4. The City shall require that new structures and alterations to	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		existing structures comply with the current edition of the California Building Code. Policy 9.B.6. The City shall require that new structures intended for human occupancy, public facilities (i.e., treatment plants and pumping stations, major communication lines, evacuation routes, etc.), and emergency/disaster facilities (i.e., police and fire stations, etc.) are designed and constructed to minimize risk to the safety of people due to ground shaking. Policy 9.B.7. The City shall require all proposed developments, reconstruction, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed to mitigate the risk associated with the hazard (e.g., expansive, liquefaction, etc.). Policy 9.B.8. The City shall require that alterations to existing buildings and all new buildings be built according to the seismic requirements of the Uniform Building Code. **Mitigation Measures** *None Required.*	
4.6-4 Development associated with the proposed General Plan Update could result in soil erosion.	PS	**Proposed General Plan Update** Goal 5.E To collect and dispose of stormwater in a manner that protects the city's residents and property from the hazards of flooding, manages stormwater in a manner that is safe	LTS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		and environmentally sensitive, and enhances the environment. Policy 5.E.4. The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities. **Mitigation Measures** *4.6-4* *For future development projects, applicants shall prepare and submit to the City Engineer an erosion control plan prior to grading permit issuance. The erosion control plan shall utilize standard construction practices to limit the erosion effects during construction. Measures could include, but are not limited to the following:* • *Hydro-seeding;* • *Placement of erosion control measures within drainageways and ahead of drop inlets;* • *The temporary lining (during construction activities) of drop inlets with "filter fabric" (a specific type of geotextile fabric);* • *The placement of straw wattles along slope contours;* • *Directing subcontractors to a single designation "wash-out" location (as opposed to allowing them to wash-out in any location they desire);* • *The use of siltation fences; and* • *The use of sediment basins and dust palliatives.*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact		***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
4.7 Hazards and Hazardous Materials					
4.7-1	Development associated with the proposed General Plan Update would create potential hazards related to the public or the environment through the routine transport, use, disposal or reasonably foreseeable upset and accidental release of hazardous materials.	PS	**Proposed General Plan Update**		LTS
			Goal 9.F	To minimize the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous materials wastes.	
			Policy 9.F.1.	The City shall ensure that the use and disposal of hazardous materials in the city complies with local, state, and federal safety standards.	
			Policy 9.F.2.	The City shall strictly regulate the storage of hazardous materials and wastes.	
			Policy 9.F.3.	The City shall ensure that industrial facilities are constructed and operated in accordance with current safety and environmental protection standards.	
			Policy 9.F.4.	The City shall require that new industries that store and process hazardous materials provide a buffer zone between the installation and the property boundaries sufficient to protect public safety. The adequacy of the buffer zone shall be determined by the City.	
			Policy 9.F.5.	The City shall require that applications for discretionary development projects that will generate hazardous wastes or utilize hazardous materials include detailed information on hazardous waste reduction, recycling, and storage.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 9.F.6. The City shall require that any business that handles a hazardous material prepare a plan for emergency response to a release or threatened release of a hazardous material. Policy 9.F.7. The City shall work with other agencies to ensure an adequate countywide response capability to hazardous materials emergencies. **Mitigation Measures** *4.7-1 For agricultural parcels proposed for development, prior to the issuance of grading permits, project applicants shall provide to the City a detailed environmental assessment pertaining to on-site soils in order to address the presence of soil contaminants (i.e., pesticides). The environmental assessment shall be reviewed by the City Engineer.*	
4.7-2 Development associated with the proposed General Plan Update would not be included on a list of hazardous materials sites pursuant to Government Code Section 65962.5, which would result in a significant hazard to the public or the environment.	NI	**Proposed General Plan Update** *N/A* **Mitigation Measures** *None Required.*	N/A
4.7-3 Development associated with the proposed General Plan Update would be located within an airport land use plan, and may create potential safety hazards for people residing or working in the project area.	LTS	**Proposed General Plan Update** Goal 2.G To support the continued operation of Beale Air Force Base and its associated facilities while ensuring compatibility between urban development in Wheatland and aircraft operations.	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 2.G.1. The City shall work closely with appropriate agencies, including Beale Air Force Base and the Sacramento Area Council of Governments (SACOG), to ensure compatibility of land uses that fall within overflight zones. Policy 2.G.2. The City shall work with Beale Air Force Base to coordinate changes to their flight patterns with land use decisions. Goal 9.E To minimize the risk of loss of life, injury, damage to property, and economic and social dislocations resulting from aircraft hazards. Policy 9.E.1. The City shall work with Beale Air Force Base to ensure that new development does not create safety hazards such as lights from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards. Policy 9.E.2. The City shall ensure that development within the Beale Air Force Base approach and departure zones comply with Part 87 of the Federal Aviation Administration Regulations (objects affecting navigable airspace). **Mitigation Measures** *None Required.*	
4.7-4 Development associated with the proposed General Plan Update would not interfere with an adopted	LTS	**Proposed General Plan Update** Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
emergency response plan or emergency evacuation plan.		conditions. Policy 9.A.1. The City shall prepare and regularly update emergency services plans. Policy 9.A.2. The City shall have major public and private development proposals reviewed by fire and police departments as well as other City department heads to insure compatibility with safety objectives. Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements. Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable. Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level. Policy 9.A.7. The City shall ensure that during natural catastrophes and emergencies the City can continue to provide essential emergency public services. Policy 9.A.9. The City shall coordinate disaster preparedness planning with other public agencies and organizations. **Mitigation Measures** *None Required.*	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
4.7-5 Development associated with the proposed General Plan Update would not expose people or structures to a significant risk or loss, injury or death involving wildland fires.	LTS	**Proposed General Plan Update** Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions. Policy 9.A.3. The City shall initiate fire inspection programs for buildings and premises to identify safety objectives. Policy 9.A.8. The City shall update building, fire, and other codes to address earthquakes, fire, and other hazards. Goal 9.D To minimize the risk of loss of life, injury, and damage to property and watershed resources resulting from fires. Policy 9.D.1. The City shall require that new development meets state and local standards for fire protection. The City Fire Department shall review development proposals for compliance with fire safety standards. Policy 9.D.2. The City shall ensure that existing and new buildings of public assembly incorporate adequate fire protection measures to reduce the potential loss of life and property in accordance with state and local codes and ordinances. Policy 9.D.3. The City shall encourage and promote installation and maintenance of smoke detectors in existing residences and commercial facilities that were constructed prior to the requirement for their installation.	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 9.D.4. The City shall develop high-visibility fire prevention programs, including those offering voluntary home inspections and promoting awareness of home fire prevention measures. Policy 9.D.5. The City shall enforce building and fire codes and city ordinances in regard to fire and fire protection. Policy 9.D.6. The City shall continue to improve fire protection services, equipment, and facilities as required and as economically as possible. Policy 9.D.7. The City shall require and maintain adequate street widths, clearances around structures, and turning radii to provide for fire and safety protection and access. Policy 9.D.8. The City shall maintain water supply requirements for fire fighting needs in accordance with the Insurance Services Office "Fire Suppression Rating Schedule". Policy 9.D.9. The City shall require that areas within the natural / urban interface, at a minimum, provide fire and safety protection that meet California Department of Forestry and Fire Protection (CDF) Fire Safe standards. **Mitigation Measures** *None Required.*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact		***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
4.8 Hydrology and Water Quality					
4.8-1	New development in the study area associated with the General Plan Update would result in increased runoff, therefore leading to potential flooding. The General Plan Land Use Plan, and circulation proposals could also result in the location of projects in flood zones, or alter the course of floodwaters.	LTS	**Proposed General Plan Update**		N/A
			Goal 5.E	To collect and dispose of stormwater in a manner that protects the City's residents and property from the hazards of flooding, manages stormwater in a manner that is safe and environmentally sensitive, and enhances the environment.	
			Policy 5.E.1.	The City shall prepare a Storm Drainage Master Plan and Flood Protection Master Plan to assure adequate protection for residents and property.	
			Policy 5.E.2.	The City shall encourage project designs that minimize drainage concentrations and impervious coverage.	
			Policy 5.E.3.	The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities.	
			Policy 5.E.4.	The City shall require projects that have significant impacts on the quantity and quality of surface water runoff to incorporate mitigation measures for impacts related to urban runoff.	
			Policy 5.E.5.	Future drainage system requirements shall comply with applicable state and federal pollutant discharge requirements.	
			Policy 5.E.6.	The City shall allow stormwater detention facilities to	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		mitigate drainage impacts and reduce storm drainage system costs. To the extent practical, stormwater detention facilities should be designed for multiple purposes, including recreational (e.g., parks, ball fields, etc.) and/or stormwater quality improvement. Policy 5.E.7. The City shall consider using stormwater of adequate quality to replenish local groundwater basins, restore wetlands and riparian habitat, and irrigate agricultural lands. Policy 5.E.8. The City shall require detention storage with measured release to ensure that the capacity of downstream creeks and sloughs will not be exceeded. To this end: a) Outflow to creeks and sloughs shall be monitored and controlled to avoid exceeding downstream channel capacities; b) Storage facilities shall be coordinated and managed to prevent problems caused by timing of storage outflows. Policy 5.E.9. The City shall require the preparation of watershed drainage plans for proposed developments. These plans shall define needed drainage improvements and estimate construction costs for these improvements.	

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		Mitigation Measures *None Required.*	
4.8-2 Development associated with the General Plan Update would be within the 100-Year flood hazard area.	LTS	**Proposed General Plan Update** Goal 9.C To protect the lives and property of the citizens of Wheatland from hazards and manage floodplains for their open space and natural resource values. Policy 9.C.1. The City shall continue to implement floodplain zoning and undertake other actions required to comply with state floodplain requirements, and to maintain the City's eligibility under the Federal Flood Insurance Program. Policy 9.C.2. The City shall require evaluation of potential flood hazards prior to approval of development projects. The City shall require proponents of new development to submit accurate topographic and flow characteristics information. Policy 9.C.3. The City shall not allow development in areas subject to flooding unless adequate mitigation is provided, to include project levees designed for a standard project flood. Policy 9.C.4. The City shall require flood-proofing of structures and outdoor storage areas for hazardous materials in areas subject to flooding. Hazardous materials and wastes shall be contained within floodproofed structures or storage areas. Policy 9.C.5. The City shall prohibit the construction of facilities essential for emergencies and large public assembly in the	N/A

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			100-year floodplain, unless the structure and road access are free from flood inundation.	
		Policy 9.C.6.	The City shall continue to work closely with the U.S. Army Corps of Engineers, Reclamation Districts 2103 and 817, the Federal Emergency Management Agency (FEMA), and the State Department of Water Resources in defining existing and potential flood problem areas and solutions.	
		Policy 9.C.7.	The City shall preserve floodways and floodplains for non-urban uses, except that development may be allowed in a floodplain with mitigation measures that are in conformance with the City's Flood Protection Master Plan.	
		Policy 9.C.8.	The City shall formulate emergency management plans for the safe evacuation of people from areas subject to inundation from dam failure. Plans shall be reviewed and periodically updated.	
		Policy 9.C.9.	The City shall participate in the National Flood Insurance Program.	
		Policy 9.C.10.	The City shall require that roadway systems for areas protected from flooding by levees be designed to provide multiple escape routes for residents in the event of a levee failure.	
		Policy 9.C.11.	The City shall develop evacuation routes and a disaster	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		plan in the remote event of a failure to Camp Far West Dam. **Mitigation Measures** *None Required.*	
4.8-3 Development in the study area could result in erosion, sedimentation, and subsequent degradation of the surface water quality.	PS	**Proposed General Plan Update** Goal 5.E To collect and dispose of stormwater in a manner that protects the City's residents and property from the hazards of flooding, manages stormwater in a manner that is safe and environmentally sensitive, and enhances the environment. Policy 5.E.1. The City shall prepare a Storm Drainage Master Plan and Flood Protection Master Plan to assure adequate protection for residents and property. Policy 5.E.2. The City shall encourage project designs that minimize drainage concentrations and impervious coverage. Policy 5.E.3. The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities. Policy 5.E.4. The City shall require projects that have significant impacts on the quantity and quality of surface water runoff to incorporate mitigation measures for impacts related to urban runoff. Policy 5.E.5. Future drainage system requirements shall comply with	LTS

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		applicable state and federal pollutant discharge requirements. Policy 5.E.6. The City shall allow stormwater detention facilities to mitigate drainage impacts and reduce storm drainage system costs. To the extent practical, stormwater detention facilities should be designed for multiple purposes, including recreational (e.g., parks, ball fields, etc.) and/or stormwater quality improvement. Policy 5.E.7. The City shall consider using stormwater of adequate quality to replenish local groundwater basins, restore wetlands and riparian habitat, and irrigate agricultural lands. Policy 5.E.8. The City shall require detention storage with measured release to ensure that the capacity of downstream creeks and sloughs will not be exceeded. To this end: a. Outflow to creeks and sloughs shall be monitored and controlled to avoid exceeding downstream channel capacities; b. Storage facilities shall be coordinated and managed to prevent problems caused by timing of storage outflows. Policy 5.E.9. The City shall require the preparation of watershed drainage plans for proposed developments. These plans	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		shall define needed drainage improvements and estimate construction costs for these improvements. Goal 8.A — To protect and enhance the natural quantity and qualities of the Wheatland area's rivers, creeks, sloughs, and ground-water. Policy 8.A.1. — The City shall cooperate with Yuba County in the conservation of Bear River and Dry Creek for the protection of water resources and open space qualities. Policy 8.A.5. — The City shall require proposed developments to comply with streambed alteration and watershed protection regulations as administered by the California Department of Fish and Game and regulations adopted by the Environmental Health Department. Policy 8.A.8. — The City shall endeavor to protect, preserve, and improve riparian corridors. **Mitigation Measures** *4.8-3* — *For future development projects, applicants shall obtain NPDES Construction General Permit, which requires the submittal of a Notice of Intent (NOI) with applicable fee to the State Water Resources Control Board (SWRCB) and the preparation of a Stormwater Pollution Prevention Plan (SWPPP) to be submitted to the City Engineer for review.*	
4.8-4 Development in the study area could result in loss of groundwater supplies	LTS	**Proposed General Plan Update** Goal 5.C — To ensure a safe and reliable water supply sufficient to	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
or interfere substantially with groundwater recharge.		meet the future needs of the City. Policy 5.C.1. The City shall protect the groundwater basin from overdraft from City use of groundwater. To this end, the City shall study, working closely with other public and private entities as deemed appropriate, the safe yield of the groundwater basin. Water management programs such as conjunctive use and recharge programs will also be considered. The City shall use this information to determine the most appropriate long-term water supply to serve Wheatland. Policy 5.C.2. If the results of studies undertaken pursuant to Policy 5.C.1 indicate an imbalance between safe groundwater yield and projected water requirements, the City shall develop a response plan to address the imbalance. This response plan will include an appropriate mix of water conservation measures, reuse, surface water supplements, and other water management techniques. Policy 5.C.3. The City shall promote efficient water use and reduced water demand by: a) Requiring water-conserving building design and equipment in new construction; b) Encouraging water-conserving landscaping and other conservation measures; and c) Encouraging retrofitting of existing development with water-conserving devices.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 5.C.4. The City shall work with other agencies to promote water conservation measures countywide for both urban and agricultural uses. Policy 5.C.5. The City shall only approve new development that relies on an adequate City water supply and delivery system**.** Policy 5.C.6. The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands. Policy 5.C.7. The City shall investigate processes for monitoring water demand growth trends to anticipate water supply needs. Policy 5.C.8. The City shall monitor water quality regularly to ensure that safe drinking water standards are met and maintained in accordance with State and EPA regulations and take necessary measures to prevent contamination. Policy 5.C.9. The City shall ensure that water supply capacity and infrastructure are in place prior to granting building permits for new development. Policy 5.C.10. The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 5.C.11. The City shall ensure adequate water pressure throughout the urban area for fire protection purposes. Goal 8.A To protect and enhance the natural quantity and qualities of the Wheatland area's rivers, creeks, sloughs, and ground-water. Policy 8.A.1. The City shall cooperate with Yuba County in the conservation of Bear River and Dry Creek for the protection of water resources and open space qualities. Policy 8.A.2. The City shall monitor any activities that may degrade the aquifers of Bear River or Dry Creek as it impacts City water supply and shall support the maintenance of high water quality in these water bodies. Policy 8.A.3. The City shall cooperate with other jurisdictions in jointly studying the potential for using surface water sources to balance the groundwater supply so as to protect against aquifer overdrafts and water quality degradation. Policy 8.A.4. The City shall help protect groundwater resources from overdraft by promoting water conservation and groundwater recharge efforts. Policy 8.A.5. The City shall require proposed developments to comply with streambed alteration and watershed protection regulations as administered by the California Department	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		of Fish and Game and regulations adopted by the Environmental Health Department. Policy 8.A.7. The City shall retain to the extent feasible the environmental and ecological features of the creeks, sloughs and rivers in their natural state. Policy 8.A.8. The City shall endeavor to protect, preserve, and improve riparian corridors. Policy 8.A.9. The City shall require runoff controls in conjunction with development projects and agriculture production to limit toxics and nutrients from entering waterways. **Mitigation Measures** *None Required.*	
		4.9 Land Use and Planning	
4.9-1 The General Plan Update would not physically divide an established community, or detract from existing areas within the City of Wheatland.	LTS	**Proposed General Plan Update** Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance. Policy 1.A.2. The City shall ensure that development occurs in an orderly sequence based on the logical and practical extension of public facilities and services. Policy 1.A.5. The City shall encourage the acquisition of Community Development Block Grants (CDBG) to revitalize infill	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			areas.	
		Policy 1.A.11.	The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-housing balance to ensure an adequate mix of economic and residential opportunities.	
		Goal 1.B	To provide adequate land in a range of residential densities to accommodate the housing needs of all income groups expected to reside in Wheatland.	
		Policy 1.B.1.	The City shall support residential development at a manageable pace to achieve its fair share of regional housing needs and provide for orderly extension of infrastructure and public services.	
		Policy 1.B.2.	The City shall require residential project design to reflect and consider natural features, noise exposure of residents, visibility of structures, circulation, access, and the relationship of the project to surrounding uses. Residential densities and lot patterns will be determined by these and other factors.	
		Policy 1.B.3.	The City shall discourage the development of isolated, remote, disconnected, and/or gated residential projects, which do not contribute to the sense of an integrated community.	
		Policy 1.B.4.	The City shall encourage multi-family housing to be	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			located throughout the community, but especially near transportation corridors, Downtown, major commercial areas, neighborhood commercial centers, and employment centers.	
		Policy 1.B.5.	The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.	
		Goal 1.C	To provide for new residential development in planned neighborhoods to be developed in an orderly style and designed to promote walking, bicycling, and transit use.	
		Policy 1.C.1.	The City shall promote new residential development in a range of residential densities that reflects the positive qualities of Wheatland's existing residential neighborhoods (e.g., street trees, pedestrian-orientation, mix of housing types and sizes).	
		Policy 1.C.2.	The City shall encourage the creation of well-defined residential neighborhoods. Each neighborhood should have a clear focal point, such as a park, school, or other open space and community facility, and shall be designed to promote pedestrian convenience.	
		Policy 1.C.3.	The City shall encourage the development of new neighborhoods that are walkable and connected to the existing city core as well as each other.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 1.C.4. The City shall require that development plans for new residential neighborhoods address the following: a. The distribution, location, and extent of land uses, including standards for land use intensity. b. Compatibility of new development with adjacent existing and proposed development. c. Provision of a range of housing types to ensure socially- and economically-integrated neighborhoods. d. Distribution and location of roadways, including design standards for and the precise alignment of arterial, collector, and local streets, and bikeways. e. Provisions for the extension of the existing city roadway system into new development areas. New development shall be linked to adjacent existing neighborhoods and planned neighborhoods by collector and local streets. . f. Provisions for adequate schools and child care facilities. g. Distribution and location of neighborhood commercial centers, parks, schools, child care centers, and other public- and quasi-public facilities. h. Provisions for linking residential neighborhoods, parks, schools, Downtown, shopping areas, and employment centers through a system of pedestrian pathways, bicycle routes, and linear open-space	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		corridors along sloughs, Dry Creek, and the Bear River. i. Provisions for development phasing to ensure orderly and contiguous development consistent with population projections of the General Plan, and Policy 1.A.4. j. Provisions for minimizing conflicts between new development and agricultural uses. Policy 1.C.5. The City shall require residential subdivisions to provide well-connected internal and external street, bicycle, and pedestrian systems. Policy 1.C.6. The City shall encourage installation of current and emerging technological infrastructure in new and existing development for home telecommuting and electric vehicles charging. Goal 1.D To conserve and enhance the best qualities of existing residential neighborhoods as the city grows. Policy 1.D.1. The City shall ensure that decisions concerning land use and development are not detrimental to the positive character and identity of Wheatland's existing residential neighborhoods. Policy 1.D.2. The City shall sponsor community volunteer clean-up campaigns.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 1.D.3. The City shall encourage infill and reuse in existing neighborhoods that maintain the character and quality of the surrounding neighborhood and does not negatively affect surrounding land uses. Policy 1.D.4. The City shall promote street tree planting and maintenance and seek ways to establish ongoing funding for street tree maintenance. Policy 1.D.5. The City shall provide for infrastructure improvements in older neighborhoods through redevelopment funding. Policy 1.D.6. The City shall enforce City nuisance and fire safety ordinances for property and buildings that become eyesores and present health and safety problems. Goal 1.F To develop and maintain an economically, socially, and physically attractive Downtown. Policy 1.F.1. The City shall work with downtown property and business owners to revitalize and extend the downtown east to the proposed civic center. Policy 1.F.2. The City shall form a Redevelopment Agency to initiate Downtown revitalization programs. Policy 1.F.3. The City shall work with Downtown property and business owners to form a Downtown Improvement Association.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 1.F.4. The City shall work jointly with Downtown property and business owners to create and support programs that improve the appearance of Downtown. These can include clean-ups, active Building Code and other City Code enforcement, and beautification programs. Policy 1.F.5. The City shall promote the overall safety in Downtown through greater police visibility, increased lighting, and protection for pedestrians. **Mitigation Measures** *None Required.*	
4.9-2 Development associated with the General Plan Update would substantially alter the character of Wheatland.	S	**Proposed General Plan Update** Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance. Policy 1.A.1. The City shall strive to preserve Wheatland's traditional small-town qualities and historic heritage, while expanding its residential and employment base. Policy 1.A.3. The City shall designate land for development consistent with the needs of the community and consistent with its efforts to maintain a positive fiscal balance for the City. Policy 1.A.11. The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-	SU

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			housing balance to ensure an adequate mix of economic and residential opportunities.	
		Goal 1.G	To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality.	
		Policy 1.G.1.	The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses.	
		Policy 1.G.2.	The City shall only approve new employment development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials.	
		Policy 1.G.3.	The City shall promote the development of new high technology uses in the employment locations near the SR 65 bypass.	
		Policy 1.G.4.	The City shall promote the development of business park and research and development uses in Wheatland.	
		Policy 1.G.5.	The City shall require new developments projects to pay their fair share of infrastructure construction costs as pursuant to the City's Fee Study.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 1.G.6. The City shall require that proposed commercial, employment and residential development is phased in order to insure the continuation of an adequate tax base to fund necessary infrastructure and City services. Policy 1.G.7. The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use. **Mitigation Measures** *None Feasible.*	
4.9-3 The General Plan Update may result in conflict with existing plans or regulations.	LTS	**Proposed General Plan Update** Goals 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance. Policy 1.A.6. The City shall work with the Sacramento Area Council of Governments (SACOG) and Yuba County to coordinate the City's General Plan with regional planning efforts. Policy 1.A.8. The City shall establish a Memorandum of Understanding with Yuba County in order to maintain agricultural preservation zoning on farmland surrounding the city. Policy 1.A.10. The City shall assure that the Zoning Ordinance and Zoning Map are consistent with the General Plan.	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Goal 1.H To maintain land as Urban Reserve for consideration for future development. Policy 1.H.1. No urban development of Urban Reserve areas will be permitted without a General Plan amendment. No General Plan amendment will be considered without an analysis that includes the factors listed in Policy 1.H.2. **Mitigation Measures** *None Required.*	
4.9-4 The General Plan Update may result in land use conflicts, and incompatibility between existing, and proposed land uses.	LTS	**Proposed General Plan Update** Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality. Policy 1.G.1. The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses. Policy 1.G.2. The City shall only approve new employment development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials. Policy 1.G.3. The City shall promote the development of new high technology uses in the employment locations near the SR	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			65 bypass.	
		Policy 1.G.4.	The City shall promote the development of business park and research and development uses in Wheatland.	
		Policy 1.G.5.	The City shall require new developments projects to pay their fair share of infrastructure construction costs as pursuant to the City's Fee Study.	
		Policy 1.G.6.	The City shall require that proposed commercial, employment and residential development is phased in order to insure the continuation of an adequate tax base to fund necessary infrastructure and City services.	
		Policy 1.G.7.	The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use.	
		Goal 1.I	To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland.	
		Policy 1.I.1.	The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.	
		Policy 1.I.2.	The City shall support the local agricultural economy by encouraging the location of agricultural support industries in the city, establishing and promoting marketing of local farm products, exploring economic incentives, and support	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		for continuing agricultural uses adjacent to the city, and providing its fair share of adequate housing to meet the needs of agricultural labor. Policy 1.I.3. The City shall promote good neighbor policy between residential property owners and adjacent farming operations by supporting the right of the farmers and ranchers to conduct agricultural operations in compliance with state laws. Policy 1.I.4. The City shall work with agribusiness to reduce vandalism, trespassing, roadway hazards, and other public safety issues. **Mitigation Measures** *None Required.*	
4.10 Mineral Resources			
4.10-1 Development associated with the proposed General Plan Update would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	NI	**Proposed General Plan Update** Goals 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area. Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible. **Mitigation Measures** *None Required.*	N/A
4.10-2 Development associated with the proposed General Plan Update would	NI	**Proposed General Plan Update** Goals 8.D To preserve and enhance open space lands to maintain the	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.		natural resources of the Wheatland area. Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible. **Mitigation Measures** *None Required.*	
		4.11 Noise	
4.11-1 Development of noise-sensitive land uses within existing noise-impacted areas.	LTS	**Proposed General Plan Update** Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise. Policy 9.G.1 The City shall prohibit development of new noise-sensitive land uses where the noise level due to non-transportation noise sources will exceed the noise level standards of Table 9-1 as measured immediately within the property line of the new development, unless effective noise mitigation measures have been incorporated into the development design to achieve the standards set out in Table 4.11-8. Policy 9.G.2. The City shall require that noise created by new non-transportation sources be mitigated so as not to exceed the noise level standards of Table 4.11-8 as measured immediately within the property line of lands designated for noise-sensitive uses. Policy 9.G.3 Where proposed non-residential land uses are likely to	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		produce noise levels exceeding the performance standards of Table 9-1 at existing or planned noise-sensitive uses, the City shall require an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. The acoustical analysis shall meet the following requirements: a) It shall be the financial responsibility of the applicant. b) It shall be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics. c) It shall include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources. d) It shall include estimates of existing and projected cumulative (20 years) noise levels in terms of Ldn or CNEL and/or the standards of Table 4.11-7, and compare those levels to the policies and standards of this section of the General Plan. e) It shall recommend appropriate mitigation to achieve compliance with the policies and standards of this section of the General Plan, giving preference to proper site planning and design over mitigation measures which require the construction of noise	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		barriers or structural modifications to buildings which contain noise-sensitive land uses. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance. f) It shall include estimates of noise exposure after the prescribed mitigation measures have been implemented. g) It shall describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures. Policy 9.G.4. The City shall prohibit new development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels set out in Table 4.11-7, unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels set out in Table 4.11-7. Goal 9.H To protect the economic base of the City by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses. Policy 9.H.1. Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		exceeding the levels set out in Table 4.11-7 or the performance standards of Table 4.11-7, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. Policy 9.H.2. Where noise mitigation measures are required to achieve the standards of Tables 4.11-7 and 4.11-8, the emphasis in such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project. Policy 9.H.3. The City shall support the Right-to-Farm Ordinance, especially as it relates to noise emanating from the agricultural operations adjacent to urban uses. **Mitigation Measures** *None Required.*	
4.11-2 Construction of new roadways or improvements to existing roadways, and various projects pursuant to the General Plan Update in Noise-Sensitive Areas.	LTS	**Proposed General Plan Update** Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise. Policy 9.G.5. The noise created by new transportation noise sources shall be mitigated so as not to exceed the levels specified in Table 4.11-8 at outdoor activity areas or interior spaces of existing noise-sensitive land uses.	N/A

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 9.G.6. New roadway improvement projects will be needed to accommodate development permitted according to the Land Use Diagram. Where existing noise-sensitive uses may be exposed to increased noise levels due to increased roadway capacity and increases in travel speeds associated with roadway improvements, the City will apply the following criteria to determine the significance of increases in noise related to roadway improvement projects: a) Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant; and b) Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant; and c) Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant. Policy 9.G.7. An increase of 3 dB Ldn or greater due to additional traffic volumes is considered a potentially significant impact.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Mitigation Measures *None Required.*	
4.11-3 Compatibility between Beale Air Force Base and noise-sensitive uses developed within the General Plan Update study area.	PS	**Proposed General Plan Update** Goal 9.H To protect the economic base of the City by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses. Policy 9.H.4. The City shall work with the Sacramento Area Council of Governments (SACOG) to ensure that City's noise policies and contours are consistent with the Beale Air Force Base Land Use Plan. **Mitigation Measures** *4.11-3 The City shall review all development applications on a case-by-case basis for conflicts with the Beale Air Force Base Comprehensive Land Use Plan. If appropriate, adequate measures shall be incorporated into projects in order to prevent exposure to adverse noise levels.*	LTS
4.11-4 Compatibility between railroad noise and noise-sensitive uses developed within the General Plan Update study area.	LTS	**Proposed General Plan Update** Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise. Policy 9.G.3 Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 4.11-7 at existing or planned noise-sensitive uses, the City shall require an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. The acoustical analysis	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		shall meet the following requirements: a) It shall be the financial responsibility of the applicant. b) It shall be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics. c) It shall include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources. d) It shall include estimates of existing and projected cumulative (20 years) noise levels in terms of Ldn or CNEL and/or the standards of Table 4.11-7, and compare those levels to the policies and standards of this section of the General Plan. e) It shall recommend appropriate mitigation to achieve compliance with the policies and standards of this section of the General Plan, giving preference to proper site planning and design over mitigation measures which require the construction of noise barriers or structural modifications to buildings which contain noise-sensitive land uses. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		possible sleep disturbance. f) It shall include estimates of noise exposure after the prescribed mitigation measures have been implemented. g) It shall describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures. Policy 9.G.4. The City shall prohibit new development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels set out in Table 4.11-8, unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels set out in Table 4.11-8. **Mitigation Measures** *None Required.*	
4.11-5 Noise impacts associated with increased traffic on City streets resulting from buildout of the General Plan Update study area	S	**Proposed General Plan Update** Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise. Policy 9.G.6. New roadway improvement projects will be needed to accommodate development permitted according to the Land Use Diagram. Where existing noise-sensitive uses may be exposed to increased noise levels due to increased roadway capacity and increases in travel speeds associated	SU

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		with roadway improvements, the City will apply the following criteria to determine the significance of increases in noise related to roadway improvement projects: a. Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant; and b. Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant; and c. Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant. Policy 9.G.7. An increase of 3 dB L_{dn} or greater due to additional traffic volumes is considered a potentially significant impact. **Mitigation Measures** *4.11-5* *The City shall work to develop a citywide traffic noise abatement program for the express purpose of reducing traffic noise exposure at existing residential uses, which are affected by traffic noise levels in excess of the City's*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		noise level standards. The program should include the following specific aspects for noise abatement consideration where reasonable and feasible: *1. Noise barrier retrofits.* *2. Truck usage restrictions.* *3. Reduction of speed limits.* *4. Use of quieter paving materials.* *5. Building façade sound insulation.* *6. Traffic calming.* *7. Additional enforcement of speed limits and exhaust noise laws.* *8. Signal timing.*	
4.12 Population and Housing			
4.12-1 Impacts related to the substantial increase in population.	LTS	**Proposed General Plan Update** Goal 5.A To ensure the timely development of public facilities and services, and the maintenance of specified service levels for public facilities. Policy 5.A.1. The City shall ensure through the development review process that adequate public facilities and services are available to serve new development. The City shall not approve new development where existing facilities are inadequate unless the following conditions are met: a. The applicant can demonstrate that all necessary public facilities will be installed or adequately financed (through fees or other means); and	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		b. The facility improvements are consistent with applicable master or facility plans adopted by the City. Policy 5.A.2. The City shall require development proposals to include plans for development and financing of public facilities and services. Policy 5.A.3. The City shall prepare and annually review facility master plans, and every five years update the plans to ensure compliance with appropriate state and federal laws, use of modern and cost-effective technologies, and compatibility with current land use policy. Policy 5.A.4. Through fiscal revenues generated by new development, the City shall expand, as needed, general government services (e.g., City administrative services) in connection with new development. Policy 5.A.5. The City shall prepare and annually review the Infrastructure Financing Plan (IFP) and every five years update the IFP to ensure the implementation and adequacy of the Plan. Policy 5.A.8. The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 5.A.9. The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing. For facilities subject to incremental sizing, the initial design shall include adequate land area and any other elements not easily expanded in the future. **Mitigation Measures** *None Required.*	
4.12-2 Impacts related to the displacement of existing housing or people necessitating the construction of replacement housing elsewhere.	LTS	**Proposed General Plan Update** Goal 4.A Provide for the City's regional share of new housing for all income groups. Policy 4.A.1. The City shall continue to monitor residential land use designations and zoning annually to ensure that sufficient land is designated and zoned at various densities to meet the City's regional share of housing. Policy 4.A.2. The City shall designate and zone areas for higher density residential development that are within or adjacent to existing developed areas in which public facilities and services can be extended, or within large, master planned developments which have the financial capability of providing needed public facilities and services for higher density development. Policy 4.A.3. The City shall ensure that developers and residents are made aware of key housing programs and development	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			opportunities.	
		Policy 4.A.5.	The City shall work with other public agencies and private organizations to build affordable housing.	
		Goal 4.B	Improve/conserve the supply of existing housing.	
		Policy 4.B.1.	The City shall encourage the preservation of existing neighborhoods and the provision of safe and sanitary housing for all residents.	
		Policy 4.B.2.	The City shall encourage the preservation and rehabilitation of the existing affordable housing stock.	
		Policy 4.B.3.	The City shall support efforts to prevent substandard homes from becoming dilapidated structures.	
		Policy 4.B.4.	The City shall inspect and identify code violations in residential buildings.	
		Policy 4.B.5.	The City shall require the abatement or demolition of substandard housing that is not economically feasible to repair.	
		Policy 4.B.6.	The City shall periodically survey housing conditions to maintain a current database on housing conditions.	
		Policy 4.B.7.	The City shall ensure that potential developers, landlords, and income-eligible homeowners are aware of available	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		affordable rehabilitation programs provided by Yuba County. Goal 4.C Meet the special housing needs of homeless persons, seniors, large families, disabled persons and farm-workers. Policy 4.C.1. The City shall provide referrals for housing and services to homeless persons. Policy 4.C.2. The City shall promote increased housing opportunities for seniors, large families, and disabled persons. Policy 4.C.3. The City shall encourage developers of rental units to build units for large families. Policy 4.C.4. The City shall encourage the incorporation of childcare in residential areas and employment-based land uses to help households with young children. Policy 4.C.5. The City shall provide reasonable accommodation for individuals with disabilities to ensure equal access to housing. **Mitigation Measures** *None Required.*	
4.12-3 Impacts related to the housing/ jobs ratio in the City of Wheatland study area.	LTS	**Proposed General Plan Update** Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic	N/A

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		significance. Policy1.A.11. The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-housing balance to ensure an adequate mix of economic and residential opportunities. Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality. Policy 1.G.1. The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses. **Mitigation Measures** *None Required.*	
4.13 Public Services			
4.13-1 Development associated with the proposed General Plan Update would increase the demand for law enforcement.	PS	**Proposed General Plan Update** Goal 5.G To deter crime and to meet the growing demand for police services associated with increasing population and commercial/employment development in the city. Policy 5.G.1. Within the City's overall budgetary constraints, the City shall strive to maintain a staffing ratio of 2.0 personnel per 1,000 residents (0.5 non-sworn and 1.5 sworn).	LTS

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
		Policy 5.G.2.	Within the City's overall budgetary constraints, the City shall provide police support (including patrol and other vehicles, necessary equipment, and support personnel) sufficient to maintain its service standards.	
		Policy 5.G.3.	The City shall require new development to develop or fund police facilities and equipment that, at a minimum, financially support standards identified in Policy 5.H.1.	
		Policy 5.G.4.	The City shall require new development, as demonstrated through positive fiscal impacts or through specific funding mechanisms in the event of fiscal deficits, to fund police personnel and operations and maintenance that, at a minimum, maintain the above standards.	
		Policy 5.G.5.	The City shall include facilities for the Police Department in the new Civic Center.	
		Policy 5.G.6.	The City shall promote, and work with Yuba County to support, public safety programs, including neighborhood watch, child identification and fingerprinting, substance abuse prevention, violence prevention, conflict resolution, and other public education and crime prevention efforts.	
		Policy 5.G.7.	The City shall work with Yuba County to promote services for children at risk of abuse, neglect, youth violence and exploitation.	
		Policy 5.G.8.	The City shall consider public safety issues in all aspects of	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		public facility, commercial, and residential project design, including crime prevention through environmental design. Policy 5.G.9. The City shall increase levels of traffic enforcement, particularly along State Route 65. **Mitigation Measures** *4.13-1* *Prior to the issuance of any building permits, the project proponent shall pay the applicable police development fees in accordance with applicable City AB1600 fees and local policies.*	
4.13-2 Development associated with the proposed General Plan Update would increase the demand for fire protection.	PS	**Proposed General Plan Update** Goal 5.H To protect residents, employees, and visitors in Wheatland from injury and loss of life and to protect property from fires. Policy 5.H.1. The City shall establish a full-time fire department. Policy 5.H.2. The City shall, through adequate staffing and patrol arrangements, endeavor to maintain the minimum feasible response times for fire and emergency medical service (EMS) calls. To this end, the City shall attempt to maintain the following fire flow and response time standards shown in Table 4.13-3: **Table 4.13-3** **Fire Flow & Response Time Goals** **Type of Development** / **Fire Flow Standard** / **Response Standard** Commercial and Employment / 3,500 gallons per minute (GPM) / First response within 4 minutes	LTS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Commercial and Employment: 3,500 gallons per minute (GPM); First response within 4 minutes Multi-Family: 2,500 GPM; First response within 4 minutes Single-Family: 1,500 GPM; First response within 4 minutes Policy 5.H.3. The City shall comply with the provisions of the Uniform Fire Code. Policy 5.H.4. The City shall require new development to develop or fund fire protection facilities that, at a minimum, maintain the above service level standards. Policy 5.H.5. The City shall require new development, as demonstrated through positive fiscal impacts or through specific funding mechanisms in the event of fiscal deficits, to fund fire protection personnel and operations and maintenance that, at a minimum, maintain the above standards. Policy 5.H.6. The City shall assure consistent and full fire protection on both sides of Highway 65. Policy 5.H.7. The City Fire Department shall attempt to maintain response time of four minutes for emergency medical service (EMS) calls. Policy 5.H.8. The City shall include a fire station in the new Civic Center.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Mitigation Measures *4.13-2* *Prior to the issuance of any building permits, the project proponent shall pay the applicable fire development fees in accordance with applicable City AB1600 fees and local policies.*	
4.13-3 Development associated with the proposed General Plan Update would increase the demand for school facilities.	PS	**Proposed General Plan Update** Goal 6.D To provide for the educational needs of all Wheatland residents. Policy 6.D.1. The City shall work with the Wheatland School District and Wheatland Union High School District in providing quality education facilities that will accommodate projected student growth by requiring that impacts created by developments are mitigated in a manner acceptable to the School District, to the extent legally feasible. Policy 6.D.2. The City shall encourage the provision of social, recreational, and educational services that complement and enrich those provided by public, private, and parochial educational facilities. Policy 6.D.3. The City shall encourage the use of schools as community and neighborhood centers to provide a range of services. Policy 6.D.4. The City shall support the development of appropriately-located private school facilities to provide additional educational facilities in Wheatland.	LTS

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
		Policy 6.D.5.	The City shall work with Yuba College and other institutions to provide post secondary education and to ensure that higher education programs and facilities are available to residents of Wheatland.	
		Policy 6.D.6.	The City shall seek to locate a higher education facility within the city limits to serve the needs of Wheatland residents and to support future economic growth.	
		Policy 6.D.7.	The City shall encourage educational facilities to offer job-training and retraining programs to assist Wheatland residents.	
		Policy 6.D.8.	The City, Wheatland School District, and Wheatland Union High School District shall explore the potential for joint financing and use of services and facilities for the community to meet mutual needs.	
		Goal 6.E	To ensure that adequate school facilities are available and appropriately located to meet the needs of Wheatland residents.	
		Policy 6.E.1.	The City shall work cooperatively with the Wheatland School District and Wheatland Union High School District in monitoring housing, population, and school enrollment trends and in planning for future school facility needs, and shall assist the District in locating appropriate sites for new schools.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 6.E.2. The City's land use planning shall be coordinated with the planning of school facilities and shall involve the Wheatland School District and Wheatland Union High School District, in the early stages of the land use planning process. Policy 6.E.3. The City shall plan and approve residential uses that are accessible to school sites in order to enhance neighborhoods, minimize transportation requirements and costs, and minimize safety problems. Policy 6.E.4. The City shall encourage school facility siting that establishes schools as focal points within the neighborhood and community. Policy 6.E.5. The City shall encourage the location of schools in areas with safe pedestrian and bicycle access. Policy 6.E.6. The City shall encourage the design and improvement of school facilities to provide adequate off-street parking and areas for student pick-up and drop-off to minimize safety problems and neighborhood impacts. Policy 6.E.7. The City shall work with the Wheatland School District and Wheatland Union High School District to obtain "Safe Routes to Schools" grants. These grants will provide safe bike routes to schools, crossing guards at intersections, designated vehicle drop off routes, and child drop off zones.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 6.E.8. The City shall work closely with the Wheatland School District and Wheatland Union High School District to secure adequate funding for new school facilities and, where legally feasible, the City shall provide a mechanism which, along with state and local resources, requires development projects to satisfy the district's financing program based upon their impaction. The funding should equate to the needs described in the District's School Facilities Master Plan by residential, commercial, and industrial land uses. Policy 6.E.9. The City and residential developers should coordinate with the Wheatland School District and Wheatland Union High School District to ensure that needed school facilities are available for use in a timely manner. **Mitigation Measures** *4.13-3* *Prior to issuance of any building permits, the project proponent shall pay the applicable fees to the Wheatland School District and the Wheatland Union High School District.*	
4.13-4 Development associated with the proposed General Plan Update would increase the demand for educational facilities.	LTS	**Proposed General Plan Update** Goal 6.G To ensure that library facilities are available to all current and future Wheatland residents, in order to carry out the library's mission, which is "to inform, to enhance the quality of life, and to foster lifelong learning." Policy 6.G.1. The City shall develop library facilities as part of the new	N/A

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Civic Center. Policy 6.G.2. The City shall require new development to fund its fair share of new library facilities. Policy 6.G.3. The City shall strive to maintain library standards. Policy 6.G.4. The City shall work with the Wheatland School District, Wheatland Union High School District, Yuba County Library System, and Yuba College to provide library services to the community. **Mitigation Measures** *None Required.*	
4.13-5 Impacts related to gas and electrical facilities.	LTS	**Proposed General Plan Update** Goal 5.J To promote adequate levels of utility services provided by private companies and to ensure that these are constructed in a fashion that minimize their negative effects on surrounding development. Policy 5.J.1. The City shall communicate its major development plans with utility companies and coordinate planning of facility extensions. Policy 5.J.2. The City shall require underground electrical distribution utility lines in new developments and areas that are redeveloped, except where infeasible for operational reasons.	N/A

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 5.J.3. The City shall promote technological improvements and upgrading of utility services in Wheatland. Policy 5.J.4. The City shall coordinate with gas and electricity service providers to locate and design gas and electric systems to minimize environmental and other impacts to existing and future residents. **Mitigation Measures** *None Required.*	
4.13-6 Impacts related to telecommunications and information technology infrastructure.	LTS	**Proposed General Plan Update** Goal 5.K To expand the use of information technology as a communication tool in order to improve personal convenience, to reduce dependency on nonrenewable resources, to take advantage of the ecological and financial efficiencies of new technologies, and to develop a better-informed citizenry. Policy 5.K.1. The City shall facilitate and support development of the infrastructure necessary for all residents to use and benefit from new communication technologies. Policy 5.K.2. The City shall formally monitor information technology development and city infrastructure issues (both planning and enforcement). Policy 5.K.3. The City shall work with Yuba County and other agencies to coordinate telecommunication infrastructure planning on a regional basis, both telephone and data.	N/A

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 5.K.4. The City shall strive to make essential City documents available for immediate retrieval by electronic transfer technologies. Policy 5.K.5. The City shall incorporate a telecommunications center at the proposed Civic Center, which will allow video conferencing, telecommuting, and will provide an access point for electronic resources and general computer training to the public. Policy 5.K.6. The City shall require that all new residential, commercial, and employment areas be wired for modern information technologies. Policy 5.K.7. The City shall establish a website that will contain information about the City government, City services, and City produced documents in a downloadable format. Policy 5.K.8. To minimize the visual impact of wireless communication facilities (e.g., cell towers), the City shall encourage that they meet the following conditions: a. Are located away from residential and open space areas; b. Are not visibly intrusive to residential neighborhoods or public right-of-way; c. When possible, are co-located with other wireless facilities on existing buildings, towers, poles, or other existing support structures; and,	

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		d. Are painted, camouflaged, or textured in a manner as to reduce their visual impacts. **Mitigation Measures** *None Required.*	
		4.14 Recreation	
4.14-1 Impacts related to neighborhood and regional parks or other recreational facilities.	LTS	**Proposed General Plan Update** Goal 6.A To establish and maintain a public park system, recreational, and civic facilities suited to the needs of Wheatland residents, employees, and visitors. Policy 6.A.1. The City shall initiate the financing, design, and development of a City-owned community park adjacent to the new Civic Center site, in accordance with the Land Use Diagram. Policy 6.A.2. The City shall develop and promote the use of its park system to include a balance of passive and active recreation opportunities. Policy 6.A.3. The City shall strive to achieve the following standards for the development of City-owned park facilities, shown in Table 4.14-1. Policy 6.A.4. The City shall require new development to provide a minimum of 5 acres of parkland for every 1,000 new residents. Policy 6.A.5. The City shall strive to achieve the standards shown in	N/A

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			Table 4.14-2 for existing or new sports and recreational facilities. These standards may be satisfied through any combination or joint development of public facilities, private recreational facilities, and school facilities.	
		Policy 6.A.6.	The City shall recognize that standards for neighborhood park acreage are distinct from standards for sports fields and facilities acreage for baseball, softball, and soccer fields, skate parks, pools, gyms, and youth, senior, or civic centers.	
		Policy 6.A.7.	The City shall seek to establish and maintain a linear park system of greenbelts, bicycle paths, and pedestrian walkways that link city park facilities and other key destinations. This linear park system should not be counted towards meeting acreage standards for neighborhood or community parks and recreation facilities.	
		Policy 6.A.8.	The City shall ensure that appropriate funding mechanisms are identified to adequately fund the development of new parks and recreational facilities and the redevelopment of existing parks and recreational facilities.	
		Policy 6.A.9.	The City shall ensure that appropriate funding mechanisms are identified to cover the cost of maintaining parks and recreational facilities on an ongoing basis.	
		Policy 6.A.10.	The City shall consider the following factors in the design of new parks:	

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		a. Safety b. Security c. Maintenance d. Accessibility e. Landscaping complimentary to the surrounding environment f. Travel distance of users g. Passive vs. active use areas h. Restroom facilities i. Citizen input j. Adequacy of off-street parking k. Flexibility for programming activities Policy 6.A.11. The City shall investigate the potential for joint use agreements with the school districts for the use of shared-use park and school facilities. Policy 6.A.12. The City shall encourage local service clubs and non-profit organizations to participate in the development and improvement of City parks and recreation facilities. Policy 6.A.13. The City shall encourage the establishment or joint development of commercial or private recreation facilities within the Wheatland area.	

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 6.A.14. The City shall ensure that recreation facilities are sited to minimize negative impacts (i.e., parking, night lighting, excessive noise) on surrounding neighborhoods. Policy 6.A.15. The City shall prepare and implement a Parks Master Plan. Policy 6.A.16. The City shall provide supervision of park areas to protect the rights of the users of the parks and reduce vandalism, and shall work with law enforcement agencies to eliminate crime at parks and recreation facilities. Goal 6.B To develop a permanent, centralized home for City departments, while providing valuable public services and facilities within the Downtown area of Wheatland. Policy 6.B.1. The City shall develop a site plan for a Civic Center. Policy 6.B.2. The City shall develop the Civic Center, which will serve as the community gathering place and center for community events and recreation. The Civic Center shall reflect community history and help to establish the Downtown as a vibrant community center. Policy 6.B.3. The City shall develop the Civic Center to accommodate the Police Department, Fire Department, City Library and City Hall, and for possible expansion of Public Works and other City Departments as needed.	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 6.B.4. The City shall locate the Civic Center west of the proposed Community Park along Spenceville Road (see the Land Use Diagram). Policy 6.B.5. The City shall actively seek funding for, and involve youth in the planning of, a citywide youth recreation center to be located on the Civic Center site, which will include gymnasium, game rooms, meeting rooms, offices, and a patio area. Goal 6.C To provide facilities which bring citizens together to meet their social, cultural, recreational, and educational needs. Policy 6.C.1. The City shall actively seek funding for, and involve senior citizens in the planning of, either the expansion of the current Senior Center or establishment of a new larger Senior Center. The Senior Center should include meeting rooms, offices, game rooms, dining areas/kitchens, and a patio area. Policy 6.C.2. The City shall site the Senior Center so that it is easily accessible to transit, the library and Civic Center, medical facilities, and other key destinations within the City. **Mitigation Measures** *None Required.*	
4.14-2 Impacts related to preservation and enhancement of open space lands.	LTS	**Proposed General Plan Update** Goal 6.A To establish and maintain a public park system, recreational, and civic facilities suited to the needs of	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Wheatland residents, employees, and visitors.	
		Policy 6.A.7. The City shall seek to establish and maintain a linear park system of greenbelts, bicycle paths, and pedestrian walkways that link city park facilities and other key destinations. This linear park system should not be counted towards meeting acreage standards for neighborhood or community parks and recreation facilities.	
		Policy 6.A.14. The City shall ensure that recreation facilities are sited to minimize negative impacts (i.e., parking, night lighting, excessive noise) on surrounding neighborhoods.	
		Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.	
		Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible.	
		Policy 8.D.2. The City shall, where appropriate, permanently protect as open space areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains.	
		Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 8.D.4. The City shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems. Policy 8.D.5. The City shall encourage the development of natural open space areas in regional, community, and neighborhood parks. Policy 8.D.6. The City shall serve as the steward of public open space and ensure that the use and maintenance of the open space is carried out in an environmentally-responsible manner. Policy 8.D.7. The City shall plan and establish natural open space parkland as a part of the overall City park system. **Mitigation Measures** *None Required.*	
4.15 Transportation and Circulation			
4.15-1 Development associated with the proposed General Plan Update would result in the increase of traffic volumes.	S	**Proposed General Plan Update** Goal 2.A To provide for the long-range planning and development of the City's roadway system to ensure the safe and efficient movement of people and goods. Policy 2.A.1. The City shall plan, design, and regulate the development of the City's street system in accordance with the functional classification system described in this chapter and reflected in the Circulation Diagram and the City's	SU

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Street Standards and Specifications. Policy 2.A.2. The City shall develop and manage its roadway system to maintain LOS "C" or better on all roadways, except within one-quarter mile of state highways. In these areas, the City shall strive to maintain LOS "D" or better. Policy 2.A.3. The City shall identify economic, design and planning solutions to improve existing levels-of-service currently below the LOS specified above. Where physical mitigation is infeasible, the City shall consider developing programs that enhance alternative access or otherwise minimize travel demand. Policy 2.A.4. The City shall assure that new development effectively links both sides of State Route 65 and the railroad tracks at the north and south ends of town. Policy 2.A.5. The City shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile and by promoting pedestrian, bicycle, and transit connections between employment areas and major residential and commercial areas. Policy 2.A.6. The City shall require an analysis of the effects of traffic from proposed major development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		that provide benefits to others. Policy 2.A.7. The City shall proactively pursue financing in a timely manner for all components of the transportation system, particularly an eastern alignment of the State Route 65 bypass, to achieve and maintain adopted level of service standards. Policy 2.A.8. The City shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system. Policy 2.A.9. The City shall limit private access along arterial streets wherever possible. Policy 2.A.10. The City shall give priority to street and highway improvements that increase safety, minimize maintenance costs, and increase the efficiency of the street system. Policy 2.A.11. The City shall ensure that highways and arterial streets within its jurisdiction provide for the efficient flow of traffic. Therefore, the following shall be undertaken: • Minimize the number of intersections along arterials. • Reduce curb cuts along arterials through the use of common access easements, backup lots and other design measures. • Provide grade separations at all major railroad crossings	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		with arterials, except for an at-grade crossing of the major arterial in the north. • Extend arterials over waterways, railroads and through developed and undeveloped areas to provide for the continuous flow of through traffic and appropriate area access. **Mitigation Measures** *None Feasible.*	
4.15-2 Increased Delays at Intersections within the Wheatland study area.	S	**Proposed General Plan Update** Goal 2.A To provide for the long-range planning and development of the City's roadway system to ensure the safe and efficient movement of people and goods. Policy 2.A.10. The City shall give priority to street and highway improvements that increase safety, minimize maintenance costs, and increase the efficiency of the street system. Policy 2.A.11. The City shall ensure that highways and arterial streets within its jurisdiction provide for the efficient flow of traffic. Therefore, the following shall be undertaken: • Minimize the number of intersections along arterials. • Reduce curb cuts along arterials through the use of common access easements, backup lots and other design measures. • Provide grade separations at all major railroad crossings with arterials, except for an at-grade crossing of the	SU

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		major arterial in the north. • Extend arterials over waterways, railroads and through developed and undeveloped areas to provide for the continuous flow of through traffic and appropriate area access. **Mitigation Measures** *4.15-2* *Prior to initiating roadway improvements, the plans for the Ring Road shall identify an overlap for the right turning vehicles and exclusion of westbound "U" turns from southbound SR 65 at the Ring Road. The plans shall be reviewed and approved by the City Engineer.* Since the preparation of the traffic study, the City has been considering a separated-grade crossing for the North Ring Road / SR 65 intersection. Therefore, the above intersection improvement may not be appropriate. Furthermore, the above improvements may not be feasible due to the uncertainty as to whether the Public Utilities Commission (PUC) or the Union Pacific Railroad (UPRR) would agree to another at-grade crossing. As a result, the impact would remain *significant and unavoidable*.	
4.15-3 Transit System Issues.	LTS	**Proposed General Plan Update** Goal 2.E To promote a safe and efficient transit system to reduce congestion, improve the environment, and provide viable non-automotive means of transportation in and through Wheatland. Policy 2.E.1. The City shall work with Yuba-Sutter Transit to implement bus transit services that are timely, cost-effective, and responsive to growth patterns and existing and future	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		transit demand. Policy 2.E.2. The City shall consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act. Policy 2.E.3. The City shall consider families' needs in transportation planning efforts and shall promote safe and convenient methods of transportation between school, home, retail shopping, and child care. Policy 2.E.4. The City shall encourage the creation of rail transit to link Wheatland with Marysville/Yuba City and the Sacramento Area. **Mitigation Measures** *None Required.*	
4.15-4 Street Safety Issues.	LTS	**Proposed General Plan Update** Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland. Policy 1.I.3. The City shall promote good neighbor policy between residential property owners and adjacent farming operations by supporting the right of the farmers and ranchers to conduct agricultural operations in compliance with state laws. Goal 2.A To provide for the long-range planning and development of	LTS

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***		***Level of Significance after Mitigation***
			the City's roadway system to ensure the safe and efficient movement of people and goods.	
		Policy 2.A.1.	The City shall plan, design, and regulate the development of the City's street system in accordance with the functional classification system described in this chapter and reflected in the Circulation Diagram and the City's Street Standards and Specifications.	
		Goal 2.C	To protect residential areas from high-volume and high-speed traffic and its effects and promote bicycling and walking on residential streets.	
		Policy 2.C.1.	The City shall consider the effects of new development on local streets in residential areas and require new development to mitigate significant impacts on residential neighborhoods.	
		Policy 2.C.2.	The City shall promote street, alley, and sidewalk maintenance to encourage their safe use.	
		Policy 2.C.3.	The City shall consider future needs for street and sidewalk maintenance in approving new development.	
		Policy 2.C.4.	The City shall require ADA compliance for existing and proposed street sidewalks.	
		Policy 2.C.5.	The City shall promote elderly friendly roadways, including the use of bikeways for golf carts and motorized	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		wheelchairs. Goal 9.A — To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions. Policy 9.A.1. — The City shall prepare and regularly update emergency services plans. Policy 9.A.9. — The City shall coordinate disaster preparedness planning with other public agencies and organizations. **Mitigation Measures** *4.15-4* — *The City shall design and implement a farm equipment and local roadway program to reduce the conflicts of urban traffic with farming operations. This program may include:* *a. Installation and maintenance of traffic warning signs along City roads that are used by farm equipment.* *b. The City shall require that all farm equipment traveling on city roads must:* *i. Operate only on local roads;* *ii. Operate during daylight hours, unless absolutely necessary and only when vehicle and equipment is adequately lighted for night travel;* *iii. Display slow-moving-vehicle (SMV) signs if traveling slower than 25 mph;*	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		iv. Not allow extra riders at any time for any reason; *v. Equip large trailers or equipment with separate brakes;* *vi. Securely tie down all equipment to transport trailers and/or truck beds;* *vii. Maintain speeds that are appropriate for the area, road conditions, and time of the year;* *viii. To the extent possible, make equipment as compact and narrow for the road;* *ix. Use pilot vehicles with flashing amber lights and oversized load signs to assist large machines, such as combines; and* *x. Drive slow moving vehicles as far to the right as possible while remaining on the road.*	
4.15-5 Potential conflicts for pedestrian and bicyclists.	LTS	**Proposed General Plan Update** Goal 2.F To provide a safe, comprehensive, and integrated system of facilities for non-motorized transportation for both transportation and recreation. Policy 2.F.1. The City shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provide connections between the city's major employment and housing areas, between its existing and planned bikeways, and between schools, parks, retail shopping, and residential neighborhoods. Policy 2.F.2. The City shall require developers to finance and install pedestrian pathways, bikeways, and multi-purpose paths in new development, as appropriate.	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 2.F.3. The City shall encourage the development of adequate, convenient, and secure bicycle parking at employment centers, schools, recreational facilities, transit terminals, commercial businesses, the Downtown, and in other locations where people congregate. Policy 2.F.4. The City shall consider the needs of bicyclists when new roadways are constructed and existing roadways are upgraded. Policy 2.F.5. The City shall consider the needs of bicyclists when determining street widths. Policy 2.F.6. The City shall develop safe and pleasant pedestrian ways. To this end, the City shall ensure sidewalks are wide enough for pedestrian convenience. Policy 2.F.7. The City shall cooperate with the schools in maintaining and updating the Safe Routes to School program. Policy 2.F.8. The City shall require crosswalks and other pedestrian safety measures be designed and installed according to City of Wheatland Ordinances. Policy 2.F.9. The City shall encourage major employment centers (50 or more total employees) to install showers, lockers, and secure parking areas for bicyclists as part of any entitlement.	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 2.F.10. The City shall ensure that bikeways are maintained in a manner that promotes their local and regional use. **Mitigation Measures** *None Required.*	
4.15-6 Parking Related Issues.	LTS	**Proposed General Plan Update** Goal 2.D To provide a sufficient amount of convenient, available, accessible, safe, and attractive parking to serve existing and new development throughout the City as needed. Policy 2.D.1. The City shall require provision of adequate off-street parking in conjunction with new development. The adequacy and appropriateness of parking requirements in the Zoning Ordinance shall be periodically reevaluated. Policy 2.D.2. The City shall require that parking lots be designed for maximum pedestrian safety and convenience, motorist convenience and safety, and handicapped access. Policy 2.D.3. The City shall continue to implement Zoning Ordinance parking standards that establish minimum and maximum number of spaces for parking lots. Policy 2.D.4. The City shall require new parking lots to be designed to minimize visual impacts on public roadways and neighboring areas. Policy 2.D.5. The City shall allow shared parking where different	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		adjacent uses generate peak parking demand at different times. **Mitigation Measures** *None Required.*	
4.15-7 Air Traffic Impacts.	LTS	**Proposed General Plan Update** Goal 2.G To support the continued operation of Beale Air Force Base and its associated facilities while ensuring compatibility between urban development in Wheatland and aircraft operations. Policy 2.G.1. The City shall work closely with appropriate agencies, including Beale Air Force Base and the Sacramento Area Council of Governments (SACOG), to ensure compatibility of land uses that fall within over-flight zones. Policy 2.G.2. The City shall work with Beale Air Force Base to coordinate changes to their flight patterns with land use decisions. **Mitigation Measures** *None Required.*	N/A
4.15-8 Cumulative Traffic Impacts.	S	**Proposed General Plan Update** *N/A* **Mitigation Measures** *None Feasible.*	SU
4.16 Utilities and Service Systems			
4.16-1 Increased demand for water.	PS	**Proposed General Plan Update** Goal 5.C To ensure a safe and reliable water supply sufficient to	LTS

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		meet the future needs of the city. Policy 5.C.1. The City shall protect the groundwater basin from overdraft from City use of groundwater. To this end, the City shall study, working closely with other public and private entities as deemed appropriate, the safe yield of the groundwater basin. Water management programs such as conjunctive use and recharge programs will also be considered. The City shall use this information to determine the most appropriate long-term water supply to serve Wheatland. Policy 5.C.2. If the results of studies undertaken pursuant to Policy 5.C.1 indicate an imbalance between safe groundwater yield and projected water requirements, the City shall develop a response plan to address the imbalance. This response plan will include an appropriate mix of water conservation measures, reuse, surface water supplements, and other water management techniques. Policy 5.C.3. The City shall promote efficient water use and reduced water demand by: a. Requiring water-conserving building design and equipment in new construction; b. Encouraging water-conserving landscaping and other conservation measures; and c. Encouraging retrofitting of existing development with water-conserving devices.	

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 5.C.4. The City shall work with other agencies to promote water conservation measures countywide for both urban and agricultural uses. Policy 5.C.5. The City shall only approve new development that relies on an adequate City water supply and delivery system. Policy 5.C.6. The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands. Policy 5.C.7. The City shall investigate processes for monitoring water demand growth trends to anticipate water supply needs. Policy 5.C.8. The City shall monitor water quality regularly to ensure that safe drinking water standards are met and maintained in accordance with State and EPA regulations and take necessary measures to prevent contamination. Policy 5.C.9. The City shall ensure that water supply capacity and infrastructure are in place prior to granting building permits for new development. Policy 5.C.10. The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Policy 5.C.11. The City shall ensure adequate water pressure throughout the urban area for fire protection purposes. **Mitigation Measures** *4.16-1* *In conjunction with submittal of a tentative map application for a subdivision that would increase water connections by 10 percent or more, a Water Supply Assessment consistent with the requirements of SB 610 and 221 shall be submitted for review and approval of the City Engineer.*	
4.16-2 Capacity at wastewater treatment facility.	LTS	**Proposed General Plan Update** Goal 5.D To ensure adequate wastewater collection and treatment and the safe disposal of wastes. Policy 5.D.1. The City shall complete a Wastewater Treatment Master Plan that identifies treatment facility and collection system location and size to serve the needs of the expanding city. Policy 5.D.4. The City shall comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants to surface waters. Policy 5.D.5. The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Mitigation Measures *None Required.*	
4.16-3 Impacts related to wastewater conveyance system.	LTS	**Proposed General Plan Update** Goal 5.D To ensure adequate wastewater collection and treatment and the safe disposal of wastes. Policy 5.D.1. The City shall complete a Wastewater Treatment Master Plan that identifies treatment facility and collection system location and size to serve the needs of the expanding city. Policy 5.D.2. The City shall require all sewage generators within its service area to connect to the City's system. Policy 5.D.3. The City shall require that collection systems be designed on a gravity-flow basis except where a site-specific engineering analysis clearly demonstrates the long-term cost-effectiveness or need for pumped facilities. Policy 5.D.4. The City shall comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants to surface waters. Policy 5.D.5. The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.	N/A

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Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		Mitigation Measures *None Required.*	
4.16-4 Impacts related to the provision of solid waste service.	LTS	**Proposed General Plan Update** Goal 5.F To ensure the safe and efficient disposal or recycling of solid waste generated in Wheatland. Policy 5.F.1. The City shall require waste collection in all new developments. Policy 5.F.2. The City shall promote maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes. Policy 5.F.3. The City shall participate in regional or countywide studies and solutions for solid waste disposal problems. Policy 5.F.4. The City shall encourage recycling in public and private operations to reduce demand for solid waste disposal capacity. Policy 5.F.5. The City shall investigate using recycled materials and products where economically feasible. Policy 5.F.6. The City shall require the proper disposal and recycling of hazardous materials. Policy 5.F.7. The City shall require the recycling of construction debris. Policy 5.F.8. The City shall ensure that all new development has	N/A

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	***Level of Significance prior to Mitigation***	***Mitigation Measures***	***Level of Significance after Mitigation***
		appropriate provisions for solid waste storage, handling, and collection pickup. **Mitigation Measures** *None Required.*	

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3. PROJECT DESCRIPTION

Introduction

The proposed project analyzed in this Draft EIR is the adoption and implementation of the *Wheatland General Plan Update.* The primary components of the General Plan Update include guiding principles, a land use diagram, and goals and policies. This chapter summarizes the provisions of the proposed General Plan.

California Government Code Section 65300 et seq. mandates that all cities prepare a General Plan that establishes policies and standards for future development, housing affordability, and resource protection. State law encourages cities to keep general plans current through regular updates. Furthermore, each city's General Plan must include the following elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. Additional elements may be included in the General Plan, at the discretion of the City.

Project Location

Wheatland is located in Northern California's Central Valley along State Route 65 in Yuba County. The City is located approximately one mile north of the Bear River and the tri-County boundary of Sutter, Placer, and Yuba Counties. Marysville (the county seat) and Yuba City, which are both about twelve miles to the north of Wheatland, are the closest cities of significant size (see Figure 3-1). Sacramento is approximately forty miles to the south and Beale Air Force Base is located eight miles to the northeast. Wheatland is also the gateway city to Camp Far West, a recreation area of regional significance. From the City's nineteenth century agrarian roots to the community of today, Wheatland has remained valued by its residents for its small town atmosphere and rural setting.

The City of Wheatland has two municipal boundaries, including the City limits and the City's Sphere of Influence. In addition, a study area boundary which is considered a non-municipal boundary has been created for the purposes of this General Plan Update (GPU) (see Figure 3-2). The study area boundary represents all land to be analyzed in the GPU process.

City Limits

The city limits represent all incorporated lands that are governed by the City of Wheatland. The city limits run approximately from Grass Hopper Slough in the north to Sixth Street in the south and from Wheatland Cemetery in the west to the Wheatland Park subdivision in the east. The total land area within the city limits is approximately 504 acres, or 0.8 square miles.

Figure 3-1
Regional Location Map

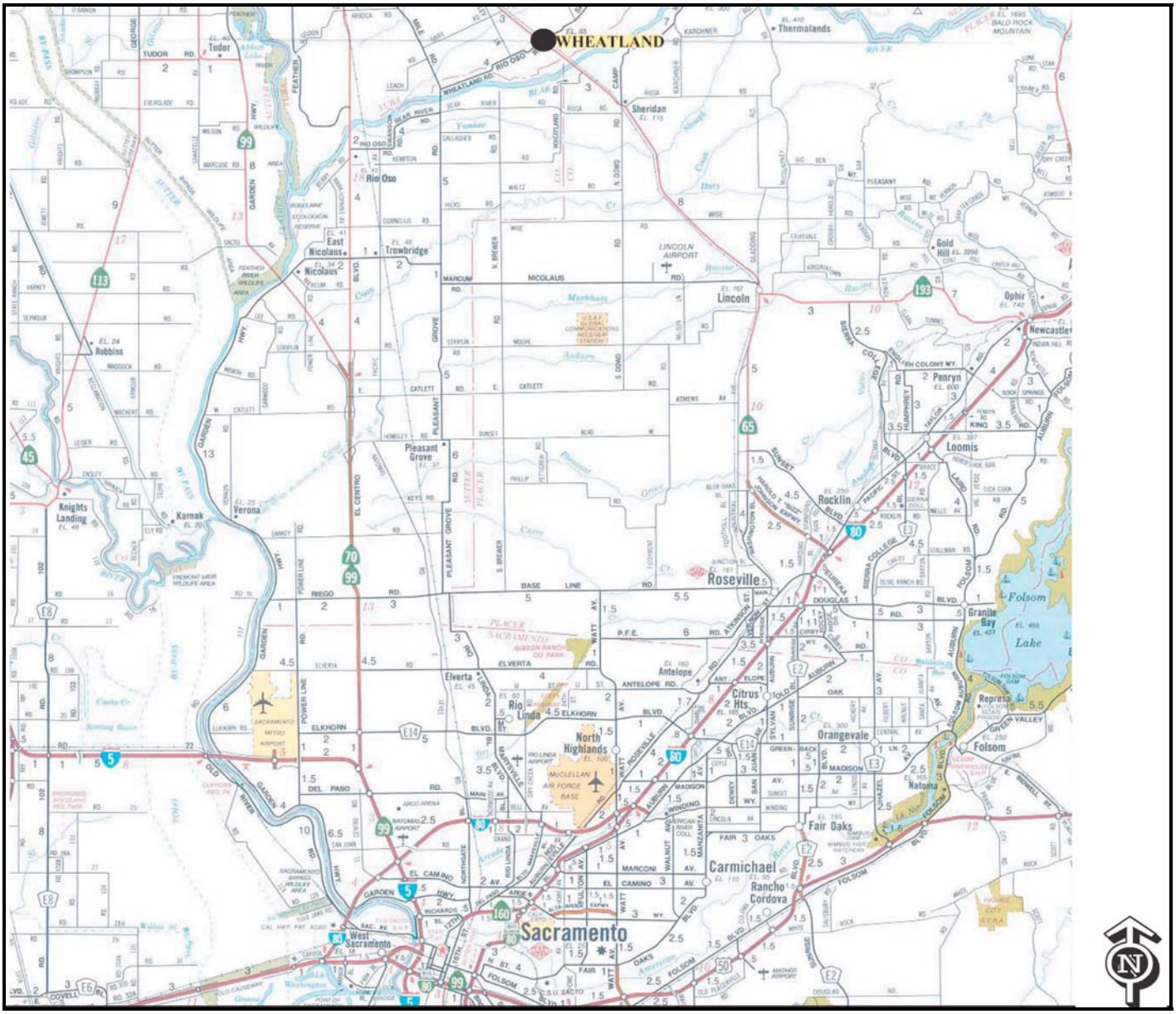
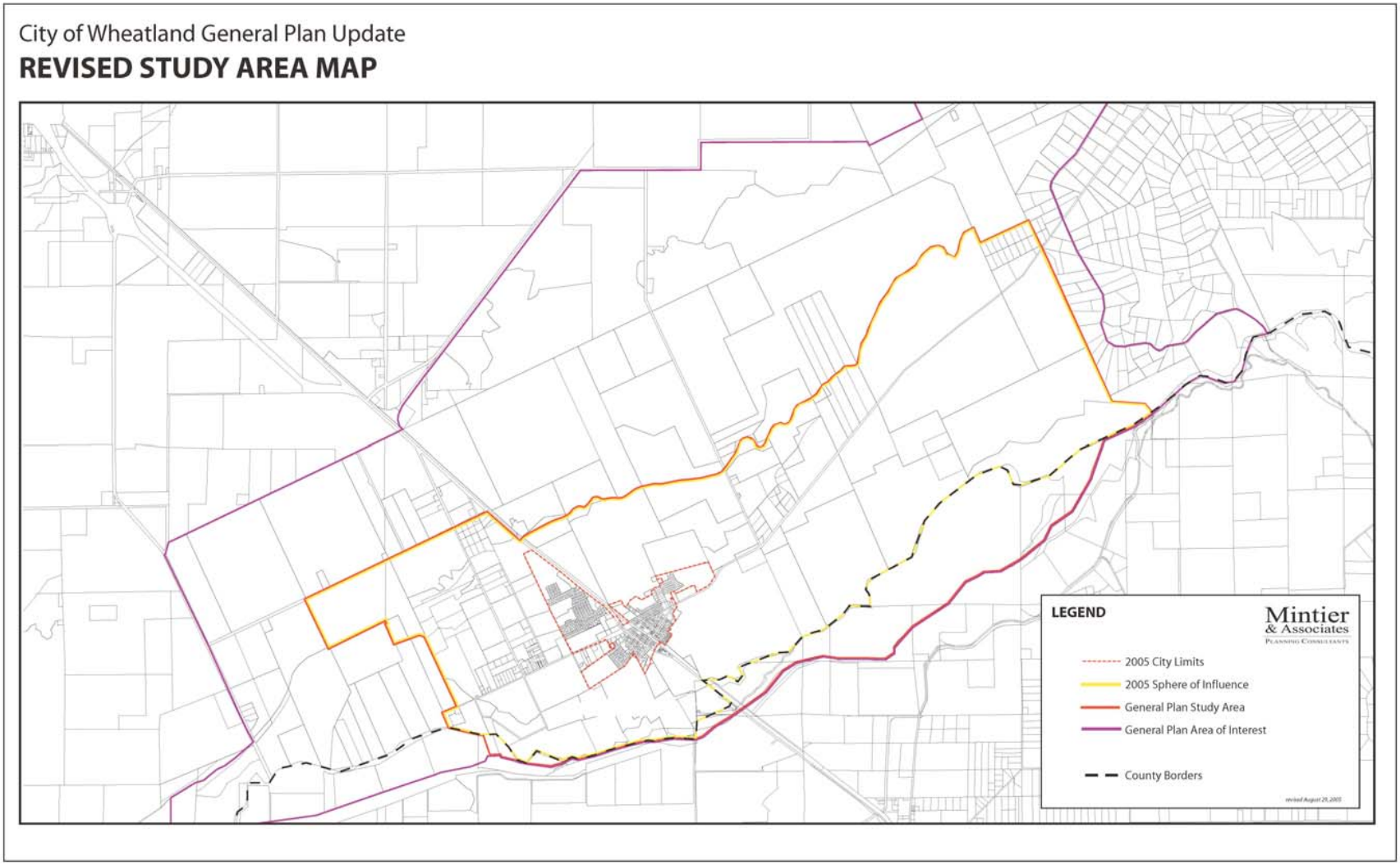


Figure 3-2
General Plan Study Area



Sphere of Influence

A Sphere of Influence (SOI) is an area designated as the physical boundaries and service area of a local governmental agency, as determined by the applicable Local Agency Formation Commission (LAFCO), and is periodically reviewed and updated. Wheatland's SOI was adopted by the Yuba County LAFCO on June 7, 1995. The boundary borders Dry Creek to the north, the county line to the south, Ace Hardware to the west, and almost reaches Camp Far West Road to the east. The Sphere of Influence encompasses approximately 8,636 acres.

General Plan Study Area

The study area includes the area for which the City has interest regarding future developments and their associated impacts on Wheatland. The study area runs parallel to the Sphere of Influence along the northern and eastern borders, and extends to the Bear River in the south, and continues from ACE Hardware in the west (SOI line). The study area encompasses approximately 10,420 acres.

Objectives of the General Plan

CEQA Guidelines Section 15124(b) requires a description of project objectives. This section outlines the objectives and guiding principles of the General Plan. The proposed General Plan is intended to replace the existing General Plan in all elements, including the Housing Element. The proposed General Plan also establishes a planning framework and policies out to a horizon of 2025.

The objectives in the General Plan are as follows:

- To guide the physical development of Wheatland over the next 20 years.
- To allow for future development within the Wheatland Planning Area, while preserving the City's existing identity and character.
- To ensure the community infrastructure keeps pace with development.
- To ensure the provision of a safe and convenient circulation system in the City of Wheatland.
- To encourage future economic growth within the City of Wheatland, while also providing adequate housing for all economic segments of the community.
- To provide economic growth that balances the existing development and future growth in Wheatland.
- To preserve agricultural land and uses in and adjacent to Wheatland and to ensure that there are open space buffers between Wheatland and surrounding cities.
- To protect current and future Wheatland residents from adverse effects of noise and other potential environmental hazards.
- To preserve and maintain the natural resources and features in Wheatland that contribute to the City's unique community character and quality of life.

- To ensure compatibility between existing and future land uses.
- To identify the City's land uses, circulation, environmental, economic, and social goals and policies as they relate to future growth and development.
- To provide the basis for the City's decisions on development approvals and exactions.
- To provide citizens with opportunities to participate in the planning and decision-making process of the City.
- To inform citizens, developers, decision makers, and other cities and counties of the ground rules that guide development in the City.
- To establish growth assumptions for the City's infrastructure planning and financing.

Project Components

California Government Code Section 65300 defines a General Plan as "a comprehensive, long-term plan for the physical development of the county or city, and any land outside its boundaries, which in the planning agency's judgment, bears relation to its planning." State requirements call for general plans that "comprise an integrated, internally consistent and compatible statement of policies for the adopting agency."

A city's general plan has been described as its constitution for development – the framework within which decisions on how to grow, provide public services and facilities, and protect and enhance the environment must be made. California's tradition of allowing local authority over land use decisions means that the cities have considerable flexibility in preparing their general plans.

While they allow considerable flexibility, state planning laws do establish some requirements for the issues that general plans must address. The California Government Code establishes both the content of general plans and rules for their adoption and subsequent amendment. Together, state law and judicial decisions establish three overall guidelines for general plans.

- *The General Plan Must Be Comprehensive*. This requirement has two aspects. First, the general plan must be geographically comprehensive. That is, it must apply throughout the entire incorporated area and should include other areas that the City determines are relevant to its planning. Second, the general plan must address the full range of issues that affects the City's physical development.

- *The General Plan Must Be Internally Consistent.* This requirement means that the general plan must fully integrate its separate parts and relate them to each other without conflict. "Horizontal" consistency applies as much to figures and diagrams as to the general plan text. It also applies to data and analysis as well as policies. All adopted portions of the general plan, whether required by state law or not, have equal legal weight. None may supersede another, so the general plan must resolve conflicts among the provisions of each element.

- *The General Plan Must Be Long-Range*. Because anticipated development will affect the City and the people who live or work there for years to come, State law requires every general plan to take a long-term perspective.

General Plan Elements

The State of California Office of Planning and Research indicates that seven (7) elements are required in a General Plan. Therefore, the Wheatland General Plan Update includes the following seven (7) elements: Land Use; Circulation; Housing; Conservation; Open Space; Noise and Safety (See Table 3-1).

Table 3-1
Organization of General Plan Elements

General Plan Element	Topics Addressed by Element	Required by State Law
Land Use and Community Character	This element includes proposed use classifications, distribution of land uses via the General Plan diagram, buildout projections, and land use policies.	Land Use
Transportation and Circulation	This element includes existing and proposed location of the roadway network, transit systems, bikeways and pedestrian paths, as well as scenic roadways.	Circulation
Economic Development	Economic and employment trends, redevelopment activities, and economic development strategies are presented in this element.	N/A
Housing	This element consists of an update to demographic trends, housing characteristics, housing costs, development potential, constraints, and special housing needs. The City's 1992 Housing Element policies are reviewed, and accomplishments noted. Housing opportunity sites are identified, in addition to a discussion of quantified objectives. Housing policies address rehabilitation, affordable housing, conversion, homeless shelters, and energy efficiency.	Housing
Public Services and Facilities	Parks and recreation, public schools, water supply and conservation, sewer collection, solid waste, and fire and police protection are all addressed in this element.	N/A
Recreational, Educational, and Community	This element includes goals, policies, and implementation programs that establish the framework for the provision of recreational, educational, and community services for Wheatland residents and visitors.	N/A
Historic Preservation	This element identifies historic structures and preservation districts within the City. Goals and policies are presented to ensure conservation, rehabilitation and reuse, as appropriate.	N/A
Environmental Resources	This element includes analysis of open space, agricultural resources, biological resources, and air quality.	Conservation; Open Space
Health and Safety	Noise, geology and seismicity, flooding, hazardous materials, and wildfires are all addressed in this element. Geologic, seismic, and flooding hazards are mapped. Discussion of noise includes noise sources, projected noise contours, and mitigation policies.	Safety; Noise

Services and Administration	This element identifies goals, policies, and programs to ensure that the City of Wheatland maintains a high level of attention to the General Plan by providing for regular review and updating of the *Policy Document* and *Background Report* and ensuring that other City regulations and ordinances are consistent with the General Plan.	N/A
N/A = Not applicable; Element is not required by State Law		

Project Characteristics

General Plan Land Use Diagram and Acreage Summary

The proposed General Plan Update specifies land uses for the area within the existing city limits and the area outside the existing city limits, but within the Study Area. This area is expected to ultimately be built out for urban uses, but would not be developed within the 20-year planning horizon on this General Plan Update. Furthermore, General Plan amendments and environmental review would be required prior to any development in the Urban Reserve areas.

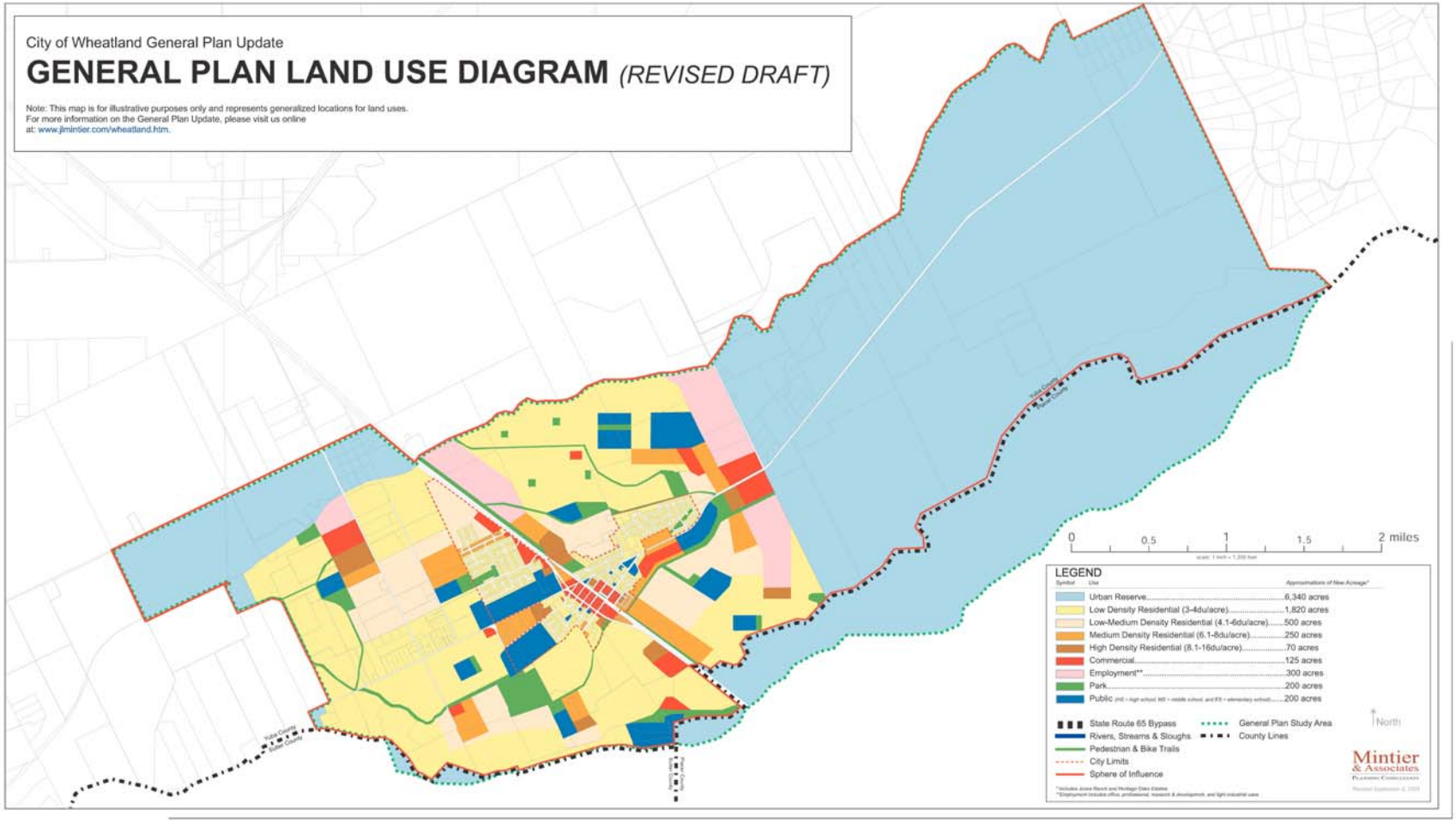
The General Plan Land Use Diagram depicts a generalized concept plan (Figure 3-3). The colors on the diagrams represent different uses of land (see legends). The following guiding principles were used in creating the Land Use Diagram.

- Balance development on both sides of existing SR 65, and Union Pacific railroad tracks.
- Reinforce downtown as the traditional and cultural core of the City, but not as the central commercial district.
- Emphasize neighborhood-oriented growth to retain a small town feel.
- Create a strong local employment base.
- Plan for the City to accommodate eventual development of a SR 65 bypass on either the east *or* west side.

In addition, key concepts and ideas used for drafting the Land Use Diagram are shown in Table 3-2.

Table 3-2 Key Concepts and Ideas for Drafting the Land Use Diagram	
Circulation System	• Major roads and utilities sized to handle growth. • A roadway system that effectively links both sides of town with overpasses across SR 65 and the railroad tracks at the north and south ends of the city. • Easy access to employment, commercial, schools, and the Civic Center. • Pedestrian/bike trails across SR 65 and the Union Pacific RR tracks, linking parks, schools, high density residential, and retail. • Neighborhood connectivity – walkable community (i.e., ¼ mile walking distances from residential to schools / commercial).
Land Use Pattern and Relationships	• New development based on village/clustering concept. • Residential neighborhoods organized around elementary schools, neighborhood commercial, and neighborhood parks. • Higher density housing near employment. • Develop historic center of Wheatland Front Street, Red School House, and Hop Farm. • Prefer low to medium-density homes.
Specific Use and Facility Needs	• Downtown revitalization. • A functional, accessible Civic Center/City Hall. • Regional park.
Conservation and Open Space	• Preservation and enhancement of natural riparian drainage corridors. • Greenbelt on east side by oak grove/sewer treatment plant. • Preserve riparian habitats of Dry Creek and the Bear River.
Quality of Life	• Recreational areas (parks/recreational areas, bike trails, etc.) consistent with common standards. • A healthy, functional mix of residential, commercial, and jobs. • Neighborhood-oriented development. • Emphasis on historic preservation.
Source: J. Laurence Mintier & Associates, 2004	

Figure 3-3
General Plan Land Use Diagram



According to Table 3-3, the proposed General Plan would provide for, upon ultimate buildout of the entire Planning Area, approximately 2,640 acres for residential uses, and 300 areas for employment uses. At this level of buildout, the jobs-housing ratio would be adequate to meet the assumed development intensities of Wheatland. In addition, public services including schools and parks encompass 400 acres of the overall Land Use Diagram, which would support the population increase from development activities.

Table 3-3
General Plan Land Use Diagram

Land Use	Approximations of New Acreage
Urban Reserve (mostly within SOI, east of Study Area)	4,700 acres
Low Density Residential (3-4 du/acre)	1,820 acres
Low-Medium Density Residential (4-6 du/acre)	500 acres
Medium Density Residential (6-8 du/acre)	250 acres
High Density Residential (8-16 du/acre)	70 acres
Commercial	125 acres
Employment (Includes office, professional, research & development, and light industrial uses)	300 acres
Park	200 acres
Public (High School (HS), Middle School (MS), and Elementary School (ES))	200 acres
Source: Mintier & Associates: Planning Consultants	

Key Infrastructure

Proposed SR 65 Bypass

A city is both defined and constrained by the network of highways, roads, and railroad that move its residents and goods through, and in and out of the city. While Wheatland is not a large city, mobility through the Wheatland is hindered by congestion on State Route 65. The proposed General Plan improvements to the regional transportation system are shown in the General Plan Land Use Diagram, where an eastern bypass to State Route 65 would redirect traffic around the City. The bypass is expected to have a significant affect on land uses, given the accessibility and visibility. Much of the future commercial and employment development in the Wheatland Study Area is located near the bypass. Chapter 4.15 of this EIR provides a detailed analysis of the SR 65 bypass and its effects on traffic operations within the City.

Proposed Wastewater Treatment Plant

The existing wastewater collection system and treatment plant is adequate to serve the existing city limits only. A new plant is likely to be located west of SR 65, due to the westward-sloping terrain. Two location options are being considered, as shown in Figure 3-3. The locations are: 1) northwest portion of the Study Area near Dry Creek; and 2) southwest portion of the Study Area near the Bear River. The wastewater collection system will be designed once a treatment site is selected. Chapter 4.16 of this EIR includes a detailed analysis of the wastewater system requirements needed to serve the General Plan buildout.

4.0 INTRODUCTION TO THE ANALYSIS

Introduction

Chapter 4 analyzes the potential impacts of the proposed project on a range of environmental issue areas. Sections 4.1 through 4.16 describe the focus of the analysis, references and other data sources for the analysis, the environmental setting as it relates to the specific issue, project-specific impacts and mitigations measures, and cumulative impacts of the proposed project for each issue area. Impacts associated with the construction of infrastructure are also evaluated in the individual environmental issue areas examined in this Draft EIR (such as noise, transportation, and biological resources.) The format of each of these sections is described below.

Determination of Significance

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code § 21068). The Guidelines implementing CEQA direct that this determination be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified within the impact discussion in each section, and are consistent with significance criteria set forth in the CEQA Guidelines.

Issues Addressed in this Draft EIR

Consistent with the conclusions of the Initial Study, the following environmental issues are addressed in this chapter of the Draft EIR:

- aesthetics;
- agricultural resources;
- air quality;
- biological resources;
- cultural resources;
- geology and soils;
- hazards and hazardous materials;
- hydrology and water quality;
- land use/ planning;
- mineral resources;
- noise;
- population and housing;
- public services and utilities;
- recreation and open space;
- transportation and circulation, and;
- utilities and service systems

Section Format

Each section in Chapter 4 addressing a specific environmental issue begins with an **Introduction** describing the purpose of the section. This is followed by a description of the project **Setting** as it pertains to that particular issue. The setting description is followed by the **Regulatory Context** and the **Impacts and Mitigation Measures** discussion. This discussion contains the **Significance Criteria**, followed by the **Method of Analysis**. The **Impact and Mitigation** portion of this discussion includes impact statements prefaced by a number in bold-faced type. An explanation of each impact and an analysis of its significance follow each impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement (see below). The degree of relief provided by identified mitigation measures is also evaluated. Each environmental issue will include a discussion of the proposed Jones Ranch project as well as the Island property. An example of the format is shown below:

4.x-1 Statement of Impact

Discussion of impact for the proposed project in paragraph format.

List of applicable goals and policies included in the General Plan.

Statement of ***level of significance*** of impact prior to mitigation is included at the end of each impact discussion.

<u>Mitigation Measure(s)</u>
Statement of level of significance after the mitigation is included immediately preceding mitigation measures.

4.x-1a *Recommended mitigation measure(s) presented in italics and numbered in consecutive order.*

4.x-1b *Mitigation Measure.*

Cumulative Analysis

The Citywide impact analyses in chapters 4.1 through 4.16 are effectively the cumulative impact analyses. The analyses examine the cumulative effects of each resource topic through buildout of the proposed General Plan Update. It should also be stated that other development in Yuba County would result in increased effects to the Wheatland Study Area. For example, the Transportation and Circulation chapter (see Chapter 4.15) includes a qualitative discussion of the cumulative buildout of the Wheatland General Plan Update as well as other development in Yuba County. Other expected development outside of the City's Sphere of Influence, such as the Yuba Highlands project, would result in increased vehicle trips in the Wheatland study area; thereby, contributing to greater traffic loads on City streets.

4.1 AESTHETICS

Introduction

This section of the EIR describes the existing aesthetic values of the study area and assesses the impacts on aesthetics created by the approval of the General Plan Update. The California Environmental Quality Act (CEQA) describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a state scenic highway), and the existing visual character or quality of the study area site. The following impact assessment is based on information provided by the *Wheatland General Plan Update Background Report*[1] *(2004)*.

Environmental Setting

Regional Setting

The City of Wheatland's rural setting provides views of open agricultural areas to the south and west, and the foothills and mountains to the west and north. The urbanized area generally consists of a mix of homes, businesses, churches, and schools of various architectural styles representing different periods dating back to the turn of the century. Wheatland is located in Northern California's Central Valley along State Route (SR) 65 in Yuba County. The City is located approximately one mile north of the Bear River and the tri-county boundary of Sutter, Placer, and Yuba Counties. Marysville (the county seat) and Yuba City, which are both about twelve miles to the north of Wheatland, are the closest cities of significant size. Sacramento is approximately forty miles to the south and Beale Air Force Base is located eight miles to the northeast. Wheatland is also the gateway city to Camp Far West, recreation area of regional significance. From the City's nineteenth century agrarian roots to the community of today, Wheatland has remained valued by its residents for its small town atmosphere and rural setting.

Local Setting – Study Area

Jones Ranch

Wheatland falls within the center of a land grant that dates to 1844 when Don Pablo Guttierez, a Mexican who had been in the employ of Sutter, obtained a grant of five leagues on the north side of Bear River, now known as the Johnson grant. The Guttierez grant, dated December 22, 1844 and initially known as Rancho de Pablo, was sold at auction a year later by Sutter following the death of Guttierez. William Johnson and Sebastian Kyser, who settled there the same year, purchased the grant for $150. After the purchase, the grant was divided, Johnson taking the east half and Kyser the west.

The Rancho soon became known as Johnson's Ranch, and for several years after 1845 was well known as the first settlement reached by overland immigrants after the difficult Sierra Nevada crossing. Considered to be the western terminus of the Overland Emigrant Trail, Johnson's Ranch served as a base for immigrants to recuperate and re-provision, and in 1847 it was the base from which survivors of the Donner Party were rescued.

The boundaries of the ranch are still visible in the pattern of land division and use over 150 years later as shown in Figure 1-7 of the Wheatland General Plan Background Report[1]. The approximate boundary of the Ranch is defined by the Bear River (South), Forty-Mile Road (West – in its north-south alignment), Dairy Road (and its easterly extension – North), and the confluence of the Bear River and Camp Far West Reservoir (East). The entire Sphere of Influence and study area are contained within this historic Ranch boundary. Note that the road and parcel pattern within the Rancho are generally parallel or perpendicular to the original external boundary lines.

As shown in Figure 1-8 of the *Wheatland General Plan Background Report*, the pattern of land division outside the Ranch boundary is in accordance with the uniform system of land division created by the 1805 Public Land Survey System. This system of land division consisted of major divisions into Range and Township designations, as well as finer-grained divisions into "sections" consisting of 640 acres or a square mile in area. 1862 marked the passage of the Homestead Act, and the process of land division in the west started in earnest, including the lands adjacent to Johnson's Ranch. In contrast to these lands, the roads and parcels contained within the area defined by the pre-existing Ranch boundary are predominately aligned approximately 25 degrees counterclockwise to the Public Land Survey System.

Original City Plat

The town of Wheatland was originally laid out in 1866. Figure 1-8, from the General Plan Background report, shows this original city plat. Rather than follow either the Public Land Survey System grid or the predominant orientation within the Johnson Ranch boundaries, this initial grid street system was perpendicular/parallel to the railroad line, completed to Wheatland in 1866 as described below. As a result, the street pattern of the historic core of the City is itself rotated approximately 25 degrees counterclockwise off the predominant road and parcel pattern within the study area, and some 50 degrees counterclockwise from the north-south alignments of the Public Land Survey System.

The blocks in the downtown area are rectangular, approximately 200-250 feet by 400 feet, and laid out in a traditional grid pattern. The historic core of the City consists of an area bounded by A Street on the east and E Street on the West, 1st Street on the North and 6th Street on the South. Due to the particular geometry and geography of the city, these streets define an area containing approximately 18 blocks. These blocks are divided into irregularly sized parcels, although most of the older lots are 50-feet wide.

Landforms and Important Visual Features

In terms of ecological factors, the study area falls within the Lower Sonoran Zone. The area is historically characterized by a Savannah landscape consisting primarily of native grasslands interspersed with valley oak and riparian corridors. Willows, blackberry, and other riparian species still occur along Bear and Dry Creeks, Grasshopper Slough, and other remnant slough channels. The dominant annual grasses such as wild oats, brome grasses, and fescue are dense during the winter and early spring, but dry up rapidly after the season of annual precipitation.

Surface hydrology and the fluvial processes of erosion and deposition are central to the character of the landscape and are readily apparent throughout much of the study area. The Dry Creek-Bear River valley is primarily a level floodplain, with the City of Wheatland occupying an upland erosional remnant between the two watercourses. As shown in Figure 1-9 of the General Plan Background Report, Bear River, Dry Creek, North and South Grasshopper Slough, Best Slough, and a host of smaller, unnamed sloughs constitute natural edges and barriers within the pattern of human settlement and land use, as well as providing important visual features within the study area. Much of the study area falls roughly between the Bear River on the south and Dry Creek on the north, with Grasshopper Slough meandering through the central portion of the area. Unnamed remnant slough channels, also drained the area in recent times.

The bottomlands along the Bear River, Dry Creek and Grasshopper Slough are depositional lands, and are especially fertile as a result of continual flooding. Historically, Dry Creek and Grasshopper Slough were reported to be miles wide and the adjacent country was flooded to a depth of from one to four feet.

Topographic variation is quite modest throughout the study area, ranging from approximately 60 feet elevation where Dry Creek crosses the west boundary to 120 feet elevation at a pronounced hilltop along the east boundary. The City of Wheatland ranges from 70-85 feet in elevation, and most of the study area slopes gently from east to west, with an elevation change of only 20 feet in approximately four miles. As a result, significant topographic features, which dominate the visual landscape, do not exist, and in areas with tree cover and/or buildings, all but the most immediate foreground views are obscured.

Agricultural and Ranching Influences

Due to the fertile land along rivers and creeks, the Wheatland area was one of the first regions in Yuba County to undergo a conversion to agriculture. During the 1860s through 1880s, Wheatland was a significant agricultural trading center concentrating on wheat, potatoes, and barley. Hops replaced these crops in the 1890s, and by the 1920s Wheatland was known for having the largest independently owned hop ranch in the world. In the late 1920s frequent slumps in the hops commodity markets caused the landowners and growers to turn to fruits and vegetables; fruit and nut orchards soon replaced hops in importance. During the 1930s and early 1940s peaches overshadowed

the hop industry, and in recent years the peach industry has since given way to almonds, walnuts, and rice.

Lands surrounding the present day city continue to support agricultural pursuits. Over ninety (90) percent of the study area is rural and in some form of agricultural production. Agricultural parcels range in size from 13 to nearly 400 acres, and create a decidedly rural character for Wheatland and the study area.

In addition to the system of levees that protect both agricultural and urbanized lands, the study area also contains a system of canals and ditches. These ditches and canals, along with the meandering sloughs, create a fine-grained system of barriers to development, and constitute natural edges and barriers that can serve to differentiate and define neighborhood units.

Trails, Roads, and Highways

The Overland Emigrant Trail, with its western terminus at Johnson's Ranch, was one of the main wagon roads used by the emigrants from the eastern states to California. Travel along the trail during the 1840s, and particularly following the discovery of gold in 1849, brought thousands of people through the area that is now Wheatland and environs. The trail was first used by wagons in 1844 when the Stevens-Townsend-Murphy party crossed Donner Summit on their way to the Sacramento Valley. After the discovery of gold in Coloma in 1848, the wagon road was used by the miners and their families to get to the California gold fields. More than 30,000 people – pioneers, miners, trappers, and adventurers – used the Emigrant Trail in 1849 alone.

Among the early travel routes depicted on maps of Johnson's Ranch and the early General Land Office (GLO) Survey Plats dating from the 1850s is the Sacramento and Nevada Road, shown on the 1856 GLO plat as trending northeast-southwest through the study area. Other early roads include the Spenceville Road (Wheatland-Smartville Road) that accessed Johnson's Ranch and Camp Far West, and Wheatland Road that linked Wheatland to communities to the west.

As early as 1909, the California Legislature had identified specific roads as part of the State Highway System. These roads were designated as "Legislative Route Numbers" (LRN), and the road connecting Sacramento to the Oregon state line, designated as LRN 3, passed through Wheatland. This important north-south state route has since had a series of route number designations, including Route 99E, 99, and since 1934, State Route 65. A number of other secondary and tertiary roads are shown on early USGS quad maps (1949 and 1953) as crossing through the study area. At present, State Route 65 remains the primary north-south road, with Wheatland Road extending to State Highway 70 approximately 10 miles to the west, and Spenceville Road extending east to Beale Air Force Base.

Due to the problems of flooding, State Route 65 was elevated during the 1930s. Low-lying topography and flooding still characterize the area, and a number of roads within the study area are built on top of levees, including Levee Road and Jackson Road.

Rail Lines

During 1857, the center of activity in railroad construction in California shifted from Sacramento to Marysville. In 1858 the California Central Railroad Company started a rail connection from Sacramento to Lincoln via Junction (now Roseville). This line was completed in 1861. A year later (operating as the Yuba Rail Road Company), work commenced to extend the line further north as finances became available. The line opened to Wheatland on June 27, 1866. In 1868 the Central Pacific Rail Road rescued the financially strapped operation, and completed the line to Marysville. The first trains did not run from Sacramento to Marysville until 1864.

This rail line, now a main line of the Union Pacific Railroad transects the study area, bisecting the City of Wheatland. Two other rail lines – the remnant grade of the Sacramento Northern RR and the Western Pacific RR – run in a north-south alignment approximately three miles west of the study area, attesting to the historical competition for rail service during the height of US rail transportation.

Freight and passenger trains pass through Wheatland at speeds in excess of 50 miles per hour. On average, there are 30 trains per day, with the nearest passenger stop in Roseville to the south. Presently, four streets in the City cross the railroad tracks – Second Street, Third Street, Fourth Street, and Main Street. Each of these crossings is protected by traffic warning devices. In other areas, such as the end of Sixth Street, the tracks are raised above the level of the surrounding streets creating a barrier that prevents through-traffic. An underpass crossing also exists at the southern City limits, and a private, at-grade ranch access east of McDevitt Drive.

Commercial Core

Wheatland developed outward from its traditional center east of the railroad tracks between Front Street, "A" Street, Main Street and Fourth Street. The main stores along Front Street faced the train depot. The remaining downtown has a compact form with most of the commercial development concentrated within a few blocks of this area.

The town suffered three disastrous fires, one in 1880, another in 1898, and another in 1903. These fires destroyed most of the buildings in downtown Wheatland, and in the aggregate had a significant adverse effect on the urban quality of downtown, particularly along Front Street. Some historical structures still exist, including the Odd Fellows Hall at the corner of Front and Fourth Streets (now the Masonic Temple), which was rebuilt in 1899 (after the fire in 1898). Only a few remaining two-story buildings exist in the downtown, and architectural styles and building materials vary from ornamented masonry to wood siding (after the 1903 fire, most of the larger structures in the town were built with brick).

At present, the commercial core is but a shadow of its previous scale, vitality, and colorful history. Present commercial uses include markets, a pharmacy, offices, video store, hair salon, auto parts store, bank, restaurants, laundromat, and other businesses. Due largely to the immediacy of the UPRR and the noise, dust, and vibrations associated with the passing trains, this area no longer supports thriving commercial activities, as the impacts of the rail traffic impose significant limitations on pedestrian activity. Similarly, the high commuter traffic volume on State Route 65 creates an unfriendly pedestrian environment for retail shopping.

Urban Character

Landmarks

One feature that distinguishes the City from the surrounding region is its water tower. The Wheatland water tower stands approximately 50 feet high and is visible from many areas within the City and as one enters the City from the east. The tower is located east of State Route 65 and the railroad tracks on Fourth Street, near the Public Works building.

Another City landmark is the Pioneer Memorial Hall on the corner of Fourth and "B" Streets. The Hop Sheds and abandoned kilns at the E. Clemons Horst Ranch and the Damon Estate, while outside the City limits, are reminders of a colorful and exciting period of Wheatland history, and remain important landmarks within the built environment.

Regulatory context

Specific Federal or State regulations do not directly pertain to the visual quality of an area. The project involves establishment of goals and policies aimed at preserving visual resources within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Impacts and Mitigation Measures

Standards of Significance

An impact to the aesthetic values of the General Plan Update study area would be considered significant if any of the proposed project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or

- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Method of Analysis

This section gives full consideration to the development of the study area, and acknowledges the physical changes to the existing setting. Impacts to the existing environment in the project site are to be determined by the contrast between the site's visual setting before and after proposed development. In this analysis, emphasis has been placed on the transformation of the existing predominant rural setting into a landscape characterized by urban buildout. Although few standards exist to singularly define the various individual perceptions of aesthetic value from person to person, the degree of visual change can be measured and described in a reasonably objective manner in terms of visibility and visual contrast, dominance, and magnitude. Current residents are considered to be sensitive to the visual and aesthetic transformations in the study area attributed to future development.

Project-Specific Impacts and Mitigation Measures

4.1-1 Development associated with the proposed General Plan Update would have substantial adverse impacts on scenic vistas and natural resources within the City of Wheatland.

The rural setting surrounding the study area provides views of open agricultural areas to the south and west, and the foothills and mountains to the west and north. The scenic vista and visual natural resources within and around the City of Wheatland contribute to the quality of the community. The proposed General Plan would allow for development at urban densities and intensities in portions of the Wheatland study area that are currently open space or agricultural land. Much of the City's surrounding landscape is designated for buildout, which would result in a loss of open space that is considered a principal scenic resource. The alteration of the views is due to the replacement of open space and agricultural areas, including orchards, with urbanized densities and intensities.

The General Plan Update includes the following goals and policies related to scenic vistas and natural resources:

Goal 1.J To maintain and enhance the quality of Wheatland's major travel corridors, city entrances, landscape, and streetscape.

Policy1.J.5 The City shall promote efforts to improve the visual quality of entrances to Wheatland and to Downtown.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.1 The City shall support the preservation and enhancement of natural landforms, natural vegetation, and natural resources as open space to the maximum extent feasible.

Policy 8.D.4 The City shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems.

Policy 8.D.5 The City shall encourage the development of natural open space areas in regional, community, and neighborhood parks.

Policy 8.D.7 The City shall plan and establish natural open space parkland as a part of the overall City park system.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.1-2 Development associated with the proposed General Plan Update would substantially damage scenic resources.

The development associated with the proposed General Plan Update would have adverse scenic impacts along State Route (SR) 65. The rural setting directly adjacent to SR 65 provides views of open agricultural areas to the south and west, and the foothills and mountains to the west and north. The development anticipated within and along the perimeter of the City of Wheatland would extend the existing community onto current open space and agricultural areas. More specifically scenic resources can be categorized as important natural features, including rock outcroppings, ponds and marshes, riparian zones, and significant trees or groups of trees. Many of these resources exist within the City of Wheatland, such as significant groves of native oak trees, as well as riparian zones along existing creeks and sloughs throughout the study area. Buildout of the proposed General Plan Update could substantially damage some of the resources and block views of these aesthetic resources from neighboring properties and roadways. See Chapter 4.5 for a detailed discussion regarding historic buildings within the City of Wheatland study area.

The General Plan Update includes the following goals and policies related to scenic resources:

Goal 1.J To maintain and enhance the quality of Wheatland's major travel corridors, city entrances, landscape, and streetscape

Policy1.J.2. The City shall encourage increased building setbacks and wider landscape areas along major corridors.

Policy1.J.6. The City shall work with state highway officials concerning landscaping maintenance of state highway property.

Goal 8.C To preserve and protect the valuable vegetation resources of the Wheatland area.

Policy 8.C.2. The City shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands and riparian areas.

Policy 8.C.3. The City shall require that new development preserve natural woodlands to the maximum extent possible.

Policy 8.C.4. The City shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.1. The City shall, where appropriate, permanently protect as open space areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.1-3 Development associated with the proposed General Plan Update would not substantially degrade the existing visual character or quality of the City or its surroundings.

The development associated with the proposed General Plan Update may have impacts on the quality of the built environment of Wheatland. Currently, the character of Wheatland is that of a primarily low-density residential community, without an incorporated downtown area. The proposed General Plan Update includes significant amounts of planned residential communities, and large parcels of regional commercial, business, and employment development, which includes light industrial. This development would substantially change the visual character of Wheatland.

The General Plan Update includes the following goals and policies applicable to visual impacts:

Citywide Growth and Development

Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.1. The City shall strive to preserve Wheatland's traditional small-town qualities and historic heritage, while expanding its residential and employment base.

Residential Development

Goal 1.B To accommodate the housing needs of all income groups expected to reside in Wheatland.

Policy 1.B.1. The City shall require residential project design to reflect and consider natural features, noise exposure of residents, visibility of structures, circulation, access, and the relationship of the project to surrounding uses. Residential densities and lot patterns will be determined by these and other factors.

Commercial Land Use

Goal 1.E To designate adequate commercial land for development of local and regional commercial uses compatible with surrounding land uses, that will meet the present and future needs of Wheatland residents and visitors, and enhance Wheatland's economic vitality.

Policy 1.E.6. The City shall require new commercial development to be designed to minimize the visual impact of parking areas on public roadways.

Landscape and Streetscape

Goal 1.J To maintain and enhance the quality of Wheatland's major travel corridors, city entrances, landscape, and streetscape

Policy 1.J.1 New development within major transportation corridors must comply with the following minimum building requirements:

a. All outdoor storage of goods, materials, and equipment, and loading docks areas shall be screened from major roadways.
b. Developments with multiple buildings should have a uniform design theme and sign program.
c. Earth tones shall be used as the dominant color; colors such as white, black, blue, and red should be used as accents. Building surfaces should have color schemes that reduce their apparent size.
d. Metal buildings will be allowed only with enhanced architectural and landscaping treatment (such as use of trim bands, wing walls, parapets, and reveals).
e. All exterior elevations visible from major roadways should have architectural treatment to alleviate long void surfaces. This can be accomplished through varying setbacks, breaking buildings into segments, pitched roof elements, columns, indentations, patios, and incorporating landscaping into architectural design

Policy 1.J.2. The City shall encourage increased building setbacks and wider landscape areas along major corridors.

Policy 1.J.3 The City shall require that all new development incorporate the planting of trees and other vegetation that extends the vegetation pattern of older adjacent neighborhoods into new development.

Policy1.J.4. As a condition of the approval of larger development projects, the City shall require establishment of funding mechanisms for the ongoing maintenance of street trees and landscape strips. The City shall explore the potential for putting all new development in a master landscape and lighting district for maintenance of street trees and landscape strips.

Implementation of the goals and policies above would reduce the impact, though, the impact would remain ***significant***.

Mitigation Measure(s)
Feasible mitigation measures do not exist to reduce the above impact; therefore, the impact would remain *significant and unavoidable*.

4.1-4 Development associated with the proposed General Plan Update would create new sources of substantial light and glare that would adversely affect day or nighttime views in the City of Wheatland.

The development associated with the proposed General Plan Update would create new sources of light and glare. The proposed General Plan Update allows for development in portions of the Wheatland study area that are currently open space or agricultural land. The introduction of street lighting throughout the City in newly developed areas would alter the currently unlit conditions in the area. Night lighting associated with commercial, residential, and industrial developments would be easily evident to neighboring properties that are not accustomed to nearby development; however, the types of lighting would be typical of residential, commercial, and industrial uses.

The General Plan Update includes the following goals and policies applicable to impacts related to new sources of light and glare:

Goal 1.E To designate adequate commercial land for development of local and regional commercial uses compatible with surrounding land uses, that will meet the present and future needs of Wheatland residents and visitors, and enhance Wheatland's economic vitality.

Policy 1.E.7. New commercial development adjacent to residential development shall provide buffers from noise, trespassing, lighting, or other annoyances, through methods such as landscaping or fencing.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

Endnotes
[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

4.2 AGRICULTURAL RESOURCES

Introduction

The Agricultural Resources chapter of the EIR describes the soils of the study area and examines how buildout of the City of Wheatland General Plan Study Area will affect agricultural resources and operations within the General Plan Update study area. This section is primarily based upon the *Wheatland General Plan Update Background Report,*[1] the *Yuba County General Plan,*[2] and the *Yuba County Soil Survey*.[3]

Environmental Setting

Existing Agricultural Uses

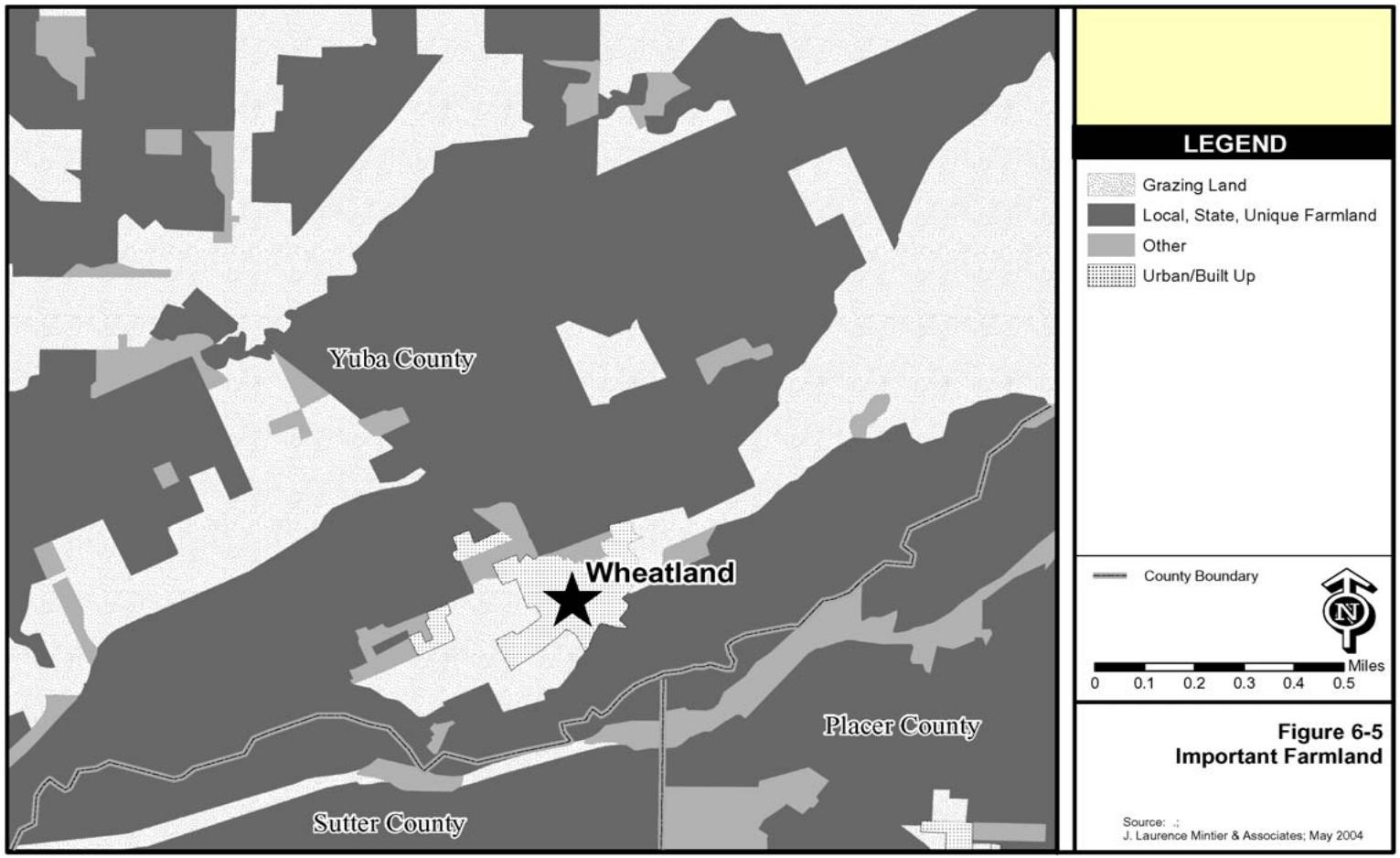
Regional Overview

Agriculture is the most extensive land use in Yuba County and the most significant component of the County's economy. Approximately 230,413 acres, or 56 percent of the total County area, is comprised of agricultural croplands and pasture. The value of agricultural land, however, is not limited to the provision of food, fiber and jobs. Agricultural land also provides open space, which has both psychological and aesthetic benefits and provides important wildlife habitat.

About one-third of the agricultural lands in Yuba County are used for agriculture; another one-third is used for livestock grazing; and the remaining areas for timber production. A few areas are used for urban development. Suitable soils, a long growing season, and abundant irrigation water are responsible for an intensive and diversified agricultural industry in Yuba County. About 135,000 acres are intensively used for fruit, nut, grain, vegetable and seed crops. More than 30 crops are grown commercially. Fruit and nut trees and vegetable and seed crops are grown primarily on the deep, alluvial soils along the rivers. Small grain is grown on the fine-textured soils farther from rivers.

In 2002, Yuba County's agricultural industry earned $115 million in the production of agricultural goods, representing a 4.5 percent increase in gross revenue from 1997. Fruits/berries and grains/beans were the top commodities in Yuba County, producing approximately $66.7 million and $18.8 million, respectively, in 2002. Cattle/dairy products and almonds were the next two largest commodities generating approximately $17.3 million and $7.4 million, respectively, for the agricultural industry within Yuba County.

Figure 4.2-1
Important Farmland



Local Overview

The *Yuba County General Plan* designates all unincorporated lands within the Wheatland study area as Wheatland Community Valley Agriculture. The study area encompasses approximately 10,420 acres. Although only minor agricultural activities are currently being conducted within the Wheatland city limits, the study area includes orchards and row crops, along with some grazing and fallow lands. As described above, approximately 230,413 acres, or 56 percent of the total County area, is comprised of agricultural croplands and pasture; the study area encompasses 4.5 percent of Yuba County's total acreage designated for agriculture uses.

The study area is generally bordered by Dry Creek to the north and Bear River to the south. These watercourses provide irrigation water for the surrounding agricultural fields. The predominant soil complexes located in the study area are *Conejo loam*, *Horst silt loam*, and *Redding gravelly loam*. The *Conejo loam* and *Horst silt loam* soils are well suited to intensive uses for growing irrigated crops. The *Redding gravelly loam* soils however, are very poorly suited for agriculture, are seldom cultivated, and are thereby used for range, pasture, or woodland.

Agricultural Land

Farmland Classifications

To determine a soil's agricultural productivity, the United States Department of Agriculture (USDA) and the Natural Resource Conservation Services (NRCS) use two systems of measurement: the Soil Capability Classification and the Storie Index Rating System. The "prime" soil classifications of both systems indicate the absence of soil limitations, which if present, would require the application of management techniques (e.g., drainage, leveling, special fertilizing practices) to enhance production.

Soil Capability Classification

The Soil Capability Classification System takes soil limitations, the risk of damage when the soils are used, and the way in which soils respond to treatment into consideration. Capability classes range from Class I soils, which have few limitations for agriculture, to Class VIII soils, which are unsuitable for agriculture. Generally, as the ratings of the capability classification system increase, the yields and profits are more difficult to obtain. A general description of soil classification, as defined by the NRCS, is provided in Table 4.2-1, Soil Capability Classification.

Table 4.2-1 Soil Capability Classification	
Class	**Definition**
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove that limit their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitation that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to aesthetic purposes.
Data Source: *USDA Soil Conservation Service, Soil Survey of Sacramento County, April 1993.*	

Storie Index Rating System

The Storie Index Rating system ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating), which have few or no limitations for agricultural production to Grade 6 soils (less than 10), which are not suitable for agriculture. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed. The NRCS definitions of the six soil grades as well as the soil index ranges are provided in Table 4.2-2, the Storie Index Rating System.

Table 4.2-2 Storie Index Rating System		
Grade	**Index Rating**	**Definition**
1 Excellent	80 through 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2 Good	60 through 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3 Fair	40 through 59	Soils are only fairly well suited to general agricultural use and are limited in their use because of moderate slopes; moderate soil

Table 4.2-2
Storie Index Rating System

Grade	Index Rating	Definition
		depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4 Poor	20 through 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths; less permeable subsoil; steeper slope; or more clayey or gravelly surface soil textures than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or fair to poor fertility levels, all acting alone or in combination.
5 Very Poor	10 through 19	Soils are very poorly suited for agriculture, are seldom cultivated and are more commonly used for range, pasture, or woodland.
6 Non-Agricultural	Less than 10	Soils are not suited for agriculture at all due to very severe to extreme physical limitations, or because of urbanization.

Data Source: USDA Soil Conservation Service, Soil Survey of Sacramento County, April 1993.

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the U.S. Department of Agriculture, Soil Conservation Service (USDA-SCS). The intent of the USDA-SCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the USDA-SCS developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production; suitability included both the physical and chemical characteristics of soils and the actual land use. Important Farmland Maps are derived from the USDA-SCS soil survey maps using the LIM criteria.

Since 1980, the State of California has assisted the USDA-SCS with completing its mapping in the state. The FMMP was created within the State Department of Conservation (DOC) to carry on the mapping activity on a continuing basis and with a greater level of detail. The DOC applied a greater level of detail by modifying the LIM criteria for use in California. The LIM criteria in California utilize the SCS and Storie Index Rating systems, but also consider physical conditions such as a dependable water supply for agricultural production, soil temperature range, depth of the ground water table, flooding potential, rock fragment content, and rooting depth.

Important Farmland Maps for California are compiled using the modified LIM criteria (as described above) and current land use information. The minimum mapping unit is 10 acres unless otherwise specified. Units of land smaller than 10 acres are incorporated into the surrounding classification. Acres of Important Farmland are shown in Table 4.2-3 below. The Important Farmland Maps identify four agriculture-related categories: prime farmland, farmland of statewide importance, unique farmland, and grazing land. Each is summarized below, based on *A Guide to the Farmland Mapping and Monitoring Program (1998*), prepared by the California Department of Conservation.

Table 4.2-3
Acres of Important Farmlands - Yuba County (2004)

Acres Present by Type	Acreage
Prime Farmland	42,678
Farmland of Statewide Importance	11,094
Unique Farmland	33,108
Grazing Land	143,533
Urban and Built-Up Land	12,081
Other Land	163,034
Water	6,289
Total Acres	**411,817**

Data Source: California Department of Conservation, http://www.consrv.ca.gov

Prime Farmland

Prime Farmland, as defined by the California Department of Conservation, is land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have also been used for the production of irrigated crops at some time during the two update cycles (a cycle is equivalent to 2 years) prior to the FMMP mapping of Yuba County in 1998.

The soil-mapping units listed below meet the criteria for Prime Farmland, as outlined in the U.S. Department of Agriculture's Land Inventory and Monitoring (LIM) Project for the Yuba County Soil Survey.

These lists have been updated with information from the SOI - Classification and Correlation of Soils of Yuba County, California. Changes include additions and deletions, as well as map symbol conversions from field symbols to publication symbols.

Symbol Name

101 Aiken-Horseshoe complex, 2 to 8 percent slopes
105* Argovar silt loam, 0 to 5 percent slopes
123 Boomer gravelly loam, 8 to 15 percent slopes
129 Bruella loam, 0 to 1 percent slopes
130 Capay clay loam, 0 to 1 percent slopes
131 Hollenbeck silty clay loam, 0 to 1 percent slopes

132 Hollenbeck silty clay loam, 0 to 1 percent slopes, occasionally flooded
133 Hollenbeck clay, 0 to 3 percent slopes
134 Hollenbeck-Urban land complex, 0 to 1 percent slopes
137 Columbia fine sandy loam, 0 to 1 percent slopes
138 Columbia fine sandy loam, 0 to 1 percent slopes, occasionally flooded
139* Columbia fine sandy loam, 0 to 1 percent slopes, frequently flooded
140 Columbia-Urban land complex, 0 to 1 percent slopes
141 Conejo loam, 0 to 2 percent slopes
142 Conejo loam, 0 to 1 percent slopes, occasionally flooded
143 Conejo-Urban land complex, 0 to 1 percent slopes
147 Feather silt loam, 0 to 2 percent slopes, occasionally flooded
161 Holillipah loamy sand, 0 to 1 percent slopes
162 Holillipah loamy sand, 0 to 1 percent slopes, occasionally flooded
163+ Holillipah loamy sand, 0 to 1 percent slopes, frequently flooded
169 Horst sandy loam, 0 to 1 percent slopes
170 Horst silt loam, 0 to 2 percent slopes
175 Jocal loam, 3 to 8 percent slopes
178 Jocal loam, cool, 3 to 8 percent slopes
182 Kilaga clay loam, 0 to 1 percent slopes
183 Kilaga clay loam, hardpan substratum, 0 to 1 percent slopes
184 Kilaga clay loam, 0 to 1 percent slopes, occasionally flooded
197 Oakdale sandy loam, 0 to 5 percent slopes
203 Perkins loam, 0 to 2 percent slopes
204 Perkins loam, 0 to 1 percent slopes, occasionally flooded
211 Ricecross loam, 0 to 2 percent slopes
212* Ricecross loam, 0 to 2 percent slopes, occasionally flooded
218 Shanghai silt loam, 0 to 1 percent slopes
219 Shanghai silt loam, 0 to 1 percent slopes, occasionally flooded
220 Shanghai silt loam, clay substratum, 0 to 1 percent slopes
221 Sites loam, 3 to 8 percent slopes
225 Sites gravelly loam, bedrock stratum, 3 to 8 percent slopes
248 Trainer loam, 0 to 1 percent slopes, occasionally flooded

* This unit Prime Farmland only if drained.
+ This unit Prime Farmland only if protected from flooding or not frequently flooded during the growing season.

Farmland of Statewide Importance

Farmland of Statewide Importance, as defined by the California Department of Conservation, is land similar to Prime Farmland, but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date (or since 1994).

Unique Farmland

Unique farmland, as defined by the California Department of Conservation, is land of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards, as found in some climatic zones in California. The land must have been cultivated at some time during the two update cycles prior to the mapping date (or since 1994).

Grazing Land

Grazing land, as defined by the California Department of Conservation, is land on which the existing vegetation, whether grown naturally or through management, is suited to the grazing of livestock. The minimum mapping unit for this category is 40 acres.

Urban and Built-Up Land

Urban and built-up land, as defined by the California Department of Conservation, is occupied with structures with a building density of at least one unit to one-half acre. Uses may include, but are not limited to, residential, industrial, commercial, construction, institutional, public administration purposes, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities are mapped as part of this unit, if they are part of a surrounding urban area.

Other Land

Other land, as defined by the California Department of Conservation, is land that is not included in any other mapping categories. The following uses are generally included: rural development, brush, timber, government land, strip mines, borrow pits, and a variety of other rural land uses.

General Plan Study Area Soil Conditions

According to the Soil Capability Classification System Class I through Class IV, and VIII soils are found within the Wheatland General Plan Update study area. The Soil Classification of each soil found in the Wheatland study area are shown in Table 4.2-4.

Table 4.2-4
Wheatland Study Area Soil Capability Classification

Soil Type	Soil Classification	
	Irrigated	Non-irrigated
Columbia fine sand loam	IIs-4	IIIs-4
Conejo loam	I	IIIc
Dumps, mine tailing	VIII	VIII
Holillipah loamy sand	IIIs-4	IVs-4
Horst sandy loam	I	IIIc
Horst silt loam	I	IIIc
Kimball loam	IIIs-3	IIIs-3
Perkins loam	I	IIIc
Redding gravelly loam	IVe-1	IVe-1
San Joaquin loam	IVs-3	IVs-3
Shanghai silt loam	I	IIIc

Data Source: United States Department of Agriculture: Soil Survey of Yuba County

The USDA: Soil Conservation Service's (SCS) Yuba County Soil Survey identified and mapped soils in Yuba County. Each identified soil complex has characteristics that affect soil behavior. Soil characteristics may or may not make the soils suitable for accommodating uses such as shallow excavations, levees, and berms, and local roads and streets. Soil limitations can include slow or very slow permeability, limited ability to support a load, high shrink-swell potential, moderate depth to hardpan, low depth to rock, and frequent flooding. Each soil has characteristics that affect soil behavior.

The predominant soils complexes identified throughout the Wheatland study area are described below:

- **Conejo loam, 0 to 2 percent slopes**: a very deep, well-drained soil, found on stream terraces. Characteristics include moderate shrink-swell potential, slight water erosion, and subject to rare flooding.

- **Horst silt loam, 0 to 2 percent slopes**: a very deep, well-drained soil, found on stream terraces. Characteristics include moderate shrink-swell potential, runoff is medium, and the hazard of water erosion is moderate.

- **Redding gravelly loam, 3 to 8 percent slope**: a well-drained soil placed on high fan terraces. Characteristics include a very slow permeability rate, causing perched water tables to form above the claypan. The shrink-swell potential is high in the subsoil, runoff is moderate, and the hazard of water erosion is moderate. The Redding soil is used mainly for rangeland and for residential or urban development.

More specifically, the complete range of soil types found throughout the study area, through a review of the Yuba County Soil Survey, are described below in Table 4.2-5.

Table 4.2-5
Wheatland Soil Index

Soil Map Units		Storie Index Rating	Grade
137	Columbia fine sand loam	85	Excellent
141	Conejo loam	90	Excellent
146	Dumps, mine tailing	0	Non-Agricultural
161	Holillipah loamy sand	58	Fair
169	Horst sandy loam	81	Excellent
170	Horst silt loam	95	Excellent
185	Kimball loam	41	Fair
203	Perkins loam	81	Excellent
208	Redding gravelly loam	14	Very Poor
214	San Joaquin loam	23	Poor
218	Shanghai silt loam	95	Excellent

Data Source: United States Department of Agriculture: Soil Survey of Yuba County, October 2005.

Yuba County Farmland Conversion

One of the basic underlying premises of agricultural conversion is that the proximity of agricultural land to urban uses increases the value of the agricultural land either directly through formal purchase offers, or indirectly through recent sales in the vicinity, and through the extension of utilities and other urban infrastructure into productive agricultural areas. This premise is evidenced by the fact that property values, as measured by the County Assessor's office, are higher adjacent to the urban fringe.

According to the California Department of Conversion Farmland Mapping and Monitoring Program 2004 Field Report, a decrease in the acreage of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance has occurred in Yuba County. The decrease is explained by the conversion of Important Farmlands to grazing lands from 2002 to 2004, as well as the conversion of agricultural land to urban and built-up land. The total amount of agricultural land within the County decreased by 2,298 acres during the two-year period from 2002-2004. This decrease equates to an average loss of approximately 1,149 acres of Important Farmlands annually, which includes land both in and out of production.

Williamson Act

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 in order to encourage the preservation of the state's agricultural lands and to prevent their premature conversion to urban uses. In order to preserve these uses, the Act established an agricultural preserve contract procedure by which any county or city within the state taxes landowners at a lower rate, using a scale based on the actual use of

the land for agricultural purposes, as opposed to its unrestricted market value. In return, the owners guarantee that these properties will remain under agricultural production for a ten-year period. The contract is renewed automatically on an annual basis unless the owner files a notice of non-renewal. In this manner, each agricultural preserve contract (at any given date) is always operable at least nine years into the future. Currently, approximately 70 percent of the state's prime agricultural land is protected under this Act. Prime farmland under the Williamson Act includes land that qualifies as Class I and II in the SCS classification or land that qualifies for rating 80 to 100 in the Storie Index Rating. Yuba County does not participate in the Williamson Act program.

Agricultural Production

The *Yuba County Agricultural Crop Report for 2003* presents the most recent figures for estimated acreage, yield, and gross value of agricultural products in Yuba County[3]. The gross value of the County's agricultural production for 2003 was $154.6 million, an increase of $15.5 million over 2002. Rice continued to be the most valuable crop in the County, valued at $43.6 million. Rice was followed in value by peaches, prunes, walnuts, and cattle/calves. Within the unincorporated part of the Wheatland General Plan Update study area, agriculture is the primary existing land use, specifically orchards and row crops, along with some grazing and fallow lands. Estimated figures for acreage, yield, and gross value of agricultural products in the study area were not available at the time of writing.

REGULATORY CONTEXT

Yuba County General Plan (1994)

The *Yuba County General Plan* states that agriculture is the most extensive land use in the County and the most significant component of the County's economy. The Plan further states that the value of agricultural land is not limited to the provision of food, fiber, and jobs, but also includes open space, which provides psychological and aesthetic benefits as well as important wildlife habitat.

The County General Plan designates all unincorporated lands within the Wheatland Sphere of Influence as Wheatland Community Valley Agriculture. The Valley Agriculture classification is applied to areas of the County outside of community boundaries that are suitable for commercial agriculture and are desirable to retain in agricultural uses. The designation is intended to (a) protect the agricultural community from encroachment of unrelated agricultural uses that would diminish the viability of agricultural production, and to (b) encourage the preservation of agricultural land, both productive and potentially productive.

Wheatland General Plan Update

The General Plan Update includes the establishment of goals and policies aimed at seeking to maintain agricultural uses as long as possible and to protect adjacent

agricultural lands from the negative effects of continued urban development within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

An agricultural impact may be considered significant if any of the following conditions, or potential thereof, would result if the proposed project's implementation would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use.

Method of Analysis

Determination of agricultural impacts is based on information from the City of Wheatland General Plan Background Report, and the Yuba County Soil Survey.

Project-Specific Impacts and Mitigation Measures

4.2-1 Development associated with the proposed General Plan Update would convert Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to non-agricultural use.

As Prime Farmland surrounds the City of Wheatland, the proposed General Plan Update would result in urban development of prime agricultural lands. Furthermore, Unique Farmland and Farmland of Statewide Importance, located at the most western portion of the City's Sphere of Influence, would also be developed at urban densities and intensities in portions of the Wheatland Planning Area. The General Plan Land Use Diagram designates 4,700 acres as urban reserve. This designation is applied to land that may be considered for development in the future with urban uses. However, no urban development may occur on lands designated Urban Reserve before the General Plan is amended to specify a primary land use designation for the property. Until then, allowable uses are specified under the Agriculture (A) and Open Space (OS) designations.

The City's surrounding landscape is designated for buildout, which would result in a loss of agricultural resources. The predominant soil complexes located in the study area are *Conejo loam*, *Horst silt loam*, and *Redding gravelly loam*. The *Conejo loam*, and *Horst silt loam* soils are designated as Prime Farmland soils, which are well suited to intensive uses for growing irrigated crops. The *Redding*

gravelly loam soils however, are very poorly suited for agriculture, are seldom cultivated, and are more commonly used for range, pasture, or woodland.

Wheatland's agricultural surroundings play a central role in the history and character of the community. The continued growth of Wheatland would inevitably convert agricultural land to urban uses.

The General Plan Update includes the following goals and policies applicable to agricultural issues:

Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland.

Policy 1.I.1. The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.

Policy 1.I.2. The City shall support the local agricultural economy by encouraging the location of agricultural support industries in the city, establishing and promoting marketing of local farm products, exploring economic incentives, and support for continuing agricultural uses adjacent to the city, and providing its fair share of adequate housing to meet the needs of agricultural labor.

Policy 1.I.3. The City shall promote good neighbor policy between residential property owners and adjacent farming operations by supporting the right of the farmers and ranchers to conduct agricultural operations in compliance with state laws.

Implementation of the goals and policies above would minimize impacts to agricultural resources, however not to a *less-than-significant* level. The resulting impact would therefore remain ***significant*** because the buildout of the proposed plan would convert prime agricultural land for urban use.

<u>Mitigation Measure(s)</u>
The conversion of prime agricultural land to alternate non-agricultural uses involves the development of a limited supply of available prime agricultural land. Because the amount of prime agricultural land is limited and unable to be replaced, there are no available mitigation measures that would sufficiently mitigate these effects. Therefore, impacts related to agricultural resources would remain *significant and unavoidable.*

4.2-2 Development associated with the proposed General Plan Update would conflict with existing zoning for agricultural use.

Implementation of the General Plan Update would result in the conversion of agricultural land to urban uses. The General Plan Land Use Diagram indicates that certain agricultural lands within the Wheatland study area are designated for urban development. These areas are currently outside the city limits and within Yuba County; therefore, City zoning does not exist for these areas.

Yuba County has zoned much of the area surrounding Wheatland as Exclusive Agriculture (AE). In order for these parcels to be developed consistent with the land use designations indicated on the Wheatland General Plan Update Land Use Diagram, the parcels would need to annexed to the City. The annexation process would require pre-zoning consistent with the corresponding land use designations for each parcel. Until such time that these parcels are annexed, they remain outside of the City's jurisdiction. Therefore, approval of the General Plan Update would result in conflicts between planned land uses and existing Yuba County zoning for agricultural use.

The General Plan Update includes the following goals and policies applicable to agricultural issues:

Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.8 The City shall establish a Memorandum of Understanding with Yuba County in order to maintain agricultural preservation zoning on farmland surrounding the city.

Implementation of the goals and policies above would reduce the impact; however, the impact would remain ***significant***.

<u>Mitigation Measure(s)</u>
Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level. Therefore, the impact would remain *significant and unavoidable*.

4.2-3 Development associated with the proposed General Plan Update would not conflict with the Williamson Act contract.

Yuba County does not participate in the Williamson Act program, and therefore the General Plan Update study area is not currently under Williamson Act contract.

The General Plan Update does not contain goals and policies pertaining to Williamson Act issues. Therefore, the General Plan Update would have ***no impact*** regarding Williamson Act compliance.

Mitigation Measures
None required.

4.2-4 Development associated with the proposed General Plan Update would involve other changes in the existing environment, which could result in conversion of farmland to non-agricultural use.

Wheatland's agricultural surroundings play a central role in its history and character of the community. The continued growth of Wheatland would inevitably convert agricultural land to urban uses. One of the basic underlying premises of agricultural conversion is that the proximity of agricultural land to urban uses increases the value of the agricultural land either directly through formal purchase offers, or indirectly through recent sales in the vicinity, and through the extension of utilities and other urban infrastructure into productive agricultural areas.

The conversion of farmland to developed uses provides economic incentives, which contribute to the increase of development throughout the Wheatland area. The *Land Use Diagram* designates the area east of Jasper Lane, portions of the study area between the county line and the Bear River, and a small area north of Dry Creek, as Urban Reserve. Policies adopted by the General Plan update would require the City to study the implications of future development of the Urban Reserve area to determine if this area is feasible and appropriate for future development.

The General Plan Update includes the following goals and policies applicable to agricultural issues:

Goal 1.H To maintain land as Urban Reserve for consideration for future development.

Policy 1.H.1. No urban development of Urban Reserve areas will be permitted without a General Plan amendment. No General Plan amendment will be considered without an analysis that includes the factors listed in Policy 1.H.2.

Policy 1.H.2. The City shall, when deemed necessary, consider the appropriateness of development of Urban Reserve lands based upon the following factors:

a) Possible location and mix of land uses;

b) Implications for overall community form and relationship to the existing community and Downtown Wheatland;

c) Flooding and drainage implications;

d) Market feasibility of development in this area, including the expected rate of absorption;

e) Availability of water supply;

f) Consideration of circulation patterns and improvements;

g) Effect on and compatibility with existing City infrastructure (e.g., wastewater treatment plant);

h) Implications of providing law enforcement and fire protection services;

i) Potential impacts on sensitive biological resources;

j) Noise contour implications of Beale Air Force Base.

If the City determines the Reserved Area is applicable for future development, the area shall be accessible for conversion. Access to the Reserved Area, even with minimized impacts from implementation of the goals and policies above, would result in a ***significant*** impact.

Mitigation Measure(s)
Feasible mitigation measures do not exist. Therefore, impacts related to loss of agricultural resources would remain *significant and unavoidable.*

Endnotes
[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.
[2] Yuba County, Yuba County General Plan, 1994.
[3] Natural Resources Conservation Service, Soil Survey of Yuba County, California, 1998.

4.3 AIR QUALITY

INTRODUCTION

The Air Quality chapter describes the impacts of the General Plan Update study area on local and regional air quality. The chapter was prepared using thresholds of significance recommended by the Feather River Air Quality Management District. The chapter describes existing air quality; direct and indirect emissions associated with the project; the impacts of these emissions on both the local and regional scale; and mitigation measures warranted to reduce or eliminate any identified significant impacts. The following impact assessment is based on information provided by the *Wheatland General Plan Update Background Report*[1] *(2004)* and the *Air Report (2005)*,[2] prepared by Don Ballanti, certified consulting meteorologist.

ENVIRONMENTAL SETTING

Air Pollution Climatology

The City of Wheatland is located in the northeastern portions of the Sacramento Valley, a broad, flat valley bounded by the coastal ranges to the west and the Sierra Nevada to the east. The entire air basin is about 200 miles long in a north-south direction, and has a maximum width of about 150 miles, although the valley floor averages only about 50 miles in width.

The climate of the project area is characterized by hot, dry summers and cool, wet winters. During the summer months form mid-April to mid-October, significant precipitation is unlikely and temperatures range from daily maxima approaching 100 degrees F to evening lows in high 50s and low 60s. Winter conditions are characterized by occasional rainstorms interspersed with stagnant and sometimes foggy weather. Winter daytime temperatures average in the low 50s and nighttime temperatures average in the upper 30s.

Wind direction is primarily up- and down-valley due to the channeling effect of the mountains to either side of the valley. During the summer months surface air movement is from the south, particularly during the afternoon hours. During the winter months wind direction is more variable.

In addition to prevailing wind patterns that control the rate of dispersion of local pollutant emissions, Yuba County experiences two types of inversions that affect the air quality. The first type of inversion layer contributes to photochemical smog problems by confining pollution to a shallow layer near the ground, which occurs in the summer when sinking air forms a "lid" over the region. The second type of inversion occurs when the air near the ground cools while the air aloft remains warm. The inversions occur during

winter nights and can cause localized air pollution "hot spots" near emission sources because of poor dispersion.

Ambient Air Quality Standards

Both the U. S. Environmental Protection Agency and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants, which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The federal and California State ambient air quality standards are summarized in Table 4.3-1.

Table 4.3-1
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour 8-Hour	0.12 PPM 0.08 PPM	0.09 PPM 0.07 PPM
Carbon Monoxide	8-Hour 1-Hour	9.0 PPM 35.0 PPM	9.0 PPM 20.0 PPM
Nitrogen Dioxide	Annual Average 1-Hour	0.05 PPM --	-- 0.25 PPM
Sulfur Dioxide	Annual Average 24-Hour 1-Hour	0.03 PPM 0.14 PPM --	-- 0.05 PPM 0.25 PPM
PM_{10}	Annual Average 24-Hour	50 $\mu g/m^3$ 150 $\mu g/m^3$	20 $\mu g/m^3$ 50 $\mu g/m^3$
$PM_{2.5}$	Annual 24-Hour	15 $\mu g/m^3$ 65 $\mu g/m^3$	12 $\mu g/m^3$ --
Lead	Calendar Quarter 30 Day Average	1.5 $\mu g/m^3$ --	-- 1.5 $\mu g/m^3$
Sulfates	24 Hour	25 $\mu g/m^3$	--
Hydrogen Sulfide	1-Hour	0.03 PPM	--
Vinyl Chloride	24-Hour	0.01 PPM	--

PPM = Parts per Million
$\mu g/m^3$ = Micrograms per Cubic Meter
Source: California Air Resources Board, Ambient Air Quality Standards (5/6/05) http://www.arb.ca.gov.aqs/aaqs2.pdf

The federal and State ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and State standards differ in some cases. In general, the State of California standards are more stringent, particularly for ozone and particulate matter (PM_{10} and $PM_{2.5}$).

The State of California regularly reviews scientific literature regarding the health effects and exposure to PM and other pollutants. On May 3, 2002, the CARB staff recommended lowering the level of the annual standard for PM_{10} and establishing a new annual standard for $PM_{2.5}$ (particulate matter 2.5 micrometers in diameter and smaller). The new standards became effective on July 5, 2003.

On April 28, 2005 the CARB established a new 8-hour standard for ozone (0.07 PPM), expected to become effective in early 2006.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above (which have ambient air quality standards), toxic air contaminants (TACs) are another group of pollutants of concern. Unlike criteria pollutants, no safe levels of exposure to TACs can be established. Many different types of TACs exist with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

In 1998, after a 10-year scientific assessment process, the CARB identified particulate matter from diesel-fueled engines as a TAC. The exhaust from diesel engines contains hundreds of different gaseous and particulate components, many of which are toxic. Many of these compounds adhere to the particles, and because diesel particles are so small, they penetrate deep into the lungs. Diesel engine particulate has been identified as a human carcinogen. Mobile sources, such as trucks, buses, automobiles, trains, ships, and farm equipment are by far the largest source of diesel emissions. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections.

The State of California has begun a program of identifying and reducing risks associated with particulate matter emissions from diesel-fueled vehicles. The plan consists of new regulatory standards for all new on road, off-road and stationary diesel-fueled engines and vehicles, new retrofit requirements for existing on-road, off-road and stationary diesel-fueled engines and vehicles, and new diesel fuel regulations to reduce the sulfur content of diesel fuel as required by advanced diesel emission control systems.[3]

The CARB recently published an air quality/land use handbook. The handbook, which is advisory and not regulatory, was developed in response to recent studies that have demonstrated a link between exposure to poor air quality and respiratory illnesses, both cancer and non-cancer related. The CARB handbook recommends that planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools and playgrounds.

Air pollution sources of concern include freeways, rail yards, ports, refineries,

distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations.

Key recommendations in the handbook include taking steps to avoid designating new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet);
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

Pollutants Affecting Wheatland's Air Quality

The State and National ambient air quality standards cover a wide variety of pollutants. Only a few of these pollutants are problems in the Wheatland area either due to the strength of the emission or the climate of the region. The closest monitoring site to the City of Wheatland is in Yuba City, where concentrations of ozone, PM_{10}, $PM_{2.5}$, carbon monoxide and nitrogen dioxide are measured. Table 4.3-2 below summarizes violations of air quality standards in Yuba City for the five-year period 1999-2004.

Table 4.3-2
Air Quality Data Summary for Yuba City, 2000-2004

Pollutant	Standard	Days Standard Exceeded In:				
		2000	2001	2002	2003	2004
Ozone	Federal 1-Hour	0	0	0	0	0
Ozone	State 1-Hour	3	4	3	0	2
Ozone	Federal 8-Hour	1	1	3	0	0
PM_{10}	Federal 24-Hour	0	0	0	0	0
PM_{10}	State 24-Hour	5	8	4	5	16
$PM_{2.5}$	Federal 24-Hour	0	0	0	0	0
Carbon Monoxide	State/Federal 8-Hour	0	0	0	0	0
Nitrogen Dioxide	State 1-Hour	0	0	0	0	0

Source: Air Resources Board, Aerometric Data Analysis and Management (ADAM), 2005. (http: //www.arb.ca.gov./adam/cgi-bin/adamtop/d2wstart)

Table 4.3-2 shows that the federal ambient air quality standards are met, but the more stringent state standards for ozone and PM_{10} are exceeded. The following is a description of problem pollutants in the Feather River Air Quality Management District (FRAQMD).

Ozone

Ozone is the main component of photochemical smog. Ozone is not emitted directly into the air, but is formed through a series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROG) and nitrogen oxides (NOx).

The time period required for ozone formation allows the reacting compounds to spread over a large area, producing a regional pollution problem. Ozone problems are the cumulative result of regional development patterns, rather than the result of a few significant emission sources.

Once formed, ozone remains in the atmosphere for one to two days. Ozone is then eliminated through chemical reaction with plants (reacts with chemical on the leaves of plants), rainout (attaches to water droplets as they fall to the earth) and washout (absorbed by water molecules in clouds and later fall to the earth with rain).

Ozone is a public health concern because it is a respiratory irritant that increases susceptibility to respiratory infections. Ozone causes substantial damage to leaf tissues of crops and natural vegetation and damages many materials by acting as a chemical oxidizing agent.

Particulate Matter

Suspended particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. "Inhalable" PM consists of particles less than 10 microns in diameter, and is defined as "suspended particulate matter" or PM_{10}. Fine particles are less than 2.5 microns in diameter ($PM_{2.5}$). $PM_{2.5}$, by definition, is included in PM_{10}.

In Yuba County PM emissions are generated by a variety of sources. The primary sources of PM are entrained road dust, farming operations, and agricultural burning. Traffic generates particulate matter and PM emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM is also emitted by burning wood in residential woodstoves and fireplaces and open burning of residential and agricultural wastes. Fine particulate matter is a concern because it can bypass the body's natural filtration system more easily than larger particles, and can lodge deep in the lungs. Health effects of PM vary depending on a number of factors, including the type and size of particle. Research has shown a correlation between high PM_{10} concentrations and increased mortality rates. Elevated levels can aggravate chronic respiratory illness such as bronchitis and asthma. PM also causes visibility reduction.

Regulatory Framework

Feather River Air Quality Management District

The project is located within the Feather River Air Quality Management District (FRAQMD). The FRAQMD is part of the Sacramento Valley Air Basin (SVAB) that includes Butte, Colusa, Glen, Tehama, Shasta, Yolo, Sacramento, Yuba, Sutter, and parts of Placer and Solano Counties. The FRAQMD is the local air quality agency. The District adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs and regulates agricultural burning. Other District responsibilities include monitoring air quality, preparation of clean air plans and responding to citizen air quality complaints.

The FRAQMD has developed Indirect Source Review Guidelines for use in the environmental evaluation of projects. The guidelines provide project pollutant thresholds that, when exceeded, may be considered a significant air quality effect by the District. The District also provides a minimum list of feasible mitigation measures to reduce the air pollutant impacts from transportation and land-use projects, and a Best Available Mitigation Measures (BAMM) list. The mitigation measures in these guidelines are transportation and land use control measures. They are intended to reduce dependency on the automobile for mobility, and mitigate the air quality impacts of new development.

State/Federal Air Programs

Both the federal and state governments have enacted laws mandating the identification of areas not meeting the ambient air quality standards and development of regional air quality plans to eventually attain the standards. Under the federal Clean Air Act the FRAQMD has been designated attainment or unclassified for all national ambient air quality standards except the 1-hour ozone standard.

Under the State system the FRAQMD is designated non-attainment for the California standards for ozone and PM_{10}. The air districts of the Northern Sacramento Air Basin have jointly prepared and adopted a uniform air quality attainment plan addressing ozone and PM_{10}.[4]

The U. S. Environmental Protection Agency (EPA) has classified Yuba County as an attainment area for the new federal 8-hour ozone standard. The CARB and U. S. EPA designated Yuba County as unclassifiable or attainment with respect to all other federal standards.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

The definition of what is a "substantial contribution to an existing or projected air quality violation" or a "cumulatively considerable net increase" is often defined by local air quality districts. The FRAQMD's Board of Directors has approved thresholds of significance to be used in the environmental review of development projects under the CEQA. In addition, the CEQA Guidelines environmental checklist provides general definitions of a significant air quality impact. For the Wheatland General Plan Update, a significant air quality impact would result if the project would:

- Conflict with or obstruct implementation of the applicable air plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Result in an increase in emissions of an ozone precursor (Reactive Organic Gases (ROG) and Nitrogen Oxides (NOx)) greater than 25 pounds per day;
- Result in an increase in emissions of PM_{10} greater than 80 pounds per day; or
- Generate an excess of 20 parts per million (ppm) 1-hour ambient air quality standard, or 9 ppm 8-hour ambient air quality standard.

Method of Analysis

The Air Report was prepared by Don Ballanti, a certified consulting meteorologist. Estimates of regional emissions generated by project traffic and area sources were made using a program called URBEMIS-2002.[5] URBEMIS-2002 is a program that estimates the emissions that result from various land use development projects. Inputs to the URBEMIS-2002 program include trip generation rates, vehicle mix, average trip length by trip type and average speed. A detailed discussion of URBEMIS-2002 parameters used in the analysis is included in Appendix of the Air Report (See Attachment E of the EIR for a copy of the Air Report).

A screening procedure for estimating carbon monoxide concentrations was applied to signalized intersections affected by project traffic under buildout traffic conditions. Concentrations at a major signalized intersection would be expected to be the highest carbon monoxide concentrations due to the deceleration, idling and acceleration of vehicles at these locations. Ten intersections were selected for analysis as worst-case locations in that they should be the location of the highest concentrations of carbon monoxide.

The screening procedure contained in *Transportation Project-Level Carbon Monoxide Protocol* was utilized.[6] The methodology uses estimates of the contributions to carbon monoxide concentrations for a "base case" characterized by a specific intersection configuration, meteorology, traffic volume and indicators of intersection performance. A series of correction factors are then applied to adjust the initial estimates of carbon monoxide concentrations for the specific conditions of the intersection under study. Correction factors are provided by a series of tables.

The screening procedure provides a worst-case estimate of concentrations of carbon monoxide generated by vehicles impacting an intersection. Concentrations were calculated at the corner of the intersection, which would be expected to be the location of the highest carbon monoxide concentrations due to the deceleration, idling and acceleration of vehicles at these locations. Concentrations were estimated for a distance of 7 meters (20 feet) from the roadway edge.

The other contribution to the total concentration is the background level attributed to more distant traffic. The background concentration was estimated using the highest concentration of carbon monoxide measured at the Yuba City monitoring site during the period 2002-2004.

Project-Specific Impacts and Mitigation Measures

4.3-1 Increased potential for air quality land use conflicts.

Buildout of the General Plan Update (GPU) study area would intensify development with a mixture of commercial, employment-generating and residential uses, thereby potentially increasing the potential for air quality-based land use conflicts. Industrial, manufacturing, and some commercial uses have the potential for adversely affecting existing or future residential development through emissions of criteria pollutants, toxic air contaminants, and odors.

Odors, dust, or toxic air contaminants can be emitted by stationary or area sources throughout the study area. The occurrence and severity of potential odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source, the wind speed and direction, and sensitivity of the receiving location. While offensive odors rarely cause physical harm, they can be unpleasant and cause distress among the public and generate citizen complaints. Managing sources of odors is accomplished by regulatory requirements and appropriate land use planning.

<u>Agriculture</u>

Future residential developments are designated adjacent to existing agricultural activities. The potential for nuisance complaints when inadequate buffer zones are provided may adversely affect sensitive land uses through odors, smoke from agricultural burning, dust from tilling, discing and travel on unpaved roads, and

inadvertent overspray of pesticides. As with odors, potential impacts from agricultural dust depends on the frequency and intensity of the source, wind speeds and directions, and the sensitivity of the receiving location.

Existing agricultural operations adjacent to the study area include orchards and row crops, along with some grazing and fallow lands. The development of some of the land uses proposed within the study area that are either adjacent to or in close proximity to grazing activities could have air quality land use conflicts between uses. For instance, odors and flies from cattle grazing activities could be a nuisance to potential residents in close proximity to the cattle. The use of pesticides or herbicides to control weeds and pests on the grazing land could cause health problems for potential residents in the study area. The grazing operations could have impacts associated with nuisances and hazards, such as pesticide, herbicide and fungicide use on the agricultural properties adjacent to residential areas, as well as odors, dust, and slow moving vehicles on area roads.

Roadways

Carbon monoxide is directly emitted by internal combustion engines, and therefore occurs at elevated concentrations near roadways. At heavily used or congested roadways and intersections, carbon monoxide levels may exceed State and federal standards, creating adverse impacts to existing and proposed sensitive receptors. Because future development would result in increased carbon monoxide emissions from increased project-generated motor vehicle trips, air quality land use conflicts may occur.

The recently published *Air Quality and Land Use Handbook* produced by CARB makes recommendations, including but not limited to, “Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles per day”. Presently, the most traveled highway in Wheatland is State Route (SR) 65, which carries roughly 21,000 vehicles per day, which is well below the threshold of 100,000. In addition, the future predicted traffic volumes are not anticipated to exceed 100,000 vehicles/day on urban roads, or 50,000 vehicles/day on rural roads. However, the General Plan Land Use Diagram indicates that residential land uses are proposed to be located within 500 feet of the future SR 65 Bypass at the southeastern portion of the study area.

The General Plan Update includes the following goals and policies related locating sensitive land uses.

Goal 1.C To provide for now residential development in planned neighborhoods to be developed in an orderly style and designed to promote walking, bicycling, and transit use.

Policy l.C.4 T'he City shall require that development plans for new residential neighborhoods address the following:

a. The distribution, location, and extent of land uses, including standards for land use intensity.
b. Compatibility of new development with adjacent existing and proposed development.
c. Provision of a range of housing types to ensure socially and economically-integrated neighborhoods.
d. Distribution and location of roadways, including design standards for and the precise alignment of arterial, collector, and local streets, and bikeways.
e. Provisions for the extension of the existing city roadway system into new development areas. New development shall be linked to adjacent existing neighborhoods and planned neighborhoods by collector and local streets.
f. Provisions for adequate schools and child care facilities.
g. Distribution and location of neighborhood commercial centers, parks, schools, child care centers, and other public- and quasi-public facilities.
h. Provisions for linking residential neighborhoods, parks, schools, Downtown, shopping areas, and employment centers through a system of pedestrian pathways, bicycle routes, and linear open-space corridors along sloughs, Dry Creek, and the Bear River.
i. Provisions for development phasing to ensure orderly and contiguous development consistent with population projections of the General Plan, and Policy 1.A.4.
j. Provisions for minimizing conflicts between new development and agricultural uses.

Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality.

Policy l.G.2 The City shall only approve new employment development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials.

Policy 1.G.7 The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use.

Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland.

Policy 1.I.1 The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.

Policy 1.I.2 The City shall require residential development within or adjacent to agricultural areas to provide a buffer in order to minimize conflicts with adjacent agricultural uses.

Policy 1.I.4 The City shall promote good neighbor policy between residential property owners and adjacent fanning operations by supporting the right of farmers and ranchers to conduct agricultural operations in compliance with state laws.

General Plan Update policies do not address potential air quality land use conflicts related to mobile sources of Toxic Air Contaminants. In addition, residential land uses are proposed to be located adjacent to the future SR 65 Bypass. Therefore, this impact would be ***potentially significant.***

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the impact to at *less-than-significant* level.

4.3-1 *Add to Policy 1.C.4 the following:*

k. Provisions for minimizing the exposure of residences, schools, childcare facilities and other sensitive receptors to mobile source Toxic Air Contaminants from major traffic sources.

l. The City shall consider the recommendations of the Air Quality and Land Use Handbook (April 2005) in reviewing new development projects.

4.3-2 Changes in local carbon monoxide levels

As described above, carbon monoxide is directly emitted by internal combustion engines, and therefore occurs at elevated concentrations near roadways. Carbon monoxide is a problem in wintertime when stagnant meteorological conditions occur (i.e., very little vertical or horizontal mixing of air in the lower atmosphere). At heavily used or congested roadways and intersections, carbon monoxide levels may exceed State and federal standards.

Existing concentrations of carbon monoxide are low due to the low background levels and relatively low volumes of vehicles operating on the streets of Wheatland. Development of the land uses and circulation improvements in accordance with the General Plan Update would result in increased traffic that could result in increased concentrations of carbon monoxide.

Future development would result in increased carbon monoxide emissions from increased project-generated motor vehicle trips. Counteracting the effect are emission control programs that are in place at the State and federal level to reduce carbon monoxide emissions from new motor vehicles.

Carbon monoxide emissions at congested intersections, where motor vehicles slow down and idle, can under certain conditions exceed the 20 parts per million (ppm) 1-hour ambient air quality standard, or 9 ppm 8-hour ambient air quality standard. Intersections operating at level of service (LOS) D or better are not normally expected to cause substantial carbon monoxide buildup, because at these intersections, carbon monoxide concentrations are better able to dissipate. At intersections operating at LOS E or F, carbon monoxide buildup is more likely, yet still uncommon. As described in the Transportation Chapter 4.15, the General Plan Update would not cause any proposed intersections in the study area under the 2025 conditions to operate at LOS E or F.

Future local carbon monoxide levels with proposed project were also modeled using a screening model. The results of the modeling for the ten intersections are shown in Table 4.3-3 for the year 2025. The concentrations in Table 4.3-3 are to be compared to the State and federal ambient air quality standards: predicted 1-hour concentrations are to be compared to the state standard of 20 PPM and the federal standard of 35 PPM; predicted 8-hour concentrations are to be compared to the State and federal standard of 9 PPM.

Table 4.3-3
Predicted Year 2025 Worst-Case Carbon Monoxide Concentration, In Parts Per Million

Intersection	Predicted 1-Hour Average Concentration	Predicted 8-Hour Average Concentration
SR 65/North Ring Road	13.2	7.9
SR 65/McDevitt Drive	7.5	4.5
Wheatland Road/Oakley Lane	7.2	4.3
SR 65/First Street	7.9	4.7
Spenceville Road/Ring Road	10.5	6.3
Spenceville Road/ SR 65 Bypass SB Ramps	10.2	6.1
SR 65/Main Street	8.7	5.2
South Ring Road/Malone	7.9	4.8
South Ring Road/ S. Loop Ramp Connectors	8.2	4.9
SR 65/ Loop Ramp	7.8	4.7

Source: City of Wheatland Air Report (2005)

The modeling results indicate that future year 2025 carbon monoxide levels would be below the State and federal air quality standards. Predicted future levels

of carbon monoxide at the selected "hot spot" intersections would meet the 20 ppm 1-hour and 9 ppm 8-hour state/ federal ambient air quality standards.

The General Plan Update includes the following goals and policies that would affect congestion levels on roadways and would also affect concentrations of carbon monoxide near these roadways.

Goal 2A To provide for the long-range planning and development of the City's roadway system to ensure the safe and efficient movement of people and goods.

Policy 2.A.2 The City shall develop and manage its roadway system to maintain LOS "C" or better on all roadways, except within one-quarter mile of state highways. In these areas, the City shall strive to maintain LOS " D" or better.

Policy 2.A.3 The City shall identify economic, design and planning solutions to improve existing levels-of-service currently below the LOS specified above. Where physical mitigation is infeasible, the City shall consider developing programs that enhance alternative access or otherwise minimize travel demand.

Policy 2.A.5 The City shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile and by promoting pedestrian, bicycle, and transit connections between employment areas and major residential and commercial areas.

Policy 2.A.6 The City shall require an analysis of the effects of traffic from proposed major development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others.

Poicy 2.A.11 The City shall ensure that highways and arterial streets within its jurisdiction provide for the efficient flow of traffic. Therefore, the following shall be undertaken:

- Minimize the number of intersections along arterials.
- Reduce curb cuts along arterials through the use of common access easements, backup lots and other design measures.
- Provide grade separations at all major railroad crossings with arterials, except for an at-grade crossing of the major arterial in the north.

- Extend arterials over waterways, railroads and through developed and undeveloped areas to provide for the continuous flow of through traffic and appropriate area access.

Because carbon monoxide levels associated with the General Plan Update would not exceed State or federal air quality standards, and implementation of the goals and policies above would ensure that the standards are not exceeded, the impact would be ***less-than-significant***.

Mitigation Measure(s)
None required.

4.3-3 Construction activities associated with buildout of the General Plan Update study area.

Foreseeable construction activities would occur due to road construction (including grading, rehabilitation, and intersection improvement) and land development (including site preparation, placement of utilities and other infrastructure, placement of foundations for structures, fabrication of structures, or demolition). Construction or demolition activities would be expected to require use of heavy trucks, excavation and grading equipment, jackhammers, concrete mixers, and other miscellaneous mobile and stationary construction equipment. Emissions during construction would be caused by material handling, traffic on unpaved or unimproved surfaces, demolition of structures, use of paving materials and architectural coatings, exhaust from construction worker vehicle trips, and exhaust from diesel-powered construction equipment.

Heavy construction activity on dry soil or dry wind-blown portions of the study area exposed during construction phases could cause emissions of dust (PM_{10}). Reactive organic compounds, nitrogen oxides, carbon monoxide, and additional particulate matter emissions would also occur as a result of diesel fuel combustion by the heavy equipment and construction worker vehicle exhaust.

Presently, FRAQMD is designated nonattainment for the California PM_{10} health standard, which means that Yuba and Sutter Counties violate the state PM_{10} air quality health standard. Construction activities, unpaved roads, and windblown dust contribute heavily to these emissions. According to the U.S. EPA, exposure to high concentrations of particulate matter, including airborne dust, affects breathing, aggravates existing respiratory and cardiovascular disease, and alters the body's defenses against foreign materials, lung damage, skin cancer and premature death. Further studies have linked respirable particulate matter with health problems like asthma and chronic bronchitis.

Throughout the construction phase, construction and demolition related emissions would vary day-to-day depending on the specific phase or combination of phases in progress at any given time. When considered in the context of long-term

project operations, construction and demolition-related emissions would be considered short-term and temporary, but these activities could still cause significant effects on local air quality.

Full buildout of the General Plan Update would occur beyond 2025, and the rate of growth would be affected by market conditions, infrastructure capacity, and the City of Wheatland's proposed growth management policies. Throughout the period, much shorter phases of parcel-by-parcel construction activity (occurring for months at a time) would be expected. The short-term construction and demolition-related activities would result in dust and equipment exhaust emissions that could, at times, contribute to nuisances or deterioration of local air quality.

The CEQA and the FRAQMD thresholds of significance are described in Table 4.3-4. Future developments anticipated in the GPU study area may exceed applicable air quality emission thresholds.

Table 4.3-4
CEQA and FRAQMD Thresholds of Significance
(Mass Emission, pounds per day)

Project Type	Ozone Precursor Emissions		Respirable Particulate Matter Emissions
	NOx	ROG	PM10
All	25	25	80

Although all projects may not exceed the thresholds, local impacts and cumulative impacts to downwind regions of the Sacramento Valley Air Basin may occur. Therefore, impacts related to construction and demolition activities would be considered ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impacts to a *less-than-significant* level.

4.3-3(a) *Implement the FRAQMD Fugitive Dust Control Plan, which may be downloaded at http://www.fraqmd.org/PlanningTools.htm, and which includes the following measures:*

- *All grading operations on a project should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.*
- *Construction sites shall be watered as directed by the Department of Public Works or Air Quality Management*

District and as necessary to prevent fugitive dust violations.

- *An operational water truck should be onsite at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts.*
- *Onsite dirt piles or other stockpiled particulate matter should be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind blown dust emissions. Incorporate the use of approved non-toxic soil stabilizers according to manufacturer's specifications to all inactive construction areas.*
- *All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.*
- *Apply approved chemical soil stabilizers according to the manufacturers' specifications, to all-inactive construction areas (previously graded areas that remain inactive for 96 hours) including unpaved roads and employee/equipment parking areas.*
- *To prevent track-out, wheel washers should be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.*
- *Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.*
- *Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 mph.*
- *Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.*
- *Reestablish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.*
- *Disposal by Burning: Open burning is yet another source of fugitive gas and particulate emissions and shall be prohibited at the project site. No open burning of vegetative*

waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.

4.3-3(b) *Prior to construction activities, the project applicant shall assemble a comprehensive inventory list (i.e. make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that will be used an aggregate of 40 or more hours for the construction project and apply the following mitigation measure:*

4.3-3(c) *Prior to construction activities, the project applicant shall provide a plan for approval by FRAQMD demonstrating that the heavy-duty (equal to or greater than 50 horsepower) off-road equipment to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction. A Construction Mitigation Calculator (MS Excel) may be downloaded from the SMAQMD web site to perform the fleet average evaluation*
http://www.airquality.org/ceqa/index.shtml.

4.3-3(d) *During construction, the project contractor shall regulate construction equipment exhaust emissions, as to not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall take action to repair the equipment within 72 hours or remove the equipment from service. Failure to comply may result in a Notice of Violation.*

4.3-3(e) *During construction, the project contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.*

4.3-3(f) *During construction, the project contractor shall regulate construction vehicles to minimize idling time to 10 minutes.*

4.3-3(g) *During construction, the project contractor shall ensure that an operational water truck is onsite at all times. Apply water to control dust as needed to prevent dust impacts offsite.*

4.3-3(h) *During construction, the project contractor shall utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.*

4.3-3(i) *During construction, the project contractor shall develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.*

4.3-3(j) *During construction, the project contractor shall ensure that no open burning of removed vegetation occurs during infrastructure improvements. Vegetative material should be chipped or delivered to waste to energy facilities.*

4.3-3(k) *Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.*

The above mitigation measures are based on current FRAQMD requirements. Future development applications will be reviewed by the City and the most current air district regulations will be applied.

4.3-4 Regional emissions increases.

Future development emissions would have an effect on air quality within the Sacramento Valley Air Basin. Upon buildout, operation of new uses related to the General Plan Update would cause an increase in emissions by the generation of new motor vehicle trips and by causing energy use and operation of other stationary sources. Workers, residents, occupants, and visitors driving to newly developed areas in the study area would significantly increase the average daily trips by the time of buildout. New residential and commercial land uses associated with the proposed General Plan Update would also result in new emissions from the use of electricity and natural gas combustion for site heating, cooling, ventilation, and lighting. The emissions are stationary- and area-source emissions that would be produced either directly in the study area or indirectly through increased use of utilities located elsewhere. Motor vehicle trips, energy use, and other stationary sources would cause emissions of ROG, NOx, and PM_{10} that

would contribute to existing violations of either the State-level or federal ambient air quality standards. Total emissions associated with the General Plan Update are shown in Table 4.3-5 for the two ozone precursors (ROG and NOx) and PM_{10}.

Table 4.3-5
Project-Related Regional Emissions, Pounds Per Day

	ROG	NOx	PM_{10}
Vehicles	370.4	305.2	1217.5
Area Sources	926.4	154.2	1530.2
Total	1298.8	459.4	2747.7
FRAQMD Threshold of Significance	25.0	25.0	80.0

Because ROG and NOx are summertime pollutants, project impacts on ozone air quality would be a result of summertime emissions. Summertime project-related emissions of ROG and NOx would exceed the FRAQMD significance threshold, which is 25 pounds per day for both ozone precursors. Project emissions for PM_{10} are greatest in winter due to wood burning in fireplaces and woodstoves. Project-related winter emissions for PM_{10} would exceed the FRAQMD threshold of significance of 80 pounds per day.

Future land uses within the commercial and employment-center land use categories may result in new stationary source emissions. Because of the great variation in emissions types and amounts from different uses, it is not possible to predict direct emissions. The FRAQMD has statutory authority over stationary sources of emissions. The FRAQMD issues permits to ensure that all equipment and processes comply with federal and state laws and regulations, and District rules. Before a stationary source is built, erected or operated, a permit to do so must be obtained from the District. The District's rules and regulations impose limits on emissions and require use of Best Available Control Technology (BACT) and purchase of emission off-sets for industrial sources exceeding certain emission levels. These regulations include the identification and quantification of emissions of TAC's and, if warranted, estimation of cancer and non-cancer risk associated with any source.

The General Plan Update includes the following goals and policies related to the air pollutant emission generation from future development.

Goal 1.B To provide adequate land in a range of residential densities to accommodate the housing needs of all income groups expected to reside in Wheatland.

Policy 1.B.3 The City shall discourage the development of isolated, remote, disconnected, and/or gated residential projects, which do not contribute to the sense of an integrated community.

Policy 1.B.4 The City shall encourage multi-family housing to be located throughout the community, but especially near transportation corridors, Downtown, major commercial areas, neighborhood commercial centers, and employment centers.

Goal 1.C To provide for now residential development in planned neighborhoods to be developed in an orderly style and designed to promote walking, bicycling, and transit use.

Policy l.C.1 The City shall promote new residential development in a range of residential densities that reflects the positive qualities of Wheatland's existing residential neighborhoods (e.g., street trees, pedestrian-orientation, mix of housing types and sizes).

Policy l.C.2 The City shall encourage the creation of well-defined residential neighborhoods. Each neighborhood should have a clear focal point, such as a park, school, or other open space and community facility, and shall be designed to promote pedestrian convenience.

Policy I.C.3 The City shall encourage the development of new neighborhoods that are walkable and connected to the existing City core as well as each other.

Policy l.C.4 T'he City shall require that development plans for new residential neighborhoods address the following:

a. The distribution, location, and extent of land uses, including standards for land use intensity.
b. Compatibility of new development with adjacent existing and proposed development.
c. Provision of a range of housing types to ensure socially and economically-integrated neighborhoods.
d. Distribution and location of roadways, including design standards for and the precise alignment of arterial, collector, and local streets, and bikeways.
e. Provisions for the extension of the existing city roadway system into new development areas. New development shall be linked to adjacent existing neighborhoods and planned neighborhoods by collector and local streets.
f. Provisions for adequate schools and child care facilities.
g. Distribution and location of neighborhood commercial centers, parks, schools, child care centers, and other public- and quasi-public facilities.
h. Provisions for linking residential neighborhoods, parks, schools, Downtown, shopping areas, and employment centers through a system of pedestrian pathways, bicycle routes, and

linear open-space corridors along sloughs, Dry Creek, and the Bear River.

i. Provisions for development phasing to ensure orderly and contiguous development consistent with population projections of the General Plan, and Policy 1.A.4.

j. Provisions for minimizing conflicts between new development and agricultural uses.

Policy 1.C.5 The City shall require residential subdivisions to provide well-connected internal and external street, bicycle, and pedestrian systems.

Policy l.C.6 The City shall encourage installation of current and emerging technological infrastructure in new and existing development for home telecommuting anti electric vehicles charging.

Goal 1.D To conserve and enhance the best qualities of existing residential neighborhoods as the City grows.

Policy 1.D.3 The City shall encourage infill and reuse in existing neighborhoods that maintain the character and quality of the surrounding neighborhood and does not negatively affect surrounding land uses.

Goal 1.E To designate adequate commercial land for development of local and regional commercial uses compatible with surrounding land uses, that will meet the present and future needs of Wheatland residents and visitors, and enhance Wheatland's economic vitality.

Policy 1.E.4 Commercial facilities should be designed to encourage and promote transit, pedestrian, and bicycle access. The City shall require that new commercial development be designed to encourage and facilitate pedestrian circulation within and between commercial sites and nearby residential areas.

Policy 1.E.5 The City shall require pedestrian and bicycle access in the design of sound walls, buffers, detention basins, fencing or other physical features between commercial and residential uses.

Goal 2.E To promote a safe and efficient transit system to reduce congestion, improve the environment, and provide viable non-automotive means of transportation in and through Wheatland.

Policy 2.E.1 The City shall work with Yuba-Sutter Transit to implement bus transit services that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.

Policy 2.E.4. The City shall encourage the creation of rail transit to link Wheatland and Marysville/Yuba City and the Sacramento Area.

Goal 2.F To provide a safe, comprehensive, and integrated system of facilities for non-motorized transportation for both transportation and recreation.

Policy 2.F.1 The City shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provide connections between the City's major employment and housing areas, between its existing and planned bikeways, and between schools, parks, retail shopping, and residential neighborhoods.

Policy 2.F.2 The City shall require developers to finance and install pedestrian pathways, bikeways, and multi-purpose paths in new development, as appropriate.

Policy 2.F.3 The City shall encourage the development of adequate, convenient, and secure bicycle parking at employment centers, schools, recreational facilities, transit terminals, commercial businesses, the Downtown, and in other locations where people congregate.

Policy 2.F.4 The City shall consider the needs of bicyclists when new roadways are constructed and existing roadways are upgraded.

Policy 2.F.5. The City shall consider the needs of bicyclists when determining street widths.

Policy 2.F.6. The City shall develop safe and pleasant pedestrian ways. To this end, the City shall ensure sidewalks are wide enough for pedestrian convenience.

Policy 2.F.7. The City shall cooperate with the schools in maintaining and updating the Safe Routes to School program.

Policy 2.F.8. The City shall require crosswalks and other pedestrian safety measures be designed and installed according to City of Wheatland Ordinances.

Policy 2.F.9. The City shall encourage major employment centers (50 or more total employees) to install showers, lockers, and secure parking areas for bicyclists as part of any entitlement.

Policy 2.F.10. The City shall ensure that bikeways are maintained in a manner that promotes their local and regional use.

Goal 8.E To protect and improve air quality in the Wheatland area with the goal of attaining state and federal health-based air quality standards.

Policy 8.E.1. The City shall cooperate with other agencies to develop a consistent and effective approach to regional air quality planning and management.

Policy 8.E.2. The City shall support the Feather River Air Quality Management District in its development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds, and rules to more adequately address the air quality impacts of new development.

Policy 8.E.3. The City shall require major new development projects to submit an air quality analysis for review and approval. Based on this analysis, the City shall require appropriate mitigation measures.

Policy 8.E.4. In cooperation with the Feather River Air Quality Management District, the City shall develop emission thresholds to serve as the basis for requiring air quality analysis and mitigation.

Policy 8.E.5. The City shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality. The City shall submit development proposals to the Feather River Air Quality Management District for review and comment in compliance with the California Environmental Quality Act (CEQA) prior to consideration by the City.

Policy 8.E.6. In reviewing project applications, the City shall require consideration of alternatives or amendments that reduce emissions of air pollutants.

Policy 8.E.7. The City shall require the use of EPA-certified woodstoves and fireplace inserts in lieu of wood burning indoor fireplaces in new development.

Policy 8.E.8. The City shall encourage inclusion of exterior electrical outlets and natural gas hookups in new residential development to encourage the use of electric, rather than gas-powered, equipment, and to encourage the use of natural gas-fired barbecues.

Goal 8.G To encourage energy conservation in new and existing developments.

Policy 8.G.1. In addition to the energy regulations of Title 24, the City shall encourage the energy efficiency of new development. Possible energy efficiency design techniques include: provisions for solar access; building siting to maximize natural heating and cooling; and landscaping to aid passive cooling and the protection from winter winds.

Policy 8.G.2 The City shall encourage the planting of shade trees along all City streets to reduce radiation heating.

The above policies represent a comprehensive attempt to limit or reduce air quality effects of future development. However, these policies would not be able to reduce the impact to a *less-than-significant* level; therefore, this would be a ***significant*** impact.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the impacts; however, not to a less-than-significant level. Therefore, a *significant and unavoidable* impact would occur.

4.3-4 *Revise Policy 8.E.3 as follows:*

The City shall require major new development projects to submit an air quality analysis for review and approval. Projects whose impacts are not significant shall be required to implement Standard Mitigation Measures (SMM) for construction and operation, as defined by the Feather River AQMD. Projects whose impacts are significant shall be required to implement Best Available Mitigation Measures (BAMM) for construction and operation as defined by the Feather River AQMD or voluntary offsite mitigation. ~~*Based on this analysis, the City shall require appropriate mitigation measures.*~~

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

[2] Donald Ballanti, Certified Consulting Meteorologist, Wheatland General Plan Air Quality Report, December 2005.

[3] California Air Resources Board, Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, October 2000.

[4] NSVAB (Northern Sacramento Air Basin), *2003 Air Quality Attainment Plan*, 2003.

[5] Jones and Stokes Associates. *Software User's Guide: URBEMIS-2002 for Windows with Enhanced Construction Module*, Version 8.7. 2005.

[6] Garza, Vincente J.; Peter Granly; Daniel Sperling, Transportation Project-Level Carbon Monoxide Protocol, Institute of Transportation Studies Report UCD-ITS-RR-97-21, 1997.

4.4 BIOLOGICAL RESOURCES

Introduction

This section focuses on various biological characteristics of the proposed impact area of the General Plan Land Use Map for the Wheatland General Plan Update study area. The chapter's discussion will include existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities within the study area. Information for this analysis was largely drawn from a *Biological Resources Report*[1] provided by Foothill Associates, located in the Technical Appendices, and the *Wheatland General Plan Update Background Report.*[2]

Environmental Setting

The City of Wheatland is located in the Sacramento Valley in the northern portion of California's Central Valley in Southern Yuba County. The City is situated just north of the Bear River and the junction of the boundaries of Sutter, Placer and Yuba counties. This region of California is part of the Great Central Valley geographic subdivision, which typically consists of long, very hot summers and moderately cold winters. More specifically, the City of Wheatland is located in the Sacramento Valley sub-region, the smaller, wetter, northern sub-region of the Great Central Valley, which extends from Red Bluff in Tehama County to the salt marshes of Suisun Slough in southwest Solano County. Plant communities predominant in the region include agriculture, open range (grassland), oak woodland, riparian (associated with creeks and rivers), and wetlands.

The Wheatland General Plan Update study area, which encompasses ±10,420 acres, consists of the existing City of Wheatland and its Sphere of Influence. Elevations within the General Plan study area range from 65 feet to approximately 140 feet above mean sea level (MSL). Plant communities within the study area include annual grassland, cropland/orchard, valley foothill riparian, riverine, pond, seasonal wetlands, and vernal pool. Land use within the study area varies; the predominant uses include agricultural, commercial, and residential. Natural undisturbed open space is present along creeks, sloughs, and rivers within the study area.

For the purposes of analyzing potential impacts to biological resources occurring in the Wheatland General Plan Update study area that could arise from implementation of the *General Plan Land Use Diagram*, the areas designated "Urban Reserve" were not assessed in this document. Accordingly, all other areas were assessed in terms of potential impacts to existing biological resources and are included in this analysis. This study area comprises ±4,808 acres (this area does not include the areas within the study area that are designated as "Urban Reserve," totaling ±5,612 acres), and ranges from 65 feet to approximately 115 feet above MSL, and will be hereafter referred to as the *General Plan Land Use* impact area.

Biological Communities

Discussed below are the biological communities occurring in the *General Plan Land Use* impact area. Common wildlife and plant species observed, or expected to occur, in these areas are addressed in the following discussion. Special-status species and sensitive habitats expected or known to occur in these areas are also addressed below. Figure 4.4-1 illustrates the communities located in the *General Plan Land Use* impact area. Community types include predominantly agricultural/orchard and urban, with lesser amounts of non-native annual grassland, valley oak woodland, valley foothill riparian, riverine, pond habitat, irrigated pasture, and seasonal wetland.

Cropland/Orchard

Agricultural cropland occurs interspersed throughout the *General Plan Land Use* impact area with the majority occurring on the lands surrounding the City limits. Because this habitat is intensively managed, vegetation is limited to cultivated crops, predominately almond orchards, with ruderal (weedy) vegetation along the margins. Plant species observed within this habitat type include Italian ryegrass (*Lolium multiflorum*), johnsongrass (*Sorghum halepense*), ripgut grass, and yellow star-thistle.

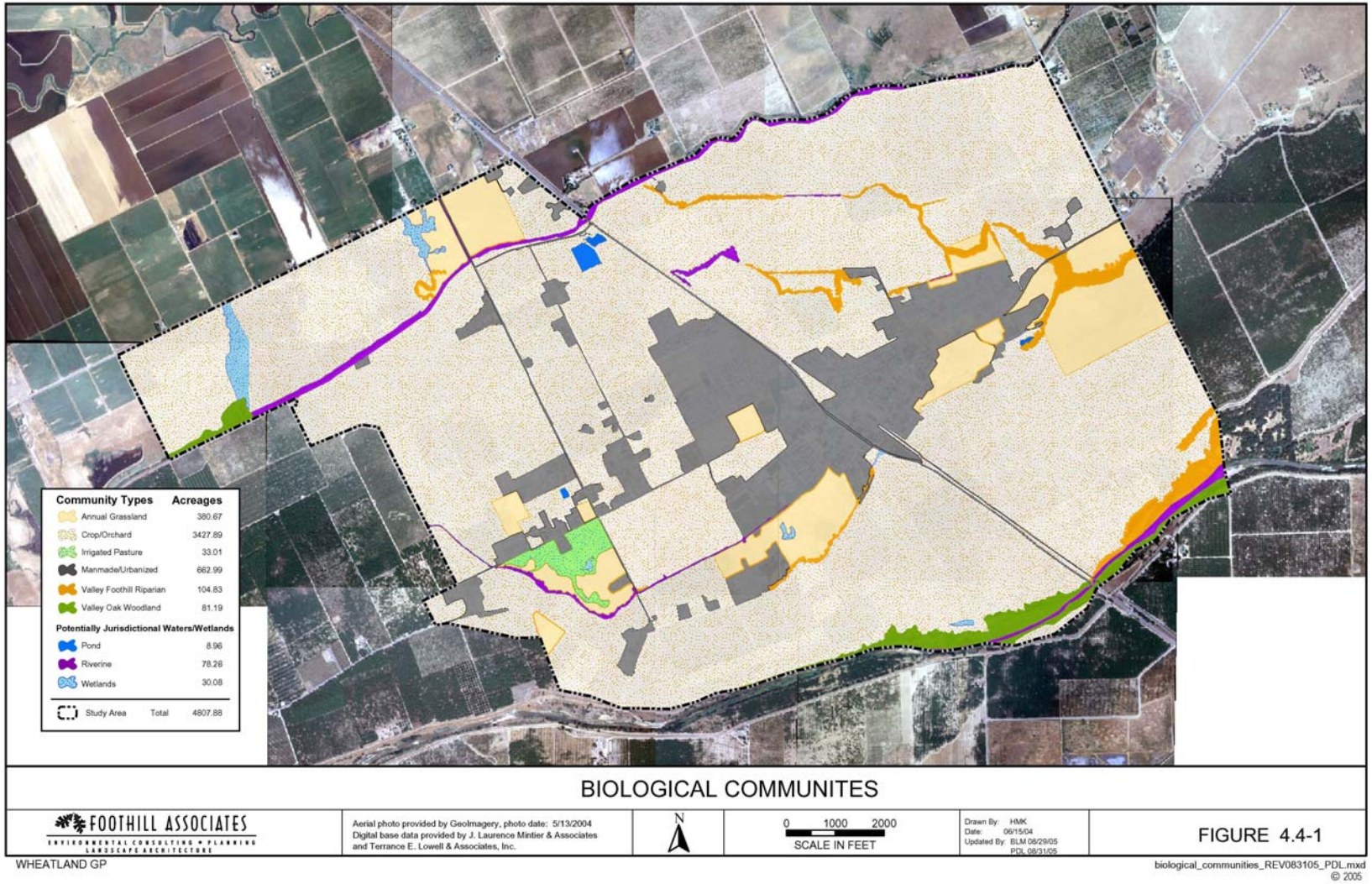
Orchard and row crops generally provide low breeding habitat for wildlife species due to the high level and frequency of disturbance. However, orchard and row crops can provide cover and foraging habitat for many species. While trees in orchards provide cover from predation for small birds and mammals, row crops present a foraging opportunity for birds of prey given that they provide little cover for small birds and mammals. Row crops are particular important to migratory raptors for foraging. Species expected to occur in these habitats include American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), western scrub jay (*Aphelocoma californica*), yellow-billed magpie (*Pica nuttalli*), western kingbird (*Tyrannus verticalis*), red-tailed hawk, white-tailed kite, black-tailed jackrabbit, California ground squirrel, and deer mouse (*Peromyscus maniculatus*).

Annual Grassland

Annual grassland is the most widely distributed biological community within the *General Plan Land Use* impact area. For the most part, annual grassland occupies grazing pasture, areas adjacent to the riparian habitat of Dry Creek and Grasshopper Slough, and vacant lots. Annual grasslands of the Central Valley occur mostly on flat plains and gently rolling foothills. Based on the dominant grasses observed within the *General Plan Land Use* impact area, this biological community is best classified as California Annual Grassland Series.

Annual grassland is characterized by annual grasses and forbs. This type of community generally occupies what was once a native grassland dominated by native perennial bunch grasses. However, annual grassland habitats today are composed largely of non-native annuals, which have effectively displaced the native perennial species.

Figure 4.4-1
Biological Communities



Dominant species in the *General Plan Land Use* impact area include wild oat (*Avena fatua*), ripgut grass (*Bromus diandrus*), barley (*Hordeum* sp.), medusahead grass (*Taeniatherum caput-medusae*), redstem filaree (*Erodium cicutarium*), lupine (*Lupinus* sp.), true clovers (*Trifolium* spp.), and California burclover (*Medicago polymorpha*). Widespread grassland species within the *General Plan Land Use* impact area are yellow star-thistle (*Centaurea solstitialis*), tarweed (*Holocarpha* sp.), bindweed (*Convolvulus arvensis*), and several species of brodiaea (*Brodiaea* spp.).

Many wildlife species use annual grassland habitat for all or part of their life cycle. Wildlife typically found in annual grassland habitat includes western meadowlark (*Sturnella neglecta*), white-crowned sparrow (*Zonotrichia leucophrys*), California vole (*Microtus californicus*), blacktail jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilis beecheyi*), and western harvest mouse (*Reithrodontomys megalotis*). Rodent populations provide foraging opportunities for mammalian predators, such as common gray fox (*Urocyon cinereoargenteus*) and coyote (*Canis latrans*), as well as avian predators such as white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), barn owl (*Tyto alba*) and great horned owl (*Bubo virginianus*).

Valley Oak Woodland

Valley oak woodland in the Central Valley usually merges with annual grasslands or borders agricultural land. This habitat varies from savanna-like to forest-like stands with partially closed canopies, comprised mostly of winter deciduous, broad-leaved species. Valley oak (*Quercus lobata*) stands with little or no grazing tend to develop a partial shrub layer with species such as poison-oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and coffeeberry (*Rhamnus californica*). Ground cover consists of a well-developed carpet of annual grasses and forbs. Based on the dominant trees observed within the *General Plan Land Use* impact area, this biological community is best classified as Valley Oak Series.

A very small portion of the *General Plan Land Use* impact area supports Valley oak woodland habitat in the northwest section near Grasshopper Slough. Oak woodlands are considered a valuable biological community for several wildlife species. This community provides food, cover, and nesting sites for resident and migratory birds as well as several species of mammals, reptiles, and amphibians. Some common species that may occur in this habitat type include acorn woodpecker (*Melanerpes formicivorus*), California quail (*Callipepla californica*), red-tailed hawk, oak titmouse (*Baeolophus inornatus*), western screech owl (*Otus kennicottii*), and gray squirrel (*Sciurus griseus*).

Valley Foothill Riparian

Valley foothill riparian occurs along portions of Bear River, Dry Creek, Grasshopper Slough, and various irrigation canal systems throughout the *General Plan Land Use* impact area. Typically, valley foothill riparian habitat is found in valleys bordered by sloping alluvial fans, terraces, and lower foothills. Valley foothill riparian vegetation

varies from a two-layered canopy of trees and herbs (riparian woodland) to a multi-layered canopy of canopy trees, subcanopy trees, shrubs, and herbs (riparian forest). Based on the dominant trees observed within the *General Plan Land Use* impact area, this biological community is best classified as Fremont Cottonwood Series.

Within the *General Plan Land Use* impact area the valley foothill riparian community is made up of Fremont cottonwood (*Populus fremontii*), Valley oak, box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). Understory shrub layer plants include wild grape (*Vitis californica*), California rose (*Rosa californica*), blue elderberry (*Sambucus mexicana*), poison-oak, and willows (*Salix* spp.). The herbaceous layer consists of sedges, rushes, and grasses. Riparian habitats are unique and ecologically important habitats that support an exceptionally high diversity of plants and wildlife. This community provides an important source of food, water, and protection for wildlife, as well as breeding and nesting habitat for both resident and migratory bird species. Species that may occur within this habitat type include red-shouldered hawk, great horned owl, northern flicker (*Colaptes auratus*), black phoebe (*Sayornis nigricans*), marsh wren (*Cistothorus palustris*) and common gray fox. Amphibian and reptile species such as western toad (*Bufo boreas*) and common garter snake (*Thamnophis sirtalis*) may occur in areas directly adjacent to standing water within the valley foothill riparian community.

Riverine

Riverine habitats can occur in association with many terrestrial habitats and are often contiguous to larger open water areas. The riverine habitat for this analysis includes the aquatic habitat of Dry Creek, Grasshopper Slough, and the Bear River. These natural water courses have well-defined beds and banks and in some areas adjacent wetlands occur. The aforementioned valley foothill riparian habitat is used to describe the adjacent terrestrial habitat that is interdependent with the riverine systems within the *General Plan Land Use* impact area.

The open water zones of rivers provide resting and escape cover for many species of waterfowl. Gulls, terns, osprey (*Pandion haliaetus*), and bald eagle (*Haliaeetus leucocephalus*) forage in open water. Near shore waters provide food for waterfowl, herons, and shorebirds. Many species of insectivorous birds (swifts, flycatchers, swallows) forage for their prey over water. Some of the more common mammals that may occur in riverine habitat include river otter (*Lutra canadensis*), muskrat (*Ondatra zibethica*), and beaver (*Castor canadensis*).

Pond

Pond habitat is generally constructed for agricultural purposes (stock ponds for livestock) throughout the *General Plan Land Use* impact area. Pond habitats are inland depressions or dammed riverine channels containing standing water. They may vary from small ponds to very large bodies of water. Typical pond habitats can be divided into two types, permanent and intermittent. Permanent pond habitats include perennial flooded lakes and

reservoirs, while intermittent pond habitats include lakes, and ponds (including vernal pools) that are periodically flooded.

The plants and animals found in pond habitat can vary with water depth and vegetation composition. A blanket of vegetation on the surface of water provides suitable habitat for microorganisms, minute crustaceans, and snails and mosquitoes. Submerged plants such as algae and pondweeds serve as supports for smaller algae and as cover for swarms of minute aquatic animals. As sedimentation and accumulation of organic matter increases toward the shore, floating rooted aquatics such as water lilies and smartweeds often appear. Floating plants offer food and support for numerous herbivorous animals that feed both on phytoplankton and the floating plants.

Perennial pond habitats are used by water birds, such as mallards (*Anas platyrhynchos*), cinnamon teal (*Anas cyanoptera*), killdeer (*Charadrius vociferus*), and herons and egrets for resting and foraging grounds. Additionally, lakes and ponds that support fish provide optimal foraging habitat for osprey and bald eagle as mentioned in the riverine discussion above. Intermittent pond habitat, such as vernal pools, is further discussed below.

Irrigated Pasture

Irrigated pasture is typically associated with livestock grazing. The vegetation within pastures would include a mix of perennial grasses and legumes. The height of the vegetation can vary, according to season and livestock stocking levels, from a few inches to two or more feet. Common grassland and forbs species observed in this habitat include perennial ryegrass (*Lolium perenne*), Mediterranean barley (*Hordeum marinum*), narrowleaf plantain (*Plantago lanceolata*), soft brome (*Bromus hordeaceus*), butterweed (*Senecio* sp.), filaree (*Erodium cicutarium* and *E. botrys*), vetch (*Vicia* sp.), California poppy (*Eschscholzia californica*), common owl's-clover (*Triphysaria eriantha*), and rose clover (*Trifolium hirtum*). Although several areas within the *General Plan Land Use* impact area might be active irrigated pasture, one area was identified through field investigation.

Irrigated pastures support foraging habitat for a variety of avian and small mammal species and the wetland areas interspersed throughout this habitat likely support a variety of wildlife species. Species expected to occur within this habitat include great egret (*Ardea albus*), great blue heron (*Ardea herodias*), red-winged blackbird (*Agelaius phoeniceus*), bullfrog (*Rana catesbeiana*), and Pacific chorus frog (*Pseudacris regilla*).

Seasonal Wetland

Seasonal wetland habitat is typically associated with shallow drainages and swales (riverine features) or depressions, which inundate long enough to support hydric soils and hydrophytic vegetation such as vernal pools. Riverine seasonal wetlands are characterized by the seasonal flow of water induced by the onset of the rainy season and are typically vegetated with hydrophytic species. These features can be supported by ground water and surface water sources, and therefore are typically more expansive than

other seasonal wetlands, often flowing linearly across the landscape. A depressional seasonal wetland is characterized by shallow land depressions that are inundated or saturated by water often enough to support hydrophytic plant species.

Vernal pools are a unique type of seasonal wetland located within annual grassland habitats. Vernal pools are shallow depressions underlain by an impermeable layer, such as clay hardpan or bedrock, that fills with water seasonally, providing habitat for various plant and animal species. Vernal pools occur within the *General Plan Land Use* impact area where the topography of the landscape is gently sloping to nearly level. Annual herbs and grasses adapted to the unique seasonal conditions dominate vernal pool communities. Dominant plant species typically found within the vernal pools include coyote-thistle (*Eryngium vaseyi*), annual hairgrass (*Deschampsia danthonioides*), popcorn-flower (*Plagiobothrys* sp.), spikerush (*Eleocharis macrostachya*), and western mannagrass (*Glyceria occidentalis*).

Seasonal wetlands including vernal pools are used by resident and migratory animal species. The Central Valley is part of the pacific flyway, a migratory route for waterfowl species extending from Alaska to South America. In the spring, migrating waterfowl are often observed foraging and resting in Central Valley seasonal wetlands. Resident invertebrates and crustaceans, as well as the roots and leaves of vernal pool plants, provide an important seasonal food source for waterfowl and other non-migratory bird species. In addition, vernal pool habitat is vital to the life cycle of special-status crustaceans such as vernal pool fairy shrimp (*Branchinecta lynchi*).

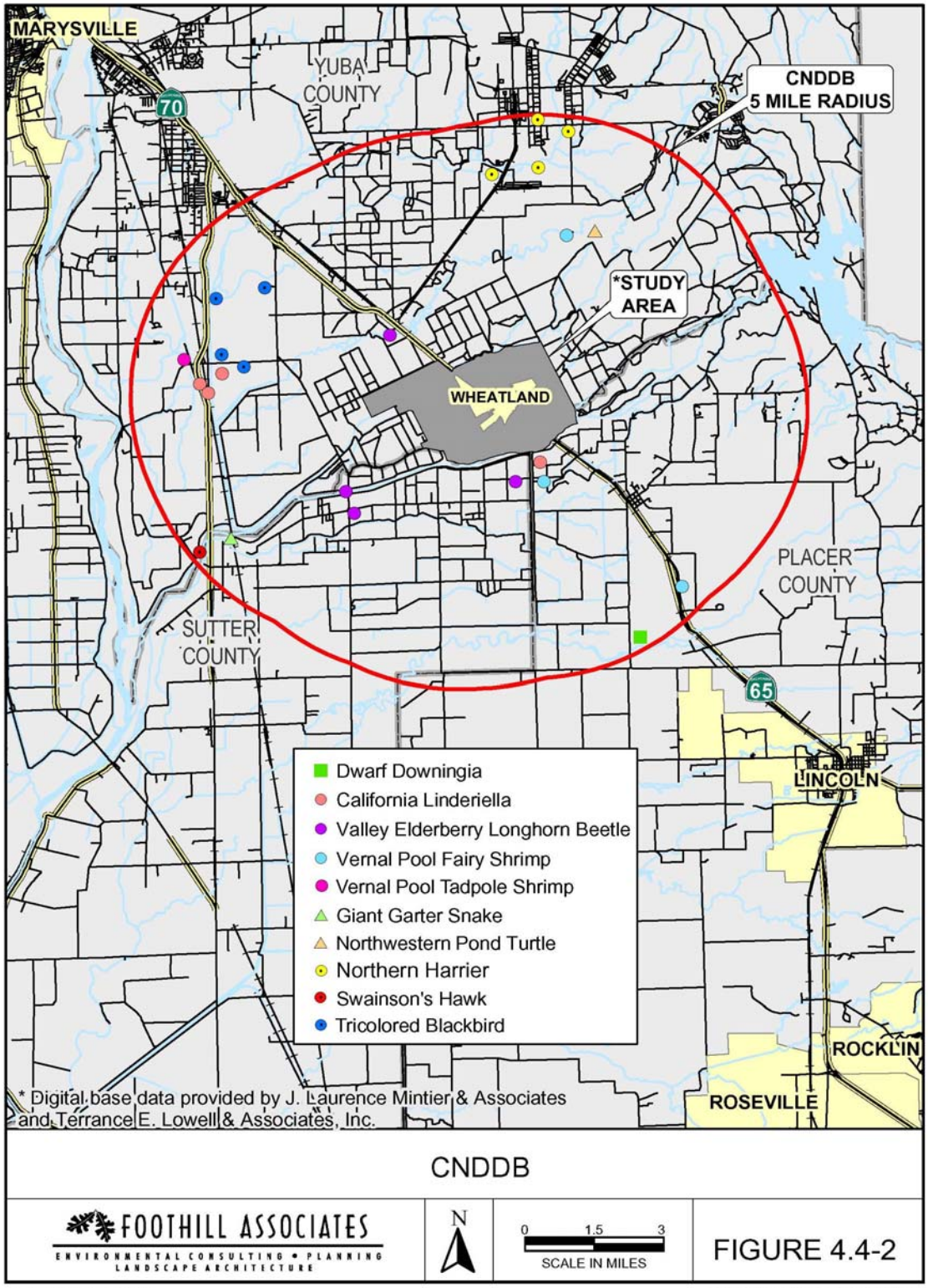
Special-Status Species

Special-status species are plant and animal species that have been afforded special recognition by federal, State, or local resource agencies or organizations. Listed and special-status species are of relatively limited distribution and may require specialized habitat conditions. Listed and special-status species are defined as:

- Listed or proposed for listing under the Federal Endangered Species Acts;
- Listed or proposed for listing under the State Endangered Species Acts;
- Protected under other regulations (e.g. Migratory Bird Treaty Act);
- California Department of Fish and Game (CDFG) Species of Special Concern;
- Listed as species of concern by California Native Plant Society (CNPS) or United States Fish and Wildlife Services (USFWS); or
- Receive consideration during environmental review under California Environmental Quality Act (CEQA).

Special-status species considered for this analysis are based on field survey results, review of the California Natural Diversity Data Base (CNDDB) occurrence records of species, review of the USFWS lists for special-status species occurring in the region, and CNPS literature (Table 4.4-1). The locations of special-status species occurrences in the project vicinity are shown in Figure 4.4-2, which is from a search of the CNDDB.

Figure 4.4-2
CNDDB



CNDDB

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N

0 1.5 3
SCALE IN MILES

FIGURE 4.4-2

WHEATLAND GP

SOURCE: CNDDB, 8/5/05
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Table 4.4-1 includes the common name and scientific name for each species, regulatory status (Federal, State, local, CNPS), habitat descriptions, and potential for occurrence within the *General Plan Land Use* impact area.

The following set of criteria has been used to determine each species potential for occurrence within the *General Plan Land Use* impact area:

- **Present**: Species is known to occur on the site, based on CNDDB records, and/or was observed onsite during the field survey(s);

- **Likely to Occur**: Species is known to occur on or near the site (based on CNDDB records within 5 miles, and/or based on professional expertise specific to the site or species) and there is suitable habitat onsite;

- **Low**: Species is known to occur in the vicinity of the site, and there is marginal habitat onsite; **or,** species is not known to occur in the vicinity of the site, however there is suitable habitat onsite;

- **No**: Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species onsite; **or**, species was surveyed for during the appropriate season with negative results.

Only those species that are known to be present, are likely to occur, or have a low potential for occurrence will be discussed further following Table 4.4-1.

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Table 4.4-1
Listed and Special-Status Species Potentially Occurring on the General Plan Land Use Impact Area

Common Name	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence
Plants			
AHART'S DRAWF RUSH *Juncus leiospermus* var. *ahartii*	FSC; --; --; 1B	Vernal pools and swales in agricultural lands and valley grasslands, usually in sparsely vegetated microhabitats such as gopher mounds. Elevations range from 100 to 300 feet.	**Low**
BRANDEGEE'S CLARKIA *Clarkia biloba* ssp. *brandegeae*	--; --; SLC; 1B	Chaparral, cismontane woodland, often in roadcuts. Elevations range from 900 to 3,000 feet.	**No**; General Plan Land Use impact area is located outside of the known range of this species, and no suitable habitat is present.

BUTTE FRITILLARY *Fritillaria eastwoodiae*	FSC; --; --; 3	Openings in lower mixed-conifer forest, especially forest-shrub ecotones, and semishade in chaparral and foothill woodland, including serpentine-related soils. Elevations range from 1,000 to 4,000 feet.	**No**; General Plan Land Use impact area is located outside of the known range of this species, and no suitable habitat is present.
CALIFORNIA PITCHERPLANT *Darlingtonia californica*	--; --; --; 4	Endemic to the northern Sierra Nevada and Coast Ranges of southwestern Oregon and northern California, including the Klamath, Siskiyou, Salmon, and Trinity Mountains. In the Sierra Nevada, it occurs as far south as Nevada County. Elevations range from 4,500 to 5,500 feet.	**No**; General Plan Land Use impact area is located outside of the known range of this species, and no suitable habitat is present.
CLUSTERED LADY'S-SLIPPER *Cypripedium fasciculatum*	FSC; --; --; 4	Populations are found in areas with 60 to 100 percent shade provided by plant communities, including mixed evergreen, mixed conifer, Douglas-fir, pine, and black oak forest. Elevations range from 1,000 to 5,300 feet.	**No**; General Plan Land Use impact area is located outside of the known range of this species, and no suitable habitat is present.
DWARF DOWNINGIA *Downingia pusilla*	--; --; --; 2	Northern claypan vernal pools in the central Sacramento Valley, northern hardpan vernal pools in the Sierra Nevada foothills, and vernal pools of the interior Coast Range valleys in Napa and Sonoma Counties. Elevations range from sea level to 1,500 feet.	**Low**
HARTWEG'S GOLDEN SUNBURST *Pseudobahia bahiifolia*	FE; CE; --; 1B	Cismontane woodland, valley and foothill grassland with clay soils. Elevations range from 50 to 500 feet.	**Low**
LAYNE'S BUTTERWEED *Senecio layneae*	FT; CR; --; 1B	Chaparral, cismontane woodland on serpentine or gabbroic soils in rocky areas. Elevations range from 650 to 3,300 feet.	**No**; General Plan Land Use impact area is located outside of the known range of this species, and no suitable habitat is present.

LEGENERE *Legenere limosa*	FSC; --; --; 1B	Found in vernal pool habitats.	**Low**
TEHAMA NAVARRETIA *Navarretia heterandra*	--; --; --; 4	Valley and foothill grassland (mesic), vernal pools; elevations range from 100 to 300 feet.	**Low**
QUINCY LUPINE *Lupinus dalesiae*	FSC; --; --; 1B	Open, dry, mixed-conifer forests, often on light-colored fractured shale soils and disturbed areas. Elevations range from 2,900 to 6,300 feet.	**No**; General Plan Land Use impact area is located outside of the known range of this species, and no suitable habitat is present.
Wildlife			
Invertebrates			
CALIFORNIA LINDERIELLA FARIY SHRIMP *Linderiella occidentalis*	FSC; --; --; --	Vernal pools, swales, and ephemeral freshwater habitat.	**Low**
CONSERVANCY FAIRY SHRIMP *Branchinecta conservatio*	FE; --; --; --	Vernal pools, swales, and ephemeral freshwater habitat.	**Low**
VALLEY ELDERBERRY LONGHORN BEETLE *Desmocerus californicus dimorphus*	FT; --; --; --	Associated with host plant, elderberry trees (Sambucus spp.) in California's Central Valley during its entire life cycle.	**Likely to occur**
VERNAL POOL FAIRY SHRIMP *Branchinecta lynchi*	FT; --; --; --	Vernal pools, swales, and ephemeral freshwater habitat.	**Low**
VERNAL POOL TADPOLE SHRIMP *Lepidurus packardi*	FE; --; --; --	Vernal pools, swales, and ephemeral freshwater habitat.	**Low**
Amphibians/Reptiles			
CALIFORNIA RED-LEGGED FROG *Rana aurora draytonii*	FT; CSC; --; --	Requires a permanent water source and is typically found along quiet slow moving streams, ponds, or marsh communities with emergent vegetation.	**Low**
GIANT GARTER SNAKE *Thamnophis gigas*	FT; CT; --; --	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	**Low**

NORTHWESTERN POND TURTLE *Clemmys marmorata marmorata*	FSC; CSC; --; --	Occurs from the vicinity of the American River northward in permanent or nearly permanent ponds and streams, in a wide variety of habitats including valley, foothill, and montane regions.	**Likely to occur**
WESTERN SPADEFOOT TOAD *Spea hammondii*	FSC; CSC; --; --	Grassland habitats associated with long-lasting rain pools including, large vernal pools, or other seasonal wetlands. These habitats are essential for breeding and laying eggs.	**Low**
Fish			
CENTRAL VALLEY FALL/LATE FALL-RUN CHINOOK SALMON *Oncorhynchus tshawytscha*	FC; CSC; --; --	Sacramento and San Joaquin Rivers and their tributaries.	**Low;** possibly on the Bear River only
DELTA SMELT *Hypomesus transpacificus*	FT; CT; --; --	Middle and lower delta region.	**No**
GREEN STURGEON *Acipenser medirostris*	PT; CSC; --; --	Found in large rivers from San Francisco Bay northward.	**Low;** possibly on the Bear River only
LONGFIN SMELT *Spirinchus thaleichthys*	FSC; CSC; --; --	Found in major bays and estuaries from San Francisco Bay northward.	**No;** there is no suitable habitat within the General Plan Land Use impact area for longfin smelt.
PACIFIC LAMPREY *Lampetra tridentata*	FSC; --; --; --	Spawning adults are found in gravel riffles and runs of clear coastal streams; feeding adults usually in the ocean.	**No;** there is no suitable habitat within the General Plan Land Use impact area for pacific lamprey.
SACRAMENTO SPLITTAIL *Pogonichthys macrolepidotus*	FSC; CSC;--; --	Delta region and lower Sacramento and San Joaquin Rivers.	**No**
Birds			
AMERICAN BITTERN *Botaurus lentiginosus*	FSC; --; --; --	Marshes and reedy lakes. Seldom seen in trees.	**Low**
ALEUTIAN CANADA GOOSE *Branta canadensis leucopareia*	FD (FSC); --; --; -- (Wintering)	Winter resident of agricultural lands.	**Low**

BALD EAGLE *Haliaeetus leucocephalus*	FPD (FT); CE (fully protected); --; -- (Nesting and Wintering)	Nesting restricted to the mountainous communities near permanent water sources. Winters throughout most of California at lakes, reservoirs, river systems, and coastal wetlands.	**Low**
BANK SWALLOW *Riparia riparia*	--; CT; --; -- (Nesting)	Restricted to riparian areas with vertical cliffs and banks with fine or sandy soils.	**Low**
BLACK SWIFT *Cypseloides niger*	FSC; CSC; --; -- (Nesting)	Areas with rocky cliffs available for nesting, varying from ocean cliffs to mountain ledges, at elevations from sea level to 11,000 feet.	**Low**
CALIFORNIA THRASHER *Toxostoma redivivum*	FSC; --; --; --	Endemic to coastal and foothill areas of California, in dense chaparral and conifer forests.	**No;** although this species may occur along the foothills, it is unlikely that California thrasher would occur within the General Plan Land Use impact area.
FERRUGINOUS HAWK *Buteo regalis*	FSC; CSC; --; -- (Wintering)	A winter resident of open habitats in California including grasslands, and brushy forests.	**Likely to occur**
GREATER SANDHILL CRANE *Grus canadensis tabida*	--; CT & Fully protected; --; -- (Nesting & Wintering)	Nests in wet meadows interspersed with emergent marsh habitat. Winters in agricultural croplands and irrigated pastures.	**Low**
LAWRENCE'S GOLDFINCH *Carduelis lawrencei*	FSC; --; --; -- (Nesting)	Nests in open oak or other arid woodland and chaparral habitats near water. Nest built in a tightly woven cup, in a low tree or bush.	**Low**
LEWIS' WOODPECKER *Melanerpes lewis*	FSC; --; --; -- (Nesting)	Nests in cavities in dead or live snags of trees. Breeds along eastern slopes of the Coast Ranges, and in the Sierra Nevada.	**No;** wintering habitat occurs within the General Plan Land Use impact area, this species known nesting range is in the Coast Range and Sierra Nevada mountain ranges.

LITTLE WILLOW FLYCATCHER *Empidonax traillii brewsteri*	--; CE; --; -- (Nesting)	Nests in shrubby riparian vegetation with saturated soil conditions or near a water source, from Tulare County north, along the western side Sierra Nevada and Cascades, extending to northern California coast.	**No;** the known nesting range of this species occurs at higher elevation than the Plan Area.
LOGGERHEAD SHRIKE *Lanius ludovicianus*	FSC; CSC; --; -- (Nesting)	Nests on stable branches in densely foliaged shrubs or trees. Typically found in open habitats with scattered shrubs, trees, posts, utility lines or other perching sites.	**Likely to occur**
LONG-BILLED CURLEW *Numenius americanus*	FSC; CSC; --; -- (Nesting)	Frequent wet meadow habitats, large coastal estuaries, and upland herbaceous areas including croplands. Nest built in grass-lined depressions on open ground.	**Low**
MOUNTAIN PLOVER *Charadrius montanus*	PT (FC); CSC; --; -- (Wintering)	Open and flat valley grasslands and short-grass prairies.	**Low**
NUTTALL'S WOODPECKER *Picoides nuttallii*	--; --; SLC; --	Permanent resident of low elevation riparian deciduous and oak woodland habitats.	**Likely to occur**
OAK TITMOUSE *Baeolophus inornatus*	--; --; SLC; --	Oak and pine-oak woodland, chaparral, and oak-riparian communities.	**Likely to occur**
RUFOUS HUMMINGBIRD *Selasphorus rufus*	FSC; --; --; --; -- (Nesting)	Nests in berry brambles, shrubs and conifers, within wooded habitats. Known to breed in Oregon and Washington and the Trinity Mts., of Trinity and Humboldt counties.	**Low**
SWAINSON'S HAWK *Buteo swainsoni*	--; CT; -- (Nesting)	Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat (agricultural fields, grasslands, etc.).	**Likely to occur**

TRI-COLORED BLACKBIRD *Agelaius tricolor*	FSC; CSC; --; -- (Nesting colony)	Nests in dense blackberry, cattails, tules, willows, or wild rose within emergent wetlands throughout the Central Valley and the foothills surrounding the valley.	**Low**
VAUX'S SWIFT *Chaetura vauxi*	FSC; CSC; --; -- (Nesting)	Nests within large hollow trees and snags in coniferous forest habitats.	**No**; General Plan Land Use impact area is located outside of the known range of this species.
WESTERN BURROWING OWL *Athene cunicularia hypugaea*	FSC; --; --; -- (Burrow Sites)	Nests in burrows in the ground, often in old ground squirrel burrows or badger, within open valley and foothill grassland and desert habitat.	**Low**
WESTERN YELLOW-BILLED CUCKOO *Coccyzus americanus occidentalis*	FC; CE; --; -- (Nesting)	Nests in valley, foothill, and desert, riparian communities within dense understory foliage. Also known to nests in walnut and almond orchards (CDFG 2002).	**No;** no suitable habitat is present onsite.
WHITE-FACED IBIS *Plegadis chihi*	FSC; CSC; --; -- (Rookery)	Inhabits large freshwater emergent wetlands. Nesting colonies typically occur hidden within dense stands of vegetation such as reeds or willows.	**Low;** although this species could occur during migration, the General Plan Land Use impact area is outside of the known range.
WHITE-TAILED KITE *Elanus leucurus*	FSC; Fully protected; --; -- (Nesting)	Inhabits herbaceous lowlands with variable tree growth. Nests in substantial groves of dense trees, typically adjacent to agricultural land or grassland habitats.	**Present**
OTHER RAPTORS (HAWKS, OWLS AND VULTURES)	MBTA and §3503.5 Department of Fish and Game Code	Nests in a variety of communities including cismontane woodland, mixed coniferous forest, chaparral, montane meadow, riparian, and urban communities.	**Present**
Mammals			
FRINGED MYOTIS BAT *Myotis thysanodes*	FSC; --; --; --	Chiefly inhabits coastal and montane forests and mountain meadows. Forms nursery colonies in caves, mines or buildings.	**Low**

GREATER WESTERN MASTIFF-BAT *Eumops perotis californicus*	FSC; CSC; --; --	Inhabits open areas in annual and perennial grasslands, coniferous and deciduous woodlands, with potential roost locations having vertical faces to drop off from and take flight, such as crevices in rock outcrops and cliff faces, tunnels and tall buildings.	**Low**
LONG-EARED MYOTIS *Myotis evotis*	FSC; --; --; --	Roosts in buildings, crevices, spaces under bark and snags. Uses caves for night roosts and forages among trees, over water and shrubs in forests between 7,000-8,500 feet above MSL.	**Low**
LONG-LEGGED MYOTIS BAT *Myotis volans*	FSC; --; --; --	Woodland and forest communities above approximately 4,000 feet above MSL. Roosts in rock crevices, buildings, under tree bark, in snags, mines, and caves.	**Low**
PACIFIC WESTERN BIG-EARED BAT *Corynorhinus townsendii townsendii*	FSC; --; --; --	Typically occurs in mesic habitats, and requires caves, crevices, mines, tunnels, buildings or structures for roosting.	**Low**
SAN JOAQUIN POCKET MOUSE *Perognathus inornatus*	FSC; --; --; --	Flat ground and low hills in Central Valley north to Marysville Buttes and south to Carrizo Plain.	**Low**
SMALL-FOOTED MYOTIS *Myotis ciliolabrum*	FSC; --; --; --	Occurs in open stands of trees in forests and woodland, as well as scrubland. Often seen flying above water. Roosts in buildings and caves.	**Low**
YUMA MYOTIS BAT *Myotis yumanensis*	FSC; CSC; --; --	Reside in open forests and woodland habitats with sources of water over which to feed. Roost in buildings, mines, caves, and crevices.	**No**; there is no potential habitat for this species within the General Plan Land Use impact area.
Federally Listed Species:		**California State Listed Species:**	**CNPS* List Categories:**
FE = federal endangered	FC = candidate	CE = California state endangered	1A = plants presumed extinct in California

FT = federal threatened	PT = proposed threatened	CT = California state threatened	1B = plants rare, threatened, or endangered in California and elsewhere
FSC = federal species of concern	PD = proposed for delisting	CR = California state rare	2 = plants rare, threatened, or endangered in California, but common elsewhere
	FD = delisted	CSC = California Species of Special Concern	3 = plants about which more information is needed
			4 = plants of limited distribution
			Other Special-status Listing:
Source: Foothill Associates			SLC = species of local or regional concern or conservation significance

Special-Status Wildlife

Invertebrates

California linderiella, Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Typical habitat for special-status vernal pool crustaceans in California include vernal pools, seasonally ponded areas within vernal swales, rock outcrop ephemeral pools, playas and alkali flats. Fairy shrimp are small, delicate animals that grow 10 to 20 mm in a period as short as two to three weeks and about 40 mm in some of the species that may live several months. They filter bacteria, algae, and protozoa from their aquatic habitat. These short-lived animals hatch and reproduce during a short interval in the winter when the vernal pools are filled with water. Fairy shrimp cysts fall to the bottom of the pool where they withstand the hot, dry summers of California's grasslands. After one or more dry seasons, the cysts will hatch when the pools are once again full of water, and the cycle of life begins again. The CNDDB lists several records of California linderiella and vernal pool fairy shrimp within the five miles of the *General Plan Land Use* impact area. Approximately 1,324 acres is designated critical habitat for vernal pool species within Yuba County. Seasonal wetlands such as vernal pools are considered suitable habitats for these species. Consequently, these special-status invertebrates could occur within vernal pools and seasonal wetlands throughout the *General Plan Land Use* impact area.

Valley Elderberry Longhorn Beetle. The federally listed valley elderberry longhorn beetle (VELB) is known to occur in association with its host plant, the elderberry (*Sambucus* sp.), that is critical for the larval stages. Because of the beetle's dependence on its host plant, the USFWS considers the elderberry, which is a common species of riparian and upland habitats in the Central Valley, habitat for VELB. This species is recorded in the CNDDB within five miles of the *General Plan Land Use* impact area. Additionally, elderberry shrubs were observed along roadways and within the riparian areas during field reconnaissance. Consequently, VELB has a high potential to occur on elderberry shrubs within the *General Plan Land Use* impact area.

Fish

Anadromous Fishes and Other Aquatic Species. Two special-status anadromous fish species are known to or could occur in the *General Plan Land Use* impact area (Bear River): Central Valley fall/late fall-run Chinook salmon and green sturgeon. The Bear River is a tributary to the Feather River that eventually drains into the Sacramento River. These fish species are known to occur within the San Joaquin and Sacramento Rivers and their tributaries. Consequently, these species have the potential to occur within the open water habitat of the Bear River.

Amphibians

California Red-Legged Frog. California red-legged frog is listed as federally threatened and a California species of special concern. The California red-legged frog is the largest native frog in the western United States. This species requires dense, shrubby or emergent riparian vegetation closely associated with deep, still, or slow-moving water. The largest densities of California red-legged frogs are associated with deep-water pools with dense stands of overhanging willow trees and an intermixed fringe of cattails (*Typha latifolia*). Well-vegetated terrestrial areas within the riparian corridor may provide important sheltering habitat during winter. California red-legged frogs estivate in small mammal burrows and moist leaf litter. The California red-legged frog is not recorded to occur within five miles of the *General Plan Land Use* impact area. However, the riparian, riverine, and pond habitat within the *General Plan Land Use* impact area are considered suitable habitat for this species. Consequently, California red-legged frog could occur within the riparian corridors and slow-moving waterways throughout the *General Plan Land Use* impact area.

Western Spadefoot Toad. The western spadefoot toad is a federal species of concern and a California species of special concern. This species occurs in shallow temporary pools adjacent to annual grassland habitat. The western spadefoot toad is not listed in the CNDDB to have occurred within five miles of the *General Plan Land Use* impact area. However, seasonally inundated wetland habitat within annual grassland communities are considered suitable habitat for this species. Therefore, this species has a low potential to occur within the *General Plan Land Use* impact area.

Reptiles

Giant Garter Snake. The giant garter snake is federally listed as threatened and is listed in California as threatened. This species occurs in vegetated canals, streams, and rivers throughout the Central Valley. Grassy banks and emergent vegetation are used for basking and high ground with burrows or crevices, which are protected from winter flooding, is used for hibernacula (winter retreats). An occurrence record of giant garter snake is listed in the CNDDB within five miles of the *General Plan Land Use* impact area. The riverine and adjacent riparian habitats in the area support suitable habitat for this species. Consequently, giant garter snake could occur in the Bear River and any perennial irrigation canals within the *General Plan Land Use* impact area.

Northwestern Pond Turtle. Northwestern pond turtle is a federal species of concern and is a California species of special concern. This species requires permanent, still to slow-moving water with basking sites such as submerged logs, rocks, mats of floating vegetation or mud banks. One occurrence of this species is listed in the CNDDB within five miles of the *General Plan Land Use* impact area. The pond habitats in the *General Plan Land Use* impact area support suitable habitat for this species and, consequently, this species could very likely occur in ponds within the *General Plan Land Use* impact area.

Birds

American Bittern. The American bittern is a federal species of concern. This species occurs in fresh or saline emergent wetlands throughout the Central Valley. American bitterns nest on a platform of matted emergent vegetation, usually in shallow water. Although records of this species are not listed in the CNDDB, suitable habitat occurs adjacent to several of the open water features in the *General Plan Land Use* impact area. Therefore, American bittern has a low potential to occur in stock ponds, flooded agricultural fields, and Grasshopper Slough within the *General Plan Land Use* impact area.

Aleutian Canada Goose. The Aleutian Canada goose was recently removed from the federal endangered species list. Currently, the U.S. Fish and Wildlife Service is monitoring the species. In autumn, Aleutian Canada geese migrate from their breeding grounds in the Aleutian Islands to their wintering grounds in Oregon and California. Suitable wintering habitat for this species in California occurs in the Central Valley, which includes agricultural croplands, marshes, and pastures. Records of the Aleutian Canada goose are not listed with the CNDDB within five miles of the *General Plan Land Use* impact area. However, suitable wintering habitat for this species occurs within the agricultural cropland, annual grassland, riverine and pond habitats within the *General Plan Land Use* impact area. Therefore, this species has a low potential to use agricultural fields, stock ponds, irrigation canals, Dry Creek, and Grasshopper Slough for foraging within the *General Plan Land Use* impact area.

Bald Eagle. Bald eagles live near large bodies of open water such as lakes, marshes, seacoasts and rivers, where plenty of fish to eat and tall trees for nesting and roosting occur. Bald eagles use a specific territory for nesting, winter feeding, or a year-round residence. Bald eagle is a year-round resident in mountain ranges of northern California. Some bald eagles that reside in the southern U.S. migrate slightly north during the hot summer months. Bald eagles feed primarily on fish, but also eat small animals (ducks, coots, muskrats, turtles, rabbits, snakes, etc.) and occasional carrion (dead animals). Although wintering habitat occurs, the *General Plan Land Use* impact area is outside of the known nesting range for bald eagle. Therefore, this species has a low potential to nest within the *General Plan Land Use* impact area.

Bank Swallow. The bank swallow is listed in California as threatened. The majority of this species breeding population occurs along banks of lakes, ponds, rivers, and steams in the Central Valley. This species is restricted to riparian habitats with vertical cliffs and banks with fine-textured or sandy soils, into which it digs nesting holes. The species is not recorded to occur within five mile of the *General Plan Land Use* impact area. However, suitable habitat for this species occurs adjacent to the riverine habitat. Therefore, this species has a low potential to occur along the banks of the Bear River within the *General Plan Land Use* impact area.

Ferruginous Hawk. The ferruginous hawk is a federal and state species of concern. This hawk is a winter resident and migrant at lower elevation and open grassland in the Modoc Plateau, Central Valley, and Coast Ranges. Ferruginous hawks are known to frequent open grasslands in search for prey and roosts in open areas, usually in a lone tree or on a utility pole. This species can tolerate heat, and nests are often found out in the open with no shade. Ferruginous hawks tend to displace red-tailed and Swainson's hawks, and compete with numerous avian and mammal species that prey upon small mammals. Occurrence records for this species do not exist within five miles of the *General Plan Land Use* impact area. However, the annual grassland is considered suitable foraging habitat for ferruginous hawk. Consequently, this species has a high potential to occur during wintering months foraging in agricultural fields and vacant lands within the *General Plan Land Use* impact area.

Greater Sandhill Crane. The greater sandhill crane is listed in California as threatened. This species is a winter migrant to the Central Valley where it occurs in wet meadows that are often interspersed with emergent marsh, agricultural croplands with cereal grain crops, and irrigated pastures. The species is not listed in the CNDDB within five miles of the *General Plan Land Use* impact area. The cropland, annual grassland, and ponds in the *General Plan Land Use* impact area provide suitable wintering habitat for this species, allowing the species to regularly forage within these habitats. Consequently, greater sandhill crane could occur during wintering months foraging in agricultural fields, open grasslands, and along edges of Dry Creek and Grasshopper Slough, as well as stock ponds. Therefore, greater sandhill crane has a low potential to occur within the *General Plan Land Use* impact area.

Lawrence's Goldfinch. Lawrence's goldfinch is a federal species of concern. The breeding range of the species is confined to the Central Valley and coastal foothills of California. Lawrence's goldfinches typically nest in arid, open woodlands near chaparral, ruderal fields, and small bodies of water. Breeding generally occurs between mid-April and late July. The species feeds mostly on seeds of annual plants, with a strong preference for fiddlenecks (*Amsinckia* spp.). The species is not recorded to occur within five miles of the *General Plan Land Use* impact area. However, the oak woodland and annual grassland habitats within the *General Plan Land Use* impact area would provide suitable nesting and foraging habitat for Lawrence's goldfinch. Therefore, this species has a low potential to occur within the oak woodland and annual grassland communities within the *General Plan Land Use* impact area.

Loggerhead Shrike. Loggerhead shrike is a federal and California species of concern. This species prefers open habitats with scattered shrubs, trees, posts, fences, or other perches. Loggerhead shrikes nest in desert, savanna, open-canopied hardwood, hardwood-conifer, and riparian communities. Although no records of this species are listed in the CNDDB within five miles of the *General Plan Land Use* impact area, suitable foraging and nesting habitat for this species occurs adjacent to open water habitat and within the riparian habitat in the *General Plan Land Use* impact area. Consequently, this species has a high potential to occur within the riparian corridors along Dry Creek and Grasshopper Slough within the *General Plan Land Use* impact area.

Long-billed Curlew. Long-billed curlew is a federal and state species of concern. The long-billed curlew breeds on plains, grasslands and prairies. The long-billed curlew spends the winter on lake and river shores, marshes, mudflats, and sandy beaches. When they are in the grasslands, the long-billed curlew eats grasshoppers, beetles and crickets. When they are in their winter habitats, they eat small crustaceans, mollusks, berries, and seeds. Occurrence records do not exist for long-billed curlew within five miles of the *General Plan Land Use* impact area. However, the *General Plan Land Use* impact area is within the known range of this species and the annual grassland and wetland communities would be considered suitable nesting and foraging habitat for this species. Therefore, this species has a low potential to occur within annual grassland and seasonal wetland communities within the *General Plan Land Use* impact area.

Mountain Plover. The mountain plover is a federally proposed threatened species and a California species of concern. This species is a Great Plains native that breeds on the arid short-grass prairie from northern Montana to southern New Mexico and winters in California with small numbers in Arizona and Texas. Wintering habitat for this species includes short grasslands and plowed fields. The species is not recorded in the CNDDB to occur within five miles of the *General Plan Land Use* impact area. Although suitable wintering habitats for this species occurs within annual grassland, fallow agricultural land, and irrigated pasture habitats in the *General Plan Land Use* impact area, it is unlikely that this species regularly forages there. As such, this species has a low potential to occur within these habitats throughout the *General Plan Land Use* impact area.

Nuttall's Woodpecker. Nuttall's woodpecker is a species of local concern. This species is a common resident of low elevation riparian deciduous and oak habitats. Nest holes are excavated in willow, alder, cottonwood, sycamore, or oak trees, and these are found anywhere from 2.5 feet to 60 feet above the ground. Nuttall's woodpeckers forage preferentially in oaks, but acorns make up only a small part of their diet. Insects such as beetles, caterpillars, ants, and bugs are sought among the dense foliage of trees. Records of this species are not listed in the CNDDB within five miles of the *General Plan Land Use* impact area. However, suitable habitat for Nuttall's woodpecker occurs within the oak woodland habitat within the *General Plan Land Use* impact area. Consequently, this species has a high potential to occur within woodland communities throughout the *General Plan Land Use* impact area.

Oak Titmouse. Oak titmouse is a species of local concern. Suitable nesting habitat includes oak woodland, pine-oak woodland, chaparral, and oak-riparian habitats. Nests are typically constructed in natural tree cavities, but this species will also use old woodpecker holes or bird boxes. Records of this species are not listed in the CNDDB within five miles of the *General Plan Land Use* impact area. However, suitable nesting habitat for oak titmouse occurs within the valley oak woodland habitat onsite, and this species is very common in oak woodlands. Therefore, this species has a high potential to occur within woodland communities throughout the *General Plan Land Use* impact area.

Swainson's Hawk. Swainson's hawk is a migratory species that is typically found in California during its breeding season, from early March through early September. This species migrates from their wintering grounds in the La Pampas region in Argentina to their breeding ground in east-central Alaska, southwest Canada, eastern Washington and Oregon, and the Central Valley of California. For breeding grounds, Swainson's hawks prefer open habitats including mixed and short grasslands, with scattered trees or shrubs for perching, dry grasslands, irrigated meadows, and edges between two habitat types. Breeding occurs from late March to late August, peaking in late May through July. In the Central Valley of California, Swainson's hawk nest in stands of few trees in juniper-sage flats, riparian woodlands and oak woodlands, usually in close proximity to suitable foraging habitat. Swainson's hawk is recorded in the CNDDB within ten miles of the *General Plan Land Use* impact area. Suitable foraging and nesting habitat occurs within the *General Plan Land Use* impact area and, consequently, this species has a high potential to occur.

Tricolored Blackbird. Tricolored blackbird is a federal and California species of concern. This species is a common resident throughout the Central Valley and coastal areas south of Sonoma County. Tricolored blackbirds nest in emergent wetlands with dense cattails or tules, and also in thickets of blackberry and willow. Records of this species are not listed in the CNDDB within the *General Plan Land Use* impact area; however, potential nesting habitat occurs in the valley foothill riparian habitat and adjacent to the irrigation ditches and open water habitats in the *General Plan Land Use* impact area. Therefore, this species has a low potential to occur within wetland communities that support thickets of blackberry and stands of cattail within the *General Plan Land Use* impact area.

Western Burrowing Owl. The western burrowing owl is a federal and California species of concern. Burrowing owls inhabit open grasslands of the Central Valley. Typically, they nest in small colonies in abandoned ground squirrel burrows. This species may also occur along canal banks. Occurrence records do not exist for the western burrowing owl within five miles of the *General Plan Land Use* impact area. However, suitable habitat occurs within the annual grassland and cropland habitat in the *General Plan Land Use* impact area. Consequently, this species has a low potential to use this habitat in the *General Plan Land Use* impact area.

White-faced ibis. The white-faced ibis is found in salt and freshwater marsh habitat throughout the western United States east to approximately Louisiana. The white-faced ibis is a federal and state species of special concern. The species does not nest widely in

California and breeding in the Central Valley is known from only a few locations such as the Kern National Wildlife Refuge in the San Joaquin Valley. The species nests on the ground in dense, emergent marsh vegetation. This species is rarely known to nest in trees.

White-tailed kite. White-tailed kite is a federal species of concern and is fully protected by the California Department of Fish and Game. White-tailed kite is a medium sized raptor that is a yearlong resident in coastal and valley lowlands in California. This species occurs in agricultural, grassland, wetland, and oak woodland habitats. White-tailed kite prey mostly on voles and other small mammals; however, this species will occasionally prey on insects, birds, reptiles, and amphibians. White-tailed kite are monogamous and breed from February to October, peaking from May to August (Zeiner *et al*., 1990). This species nests near the top of dense oak, willow, or other large trees. This species was observed onsite during the field survey, and there is suitable nesting and foraging habitat for this species present. Therefore, white-tailed kite is considered likely to occur within the study area.

Raptors and Other Migratory Birds. Raptor nests including Cooper's hawk (*Accipiter cooperii*), short-eared owl (*Asio flammeus*), and white-tailed kite (*Elanus leucurus*) are protected under the MBTA and Section 3503.5 of the California Fish and Game Code. Suitable raptor nesting and foraging habitat occurs in the *General Plan Land Use* impact area. American kestrel, red-tailed hawk, and white-tailed kite were observed during the field reconnaissance. Consequently, raptor species likely forage and nest in the *General Plan Land Use* impact area.

Migratory birds forage and nest in multiple habitats such as annual grasslands and riparian oak woodlands. The nests of all migratory birds are protected under the MBTA, which makes it illegal to destroy any active migratory bird nest. Numerous migratory bird species have the potential to nest in the *General Plan Land Use* impact area.

Mammals

San Joaquin Pocket Mouse. San Joaquin pocket mouse is a federal species of concern. Seeds of grasses, forbs, and shrubs such as *Atriplex* are the main food source and soft-bodied insects such as cutworms and even grasshoppers are also eaten. The pocket mouse lives in arid habitats, therefore all water needs are metabolized through seed digestion. The foraging habits of the pocket mouse tend to occur under the cover of shrubs. They generally do not travel far to forage and stay out of relatively open areas. The occurrence of the San Joaquin pocket mouse is unknown within five miles of the *General Plan Land Use* impact area. However, the annual grassland and oak woodland habitats would be considered suitable foraging and nesting habitat. Consequently, this species could occur within the *General Plan Land Use* impact area.

Bats. Pacific western big-eared bat, fringed myotis, long-eared myotis, long-legged myotis, and small-footed myotis bats are all federal species of concern. The greater western mastiff bat is also a state species of concern, as well as a federal species of

concern. Habitat for bat species consists of foraging habitat, maternity roost sites, night roosting cover, and winter hibernacula. In general, the CDFG is most concerned about the loss of maternity roosting sites. These species forage over open water or land and could use open water and riparian habitats in the *General Plan Land Use* impact area to forage. Potential maternity and night roosting sites could occur in abandoned outbuildings and within the riparian habitats in the *General Plan Land Use* impact area. Therefore, these bat species could occur in the *General Plan Land Use* impact area.

Special-Status Plants

Based on records search of the CNDDB, CNPS Inventory of Rare and Endangered Plants, and the USFWS species list for Yuba County, suitable habitat for the following plant species occurs in the *General Plan Land Use* impact area: Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), dwarf downingia (*Downingia pusilla*), Hartweg's golden sunburst (*Pseudobahia bahiifolia*), legenere (*Legenere limosa*), and Tehama navarretia (*Naverretia heterandra*). These species are further discussed below.

Ahart's Dwarf Rush. Ahart's dwarf rush is known from fewer than six occurrences in Butte, Calaveras, Placer, Sacramento, and Yuba counties. This small, reddish, grass-like annual is in the rush family (Juncaceae). Typically the height of this plant ranges from less than an inch to 2.5 inches and each plant produces as many as 100 slender stems from its base. The grass-like leaves arise from the base and are approximately half as long as the stems. The flowering period for Ahart's dwarf rush is April–May with each stem producing a single flower at its tip. This species will occur in vernal pool margins within moderately moist valley and foothill grasslands. More specifically, Ahart's dwarf rush is more commonly found in vernal pools with short inundation durations and/or the upper margins of deeper vernal pools. Currently, the Ahart's dwarf rush is not known to occur within five miles of the *General Plan Land Use* impact area. However, vernal pools and seasonal ponded areas could support this species. Therefore, Ahart's dwarf rush has a low potential to occur within the *General Plan Land Use* impact area.

Dwarf Downingia. Dwarf downingia is an annual herb that occurs in vernal pools within moderately moist valley and foothill grasslands. This species is a small (0.8– 5.9 inches) plant with flowers that vary from white to blue which can be seen from March through May. Typically, dwarf downingia occurs in vernal pools and artificial features within the annual grassland, such as stock ponds, roadside ditches, gravel pits, tire ruts, and scraped depressions. This species can occur in areas that hold water for short periods of time as well as on along the margins of areas that hold water for longer durations such as marshes and sloughs. While a known CNDDB occurrence of dwarf downingia exists within five miles and suitable habitat such as vernal pool is present (though of marginal quality), this species nevertheless has a low potential to occur within the *General Plan Land Use* impact area.

Hartweg's Golden Sunburst. Hartweg's golden sunburst is a member of the sunflower or aster family (Asteraceae) and is known to occur in valley and foothill grasslands. This species can be 2 to 6 inches tall and is covered throughout with white, woolly hairs. This

species, which is in bloom during March or April, shows a solitary bright yellow flower. Only known from fewer than twenty occurrences, Hartweg's golden sunburst is very rare and seriously threatened by development and agricultural uses. Because CNDDB records for this species do not exist within five miles of the *General Plan Land Use* impact area, and the widespread agricultural practices that occur throughout the area, Hartweg's golden sunburst has a low potential to occur.

Legenere. Legenere is in the bellflower family and is known to occur within vernal pools in valley grasslands. The flowering period for legenere is generally from April through June, depending on the depth of the vernal pool or the duration of ponding. Legenere can occur within matted vegetation at the bottom of drying vernal pools and grows to approximately 4–6 inches tall. Many historical occurrences of legenere have been extirpated through California due grazing and development. Because CNDDB records for this species do not exist within five miles and cattle grazing activity occurs within annual grassland communities, legenere has a low potential to occur.

Tehama Navarretia. Tehama navarretia is an annual herb that occurs in vernal pools of the valley and foothill grasslands. This species generally blooms from April through June. Because CNDDB records for this species do not exist within five miles and cattle grazing activity occurs within annual grassland communities, Tehama navarretia has a low potential to occur.

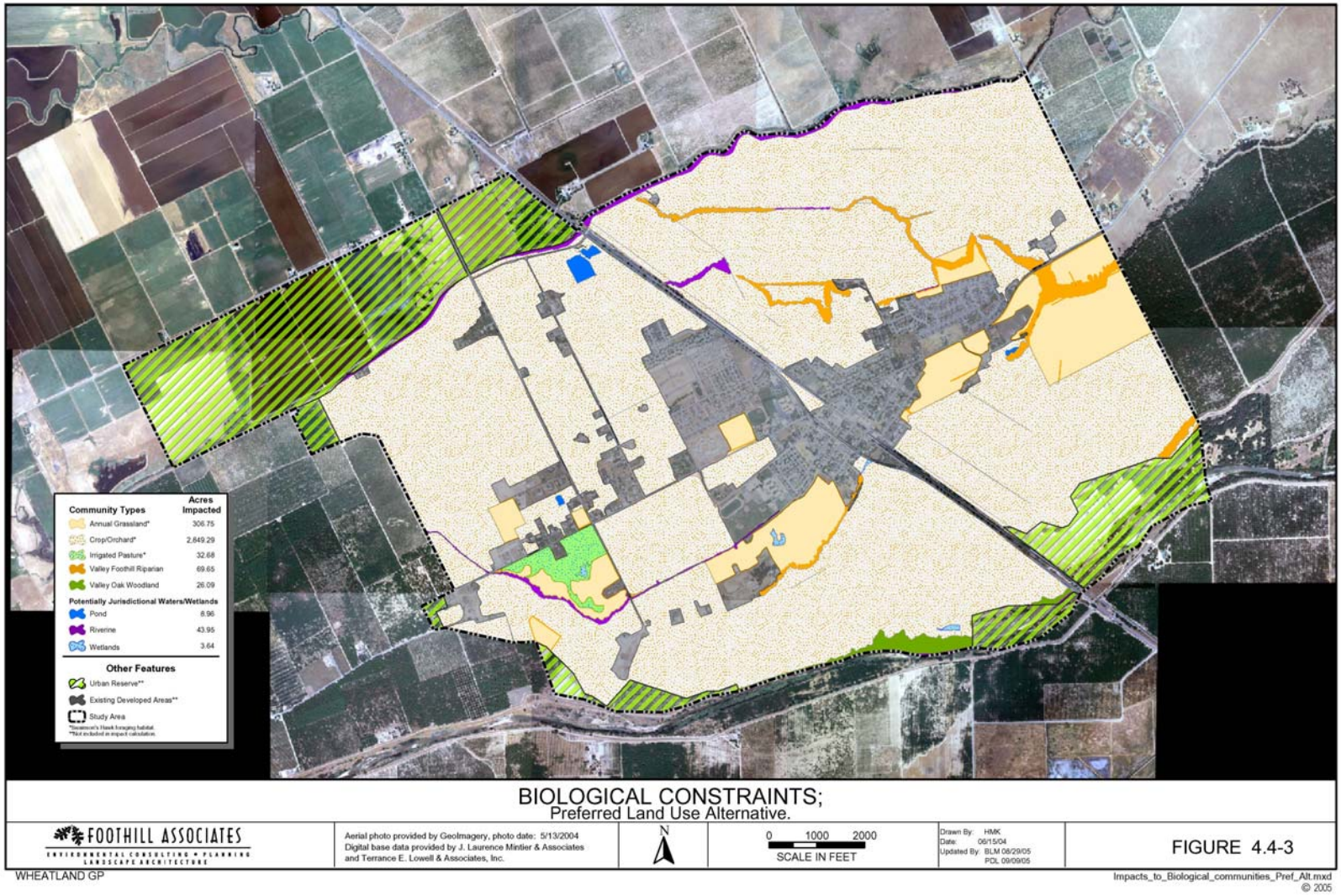
Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act. Sensitive habitats within the *General Plan Land Use* impact area include: potential waters of the U.S., which could include lakes, rivers, streams (including intermittent and ephemeral streams), sloughs, and seasonal wetlands; woodland habitats; riparian habitats; and any community types that could serve as potential Swainson's hawk foraging habitat. Impacts to these sensitive habitat types that could potentially occur from buildout of the Land Use Diagram are shown in Figure 4.4-3.

Jurisdictional Waters of the U.S. (Riverine, Pond, and Seasonal Wetland)

Jurisdictional waters of the U.S. include jurisdictional wetlands as well as other waters of the U.S. such as creeks, ponds, and intermittent drainages. Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." The majority of jurisdictional wetlands in the United States meet three wetland criteria: hydrophytic vegetation, wetland hydrology, and hydric soils.

Figure 4.4-3
Biological Constraints



Jurisdictional waters of the U.S. can also be defined by exhibiting a clearly defined bed and bank and ordinary high water mark (OHWM). Jurisdictional waters of the U.S. are subject to Section 404 of the CWA and are regulated by the U.S. Army Corps of Engineers.

Potential jurisdictional waters of the U.S. in the *General Plan Land Use* impact area include ponds, intermittent and perennial creek, slough, irrigation ditch, river, seasonal wetland, and vernal pool.

Oak Woodland

Although native trees such as oaks (*Quercus* sp.), are not afforded special protection under federal law, the California Oak Woodlands Law (Pub. Res. Code 21083.4) establishes conservation standards for oak trees of 5 inches diameter-at-breast-height (dbh) on project sites subject to CEQA processes under county jurisdictions. Loss of these species is also a concern of the CDFG and CNPS because of their continued depletion throughout California. Additionally, oaks are considered important to birds and mammals as a food resource and are typically protected under an oak woodland management plan in most cities or counties throughout California. Although the City of Wheatland does not have tree policies in place as of September 2005, the *Yuba County General Plan EIR* (1994) discusses the conservation of oak woodlands under Goal 7-OSCG.

Riparian

Valley foothill riparian habitat is found in valleys bordered by sloping alluvial fans, terraces, and lower foothills. The habitat occurs on floodplains or on flat to gently sloping areas adjacent to low-velocity streams. Valley foothill riparian habitat vegetation varies from a two-layered canopy of trees and herbs (riparian woodland) to a four-layered canopy of canopy trees, subcanopy trees, shrubs, and herbs (riparian forest). Valley foothill riparian occurs along portions of Bear River, Dry Creek and Grasshopper Slough (see Figure 4.4-3).

Typical trees in valley foothill riparian include willows (*Salix* spp.), western sycamore (*Plantanus racemosa*), Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). Valley foothill riparian habitats provide food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife. Common shrubs normally associated with riparian habitat are minimal in the *General Plan Land Use* impact area, due primarily to extensive livestock grazing and agricultural practices over the last one hundred years.

Regulatory context

The following describes federal, state, and local environmental laws and policies that are relevant to the CEQA review process. The CEQA significance criteria are also included in this section.

Federal

Federal Endangered Species Act

The United States Congress passed the federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. The FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

The FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3). Actions that result in take can result in civil or criminal penalties.

The FESA and EPA Section 404 guidelines prohibit the issuance of wetland permits for projects that would jeopardize the existence of threatened or endangered wildlife or plant species. The U.S. Army Corps of Engineers must consult with the U.S. Fish and Wildlife Service (USFWS) and NOAA Fisheries Service when threatened or endangered species may be affected by a proposed project to determine whether issuance of a Section 404 permit would jeopardize the species. In the context of the study site, the FESA would be triggered if development resulted in take of a threatened or endangered species (e.g., California red-legged frog, Coho salmon) or if issuance of a Section 404 permit or other federal agency action could adversely affect or jeopardize a threatened or endangered species.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of state and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (Corps) regulates discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act (CWA). "Discharges of fill material" is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)].

Furthermore, jurisdictional waters of the U.S. can be defined by exhibiting a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the Corps as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

State

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. The CESA is similar to the FESA but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFG when preparing CEQA documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. The CESA directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that there are "overriding considerations"; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species. The CESA prohibits the taking of state-listed endangered or threatened plant and wildlife species. CDFG exercises authority over mitigation projects involving state-listed species, including those resulting from CEQA mitigation

requirements. CDFG may authorize taking if an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy is implemented. CDFG requires preparation of mitigation plans in accordance with published guidelines.

CDFG Species of Special Concern

In addition to formal listing under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFG. CDFG tracks species in California whose numbers, reproductive success, or habitat may be threatened.

California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

- List 1A: Plants believed extinct.
- List 1B: Plants rare, threatened, or endangered in California and elsewhere.
- List 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere.
- List 3: Plants about which is needed more information (a "review" list).
- List 4: Plants of limited distribution (a "watch" list).

City of Wheatland General Plan Update

The project involves establishment of goals and policies aimed at reducing biological resource impacts within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Impacts and Mitigation Measures

Standards of Significance

A biological resource impact is normally considered significant if implementation of the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on riparian habitat or other sensitive natural communities in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Conflict with existing local, state, or federal natural resource protection laws, policies, or guidelines; or
- Have a substantial adverse effect on significant ecological resources including:
  a) Wetland areas including vernal pools;
  b) Stream environment zones;
  c) Large areas of non-fragmented natural habitat, including but not limited to Blue Oak Woodlands, Valley Foothill Riparian, vernal pool habitat;
  d) Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian routes, and known concentration areas of waterfowl within the Pacific Flyway;
  e) Important spawning areas for anadromous fish.

Method of Analysis

Available information pertaining to the natural resources of the region was reviewed, including biological resource documentation from other projects east and southwest of the General Plan study area. Literature reviewed included:

- Jones Ranch Subdivision Project Draft EIR, Foothill Associates (January 2002);
- Yuba Highlands Specific Plan EIR, Foothill Associates (November 2004);
- California Department of Fish and Game (CDFG) California Natural Diversity Data Base, 2005;
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, 1994;
- The River Highlands Community Plan, Yuba County, California (December 1993).

The General Plan study area was surveyed by Foothill Associates biologists on May 7, 2004. Field investigations involved conducting general plant and wildlife surveys focusing on portions of the *General Plan Land Use* impact area with the potential to support special-status species and sensitive habitats. Color aerial photography of the *General Plan Land Use* impact area was used to identify and map vegetation types and sensitive habitats. Potential biological resource constraints within the General Plan study area were evaluated primarily in-office using interpretation of aerial photography along with a literature review.

Project-Specific Impacts and Mitigation Measures

4.4-1 Development associated with the proposed General Plan Update would result in the removal of substantial flora and fauna habitat.

A total of ±4,808 acres of land is present in the General Plan study area, most of which is orchard or cropland, though, some areas are considered sensitive habitats (Figure 4.4-3). Assuming full buildout of the study area, the majority of the total acreages for some of these habitat types would be removed. The grasslands and scattered wetland habitats provide breeding and foraging habitat and shelter for numerous species of resident and migratory wildlife. Orchard and row crops can provide cover and foraging habitat for many species, while irrigated pasture supports foraging habitat for a variety of avian and small mammal species. The riparian habitat community provides an important source of food, water, and protection for wildlife, as well as breeding and nesting habitat for both resident and migratory bird species. In addition, buildout of the *General Plan Land Use* impact area could result in the removal of seasonal wetlands that could potentially support dwarf downingia, which, according to the California Native Plant Society (CNPS), is considered a rare, threatened, or endangered plant in California, but common elsewhere.

Oak Woodland

Several native oak trees and stands of oak woodlands composed largely of blue oaks are present in the General Plan study area, primarily in the extreme western and southern portions of the study area. Assuming full build-out, of the ±81 acres of the Valley oak woodland community present in the study area, approximately ±26 acres would be removed (Figure 4.4-3). Oak woodlands provide cover, foraging, and breeding habitat for numerous species of common resident and migratory wildlife and the loss of these habitats is of concern to CNPS and CDFG.

Jurisdictional Waters of U.S.

Buildout of the *General Plan Land Use* impact area may result in several acres of potential jurisdictional waters of the U.S. being filled. A Clean Water Act Section 404 permit and 401 Water Quality Certification from the RWQCB is required for work that affects jurisdictional waters of the Army Corps of Engineers. The possibility also exists for some of these waters to be under the jurisdiction of the California Department of Fish and Game, which would require a Streambed Alteration Agreement.

Assuming full build-out, of the ±117 acres of potentially jurisdictional waters present in the General Plan study area, the study area proposes to remove ±57 acres (Figure 4.4-3).

The General Plan Update includes the following goals and policies regarding loss-of-habitat issues:

Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

Policy 8.B.1. The City shall support preservation of the habitats of federally or state-listed rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.

Policy 8.B.2. The City shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats, wetland habitats, wildlife migration corridors, and locally-important species/communities.

Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species.

Policy 8.B.4. The City shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats. Where possible and appropriate, such communities shall be restored or expanded.

Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.

Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands.

Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.).

Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by

a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process.

Goal 8.C To preserve and protect the valuable vegetation resources of the Wheatland area.

Policy 8.C.1. The City shall require developers to use native and compatible non-native species, especially drought-resistant species, to the extent possible in fulfilling landscaping requirements imposed as conditions of permits or for project mitigation.

Policy 8.C.2. The City shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands and riparian areas.

Policy 8.C.3. The City shall require that new development preserve natural woodlands to the maximum extent possible.

Policy 8.C.4. The City shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible.

Policy 8.D.2. The City shall, where appropriate, permanently protect as open space areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Implementation of the goals and policies above would minimize impacts to habitat loss; however not to a *less-than-significant* level. The resultant impact would therefore remain ***significant***.

Mitigation Measure(s)
Feasible mitigation measures do not exist. Therefore, impacts related to wildlife habitat would remain *significant and unavoidable.*

4.4-2 Development associated with the proposed General Plan Update may result in impacts to special-status vernal pool invertebrates in the General Plan study area.

The seasonal wetland biological communities in the General Plan study area located in the western, northwestern and eastern portions of the project site (see Figure 4.4-1) are considered potential habitat for vernal pool fairy shrimp, Conservancy fairy shrimp, vernal pool tadpole shrimp, and California linderiella. Of the ±30 acres of suitable seasonal wetlands present onsite, the *General Plan Land Use* would remove ±4 acres (Figure 4.4-3). As these wetland features could potentially support these species, their disturbance is likely regulated under the Endangered Species Act. In general, the USFWS requires a 250-foot setback from the edge of each avoided vernal pool. However, based on site-specific conditions (e.g. topographic position, hydrological effects, etc.) this setback may be reduced.

The General Plan Update includes the following goals and policies regarding impacts to special-status species issues:

Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species.

Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.

Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands.

Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.).

Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by

a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Implementation of the goals and policies above would minimize impacts to vernal pool invertebrates to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.4-3 Development associated with the proposed General Plan Update may result in impacts to valley elderberry longhorn beetle (VELB) in the General Plan study area.

Valley elderberry longhorn beetle (VELB) is recorded in the CNDDB within five miles of the *General Plan Land Use* impact area. Additionally, elderberry shrubs were observed along roadways and within the riparian areas during field reconnaissance. Elderberry shrubs are considered potential habitat for VELB. Although evidence (i.e. exit holes) or adults were not observed in association with the elderberry shrubs within the study area, focused surveys were not conducted. Consequently, the potential for VELB to occur on the project site cannot be ruled out. Because VELB is protected under the FESA and regulated by the USFWS, removal of any elderberry shrub could result in impacts to VELB.

The General Plan Update includes the following goals and policies regarding impacts to special-status species issues:

Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species.

Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.

Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands.

Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.).

Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Implementation of the goals and policies above would minimize impacts to VELB to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.4-4 Development associated with the proposed General Plan Update may result in impacts to special-status reptiles in the General Plan study area.

One occurrence record of giant garter snake (GGS) and one occurrence of northwestern pond turtle are listed in the CNDDB within five miles of the *General Plan Land Use* impact area. The riverine and adjacent riparian habitats in the area support suitable habitat for GGS, and the pond habitats in the *General Plan Land Use* impact area support suitable habitat for northwestern pond turtle. Consequently, GGS could occur in irrigation canals, Grasshopper Slough, and Dry Creek within the *General Plan Land Use* impact area, and northwestern pond turtle could occur in ponds within the *General Plan Land Use* impact area. As a result, development of the General Plan Land Use Diagram could result in impacts to GGS and northwestern pond turtle.

The General Plan Update includes the following goals and policies regarding impacts to special-status species issues:

Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species.

Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.

Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands.

Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.).

Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Implementation of the goals and policies above would minimize impacts to GGS and northwestern pond turtle to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.4-5 Development associated with the proposed General Plan Update may result in impacts to nesting special-status and common raptor species within the General Plan study area.

American kestrel, red-tailed hawk, and white-tailed kite were observed during the field reconnaissance. As discussed above, other raptor species are also likely to

nest in the *General Plan Land Use* impact area, including but not limited to burrowing owl and Swainson's hawk. Swainson's hawk is recorded in the CNDDB within ten miles of the *General Plan Land Use* impact area. Suitable foraging and nesting habitat occurs within the *General Plan Land Use* impact area and, consequently, this species has a high potential to occur. For burrowing owl, occurrence records do not exist within five miles of the *General Plan Land Use* impact area. However, suitable habitat occurs within the annual grassland and cropland habitat in the *General Plan Land Use* impact area.

Implementation of the proposed project may remove suitable burrows and/or stick nests utilized by these species. In addition, raptors are protected under the MBTA and Section 3503.5 of the California Fish and Game Code, and destruction of active raptor nests is considered a violation of this code and the MBTA.

The General Plan Update includes the following goals and policies regarding impacts to special-status species issues:

Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species.

Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.

Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands.

Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.).

Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Implementation of the goals and policies above would minimize impacts to GGS and northwestern pond turtle to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.4-6 Development associated with the proposed General Plan Update would result in impacts to Swainson's hawk foraging habitat within the General Plan study area.

Swainson's hawk is recorded in the CNDDB within ten miles of the *General Plan Land Use* impact area. Suitable foraging habitat occurs within the *General Plan Land Use* impact area; consequently, this species has a high potential to occur within the study area. Suitable foraging areas include native grasslands or lightly grazed pastures, alfalfa and other hay crops, and certain grain and row croplands. In 2001 the Counties of Yuba and Sutter committed to becoming joint applicants on a Habitat Conservation Plan / Natural Communities Conservation Plan (HCP/NCCP) that would address the impacts of proposed transportation projects and any resulting development in the area. According to the HCP/NCCP project website (www.dfg.ca.gov/nccp/status.htm, December 2005), a baseline GIS data inventory of physical and biological resources is being conducted. Because an HCP/NCCP has not yet been finalized, a mitigation program currently does not exist for Swainson's hawk foraging habitat. In the event that the HCP/NCCP is finalized, the City will participate in the HCP/NCCP and require new development to mitigate impacts to Swainson's hawk foraging habitat through participation in the HCP/NCCP. The City will also coordinate with the appropriate agencies (e.g., California Department of Fish and Game) during the processing of development projects proposed in agricultural areas.

The General Plan Update includes the following goals and policies regarding impacts to special-status species issues:

Goal 8.B To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

Policy 8.B.3. The City shall support preservation, restoration, and enhancement of the designated habitats of State or Federally listed rare, threatened, endangered and/or other sensitive and special status species.

Policy 8.B.5. The City shall require careful planning of new development in areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.

Policy 8.B.6. The City shall review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands.

Policy 8.B.7. The City shall impose appropriate mitigation measures using protocols defined by the applicable statute (e.g., USFWS, CDFG, etc.).

Policy 8.B.8. On sites that have the potential to contain critical or sensitive habitats or special-species or are within 100 feet of such areas, the City shall require the project applicant to have the site surveyed by a qualified biologist. A report on the findings of this survey shall be submitted to the City as part of the application process.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Implementation of the goals and policies above would reduce impacts to Swainson's hawk foraging habitat, but the impact would remain ***significant***.

Mitigation Measure(s)

Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level. Therefore, buildout of the General Plan Update study area would have *significant and unavoidable* impacts to Swainson's hawk foraging habitat.

Endnotes

[1] Biological Resources Report, Foothill Associates, October 2005.

[2] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

4.5 CULTURAL RESOURCES

Introduction

This section discusses the impacts the buildout of the proposed Wheatland General Plan Update would have on existing cultural resources in the area. The cultural resources analysis evaluates known prehistoric and historic uses in the study area, and the potential for existence of currently unknown heritage sites. Information used in this section is derived from the *City of Wheatland General Plan Update Background Report*.[1]

Environmental review policies, in compliance with California Environmental Quality Act (CEQA) guidelines and county procedures, require that heritage resources be considered as part of the environmental assessment process. In compliance with CEQA regulations, a heritage resource evaluation was conducted for the Wheatland General Plan Update study area in order to analyze the potential impacts to extant heritage resources which could be affected by the adoption of the proposed general plan, and to determine what type of further study will be required in any given area during project level review. In order to accomplish this, the scope of the heritage resource evaluation is threefold: (1) to provide a broad overview of the history and prehistory of the Wheatland General Plan Update study area; (2) to conduct a literature search to identify existing heritage resources and provide a compilation of known heritage sites and their current condition (if known); and (3) to develop a sensitivity assessment of the study area based upon the expected likelihood of various locales to contain heritage resources. The cultural resources section presents the findings of this evaluation.

Environmental Setting

The following includes a description of the project location, and historical and cultural background of the study area.

Project Location and General Characteristics

Two distinct property types exist in the study area. The first includes developed land with maximum coverage located within the commercial/residential core area of the City of Wheatland. On these lots, the existing development style includes past excavation and substantial grading as well as nearly 100 percent land coverage. Development potential in these areas is limited to redevelopment of existing disturbed land. Some existing commercial and residential buildings date to Wheatland's early historic period. The second property type includes agricultural parcels. In most cases, these properties have also experienced surface and subsurface disturbance through land grading for agriculture/grazing purposes. However, these parcels for the most part retain original grades and native/introduced vegetation mixes. Cultivated fields, orchards, dirt trails and

roads, and ranch facilities are the typical disturbances found. These areas extend outward from the City's commercial/residential core.

The study area falls roughly between the Bear River on the south and Dry Creek on the north. Grasshopper Slough meanders through the central part of the study area. Unnamed remnant slough channels, shown on the USGS quadrant, may have also drained the area in times past. As part of flood control activities, the U.S. Army Corps of Engineers improved levees along the Bear River and Dry Creek. Water was diverted out of Grasshopper Slough into Dry Creek. Residents remember that Grasshopper Slough was a major watercourse before this diversion. The land forms a level floodplain of the Dry Creek-Bear River valley. The City of Wheatland occupies an upland erosional remnant between the Bear River and Dry Creek. The general study area borders a rise along the old channel of the Bear River on the south. Hydraulic mining debris clogged the channel between the 1860s and 1880s, and the sediments pushed the main channel approximately ½ mile to the south, where it remains today. The old channel is currently under orchard cultivation. Large portions of the project area are within the 100-year flood zone of the Bear River and Dry Creek. Prior to hydraulic mining, the Bear River may have been able to carry peak flows. Even prior to levee reconstruction along the Bear River, the downtown core of Wheatland largely escaped historic flooding, which often inundated the immediate surroundings (Neyens, personal communication 1996).

Geologically, the area is covered by the Mehrten Formation, a late Miocene-early Pliocene volcanic mudflow. Soils within the study area are a somewhat poorly drained reddish-brown gravelly clay loam, known as Wyman loam (Herbert and Begg 1969). This soil series is part of the Redding and Corning association, which consists of gravelly and cobble material containing a high percentage of quartzite and chert gravels. The soil has poorer drainage than is typical for the Wyman series, due to the adjacent streams and an intermittent high water table (Herbert and Begg 1969). These soils are rich and highly favorable for the cultivation of most crops.

The study area falls within the Great Central Valley or Lower Sonoran Zone (Storer and Usinger 1971). The dominant overstory species within the project area are valley oak (*Quercus lobata*) and willow (*Salix* spp.). Blackberry (*Rubus vitifolius*) and other riparian species occur along Bear and Dry Creeks, Grasshopper Slough, and other remnant slough channels. Grass cover consists of annual grasses such as wild oats (*Avena* spp.), brome grasses (*Bromus* spp.), and fescue (*Festuca* spp.). Other species such as common mullein (*Verbascus thapsus*), star thistle (*Centaura solstitialis*), and plantain (*Plantago lanceolata*) are common in the area. The grass cover is dense during the winter and early spring, but dries up rapidly after the wet season. The seeds, leaves, stems, roots, and fruit of many of these plants served a multitude of subsistence and utilitarian purposes to prehistoric occupants of this area.

Much of the rural study area is currently in agricultural (crop) production. Nearly half of the land within the study area boundary consists of walnut and almond orchards. The other half of the study area is mostly cultivated. A small percentage of the study area

acreage lies fallow in grass and annual weed species. Undeveloped portions are used as a nesting and hunting area for several species of waterfowl, birds, and small mammals.

Pre-History

Wheatland falls between regions with established archaeological sequences. Accordingly, the principal cultural chronology for the lower Yuba County region is drawn from cultural chronologies developed for three neighboring localities; (1) Sacramento Valley/Delta, (2) Lake Tahoe, and (3) the western Sierra foothills, namely Bullard's Bar, Park's Bar, Garden Bar, Lake Oroville, Beale Air Force Base, and Lincoln/Roseville. Current chronologies and the cultural entities to which they relate still require considerable refinement and study. Archaeological affinities of the lower Yuba County region to one or more of these archaeological sequences is presently unclear. To date, little progress has been made toward reconciling regional archaeological records.

Tahoe Sierra Archaeological Sequence

The archaeology of the north-central Sierra region was first outlined by Heizer and Elsasser (1953) in their study of sites located in Martis Valley in the Truckee-Tahoe Basin. Subsequent research within the Tahoe Sierra has produced a more detailed picture and revision of the region's cultural history. A broad view divides the prehistory of the Sierra Nevada and adjoining regions into intervals marked by changes in adaptive strategies that represent major stages of cultural evolution. At the regional level, in the Tahoe Sierra for example, finer grained archaeological phases divide local prehistoric sequences.

Lincoln/Roseville Area

Other investigations in the lower foothill/valley edge region have identified a similar assemblage of "Martis-Like" artifacts, namely along Dry Creek and along Auburn Ravine in the vicinity of Lincoln and Roseville, with sites dating back to 500 B.C. Recent test excavations within the Twelve Bridges Project near Lincoln suggest use of the area as early as 2,500 years ago (Late Martis/Middle Horizon period) up until the time of historic contact and/or the malaria epidemic of 1833. Direct evidence of post-contact use or occupation at the investigated sites does not exist. Preliminary conclusions drawn from archaeological investigations in the Twelve Bridges Project suggest seasonal use and/or occupation by groups with closer affinities to foothill/mountain groups than Central Valley groups.

Bear/Yuba River Area

Between 1984 and 1985 archaeological, ethnographic, and historical research was conducted in the area of the proposed Garden Bar Reservoir, along the lower Bear River in Nevada and Placer counties. Specific chronology was not established for this area but valuable archaeological data were collected.

In 1975, California State University, Sacramento conducted extensive archaeological and ethno-historical investigations within the area of the proposed Marysville Lake Project, situated in the Sierra Nevada foothills in the vicinity of Parks Bar on the Yuba River. Numerous prehistoric sites were recorded, and an ethnographic study of the northern Hill Nisenan was produced.

The finding of Windmiller type/Early Horizon artifacts at CA-Sut-23 on the Bear River southeast of Wheatland represents the time period between 3,000 and 4,000 years ago in this portion of the Central Valley fringe. The presence of manos and pitted petroglyphs indicate that some Windmiller-related peoples visited the vicinity of what is now Beale Air Force Base during earlier times.

Ethnological Background

The study area is within the territory once claimed by the Valley Nisenan, or Southern Maidu, a Penutian-speaking central California group. Their traditional homelands once included the lower drainages of the American, Yuba and Bear Rivers, and the lower reaches of the Feather River. The Hill Nisenan had settlements higher up in these drainages. The Nisenan were the southernmost of the three Maiduan divisions, inhabiting the northeastern half of the Sacramento Valley and the adjoining western slopes of the Sierra Nevada.

Nisenan groups in the valley tended to define themselves by stream systems, and native communication often followed these waterways. In the foothills and mountains, the major drainages became formal or informal boundaries, with the land in between forming the districts. The Placerville District is between the Cosumnes River and the Middle Fork of the American River, the Auburn District between the Middle Fork of the American River and the Bear River, and the Nevada City District between the Bear River and the Yuba River. The Nisenan recognized several political divisions within their territory. One such center was at the mouth of the Bear River, including the valley drainage of the Bear and a stretch of the Feather River. The Bear River may have been a potential boundary. In Overland Monthly, Powers wrote: “As you travel south from Chico the Indians call themselves Meidoo, until you reach the Bear River; but below that it is Neeshenam, or sometimes Mana or Maidee, all of which denote men or Indians.”

Named ethnographic villages occur in the vicinity of Rocklin, Lincoln, Loomis, Horseshoe Bar, Newcastle, and near Auburn, and along the upper and lower reaches of the Yuba River. Kroeber lists no villages along the lower reaches of the Bear River. None have been formally located for Wheatland and its environs. Wheatland residents report an “old Indian burial ground” located at McCourtney Crossing, now covered most of the year by water from Camp Far West Reservoir. Dorothy Boom, granddaughter of early Wheatland pioneer Leona Scott Dam, occasionally fed biscuits to visiting groups of Indians in the 1800s. Grace Nightengayle notes that her family once hired Indian sheepherders on their foothill ranch east of Wheatland. She recalls that most Indians during these early times lived along the Yuba River, nearer Marysville. Many died of smallpox; their bodies are now buried deep within the Yuba River gravels. Apart from

these accounts, no other evidence of Native American use of the immediate project vicinity has been reported.

Major villages known as *Lelikian* and *Intanto* are recorded as being located upstream of Wheatland along the Bear River. These people traded and visited with the Indians of the Forest Hill Ridge and used this ridge route to cross the Sierras to trade with the Washoe. Named villages along the Yuba River were *Chiemwie*, *Onopoma*, and *Panpakan*. Adjacent to the confluence of the Yuba and Feather Rivers were the villages of *Yupu* and *Taisida*. Other major Valley Nisenan settlements are recorded at *Pit chi ku* (Roseville), at *Ba ka cha* (Rocklin), and at *Ba mu ma*, a salt spring near the town of Lincoln. (Littlejohn 1928:34; Wilson and Town 1978:388).

Hill and mountain Nisenan winter villages were located on ridges adjacent to streams or on flats along the rivers, often between the 1,000 and 2,000 foot level, out of the fog belt and with a southern exposure. These villages were generally smaller than those of the valley people, and during certain periods of the year, many families lived away from their main villages while they engaged in subsistence activities. Every part of their territory was within one or two days' journey from the winter village; thus, it was possible to have some winter movement to the valley floor or up into the mountains by small groups of hunters, families, or those who wanted to visit or trade.

Few villages occupied the valley plain between the Sacramento River and the foothills. Although both the valley and foothill people hunted and gathered there, the resource focus was along the edges of rich ecotones, either the rivers and the valley floor, or the valley floor and the foothills. The plains surrounding Wheatland fall in between these two rich ecotones. Low site densities were found in similar open and exposed terrain west of Lincoln. The lands at what is now Beale Air Force Base did not support a resource base that was critical to the survival of prehistoric peoples. The open exposed terrain along the western edge of the Sierra Nevada foothill region is very hot in the summer and very damp in the winter, thus limiting the amount of time most Native Americans would undertake subsistence activities there. Thus, it is not likely that Native Americans would have spent an appreciable amount of time in the area, instead retreating to villages and camps along the lower Yuba River to the north, and back into the hills to the east where they would find abundant shade, water, and protection from the wind and potential enemies. The availability of firewood may also have been a strategic factor in locating villages in the foothill oak woodland.

Nisenan villages consisted of from four to 12 separate dwellings, housing a nuclear or polygamous family, with the main cooperative or corporate unit being an informal bilateral "family". Several villages uniting under a single chief formed larger social organizations, called tribelets. Permanent semi-subterranean dwellings (*hu*) and a dance house (*kum*) were constructed at these year-round village sites. Seasonal camps were located along creeks, and temporary lean-to structures with some mud covering at the base were built.

In addition to village sites, daily activities were carried on at seasonal camps, quarries, ceremonial grounds, trading locations, burial grounds, task-specific sites for fishing, hunting, and gathering vegetable foods, river crossings, and battlegrounds. These locales were accessed by a network of trails. Major north-south trails along the margin of the foothills that were usable year round, as were other east-west trails along the natural levees of the stream courses.

As with most hunters and gatherers, vegetable food resources formed the subsistence baseline for the Nisenan. The Nisenan used a wide range of floral and faunal species, although they apparently made extensive use of only a small percentage of these. The least productive time of the year was late winter-early spring. The salmon run began in late spring. Roots were dug in the spring and were consumed raw, steamed, baked, or were dried for later use. Grass seeds were harvested in summer. Acorns became available in massive quantities in the autumn. An acorn diet was the hallmark of California Indians, and acorns were the primary staple for those groups who inhabited the foothills of the Sierra.

Nisenan population in pre-contact times is thought to have numbered around 9,000. Euro-American expansion into the Sacramento Valley during the 19th century initiated a series of changes, which proved devastating to Native American populations. In 1833, a great malaria epidemic that swept through the Sacramento Valley killed an estimated 75 percent of the Valley Nisenan population. The malaria seems to have been introduced by the Hudson Bay trappers in 1831-1832. The 1833 epidemic that decimated the Indians in the Central Valley played a major role in defining the post-contact land use pattern of the Indians of the region, as well as impacting the Euro-American economic development. By the end of the 1830s, over half of the original population was gone and the survivors were facing a time of great stress and the rapid destruction of their prehistoric way of life.

The malaria remained endemic, with frequent sharp local outbreaks until 1880, afflicting both the remnant native populations and the early settlers, namely military personnel at Camp Far West and mining camps of the Sierran foothill region. Wilson has suggested that the few Valley people surviving the epidemic joined the Hill bands with villages at higher elevations. As the known season in which the illness could be contracted is the late spring to early fall months, June to September, Indians returning to the Wheatland area during this time would risk contracting the disease. With the discovery of gold and the subsequent influx of a large Euro-American mining population after 1849, Maidu numbers were further reduced by disease and genocide. Surviving individuals were ultimately forced to permanently vacate their ancestral homes.

Valley and Hill Nisenan groups were culturally, linguistically, and presumably ethnically related, but there seems to be a separation of the Valley Nisenan and the Foothill Nisenan near the edge of the valley where the foothills start. Social and religious ties in the valley were stronger to the north and west along the rivers than to the east. Territory disputes and resource competition prevailed between the valley peoples and the foothill peoples. The valley peoples tended to interact socially and economically more with non-Nisenan valley peoples such as the Patwin, who lived on the western side of the Sacramento

Valley, than with the Hill Nisenan. They were more oriented to the Sacramento, American, Yuba, Feather, and Bear Rivers on the valley floor. Their large villages with rich and complex cultural characteristics are usually found along these watercourses. For example, Nisenan in the Roseville-Rocklin area seem to have been more influenced by the Valley Nisenan, while groups in the Loomis Basin fall into the Auburn-foothill sphere. Similarly, Hill Nisenan peoples were more likely to have close relations with surrounding non-Nisenan hill and mountain peoples, including the Konkow, Mountain Maidu, Washoe, and Sierra Miwok. Valley flooding created tule forests, ponds and swampy areas, and helped insulate the edge of the foothills from the river peoples, at least until summer.

Historical Background

Early Explorations

In 1769, the Spanish government sent Father Junipero Serra into present-day California to establish missions among the Indians. The California Indian population plummeted during the mission period, and their lands came under Spanish ownership. Seeking more native souls to replace those in the coastal areas who had died, the Spanish began to explore the Central Valley. Expeditions led by Gabriel Moraga in 1808 and by Luis Arguello in 1821 crossed portions of present day Yuba County. While no Nisenan were removed to the missions, it is believed that they did harbor escaped missionized Indians.

Throughout the 1820s and 1830s, trappers visited the Wheatland area from the Hudson's Bay Company and American Fur Company, exploiting beaver and other fur resources. These and other trappers set up temporary camps in Nisenan territory and relationships were friendly. John C. Fremont explored the area in 1846.

Early Settlement

California came under Mexican rule in 1822 when Mexico became independent of Spain. As British and Americans were allowed to become Mexican citizens, they acquired large tracts of land granted to them by Mexico and initially dominated the business and commercial affairs of the region. Land in California was first granted by Mexican governors. John Sutter initially established land holdings that included much of what is now Yuba County. Sutter owned more than Mexican law permitted; therefore, he sublet parts of his estate to other settlers. In 1844, a Mexican who had been in the employ of Sutter, Don Pablo Guttierez, obtained a grant of five leagues on the north side of Bear River, now known as the Johnson grant. The land grant, dated December 22, 1844, was first known as Rancho de Pablo, for Pablo Guttierez, the grantee. Wheatland falls within the center of this land grant. During 1844, Guttierez built an adobe house at the place afterwards called Johnson's Crossing, located about three miles east of Wheatland. Guttierez was killed in 1844-45 in the Micheltorena campaign and his grant was sold at auction by Sutter, the magistrate of the region. The land was purchased for $150 by William Johnson and Sebastian Kyser, who settled there the same year. After the

purchase, the grant was divided, with Johnson taking the east half and Kyser the west. In 1846 they built an adobe house a short distance below the crossing.

For several years after 1845 Johnson's Ranch was well known as the first settlement reached by the overland immigrants after crossing the Sierra and is considered to be the end of the Emigrant Trail. Here immigrants rested and obtained supplies. In 1847 it was the base from which survivors of the Donner Party were rescued. Sebastian Kyser served as a member of one rescue party. Among those rescued was 16-year-old Mary Murphy, who met Johnson and married him that June. She divorced him that same year and married Charles Covillaud, another immigrant who visited the Rancho. Her name was given to the new town of Marysville that Covillaud laid out in 1849-50.

By 1849 there were a number of settlements along Bear River established by people engaging in mining, the livestock trade, trading post, sawmills, hotels, cutting hay, and raising cattle. Johnson's Crossing provided a way station for teams engaging in hauling freight from Sacramento to the northern mines. Johnson's Crossing also became a stopping place for trappers, explorers, and travelers. In the year 1846 the Rancho was visited by various explorers and immigrants. John C. Fremont and Kit Carson camped at Johnson's Rancho in 1846. General Stephan Watts Kearney and his troops stayed at the Rancho in 1847. Traffic at Johnson's Crossing appears to have decreased to a point where in 1854 it was reported that the crossing was rarely used (Horn 1988:5). A chain of title to the Johnson Rancho is provided in Thompson and West's (1979) and Delay's (1924) county histories.

<u>The Donner Party in Wheatland</u>

For several years after 1845 Johnson's Ranch was well known as the first settlement reached by the overland immigrants after crossing the Sierra (Gudde 1974:158) and is considered to be the end of the Emigrant Trail (State of California 1976:139; 1982:159; *Wheatland News* 3/16/1973). Here immigrants rested and obtained supplies.

The Donner Party is the name given to a group of emigrants, including the families of George Donner and his brother Jacob, who became trapped in the Sierra Nevada Mountains during the winter of 1846-47. Nearly half of the party died, and the survivors were brought to the Johnson Ranch in Wheatland after being rescued in 1847. At the ranch they rested and restored their health before heading on to Sacramento. The Donner Party has become legendary as the most spectacular episode in the record of Western migration (Virginia Western, 2004).

Mining

Geologically, the Wheatland study area lies west of the Mother Lode, well away from the major gold mining region. In contrast to the richness of the Mother Lode region to the east and the placer deposits in the rivers to the north and south, mineral deposits within the region are limited to placer gold along the minor drainages and copper deposits in the foothills to the east.

The study area falls within the Wheatland (or Bear River) placer gold mining district. During the gold rush, placer gold was recovered from nearby creeks and streams. John Marshall discovered gold at Sutter's Mill, near present-day Coloma, in 1848. Soon afterwards, the gold rush began and the region became quickly populated with prospectors, entrepreneurs, and others seeking easy fortunes. After June 1848, miners began working the ravines east of Wheatland. By about 1851, a number of miners were working small bars on the Bear River, downstream from Camp Far West. In 1876 there was some dry washing of gold at Camp Far West, but little production.

Hydraulic gold mining began in California as early as 1853, and by 1857 it had become widely practiced in the Sierra Nevada. Sediments washed down from hydraulic mining sites in the Sierra Nevada altered the Bear River's pre-existing course near Wheatland for several miles, filling the river's original 25- to 30-foot deep channel and creating a new channel ½ mile south of the old bed. From 1866 to 1869, the Bear River almost ceased to run except on Sundays, the only day of the week on which water was not being used by the miners. Hydraulic mining was finally curtailed by a court order in 1884 because of the massive environmental damage it caused. Meanwhile, many settlements and much agricultural land had already succumbed to the effects of the mining industry. Many farmers were forced to move to higher lands. Along the Bear River, all the bottomland was destroyed except a small strip near Wheatland that had been protected by a levee constructed by A.W. VonSchmidt. This proved to be the protection that saved Wheatland and the adjoining lands.

Beginning in 1862, a brief copper rush occurred in the vicinity of what is now Beale Air Force Base. Spenceville housed a smelter which processed ore from the San Francisco Copper Mine. The Spenceville copper mines in Nevada County shipped their product, copper cement, out of Wheatland. Copper was also extracted from mines at Dairy Farm and Valley View near the community of Sheridan. Another copper mine operated near McCourtney Crossing, also in the Spenceville area.

Bucketline and dragline dredging was carried on to a limited degree in the creek channels east of Wheatland. Soon after the turn of the century, Wendel Hammond operated an unprofitable and short-lived bucketline dredging enterprise along the Bear River. During the 1930s, dragline dredges were operated in some of the ravines by outfits such as the Bear River Mining Company. Dredging also occurred from the late 1930s until 1942 on the Horst Ranch. During 1936-37, Wells sampled ground for its potential gold content in the vicinity of Wheatland; low yields did not warrant further mining.

Transportation

Roads

Travel along the Emigrant Trail during the 1840s and the discovery of gold in 1849 brought thousands of people through the Wheatland region. Some of these travel routes are depicted on early maps of Johnson's Rancho and early General Land Office (GLO)

Survey Plats dating from the 1850s. Of special mention is the Sacramento and Nevada Road, shown on the 1856 GLO plat as trending northeast-southwest through the study area. The Spenceville Road (Wheatland-Smartville Road) accessed Johnson's Rancho and Camp Far West. The Wheatland Road accessed communities west of Wheatland. A number of other secondary and tertiary roads are shown on early USGS quad maps (1949 and 1953) as crossing through the study area, including State Route 65. State Route 65 was elevated during the 1930s. Neyens describes early routes to Marysville, Lincoln, and Nicolaus through the study area:

> "Roads to Marysville and to Lincoln or to Nicolaus were not in the same location they are today. To go to Marysville before 1915 you had three routes. You could go out Wheatland Road to Oakley Lane, down Oakley Lane to Bradshaw Road, up Ostrom Road to Ostrom Station and then on in to Marysville. Or you might go up Jasper Lane to Ostrom Road and on in. The other route took you out Oakley Lane to Dairy Road and up to Forty-mile Road from the Plumas School. To travel to Sheridan you would go out Malone Ave., cross the Bear River and head toward the old Brock Ranch in Sutter County, turn and go toward Sheridan; or you could continue on past the Brock Ranch to the old road into Lincoln.
>
> The main route between Wheatland and Sacramento was the old county road along Malone Street. In the 1930s the route was changed over to D Street."

Railroads

The original line of the California Central Railroad (also known as the California and Oregon Railroad, Southern Pacific Railroad, and now Union Pacific [UPRR]), transects through the heart of the study area, bisecting the City of Wheatland with the main business district formed around the depot. The railroad commenced construction of a line from Folsom to Marysville in 1858, and by 1861, track was laid as far as Lincoln. The terminus was changed to Wheatland in 1866 and stage and teaming business was transferred there also. Around that time, the railroad's name was changed to California and Oregon Railroad, and by 1879 it went under the title of the Oregon Division of the Central Pacific Railroad.

The building of the California Central Railroad northward from Folsom did away with staging and teaming up and down the Sacramento Valley. Millions of dollars of freight passed through the Wheatland depot before it was torn down in 1960. Freight was brought to Wheatland on the railroad and then transferred to wagons with huge teams of horses to be transported to Spenceville, Smartsville, Rough and Ready, Grass Valley, and other mountain towns. The merchants in the City of Wheatland brought large loads of supplies to Wheatland by railroad, as this was the shopping center for the Erle districts and the foothill area between the Yuba and the Bear Rivers. As an example of business done by the rail line, the freight hauled in 1878 was 11,984 pounds forwarded from Wheatland and 6,295,590 pounds received from Wheatland. The line hauled more than

freight. At the turn of the century seasonal hop workers arrived and departed by train, as special trains were scheduled to carry migrant workers. When the agricultural industry switched to peaches, the Wheatland depot was a leader for produce shipment. The depot closed in 1957 after 75 years of operation.

Settlement

Placer gravels along the lower reaches of the Bear River were not very productive and the Wheatland area was more suited to those industries supporting gold mining. Located adjacent to major routes to the gold fields and falling within a favorable climatic zone, the area quickly became a center for farming and ranching.

Claude Chana was one of the earliest farmers along the Bear River. Chana worked as a cooper for Sutter and then left for the gold fields. He discovered gold in Auburn's Ravine, the second major gold discovery. Chana returned to the Wheatland area and invested his mining profits into vineyards, orchards, and gardens along the Bear River. Chana erected the earliest grist mill in Yuba County, using the river for water power. His holdings were ruined by mining-induced floods along the river. Chana lived in the district until his death in 1882. He is buried in the Wheatland Cemetery. The Wheatland parlor of Native Daughters of the Golden West has marked his grave, and there are statues of Chana in Auburn and Colfax.

Another unsuccessful attempt to establish a community on Johnson's Rancho along the Bear River near Johnson's Crossing occurred in 1849 when lots were laid out for the town of Kearney. The town was never settled.

Another settlement, Kempton's Crossing, was successfully established along the Bear River southeast of Wheatland in 1849. In that year, a miner named Robinson settled on the Bear River and established a river crossing. A crude bridge was constructed in 1850. In 1852, Nathan Kempton took a section of land on the river and raised and cut hay. The community developed into a prosperous town until it was plagued by flooding in the early 1860s caused by hydraulic mining upstream. The river widened and became shallower, completely flooding the town in 1874. The ending of Kempton's Crossing signaled the beginning of the City of Wheatland. Residents abandoned Kempton's Crossing and relocated to nearby Wheatland. The entire life span of Kempton's Crossing covered a period of not more than 30 years.

The town of Wheatland derived its name from the vast amount of wheat grown in the vicinity in its early history, which was shipped by rail from that point. (Delay 1924:199; Gudde 1974:362). The town was often referred to as "Four Corners," due to its proximity to the junction of Yuba, Sutter, Placer, and Nevada counties. The Wheatland Post Office was established at Johnson's Ranch in Sutter County on November 21, 1853 and was moved to a Yuba County location in 1866. In 1866 the Central Pacific Railroad was completed to Wheatland and a post office was established. That same year the town was surveyed and laid out by George Holland. The chain of title to the town lots is

enumerated in Thompson and West's and Delay's county histories. Neyens has produced a detailed history.

The first building in the town was a saloon. A store, blacksmith shop, hotel, and a few residences were constructed in the first year. Not until 1871-72 did the sale of lots boom. The town incorporated in 1874.

At the time of incorporation in 1874, the population was 900, 300 of which were Chinese. Most all Chinese came as workers on the railroad. They worked in support industries (laundries, restaurants) and later were employed as hop workers. A thriving Chinatown existed from the 1860s through the early 20th century. Anti-Chinese sentiment forced its relocation several times. The center of the Chinese burial rite was a ceremonial pyre near the Wheatland Cemetery, where final meals were cooked for the deceased. The Chinese were buried nearby until they could be shipped back to China for final internment.

Thompson and West in 1879 described Wheatland as a "flourishing" town situated in East Bear River Township. By 1879 Wheatland supported a railroad depot, warehouses, a flour-mill, winery, lumber yard, numerous hotels, stores and ships, a bank, one newspaper, post office, Well Fargo & Co. express office, a city hall, Odd Fellows Hall, churches, a school, and about 80 dwellings. The Wheatland telephone exchange was one of the first in California, commencing service in 1893, 17 years after Alexander Graham Bell patented the telephone. Wheatland's telephone service boasted of being the "best in the state." By 1900 the population of Wheatland had reached 1,000 and the City included milling and grain warehouses, livery and feed stables, downtown stores and SPRR depot, bank, newspapers, churches, schools, hotels, and a theater. The town suffered three disastrous fires, one in 1880, another in 1898, and another in 1903.

Wheatland's first subdivision was built in 1953 when Charles Nichols developed his property bordering the northeastern part of the City. Ten homes were built in the first project that led to the first housing development within the City of Wheatland. The City's rate of commercial and residential development has been slow relative to the growth rates of nearby areas such as Marysville/Yuba City and particularly south Placer County. Over 78 percent of the City's housing was built prior to 1960 and only 14 percent has been built since 1975. The rate of development is expected to increase significantly as a result of the *1990 Specific Plan*. The *1990 Specific Plan*, if fully built out, will provide an additional 850 housing units, the vast majority of which are single-family units. The plan also allocates approximately 15 acres of land for commercial development along State Route 65.

Agriculture and Ranching

The Wheatland area was one of the first regions in Yuba County to be agriculturally developed, due to its rich land along rivers and creeks. Initially, the transient mining populations caused little interest in agriculture. Rather, all agricultural products were imported and fortunes were to be gained in the mines. However, after 1852, many failed miners turned to agriculture. Lands surrounding the present day Wheatland proved to be

fertile ground for early agricultural and ranching pursuits for vineyards, orchards, grain, and beef stock. Early settlers cut timothy grass and red clover that grew in abundance along rich river bottoms. Eli A. Harper settled on the Johnson grant in 1852 and cut hay where Wheatland now stands. Hay was hauled up to the mines in exchange for lumber. The chief crops were wheat, barley, potatoes, and hay. Grain (barley) was first harvested in 1852 below Camp Far West. Early on, Johnson and Kyser had a small field of wheat and Indians assisted in the harvest. Before 1855 there was not much wheat raised. However, when it was established that wheat could be shipped abroad without spoilage, the state focused on farming. The crops of wheat, potatoes, and barley grown between the early 1860s and the 1880s made Wheatland a trading center and a vital food supplier. Hops were the chief crop between the 1890s and 1920, when Wheatland was known for having the largest independently owned hop ranch in the world. During the 1930s and early 1940s, peaches overshadowed the hop industry. The peach industry has since given way to almonds, walnuts, and rice.

The bottomlands along the Bear River, Dry Creek, and Grasshopper Slough were especially fertile, as they were continually subject to flooding. Dry Creek and Grasshopper Slough were reported to be miles wide and the adjacent country was flooded to a depth of from one to four feet. In extreme instances, the downtown area was flooded, but usually floodwaters did not inundate the town.

Hop raising on a small scale was carried on in Yuba County in 1859. D.P. Durst planted the first hops in the Wheatland area in 1874. This ranch was the largest privately owned hops field in the world. Soon the hops industry caused Wheatland to be known as the "Hop Center." Migrant workers throughout the region were drawn to Durst's ranch. Indians from Nevada were also procured as hop-pickers. The Durst hop ranch was the scene of one of the first labor disturbances in California. In 1913, violence erupted at a meeting organized by the Industrial Workers of the World (IWW) to protest low pay and intolerable living conditions of the hops pickers. The confrontation ended in four deaths (there is a marker that still stands near the Hop Kilns just south of the City). The California state militia had to be called in to break up the riot, in which the sheriff, the district attorney, and two workers were killed. The organizers of the strike were convicted of murder and sentenced to life imprisonment. In the wake of this tragedy, the governor created a commission to investigate the condition of migratory farm laborers, and some reform legislation was passed. However, no substantive improvements occurred and influence of the IWW in the Central Valley waned. By 1925, Wheatland, then with a population of about 450, was listed as the second largest hops producer, employing 4,000 during harvest seasons. Later in the 1920s, frequent slumps in the hops commodity caused the landowners and growers to turn to fruit and vegetables with marked success. Fruit and nut orchards soon replaced hops in importance. Four abandoned kilns at the E. Clemons Horst Ranch and the Damon Estate are reminders of a exciting period of Wheatland history.

Military Activities

Camp Far West

Soon after the Donner tragedy, the U.S. government established Camp Far West; a military post located four miles east of Wheatland. The camp was established for the protection of American settlers in the Yuba region. Camp Far West was located on the Bear River and occupied one square mile on the north side of the river, in addition to a strip of 200 yards on the south side. The camp was located a few miles east of the Johnson Rancho house, and was in operation between 1849 and 1852. Two companies of soldiers were stationed under the command of Captain Hannibal Day. The army post had many problems – short supplies, deserters to the mines, etc. Captain Hannibal Day lived out a miserable existence, being too much engrossed with fighting malaria and like ailments to give much aid in protecting settlers against hostile Indians, which was the designated purpose of the post. "In common with the whole Sacramento Valley, this post is very sickly from June till October." Evidence of the old log fort, barracks, and officers quarters remains do not remain today, but the site has been marked by the Native Sons of the Golden West.

Beale Air Force Base

In 1942, the U.S. government selected 86,000 acres of land in Yuba and Nevada counties for the establishment of an Army base, Camp Beale, seven miles east of Wheatland. Today, families of personnel at Beale Air Force Base (Beale AFB) rely on support services in Wheatland.

As part of the acquisitions to form Camp Beale, some 150 landowners relinquished their farms, houses, and ranch buildings to the War Department. These structures, spread out over the area between the communities of Linda, Smartville, Indian Springs, and Wheatland, were abandoned and many were dismantled by the government. With the formation of Camp Beale, the small communities of Erle, Waldo, and Spenceville declined. Camp Beale was used as a training base for armored and infantry divisions, as a personnel replacement depot, and as a German prisoner of war camp. Following World War II, the camp was declared surplus, and 70 percent of the buildings were removed. Remaining features constitute a potential National Register District.

Schools

The very first public school near the town of Wheatland was established in the kitchen of the Roddan home in the late 1850's. Mr. Hollowman was the teacher and held school one term. The Hugh Roddan home at that time was located on Oakley Lane near Wheatland Road. The first official school house was constructed in 1879. Addition information on Wheatland's school system can be found in Chapter 4.13, Public Services.

Edward P. Duplex

Another significant event is Wheatland's history was the inauguration of Mayor Edward P. Duplex in 1888. Mayor Duplex was the first African-American man to be elected mayor of a western United States city. His barbershop still stands today on Main Street in downtown.

Regulatory context

Federal, State and local governments have developed laws and regulations designed to protect significant cultural resources that could be affected by actions that they undertake or regulate. The National Environmental Policy Act (NEPA), National History Preservation Act (NHPA) and California Environmental Quality Act (CEQA) are the basic federal and state laws governing preservation of historic and archaeological resources of national, regional, State and local significance.

Federal Regulations

Federal regulations for cultural resources are governed primarily by Section 106 of the NHPA of 1966. Section 106 of NHPA requires Federal agencies to take into account the effects of their undertaking on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties" are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites which are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provision for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal money.

State Regulations

Historical resources are recognized as part of the environment under CEQA statutes and guidelines (Public Resources Code sections 21001(b), 21083.2 and 21084.1; and section 15064.5 of the CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. Properties of local significance, including those identified in a local historical resource inventory, are presumed to be significant for the purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC sections 5024.1, 14 CCR section 4850).

Section 15064.5 of the CEQA Guidelines specifies criteria for evaluating the importance of cultural resources. Any object, building, structure, site, area, place, record, or

manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource (Public Resources Code section 5020.1). A resource may be considered to be "historically significant" if it meets the criteria for listing on the California Register, including:

- The resource is associated with events that have made a contribution to the broad patterns of California history;
- The resource is associated with the lives of important persons from our past;
- The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values; or
- The resource has yielded, or may be likely to yield, important information in prehistory or history.

Integrity is the authenticity of the historical resource's physical identity as evidenced by the survival of characteristics that existed during the resource's period of significance. The property must meet at least one of the criteria as described above and retain enough of its historic character or appearance to be recognizable as an historical resource and also to convey the reasons for its significance. Integrity is evaluated with regard to the aspects of location, design, setting, materials, workmanship, feeling, and association.

CEQA also applies to effects on archaeological sites. When a project will impact an archaeological site, the lead agency shall determine if the site is an historical resource as defined above. Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications, such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associates and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains.

<u>California Historic Register</u>

The State Historic Preservation Office (SHPO) also maintains the California State Register of Historic Resources (CRHR). The CRHR, or California Register, is an authoritative guide to the State's historical resources and to which properties are considered significant for purposes of CEQA. The California Register includes resources listed in, or formally determined eligible for listing in, the National Register of Historic Places, as well as some California landmarks and Points of Historical Interest. The

California Register can also include properties designated under local ordinances or identified through local historical resource surveys.

Even if a resource is not listed in or determined eligible for listing in the California Register, is not included in a local register of historical resources, or is not identified in an historical resources survey, the resource can still be determined by a lead agency to be an historical resource. Any project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

Local Regulations

The project involves establishment of goals and policies aimed at minimizing impacts associated with cultural resources in Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Native American Consultation

Peak & Associates (2004) sent a letter to the Native American Heritage Society (NAHC) requesting a check of the Sacred Lands files for the plan area. Their reply indicates that there are no sites or traditional cultural properties listed. The NAHC provided a list of contacts of Native American groups and individuals who may have knowledge or concerns within the plan area. Letters have been sent to several of these groups; no replies have been received to date.

Little of the study area has been subjected to systematic survey and the short list of inventoried heritage sites may not reflect the true archeological sensitivity of the area. All locales designated for future development within the study area should be subjected to a heritage resource study involving archival research, an archeological field reconnaissance, pertinent architectural evaluations, and consultations with appropriate federal, State, and local agencies and/or Maidu representatives. In this way, the unique and varied heritage resource to be found within the study area can be incorporated into community planning studies, just like any other natural resource. Benefits result, as tourism is encouraged and real estate values in and around the historic district appreciate. The integration of the unique presence of the past into new construction ultimately enhances the opportunity, security, and economy of a community. A contemporary development which reflects the rich local heritage will not only stand apart as a tribute to local and regional historical events, but it may also greatly enhance its own economic base and marketing appeal.

Impacts and Mitigation Measures

Standards of Significance

An impact to the cultural resources of the General Plan Update study area would be considered significant if any of the following conditions would potentially result from implementation of the proposed project:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;
- Cause a substantial adverse change in the significance of an archeological resource as defined in Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those outside of formal cemeteries.

Method of Analysis

Prior archaeological investigations indicate that the overall archaeological sensitivity of the general region ranges from low to high, depending upon the particular microenvironment. The potential exists for both historic and prehistoric heritage resources to be found virtually anywhere, even in areas thought to be of relatively low sensitivity. Areas of "non-sensitivity" for heritage resources do not exist within the study area. Overall, the study area is highly sensitive to contain historic resources and of low sensitivity to contain prehistoric resources. However, one prehistoric site is reported in the study area, consisting of a possible midden deposit reported to contain human remains. The site is the only known prehistoric site in the study area, and has been damaged by agricultural activities. The site was recorded in 1977 as CA-YUB-751.

Research entailed a general literature review of prehistoric and historic sources concerning the project area. Apart from a vehicular tour of the Wheatland study area, no archaeological field reconnaissance was conducted. Archaeological inventories on file with North Central Information Center at California State University, Sacramento (NCIC-CSUS) and the Northeast Information Center at California State University, Chico (NEIC-CSUC) were conducted in order to identify any recent properties listed on the National Register, state registers and other listings, including the files of the State Historic Preservation Office.

Pre-field research was also initiated with representatives of the Wheatland Historical Society and the City of Wheatland. The Wheatland Historical Society almost exclusively maintains detailed published and unpublished information on the history of Wheatland. Wheatland City Hall maintains an incomplete file of city documents (original ordinances and resolutions since ca. 1876); no historical maps are included in this collection. Peggy Luyster of the Yuba County Recorder's Office prepared an 1874 map showing lot ownership in Wheatland (on file at Wheatland Historical Society). The Wheatland Historical Society, December 1909, also maintains Sanborn Map Company Fire

Insurance Maps for the City of Wheatland. Other regional historical organizations and museums contain general regional histories as well, but do not carry specific information on the history of Wheatland (Mary Aaron Museum, Marysville, Karen Burrow, Curator, personal communication 1996; Sutter County Historical Society, Yuba City, Julie Stark, Assistant Curator, personal communication 1996). Oral histories were collected from residents knowledgeable in local history. In addition to the official records and maps for archaeological sites and surveys in Placer, Sutter, and Yuba counties, the following historic references were also reviewed: the National Register of Historic Places Listed Properties and Determinations of Eligibility – (1990 plus updates), California Historical Landmarks (1990 plus updates), California Points of Historical Interest (1992 plus updates), and the Directory of Properties in the Historic Resources Inventory (HRI, June 1994). Other local histories and secondary sources consulted are listed in the Works Cited sections of the Peak and Associates report (see Appendix ? to Draft EIR). General county histories and general information on the regional history are on file with the Yuba County Library, California Room in Marysville (Robertson, personal communication, 1996).

Everett Smith, Maidu resident of Marysville, was formally retained under contract to address potential Native American concerns within the study area. In addition, members of the Native American Heritage Commission were also contacted.

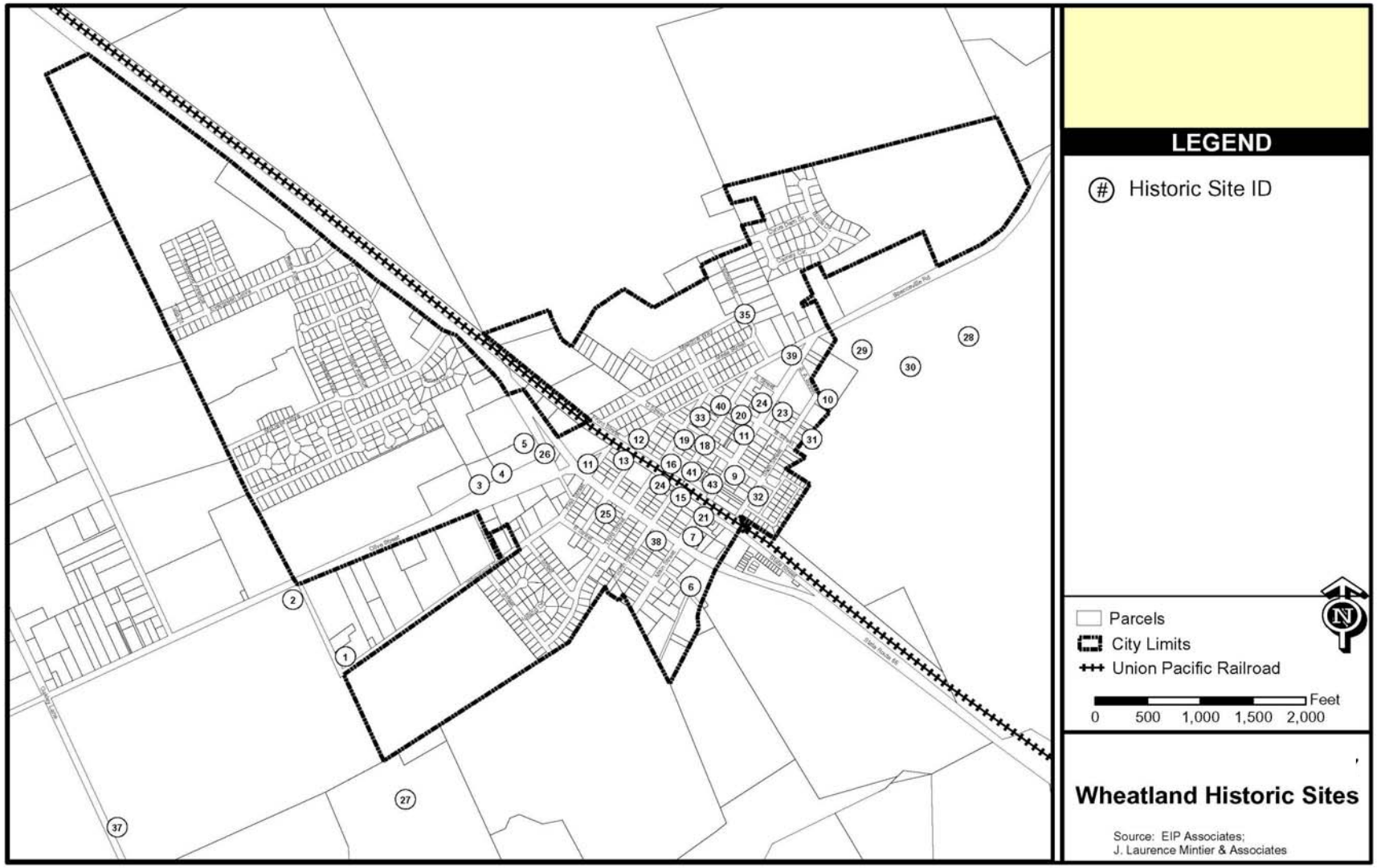
Determinations of cultural and historical impacts were based on the above information and information from the *Yuba County General Plan: Environmental Setting and Background*[1], the City of Wheatland *General Plan Background Report*[2], and the California Department of Conservation.

Project-Specific Impacts and Mitigation Measures

4.5-1 Development associated with the proposed General Plan Update could cause a substantial adverse change in the significance of a historical resource.

A number of historical resources have either been formally designated as properties listed on the National Register of Historical Places (NRHP), State Historic Landmark (SHL), California Points of Historical Interest, and/or California Inventory of Historical resources. Figure 4.5-1 shows the locations of sites listed as Wheatland Historic Landmarks.

Figure 4.5-1
Wheatland Historical Sites



National Register of Historical Places:

1) Johnson Ranch and Burtis Hotel sites, (Samuel Mills Damon Estate on Spenceville Road, east of Wheatland). The commemorative marker describing the resource is located within Wheatland at Tomita Park;
2) Wheatland Masonic Temple, 400 Front Street.

State Historic Landmark:

1) Johnson's Ranch (SRL 493) is located east of Wheatland. The commemorative marker describing the resource is located within Wheatland at Tomita Park; and
2) Wheatland Hop Riot of 1913.

California Points of Historical Interest:

1) Johnson's Crossing Yub-005 (1/17/75), Samuel Mills Damon Estate on Spenceville Road, four miles from Wheatland;
2) Camp Far West Cemetery, Yub-006 (1/17/75), Vicinity of Wheatland;
3) Grace Episcopal Church, Yub-007 (1/17/75), 610, 3rd Street, Wheatland;
4) Muck Home, Yub-008 (1/17/75), 512 Main Street, Wheatland; and
5) Masonic Temple, Yub-009 (1/17/75), Front and Forth Street, Wheatland;
6) Chinese Cemetery and Funeral Pyre, Yub-0011 (12/22/75), Vicinity of Wheatland (marker laced by Wheatland Historical Society).

California Inventory of Historical Resources:

1) Camp Far West Cemetery, Yub-006 (1/17/75), Vicinity of Wheatland;
2) Durst House, Wheatland;
3) Grace Episcopal Church, Yub-007 (1/17/75), 610, 3rd Street, Wheatland;
4) Johnson's Crossing Yub-005 (1/17/75), Samuel Mills Damon Estate on Spenceville Road, four miles from Wheatland;
5) Johnson's Ranch;
6) Muck Home, Yub-008 (1/17/75), 512 Main Street, Wheatland; and
7) Masonic Temple, Yub-009 (1/17/75), Front and Forth Street, Wheatland;

Wheatland Historic Landmarks:

1) Wheatland Union High School, built 1961;
2) Wheatland Cemetery, founded 1870s;
3) Virginia School;
4) Elementary School Administration offices (former W.H.U.S. Shop/Agriculture and Library/Home economics buildings);
5) Bear River School (Westside), built 1955;

6) Old Highway-Hooper to D; east on 4th across railroad tracks; down Front to main; west on Main to Malone Avenue; over the old Bear River bridge;
7) First house in Wheatland, corner main and C, C. Holland, owner;
8) First store in Wheatland (Ziegebein & Co.);
9) Site of E. W. Streets Blacksmith shop, 400 Main, built 1866;
10) First hotel, built by Asa Raymond;
11) Site of City Hall and Hook 7 ladder Co.;
12) Chinatown after the 1898 fire; site of the Southern Pacific cattle Corral, 2nd Street;
13) Chinatown before the 1898 fire; now Sohrakoff Warehouse, 3rd Street;
14) E.E. Roddan house and lumber company;
15) Site of American Hotel, W.J. Carney Sr., proprietor; purchased 1886; destroyed in 1903 fire, rebuilt as Hotel Carney, 1904, and operated by the Carney family until 1958, 500 4th Street;
16) Rochdale Co-op; original owner, Dr. Melton, now Wheatland Food market;
17) Prior to 1898 fire, Bray hotel, capital Hotel; reopened as Elwood Hotel, 1902; purchased by W.J. Carney Jr. and operated as Hotel Wheatland, 1924-1957; present site of Bank of America;
18) Baun home, first electrically supplied house; now Rose home;
19) Miniature golf course, 1920s and early 1930s;
20) Site of City owned tennis courts;
21) Muck's hall and Opera House, 4th and state streets; moved to State street behind Smith's garage;
22) Oldest business in continuous operation, established 1888 as Duplex's Barber Shop, Edward Duplex, Proprietor, first Black mayor west of the Mississippi; now George's Barber Shop, 410 Main Street;
23) St. Daniel's Catholic Church, first built 1872-73;
24) First Christian Church, established 1880;
25) Grace Episcopal Church, established 1874;
26) Second high School, Hooper and Olive streets, established 1924-25 on L.W. McCurry property;
27) Armstead field, town baseball diamond and rodeo grounds on Roddan property;
28) Dr. D.P. Durst home;
29) Site of 1913 Hop Riot, a major dispute in early United States labor history (monument dedicated 8/3/1988 by the Camp far West parlor no. 218, Native Daughters of the Golden West, Wheatland Historical Society);
30) Site of the hop pickers camp;
31) Site of Claude Chana Winery;
32) Alexander's Dairy; John Furneaux's Dairy; now Webb's Mobile Home Park;
33) Flour Mill site;

34) Durst Ranch; E.E. Roddan Ranch; now owned by Keyes and gene Roddan;
35) Northeast of Olive Street; Dam Ranch; Nicholas Ranch;
36) Site of Harding Ranch; later Waltz property; settlers' Village;
37) Jones property;
38) First church, the Southern Methodist, built 1972; now Assembly of God;
39) Grammar school built 1902; high school added to second floor, 1907; demolished 1935 to erect Eastside School;
40) First Baptist Church, built 1914; Wheatland Civic Club dedicated February 1931; now Pioneer Hall, 4th and B Street;
41) Odd Fellows hall, destroyed in 1898 fire, rebuilt May, 1899; bought out by the Masons in 1948 and renamed the Masonic Temple;
42) Site of Farmers' Bank, incorporated October 10, 1874; later Bank of Italy, 1924; Bank of America, 1930; now Wheatland Auto Parts; and
43) Moore's Theater, burned early 1950s.

Even if a resource is not listed in, or determined eligible for listing in the California Register, or included in a local register of historical resources, or even identified in an historical resources survey, the resource can still be determined by a lead agency to be an historical resource. The Wheatland General Plan suggests a review of historical literature indicates that almost any area within the entire Wheatland study area may contain historical resources associated with early transportation and settlement, and agriculture and ranching.

As listed above, historical structures are most likely to be found within the built environments of Wheatland's downtown core. Although the western half of the commercial core contains generally newer structures, the eastern side contains the majority of historical structures in the Wheatland area. A number of original historical structures, which still embody characteristics of their earlier period of construction, remain. Furthermore, sites that no longer contain historic buildings may have preserved historic and/or historic subsurface remains.

The General Plan Update includes the following goals and policies, which seek to develop a systematic and comprehensive historic preservation program to ensure that Wheatland's historically- and architecturally-significant resources are preserved:

Goal 7.A To preserve and maintain sites, structures, and landscapes that serve as significant, visible connection to the city's social, architectural, and agricultural history.

Policy 7.A.1. The City shall establish a Historic Resources Inventory to include all historically and architecturally significant buildings, sites, landscapes, signs, and features within the city limits.

Policy 7.A.2. The City shall seek to develop incentives for owners of historically significant income-producing buildings to have their buildings designated a City Historic Landmark.

Policy 7.A.3. The City shall give highest restoration priority to those buildings and open space areas identified as having historic, cultural, or architectural significance that are in imminent danger of decay or demolition.

Policy 7.A.4 The City shall encourage the incorporation of natural resources such as land and water into historic sites and structures when they are important to the understanding and appreciation of the history of the site.

Policy 7.A.5. The City shall consult with property owners early in the process of designating properties or buildings as historically and/or architecturally significant.

Goal 7.B To combine historic preservation and economic development so as to encourage owners of historic properties to upgrade and preserve their properties in a manner that will conserve the integrity of such properties in the best possible condition.

Policy 7.B.1. The City shall consider waiving building permit fees and/or providing other appropriate incentives for owners of small properties with historic significance who are unable to benefit from other government programs for historic preservation and for historic preservation projects that provide low-income housing or essential city services.

Goal 7.C To promote community awareness and appreciation of Wheatland's history and architecture.

Policy 7.C.1. The City shall formally recognize private and public quality rehabilitation and restoration work through awareness ceremonies.

Policy 7.C.2. The City shall encourage Wheatland schools to integrate local architectural history into their curriculum.

Policy 7.C.3. The City shall coordinate historic preservation efforts with other agencies and organizations, including the Yuba-Feather Historical Association and other historic societies.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.5-2 Development associated with the proposed General Plan Update could cause a substantial adverse change in the significance of an archeological, or unique paleontological resource.

Development allowed by the proposed General Plan Update such as road improvements, utility corridors, and excavation associated with residential, or business development could result in the destruction or damage of unknown archeological, or paleontological resources. Because only a portion of the study area has been culturally surveyed, unknown significant archeological, or paleontological resources may be disturbed, particularly in areas along springs, creeks, and rivers, as future ground disturbance occurs in accordance with the proposed land use and circulation.

Far less is known about the Wheatland area prior to European settlement, and evidence of early native peoples who occupied the area is scarce; therefore, any artifact or information is therefore valuable. The intensity of prehistoric and historic human activities in this region increases the potential presence of a substantial number of yet undiscovered important heritage resources within the study area. Prior archeological investigations show an overall archeological sensitivity of the general region ranging from low to high, depending upon the particular microenvironment.

The Wheatland General Plan suggests a review of the ethnographic archeological literature indicates that short-term and single-task prehistoric sites related to animal, fish, and plant procurement, and processing, or to trekking activities, may occur within the study area. Isolated artifacts can occur in a wide variety of environments. Many other areas of California, which there is a significant body of archeological information, zones adjacent to creeks, rivers, and springs, are consistently considered to be of high archaeological sensitivity. Prehistoric encampments may occur on high ground along drainages, such as Bear River, Dry Creek, or Grasshopper Slough, though subsequent flooding, and inundation by mining debris may have either washed or buried these deposits.

Although studies at Beale Air Force Base suggest that the study area does not contain a large number of prehistoric sites or artifacts, archeological sensitivity within the study area cannot be ruled out.

The General Plan Update includes the following goals and policies regarding archaeological resources that might be disturbed by development activity:

Goal 7.D To protect Wheatland's Native American heritage.

Policy 7.D.1. The City shall refer development proposals that may adversely affect archaeological sites to the California Archaeological Inventory, Northwest Information Center, at Sonoma State University.

Policy7.D.2. The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without first consulting the Archaeological Inventory, Northwest Information Center, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendations of a qualified archaeologist. City implementation of this policy shall be guided by Appendix K of the *CEQA Guidelines.*

Implementation of the goals and policies above would minimize impacts to archeological or unique paleontological resources; however not to a *less-than-significant* level. The resultant impact would therefore remain ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the potential impacts to a *less-than-significant* level.

4.5-1 *In the event that any archeological features or deposits, including locally darkened soil (midden), that could conceal cultural deposits, animal bone, shell, obsidian, mortars, or human remains, are uncovered during construction, work within 100 feet of the find shall cease, and the City of Wheatland and a qualified archaeologist shall be contacted to determine if the resource is significant and to determine appropriate mitigation. Any artifacts uncovered shall be recorded and removed to a location to be determined by the archaeologist.*

4.5-2 *Revise Policy 7.D.1 as follows:*

The City shall refer development proposals that may adversely affect archaeological sites to the North Central Information Center at California State University, Sacramento, and the Northeast Information Center at California State University, Chico.

4.5-3 *Revise Policy 7.D.2 as follows:*

The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without first consulting the California Archaeological Inventory; North Central Information Center at California State University, Sacramento;

Northeast Information Center at California State University, Chico; conducting a site evaluation as may be indicated; and attempting to mitigate any adverse impacts according to the recommendations of a qualified archaeologist.

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

4.6 GEOLOGY AND SOILS

INTRODUCTION

This section focuses on various geological characteristics of the Wheatland General Plan Update study area. This chapter's discussion of geology and soils evaluates the extent to which implementation of the proposed project could be affected by seismic hazards such as ground shaking and liquefaction soil characteristics. The analysis also addresses potential effects of the proposed project on erosion. Information for this analysis was drawn from the *General Plan Update Background Report*[1] *(2004), Yuba County General Plan Environmental Setting and Background Report*[2].

ENVIRONMENTAL SETTING

The City of Wheatland is located within the northeastern portion of the Sacramento Valley, which is within the Great Valley geomorphic province. The Great Valley, an elongated lowland, extends 500 miles north and south, separating the Sierra Nevada from the Coast Ranges. This elongated asymmetric structural basin or trough was formed by the westward tilting of the Sierra Nevada block against the eastern flank of the Coast Ranges. The basement rock complex of the Sierra extends westward, beneath the valley, on a gentle slope reaching points near the Coast Ranges. Elevation in the valley is generally several hundred feet above sea level, but ranges from a low point below sea level to approximately 1,000 feet above sea level.

The Great Valley is filled with thick sedimentary rock sequences or strata, which began deposition approximately 200 million years ago. Large alluvial fans have developed on each side of the Valley. The larger and more gently sloping fans are located on the east side of the Valley and overlie metamorphic and igneous basement rocks. This basement rock is exposed in the Sierra Nevada Foothills and consists of metasediments, volcanics, and granites. The sediments that form the Valley floor were largely derived by erosion of the Sierra Nevada. The smaller and steeper slopes on the west side of the Valley overlie sedimentary rocks more closely related to the Coast Ranges.

Seismic Features

Regional Seismicity

A fault is defined as a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side. A fault zone is a zone of related faults that commonly are braided and subparallel, but may be branching or divergent. Movement within a fault causes an earthquake. When movement occurs along a fault, the energy generated is released as waves which cause groundshaking.

Groundshaking intensity varies with the magnitude of the earthquake, the distance from the epicenter, and the type of rock or sediment the seismic waves move through.

The Alquist-Priolo Special Studies Zone Act of December 1972 (AP Zone Act) regulates development near active faults so as to mitigate the hazard of surface fault rupture. The AP Zone Act requires that the State Geologist (Chief of the California Department of Mines and Geology [CDMG]) delineates "special study zones" along known active faults in California. Cities and counties affected by these zones must regulate certain development projects within these zones. The AP Zone Act prohibits the development of structures for human occupancy across the traces of active faults. According to the AP Zone Act, "active faults" have experienced surface displacement during the last 11,000 years. "Potentially" active faults are those that show evidence of surface displacement during the last 1.6 million years. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and locally may not exist.

The Great Valley is generally considered less seismically active than other areas of California. The majority of significant, historic faulting (and ground shaking) within the City of Wheatland has been generated along distant faults, within a one-hundred-mile radius of the project site. Minor seismicity has been noted along the Foothills Fault System east of the site that may align with that fault system to some degree. The nearest, significant earthquake was the Oroville earthquake of 1975. The epicenter for this earthquake (Richter magnitude of 5.7) was located approximately 30 miles north of the site and is generally associated with the Cleveland Hill fault, a portion of the Foothills Fault System.

Local Seismicity

The proposed project is not located within an Alquist-Priolo Special Study Zone (AP Zone) nor is any active fault near the City. The closest AP Zone is the Bangor Quadrangle, including the AP Zone for the Cleveland Hill Fault to which the 1975 Oroville earthquake is attributed. This zone is located 27 miles north of the City. The next nearest active fault is the Dunnigan Hills fault, located 35 miles southwest of the City.

The closest branches of the seismically active San Andreas Fault system are the Green Valley and Rodgers Creek faults located approximately 60 to 70 miles southwest of the City. The San Andreas Fault is located approximately 100 miles to the west.

Faults typically considered inactive in the vicinity of the project area include the Willow fault zone, which traverses Yuba County from north to south and is located approximately 12 miles to the west of Wheatland, and the Spenceville fault in the Foothill Fault System (located in eastern Yuba County) approximately 10 miles east of Wheatland.

Seismic and Geological Hazards

Groundshaking

Groundshaking is motion that occurs as a result of energy released during an earthquake. Much of southwest Yuba County (referred to as the Valley portion of the County), which includes the City of Wheatland, is located on alluvium. In areas characterized by loose, water-saturated materials, such as alluvium, energy waves are amplified, extending the intensity and duration of groundshaking beyond that which occurs on solid rock. Though documented faults do not exist within the City, the region has experienced instances of groundshaking originating from faults located to the west and east.

The City of Wheatland is located in an area rated as a low-intensity earthquake zone (Seismic Zone II). A low-intensity zone is defined by the United States Geological Survey (USGS) as an area that is likely to experience an earthquake measuring a maximum of 5.0-5.9 in magnitude on the Richter scale, and a maximum intensity of VII or VIII on the Modified Mercalli scale. The Richter scale measures the amplitude of seismic waves recorded by a seismograph. The Modified Mercalli scale measures the intensity of an earthquake by the way it is felt and responded to by humans, and by the amount of damage it does to buildings and structures. A VII reading on the Modified Mercalli scale represents general fright among the public, pictures thrown off walls, and books thrown off shelves. An VIII on the Modified Mercalli scale represents difficultly standing, waves on ponds, and slides or cave-ins on sand and gravel banks. The Modified Mercalli scale is shown in Table 4.6-1.

Liquefaction

Another response to severe groundshaking that can occur in loose soils is liquefaction. This transformation from solid state to liquid state ("quicksand"), as a response to seismically induced groundshaking, can cause structures supported on the soils to tilt or settle (sometimes very violently and rapidly) as the supporting capabilities of the soils diminish. Water-saturated, clay-free sediments in the most recent Holocene unit are generally expected to have a high susceptibility to liquefaction. Notably, soils having a high clay content may also be considered to have moderate-to-high liquefaction potential. As identified in the *Yuba County General Plan Environmental Setting and Background Report*, the portion of the County that includes the Wheatland area is potentially susceptible to liquefaction because the area is underlain by unconsolidated sands and finer grained materials.

Other Geologic Hazards

Primary hazards associated with seismicity include surface rupturing and groundshaking. The major secondary effect of groundshaking is landslides; other potential effects include liquefaction, settlement; and lateral spreading. The study area is mostly level and would not be subject to landslides.

Subsidence is downward settling of surface materials caused by natural or artificial removal of underlying support. Land subsidence would occur from one or more causes, including withdrawal of fluids (oil, gas, or water) or the application of water to moisture-deficient unconsolidated deposits. The potential for collapsible soils exists in areas underlain by silt and fine sand, particularly where these have been deposited solely, or in part, by wind. The valley portion of Yuba County, which includes the Wheatland area, has a low-to-moderate potential for ground surface subsidence due to the withdrawal and extraction of groundwater in the Wheatland area.

Table 4.6-1
Modified Mercalli Scale of Earthquake Intensity

Scale	Effects
I.	Earthquake shaking not felt.
II.	Shaking felt by those at rest.
III.	Felt by most people indoors; some can estimate the duration of shaking.
IV.	Felt by most people indoors. Having objects swing, windows and doors rattle, wooden walls and frames creak.
V.	Felt by everyone indoors; many estimate duration of shaking. Standing autos rock. Crockery clashes, dishes rattle, and glasses clink. Doors close, open, or swing.
VI.	Felt by everyone indoors and most people outdoors. Many now estimate not only the duration of the shaking, but also its direction and have no doubt as to its cause. Sleepers awaken. Liquids disturbed, some spilled. Small unstable objects displaced. Weak plaster and weak materials crack.
VII.	Many are frightened and run outdoors. People walk unsteadily. Pictures thrown off walls, books off shelves. Dishes or glasses broken. Weak chimneys break at roofline. Plaster, loose bricks, unbraced parapets fall. Concrete irrigation ditches damaged.
VIII.	Difficult to stand. Shaking noticed by auto drivers, waves on ponds. Small slides and cave-ins along sand or gravel banks. Stucco and some masonry walls fall. Chimneys, factory stacks, towers, elevated tanks twist or fall.
IX.	General fright. People thrown to the ground. Steering of autos affected. Branches broken from trees. General damage to foundations and frame structures. Reservoirs seriously damaged. Underground pipes broken.
X.	General panic. Conspicuous cracks in ground. Most masonry and frame structures destroyed along their foundations. Some well-built wooden structures and bridges are destroyed. Serious damage to dams, dikes, and embankments. Railroads bent slightly.
XI.	General panic. Large landslides. Water thrown out of banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flatland. General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.
XII.	General panic. Damage nearly total, the ultimate catastrophe. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.

Data Source: *California Division of Mines and Geology, 1973.*

Soil Conditions

The U.S. Soil Conservation Service (SCS) has recently identified and mapped soils in Yuba County; however, detailed soil information was not available at the time of this analysis. The following information regarding site soils for the Project site was summarized from the *Yuba County General Plan Environmental Setting and Background Report.* Each identified soil complex has characteristics that affect soil behavior. Soil characteristics may or may not make the soils suitable for accommodating uses such as shallow excavations, levees, and berms, and local roads and streets. Soil limitations can

include slow or very slow permeability, limited ability to support a load, high shrink-swell potential, moderate depth to hardpan, low depth to rock, and frequent flooding. Each soil has characteristics that affect soil behavior. Characteristics discussed include:

- *Shrink-swell potential:* the potential for volume change in a soil with a loss or gain in moisture. If the shrink-swell potential is rated moderate to high, damage to buildings, roads, and other structures can occur.

- *Erosion*: the susceptibility of soil to water or wind transport.

Soil complexes identified for the project site include:

- *Columbia-Hollilipah-Shanghai association, 0-2% slopes:* a very deep, poorly and somewhat excessively drained soil found on stream terraces. Characteristics include a slight erosion and a low-to-moderate shrink-swell potential.

- *Conejo-Kilaga association, 0-2% slopes:* very deep, well drained alluvial soils found on stream terraces. Characteristics include a slight erosion and moderate to high shrink-swell potential.

- *San Joaquin soils, 0-2%:* Moderately deep, well drained alluvial soils that have a dense clay subsoil on low fan terraces. Characteristics include a slight erosion and moderate to high shrink-swell potential.

- *Redding-Corning-Pardee association, 0-2%:* Moderately deep, well drained alluvial soils with a dense clay subsoil on low alluvial terraces. Characteristics include a slight erosion and moderate to high shrink-swell potential.

REGULATORY CONTEXT

National pollutant Discharge Elimination System (NPDES)

As required under the federal Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources, such as construction sites, that discharge pollutants into waters of the United States. In California, NPDES permit issues are overseen by the nine individual Regional Water Quality Control Boards. For further discussion of NPDES, please refer to Section 4.8 (Hydrology, Water Quality, and Drainage) of this EIR.

California Building Standards Code / Uniform Building Code

Site development and design are regulated in the State of California by the California Building Standards Code (CBC), based on the Uniform Building Code (UBC) and suited to the unique sensitivity of the state's geology and fault lines. CBC and UBC regulations must be adhered to with regard to expansive soils, drainage, erosion, earthquake resistance, and required safety measures during on-site development.

City of Wheatland General Plan Update

The project involves establishment of goals and policies aimed at minimizing risks associated with geological hazards in Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed project could have a significant effect on the environment if it would:

- expose people or structures to substantial adverse effects as a result of strong ground-shaking, seismic-related ground failure, liquefaction, lateral spreading, landslides, or lurch cracking;
- result in substantial erosion or unstable slope soil conditions through alteration of topographic features, dewatering, or changes in drainage patterns;
- expose people, structures, or infrastructure components to increased risk of injury or damage due to the presence of expansive soils, soil settlement/compaction, or other geotechnical constraints;
- be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site lateral spreading, subsidence, liquefaction or collapse;

Method of Analysis

Determinations of geological impacts were based on information from the *Yuba County General Plan: Environmental Setting and Background*, and the City of Wheatland *General Plan Background Report*.

Project-Specific Impacts and Mitigation Measures

4.6-1 Development associated with the proposed General Plan Update would expose people or structures to potential seismic events and related ground shaking.

The Wheatland General Plan Update Background Report (page 7-2) states that active faults have not been identified in the Wheatland region and that historical records verify the lack of earth movement in the area. In the period from 1900-1976, five events with a Richter magnitude of 5 or greater occurred in the Wheatland area, but structural damage was not observed in any event. In addition, surface faulting and rupture exposure in the area appears remote by virtue of the absence of identified faults in the area, and depth of alluvial deposits above bedrock-like material. Groundshaking, both in terms of recurrence and severity,

appears to be similarly low due to the distance from the relatively few moderate or greater earthquakes experienced within the past 75 years. The majority of significant, historic faulting (and groundshaking) within the City of Wheatland has been generated along distant faults, within a one hundred-mile radius of the project site.

The City of Wheatland is located within the northeastern portion of the Sacramento Valley, which is within the Great Valley geomorphic province. Wheatland is not located within an Alquist-Priolo Special Study Zone (AP Zone) nor is any active fault near the study area. The closest AP Zone is the Bangor Quadrangle, including the AP Zone for the Cleveland Hill Fault to which the 1975 Oroville earthquake is attributed. This zone is located 27 miles north of the study area. The City of Wheatland is located in an area rated as a low-intensity earthquake zone (Seismic Zone II). A low-intensity zone is defined by the United States Geological Survey (USGS) as an area that is likely to experience an earthquake measuring a maximum of 5.0-5.9 in magnitude on the Richter scale, and a maximum intensity of VII or VIII on the Modified Mercalli scale.

The City of Wheatland requires that all construction comply with the CBC, which would help ensure that seismically induced groundshaking would not have an adverse effect on future development. However, the City of Wheatland has identified other measures related to groundshaking.

The General Plan Update includes the following goals and policies applicable to geology issues:

Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions.

Policy 9.A.1. The City shall prepare and regularly update emergency services plans.

Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements.

Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable.

Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level.

Policy 9.A.7. The City shall ensure that during natural catastrophes and emergencies the City can continue to provide essential emergency public services.

Policy 9.A.8. The City shall update building, fire, and other codes to address earthquakes, fire, and other hazards.

Policy 9.A.9. The City shall coordinate disaster preparedness planning with other public agencies and organizations

Goal 9.B To minimize the loss of life, injury, and property damage due to seismic and geological hazards.

Policy 9.B.1. The City shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e., groundshaking, liquefaction, expansive soils).

Policy 9.B.2. The City shall require that new structures intended for human occupancy be designed and constructed to minimize risk to the safety of occupants due to groundshaking.

Policy 9.B.3. The City shall require that new structures intended for human occupancy be designed and constructed to minimize risk to the safety of occupants due to ground-shaking.

Policy 9.B.4. The City shall require that new structures and alterations to existing structures comply with the current edition of the Uniform Building Code.

Policy 9.B.5. The City shall develop evacuation routes and a disaster plan in the remote event that an earthquake does occur, especially in the Camp Far West Dam inundation area.

Policy 9.B.6. The City shall require that new structures intended for human occupancy, public facilities (i.e., treatment plants and pumping stations, major communication lines, evacuation routes, etc.), and emergency/disaster facilities (i.e., police and fire stations, etc.) are designed and constructed to minimize risk to the safety of people due to ground shaking.

Policy 9.B.7. The City shall require all proposed developments, reconstruction, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed to mitigate the risk associated with the hazard (e.g., expansive, liquefaction, etc.).

Policy 9.B.8. The City shall require that alterations to existing buildings and all new buildings be built according to the seismic requirements of the Uniform Building Code.

Policy 9.B.9. The City shall support and encourage seismic upgrades to older buildings that may be structurally deficient.

Policy 9.B.10. The City shall inventory unreinforced masonry structures, including emergency facilities and other critical facilities constructed prior to 1948, used for human occupancy (excluding single family residential structures), and evaluate the facilities for seismic safety. If found below acceptable standards, the City shall implement a program to mitigate potential hazards.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.6-2 Development associated with the proposed General Plan Update could place buildings on expansive soils, thus potentially causing structural damage.

All soils have properties and characteristics such as erosion potential, shrink-swell behavior, and permeability that determine their suitability and constraints for building sites, grading, infrastructure, and drainage systems. As such, soils require special engineering attention to design to ensure the safety of any buildings or improvements.

As mentioned above, four soil complexes are identified for the Wheatland area. Three out of four soil complexes are considered to have a moderate to high shrink-swell potential. The remaining complex has a low-to-moderate shrink-swell potential. If a structure is constructed on an area that is underlain with expansive soils, the structure may suffer damage from the expansive activities.

More specifically, if buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. Movements may vary under different pads of the building or street, cracking foundations and street surfaces, distorting various structural portions of a building, and wrapping doors and windows so that they do not function properly.

The adverse effects of expansive soils may be avoided through proper drainage and foundation design. The California Building Code (CBC) requires that soil testing be done on all graded building sites. In accordance with the CBC, specifications necessary to design buildings and roads to address potential soil

limitations need to be included in construction plans submitted to the City Engineer for review and approval.

The General Plan Update includes the following goals and policies applicable to geology issues:

Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions.

Policy 9.A.1. The City shall prepare and regularly update emergency services plans.

Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements.

Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable.

Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level.

Policy 9.A.7. The City shall ensure that during natural catastrophes and emergencies the City can continue to provide essential emergency public services.

Policy 9.A.8. The City shall update building, fire, and other codes to address earthquakes, fire, and other hazards.

Goal 9.B To minimize the loss of life, injury, and property damage due to seismic and geological hazards.

Policy 9.B.1. The City shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e., groundshaking, liquefaction, expansive soils).

Policy 9.B.2. The City shall require submission of a preliminary soils report, prepared by a registered civil (geotechnical) engineer and based upon adequate test borings, for every major subdivision.

Policy 9.B.4. The City shall require that new structures and alterations to existing structures comply with the current edition of the California Building Code.

Policy 9.B.7. The City shall require all proposed developments, reconstruction, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed to mitigate the risk associated with the hazard (e.g., expansive, liquefaction, etc.).

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.6-3 Liquefaction could occur in the study area, subjecting structures or people to harm and/or damage.

Liquefaction is a phenomenon whereby loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pressure buildup such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits (and hence settlements of overlying deposits) after an earthquake as excess pore water pressure is dissipated. The primary factors affecting liquefaction potential of a soil deposit are: (1) intensity of anticipated seismic ground motions; (2) soil type and consistency; and (3) depth to groundwater.

Areas found throughout the City of Wheatland may be more susceptible to liquefaction during seismic events if perched ground water conditions are present. The degree of liquefaction shall in part depend on groundwater conditions at specific sites.

Additionally, the Wheatland General Plan Background Report states that a portion of the County, which includes the Wheatland area, is potentially susceptible to liquefaction because it is underlain by unconsolidated sands and finer grained materials. Water-saturated, clay-free sediments in the most recent Holocene unit are generally expected to have a high susceptibility to liquefaction.

The General Plan Update includes the following goals and policies applicable to geology issues:

Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions.

Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements.

Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable.

Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level.

Goal 9.B To minimize the loss of life, injury, and property damage due to seismic and geological hazards.

Policy 9.B.3. The City shall require that new structures intended for human occupancy be designed and constructed to minimize risk to the safety of occupants due to ground-shaking.

Policy 9.B.4. The City shall require that new structures and alterations to existing structures comply with the current edition of the California Building Code.

Policy 9.B.6. The City shall require that new structures intended for human occupancy, public facilities (i.e., treatment plants and pumping stations, major communication lines, evacuation routes, etc.), and emergency/disaster facilities (i.e., police and fire stations, etc.) are designed and constructed to minimize risk to the safety of people due to ground shaking.

Policy 9.B.7. The City shall require all proposed developments, reconstruction, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed to mitigate the risk associated with the hazard (e.g., expansive, liquefaction, etc.).

Policy 9.B.8. The City shall require that alterations to existing buildings and all new buildings be built according to the seismic requirements of the Uniform Building Code.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.6-4 Development associated with the proposed General Plan Update could result in soil erosion.

Adoption of the proposed General Plan Update would allow for increased development within the Wheatland study area. Surface grading and earth-moving activities associated with construction projects would create temporary exposed earth surfaces. Once the protective vegetative cover is removed and the soil is broken into easily transported particles, exposed earth surfaces are susceptible to wind and water erosion. In addition, artificially steepened slopes created during grading are prone to erosion, as soils tend to settle into a natural angle of repose.

Though erosion potential of the soils in the Wheatland study area are not a significant problem due to the predominant flat topography and the cohesive nature of the soils, construction activities would create a potential for soil erosion. During future development, topsoil would be moved and graded, leading to disturbed soils that do not have as much connectivity to the ground as undisturbed soils. These disturbed soils are likely to suffer from erosion from a variety of sources, such as wind and rainfall.

The General Plan Update includes the following goals and policies applicable to geology issues:

Goal 5.E To collect and dispose of stormwater in a manner that protects the city's residents and property from the hazards of flooding, manages stormwater in a manner that is safe and environmentally sensitive, and enhances the environment.

Policy 5.E.4. The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities.

Implementation of the goals and policies above would minimize impacts related to erosion; however not to a *less-than-significant* level. The resultant impact would therefore remain ***potentially significant***.

<u>Mitigation Measure(s)</u>

Implementation of the following mitigation measure would reduce the potential impacts to a *less-than-significant* level.

4.6-4 For future development projects, applicants shall prepare, submit to the City Engineer for approval, and implement an erosion control plan prior to grading permit issuance. The erosion control plan shall utilize standard construction practices to limit the erosion effects during construction. Measures could include, but are not limited to the following:

- *Hydro-seeding;*
- *Placement of erosion control measures within drainageways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with "filter fabric" (a specific type of geotextile fabric);*
- *The placement of straw wattles along slope contours;*
- *Directing subcontractors to a single designation "wash-out" location (as opposed to allowing them to wash-out in any location they desire);*
- *The use of siltation fences; and*
- *The use of sediment basins and dust palliatives.*

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.
[2] Yuba County General Plan, Volume 1: Environmental Setting and Background, Section 2.4. May 1994

4.7 HAZARDS AND HAZARDOUS MATERIALS

Introduction

The hazards and hazardous material impact analysis assesses the potential dangers that hazards and hazardous materials may pose on or near the General Plan Update study area. This section looks specifically at the current and future presence of hazards within the study area and the risks that these hazards may pose to current and future residents. A number of potential hazards will be looked at in detail, such as the risk of wildland fires, the proximity of the study area to Beale Air Force Base, and the presence of the Union Pacific Rail Road (UPRR) train tracks. The discussion of the potential impacts associated with these and other hazards as well as possible measures to mitigate damaging effects will be included in this chapter. Information for this analysis is drawn from the *General Plan Background Report*[1] *(2004).*

Environmental Setting

Public health is potentially at risk wherever hazardous materials are stored or used. A necessary distinction exists between the "hazard" of these materials and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, in addition to the inherent toxicity of a material. When the risk of an activity is judged acceptable by society, in relation to perceived benefits, then the activity is judged to be safe. For example, ammonia is a common household chemical, which has been judged safe for use in our society. Although it can be hazardous to health, irritating the eyes, respiratory tract and skin, and even causing bronchitis or pneumonia following severe exposures, the risk of such a severe exposure is believed to be low. Therefore, the use of household ammonia is thought to be a safe activity.

Factors that can influence the health effects of exposure to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body) and the individual's unique biological susceptibility.

Table 4.7-1 lists general hazardous material categories and the nature of the hazards associated with each category.

Table 4.7-1
General Hazardous Material Categories and Hazard Nature

General Category	Nature of Hazard
Compressed Gases	Pressurized gases, liquefied gases, cryogenic gases, dissolved gases stored under pressure and can explode.
Severe Poisons	Substances that may cause death or injury at relatively low concentrations or significant health effects from chronic exposure at relatively low concentrations.
Moderate Poisons	Substances that may cause death or injury at relatively low concentrations, or significant health effects from chronic exposure or harmful effects from acute exposure at higher concentrations.
Water Reactives	Materials that react violently with water to produce fire or toxic fumes other than strong acids or bases.
Oxidizers	Materials that release oxygen or add to the intensity of a fire.
Flammables	Liquids or solids that readily burn and/or are difficult to extinguish.
Corrosives	Materials that are strong acids or bases, will corrode skin or metal, and may react violently with water.
Radioactives	Materials that emit ionizing radiation.
Biohazards	Disease-producing living organisms or spores.
Other Hazardous Materials	Includes carcinogens, halogenated solvents, explosives and others.

Existing Land Uses

Agricultural Uses

The City of Wheatland is generally surrounded by agrarian land. With the exception of limited residential development near the center of the Wheatland area, most of the land to the northeast, the southwest, west, and northwest of the City limits consists of agricultural uses. Agricultural uses include orchard and row crop cultivation as well as cattle grazing and pastureland uses.

Agricultural land in the Wheatland area is primarily used for orchards with limited areas of open grassland used for grazing. Agricultural use of this sort includes the use of fungicides, pesticides, and pre-emergent chemicals. The fungicides and pesticide/insecticides are applied to the trees, while the pre-emergents are applied to grasses and weeds prior to their spread. The chemicals typically used over the last 15 to 20 years break down shortly after application. However, long-term use of the Wheatland area for similar agricultural purposes could leave residual chemicals in the soil.

Toxicological studies indicate that persistent pesticides/herbicides have long half-lives in soil. However, the soil must be ingested to significantly expose an individual to the associated chemical hazards. Although the chemicals are considered persistent over long periods of time, their concentrations degrade over time, rendering them less hazardous.

Industrial Uses

The large-scale use of hazardous materials for industrial purposes is common and can include the use and storage of large amounts of solvents and fuel oils. Over long periods of use spills and undetected leaks contaminate the surrounding soils and shallow groundwater.

The only industrial use in the City of Wheatland since 1996 is an HVAC storage and distribution operation at the old Rice Mill on Third Street. This facility does not use any hazardous materials.

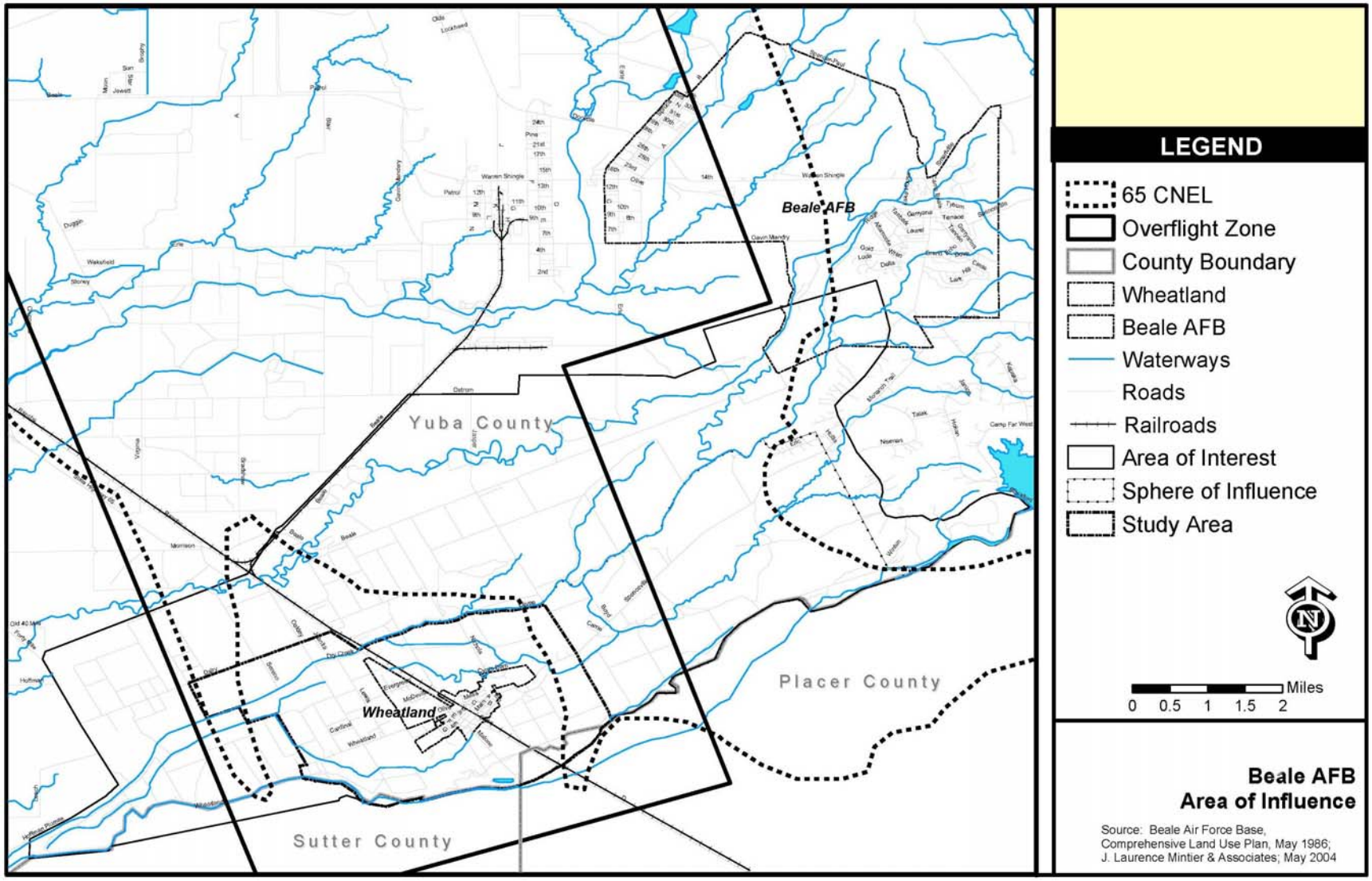
Beale Air Force Base

Beale Air Force Base is located in Yuba County approximately 13 miles east of Marysville, and 6 miles northeast of Wheatland. Created in 1942 as an army training base, the base today is under the authority of the Air Force's Strategic Air Command (SAC). The base is the only location for the nation's U-2 and TR-1 reconnaissance aircraft. In addition, the base operates Global Hawk reconnaissance aircrafts, NASA T-38 chase/trainer jets, and KC-135 jet tankers. Aside from reconnaissance aircrafts, the base is also the home to various missile warning and information/intelligence systems such as the DGS-2 and Pave Paws systems.

Furthermore, Beale Air Force Base (Beale AFB) maintains one (1) active runway, which is 12,000 feet long and 300 feet wide, with asphalt overrun areas to the north and south. Flight paths followed by aircraft arriving and departing from Beale AFB have been integrated to minimize conflict with civilian aircraft operations at Sacramento Metro Airport, the Yuba County Airport, the Sutter County Airport, the Lincoln Airport, and McClellan Air Force Base. Further, flight paths have been designed to minimize community disturbance and public reaction.

The Beale AFB Comprehensive Land Use Plan (CLUP) (1992) designates three safety areas: the clear zone, the approach-departure zone, and the overflight zone (see Figure 4.7-1). The clear zone is near the end of the runway and is the most restrictive. The approach-departure zone is located under the takeoff and landing slopes and is less restrictive. The overflight zone is the area under the traffic pattern and is even less restrictive.

Figure 4.7-1
Beale Air Force Base Area of Influence



Wheatland is located within the CLUP overflight zone. The overflight zone dimensions are determined by reviewing the flight patterns for Beale AFB and developing a zone that would include that land overflown by aircraft in a take-off or landing phase, aircraft using flight paths associated with training touch and go operations, and aircraft maneuvering near the airfield after take-off or before landing.

The Beale AFB Comprehensive Land Use Plan includes a table entitled "Beale Air Force Base Land Use Compatibility Guidelines for Safety." Although the overflight zone is the least restrictive of the zones, the table shows that certain land use is permitted in the overflight zone. Prohibited land use include: chemical and allied products manufacturing; petroleum refining; rubber and plastics manufacturing; regional shopping centers; colleges and universities; hospitals; jails and detention centers; motion picture theater complexes; professional sports developments; stadiums and arenas; auditoriums, concert halls and amphitheaters; fairgrounds and expositions; racetracks; and theme parks.

The guidelines recommend that the following types of developments be allowed with restrictions: elementary and secondary schools are allowed only if Californian Education Code, *Sections 39005.7, 81036, and 81038* are fulfilled; manufacturing, communications and utilities development are allowed only if there is no use that would cause electrical interference which would be detrimental to aircraft operation or instrumentation; and agricultural, mining, open space and natural areas or natural water areas would be allowed as long as they do not result in water areas that could cause ground fog or result in a bird hazard.

Uses allowed within the overflight zone, which do not have restrictions include, but are not limited to, residential, business park, offices, and various commercial developments.

Existing Hazards

According to the Yuba County General Plan, hazardous substances are used, stored, and transported throughout the County. Hazardous substances include but are not limited to, petroleum products, pesticides and herbicides, chemicals, and radiation. Title 22, *Section 66260.10* of the California Code of Regulations (CCR) defines hazardous material as follows:

> *"[…] a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transport or disposed of."*

Hazardous wastes are a problem not confined to highly industrialized areas. Waste oils and other petroleum products are among the several hundred substances classified as

hazardous wastes. Every gasoline service station and automobile repair facility in Wheatland is a hazardous waste generator. School chemistry laboratories and automotive shops use and store hazardous substances and/or generate hazardous waste.

The greatest risks of upset or accidental release of hazardous substances and wastes into the environment are during transport, during transfer from a mobile tank to a fixed storage tank, or from leaking storage tanks. Hazardous substances and hazardous wastes are transported through the City by truck and railroad. Until recent improvements in storage tank technology and installation, use, inspection, and disposal procedures, most storage tanks would eventually leak contents into soil and water.

Household hazardous wastes are a potential source of risk that should not be overlooked. Although they constitute only a small percentage (typically five percent or less) of all household wastes, household hazardous wastes are a particular danger to the environmental. Typically, they include waste oil, solvents (such as paint thinners and cleaning solutions), pesticides, dyes and paints, metal-containing liquids (such as the contents of batteries), and a variety of other liquids such as drain cleaners and bleaches.

Other Hazards

Additional potential hazards within the City of Wheatland include hazardous materials spills or other accidents on SR 65 or the Union Pacific Railroad. Both are major transportation corridors of national significance. Vehicles and rail cars may carry explosives, military ordnance, chemicals, and a variety of petroleum products. Cleanup where accidents occur involving these facilities would be the responsibility of Caltrans or the Union Pacific Railroad.

Wildland Fire Hazards

Existing Fire Protection Services

Wheatland Fire Department

The City of Wheatland Fire Department provides fire protection services to the City. The Department, which consists entirely of volunteers, maintains a roster that varies from 12 to 16 positions. The department operates four vehicles: a rescue unit; a Class A, 1000 GPM engine; a Class B, 500 GPM engine; and a brush truck for fighting fires. All vehicles are run out of a two-bay equipment house located beside city hall. The Department has a mutual response agreement with the Plumas-Brophy Fire District, which is described below. The Marysville Fire Department handles hazardous materials emergencies under a mutual aid agreement. The Wheatland Fire Department maintains an Insurance Service Office (ISO) rating of Class VI. ISO's ratings range from I to X, with I being very close to perfect and X being no fire protection.

Plumas Brophy Fire Protection District

The Plumas Brophy Fire Protection District (PBFD) is classified a 'Special District' by the State of California. The PBFD serves an area west of the existing City of Wheatland (encircling the city limits), approximately 80 square miles. The PBFD consists of sixteen (16) volunteers. The station is at 4514 Dairy Road and includes four (4) Class A, 1,000 GPM engines, two (2) water tenders, three (3) Grass Units (CEF) Type 1, and two (2) light rescue units.

Wheatland Fire Authority

Effective January 1, 2006, Plumas-Brophy Fire District and the City of Wheatland Fire Department will have merged operations under a joint powers agreement. The agreement establishes a joint powers authority called the Wheatland Fire Authority, which will operate as a regional fire protection agency.

Marysville Fire Department

The Marysville Fire Department consists of:

- Three (3) personnel on duty 24 hours a day;
- One (1) fire station; and
- Reserve force of 15.

Existing Wildland Fire Conditions

The largest factors affecting the occurrence of wildland fires are vegetation, climate, and topography. These factors are used by the California Department of Forestry and Fire Protection (CDF) to develop the Fire Hazard Severity Scale for California wildlands. The resulting classification system provides a practical, objective means for delineating areas of varying fire hazard severity.

Vegetation is a primary fuel source for wildland fires. Three (3) vegetation categories are recognized in terms of fuel capacity: grass, brush, and timberland. Grasslands, the lightest fuel group, provide from one to three tons of fuel per acre and are easily ignited when dry. Of the three fuel types, grasslands are the easiest in which to suppress fires. Heavy brush and timberlands represent the heaviest fuel loading. Agricultural areas on the valley floor are the least fire-prone areas of the County. The most serious problems in the valley relate to structural fires and grass fires.

While vegetation provides fuel for fires, the Mediterranean climate of Yuba County helps fires to start and spread rapidly. During the annual dry season, from about May to October, vegetation becomes very dry. Hot, dry conditions increase the combustibility of fuels. Although the valley has a hotter, drier climate than the foothills and mountains, the presence of croplands, orchards, and irrigation makes the wildland fire danger less critical in the valley.

The third component of the fire hazard rating system is topography. Steepness of terrain can contribute to the outbreak, spread, and severity of fires in several ways. The relatively flat terrain in the Wheatland area makes wildland fire danger less critical.

The City of Wheatland is within the lower grasslands and is therefore among the most fire secure areas in Yuba County.

Regulatory context

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency or if it has characteristics defined as hazardous by such an agency.

The California Environmental Protection Agency, Department of Toxic Substances Control (CAL-EPA, DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

> . . . its quantity, concentration, or physical, chemical […] characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

Many agencies regulate hazardous substances. Existing policies, laws and regulations that would apply to the proposed project are summarized below:

Federal Regulations

Federal agencies that regulate hazardous materials include the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). The following federal laws and guidelines govern hazardous materials:

- Federal Water Pollution Control
- Clean Air Act
- Occupational Safety and Health Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Comprehensive Environmental Response, Compensation, and Liability Act
- Guidelines for Carcinogens and Biohazards

- Superfund Amendments and Reauthorization Act Title III
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substances Control Act

Prior to August 1992, the principal agency at the federal level regulating the generation, transport and disposal of hazardous waste was the EPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California Department of Toxic Substance Control (DTSC) was authorized to implement the State's hazardous waste management program for the EPA. The federal EPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

State Regulations

The California Environmental Protection Agency (Cal-EPA) and the State Water Resources Control Board establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable state and local laws include the following:

- Public Safety/Fire Regulations/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL).

Local Regulations

<u>Sacramento Area Council of Governments</u>

SACOG provides transportation planning and funding for the region, and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, SACOG approves the distribution of affordable housing in the region and assists in planning for transit, bicycle networks, clean air and airport land uses.

Beale Air Force Base

Airport Land Use Policy Plans establish planning boundaries and land use compatibility standards for airports not having an individually-prepared CLUP. The Beale AFB Comprehensive Land Use Plan includes a table entitled "Beale Air Force Base Land Use Compatibility Guidelines for Safety." The table regulates certain land uses in the overflight zone. Prohibited land use include: chemical and allied products manufacturing; petroleum refining; rubber and plastics manufacturing; regional shopping centers; colleges and universities; hospitals; jails and detention centers; motion picture theater complexes; professional sports developments; stadiums and arenas; auditoriums, concert halls and amphitheaters; fairgrounds and expositions; racetracks; and theme parks.

Wheatland General Plan Update

The project involves establishment of goals and policies aimed at minimizing potential hazards within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Table 4.7-2 summarizes the regulatory structure for hazardous materials.

Table 4.7-2
Summary of Hazardous Materials Regulatory Authority

Federal Regulatory Agency	Authority
Department of Transportation (DOT)	Hazardous Materials Transport Act - Code of Federal Regulations (CFR) 49
Environmental Protection Agency (EPA)	• Federal Water Pollution Control Act • Clean Air Act • Resource Conservation and Recovery Act (RCRA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) • Superfund Amendments and Reauthorization Act (SARA) • Federal Insecticide, Fungicide and Rodenticide Act
Occupational Safety and Health Administration (OSHA)	Occupational Safety and Health Act and CFR 29
State Regulatory Agency	**Authority**
Department of Toxic Substances Control (DTSC)	California Code of Regulations
Department of Industrial Relations (CAL-OSHA)	California Occupational Safety and Health Act, CCR Title 8
State Water Resources Control Board Regional Water Quality Control Board	• Porter-Cologne Water Quality Act • Underground Storage Tank Law
Health and Welfare Agency	Safe Drinking Water and Toxic Enforcement Act
Air Resources Board Air Pollution Control District	Air Resources Act
Office of Emergency Services	Hazardous Materials Release Response Plans/Inventory Law
Department of Fish and Game	Fish and Game Code
Department of Food and Agriculture	Food and Agriculture Code
State Fire Marshall	Uniform Fire Code, CR Title 19

Table 4.7-2 Summary of Hazardous Materials Regulatory Authority	
Federal Regulatory Agency	**Authority**
County Regulatory Agency	**Authority**
Yuba County Hazardous Waste Management Plan (CHWMP)	Countywide enforcement of proper identification and disposal of hazardous products.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed project would be considered to result in a significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area
- Impair implementation of a physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Method of Analysis

Determinations of hazardous impacts were based on information from the City of Wheatland *General Plan Update Background Report*.

Project-Specific Impacts and Mitigation Measures

4.7-1 Development associated with the proposed General Plan Update would create potential hazards related to the public or the environment through the routine transport, use, disposal or reasonably foreseeable upset and accidental release of hazardous materials.

Pesticides

The General Plan study area primarily consists of agricultural uses, including orchard and row crop cultivation as well as limited areas open to cattle grazing and pastureland. The GPU Land Use Diagram would designate a variety of land uses in areas where past and present agriculture practices within the study area may have resulted in soil contamination, especially in areas of pesticide storage and crop dusting strips. Agricultural uses may have included the use of fungicides, pesticides, and pre-emergent chemicals. The fungicides and pesticides/insecticides would have been applied to the trees, while the pre-emergents are applied to grasses and weeds prior to their spread. The chemicals typically used over the last fifteen (15) to twenty (20) years break down shortly after application. However, long-term use of the Wheatland area for similar agricultural purposes could leave residue chemicals in the soil.

Toxicological studies indicate that persistent pesticides/herbicides have long half-lives in soil. However, the soil must be ingested to significantly expose an individual to the associated chemical hazards. Although the chemicals are considered persistent over long periods of time, their concentrations degrade over time, rendering them less hazardous.

Preliminary site assessments, appropriate clean-up action, and remediation measures would help prevent any risk of designating urban uses on contaminated lands.

Industrial

Proposed development could locate industrial uses that involve the use of hazardous material and waste close to existing or proposed sensitive receptors. The placement of industrial facilities in the vicinity of “sensitive receptors,” such as residences, school playgrounds, childcare centers, hospitals, convalescent homes, retirement homes, rehabilitation centers and athletic facilities, may result in significant health impacts if the industrial facilities handle hazardous materials and hazardous waste.

The project-related effects of hazardous materials handling and storage would generally be greatest in the immediate areas where the materials would be located. Exposure at more distant locations would require some mechanism to transport the material to a more distant location. For this reason, the land uses that would be more at risk are the ones closer to the sources of hazardous materials and wastes. The pathways through which the community or the environment could be exposed to hazardous materials include breathing, ingestion, and dermal contact.

Employment areas, which include light industrial uses, are proposed in the General Plan Update Land Use Diagram near residential and public facilities. Residential and public schools sites are proposed to be located adjacent, or within

a ¼ mile of possible industrial sites. However, the specific sites of new schools will depend upon decisions by the School Board's of the two districts, and the availability of appropriate land. The Land Use Diagram indicates general locations for new public school facilities and does not illustrate specific site relationships between sensitive receptors (residential developments, and public school facilities) and industrial locations.

A substantial number of state and federal regulations exist that control and prevent risks to the environment due to hazardous wastes and materials. Within the California Environmental Protection Agency Cal-EPA, the California Department of Toxic Substance Control DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). In addition, the Yuba County Hazardous Waste Management Plan (CHWMP) is the responsible agency for enforcing proper identification and disposal of hazardous products.

Accidents during hazardous waste transport to and from a site could expose individuals and the environment to risks at some distance from the project site. However, transportation accidents are infrequent, as the U.S. Department of Transportation and the U.S. Postal Service specify packaging requirements for hazardous materials and wastes that limit the potential for packages to fail on impact. These requirements reduce the potential for hazardous materials releases to occur in the unlikely event of an accident.

Additional Hazards

Hazardous wastes are not solely confined to highly industrialized areas. The General Plan study area includes a significant increase in land uses, which will add to the existing hazards commonly used in urban areas. Waste oils and other petroleum products are among the several hundred substances classified as hazardous wastes. Every gasoline service station and automobile repair facility developed throughout Wheatland is equipped with a hazardous waste generator. New public facilities shall include chemistry laboratories and automotive shops that store hazardous substances and/or generate hazardous waste, which will increase the risks of upset or accidental release of hazardous substances and wastes into the environment.

Household hazardous wastes are a potential source of risk that will become more prevalent in the Wheatland area due to the large increase of residential developments. Although they constitute only a small percentage (typically five percent or less) of all household wastes, household hazardous wastes are a particular danger to the environment.

Wheatland may now or in the future include industries and activities that involve the transport, storage, or use of toxic or hazardous chemicals, posing potential safety hazards in the event of unintentional exposure, leak, fire, or accident. Some of the byproducts of industrial processes in Wheatland are hazardous materials, which need proper disposal. Residents and businesses in Wheatland also generate household hazardous wastes such as waste oil, paint, and solvents. Policies in this section therefore focus on safe disposal, use, storage, and transport of hazardous materials, as well as proper siting between hazardous waste storage and use and sensitive land uses such as homes and schools.

The General Plan Update includes the following goals and policies applicable to hazards and hazardous materials issues:

Goal 9.F To minimize the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous materials wastes.

Policy 9.F.1. The City shall ensure that the use and disposal of hazardous materials in the city complies with local, state, and federal safety standards.

Policy 9.F.2. The City shall strictly regulate the storage of hazardous materials and wastes.

Policy 9.F.3. The City shall ensure that industrial facilities are constructed and operated in accordance with current safety and environmental protection standards.

Policy 9.F.4. The City shall require that new industries that store and process hazardous materials provide a buffer zone between the installation and the property boundaries sufficient to protect public safety. The adequacy of the buffer zone shall be determined by the City.

Policy 9.F.5. The City shall require that applications for discretionary development projects that will generate hazardous wastes or utilize hazardous materials include detailed information on hazardous waste reduction, recycling, and storage.

Policy 9.F.6. The City shall require that any business that handles a hazardous material prepare a plan for emergency response to a release or threatened release of a hazardous material.

Policy 9.F.7. The City shall work with other agencies to ensure an adequate countywide response capability to hazardous materials emergencies.

Implementation of the goals and policies above would reduce potential risks to sensitive receptors, associated with hazardous materials, though not to a less-than-significant level. Therefore, a ***potentially significant*** impact would remain.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.7-1 *For agricultural parcels proposed for development, prior to the issuance of grading permits, project applicants shall provide to the City a detailed environmental assessment pertaining to on-site soils in order to address the presence of soil contaminants (i.e., pesticides). The environmental assessment shall be reviewed by the City Engineer.*

4.7-2 Development associated with the proposed General Plan Update would not be included on a list of hazardous materials sites pursuant to Government Code Section 65962.5, which would result in a significant hazard to the public or the environment.

Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites.

According to the Department of Toxic Substances Control Facility Inventory Data Base Hazardous Waste and Substances Sites List, a hazardous waste site is not located within the study area.

Because study area does not contain a hazardous waste and substance site, the General Plan Update does not contain goals and policies pertaining to hazardous waste and substance sites. Therefore, the General Plan Update would have ***no impact*** regarding hazards to the public or the environment from hazardous material sites.

Mitigation Measure(s)
None Required.

4.7-3 Development associated with the proposed General Plan Update would be located within an airport land use plan, and may create potential safety hazards for people residing or working in the project area.

The Wheatland study area is located in close proximity to Beale Air Force Base. The airport land use zones for Beale Air Force Base are located approximately six miles north of the Wheatland study area. The project site is located south of the study area approximately seven miles from the Beale Air Force Base runway. The Beale Air Force Base Comprehensive Land Use Plan (Beale AFB CLUP) was drafted by the Airport Land Use Commission (ALUC) to determine acceptable land uses for the Beale AFB. Safety policies related to airfield operations were based upon height restriction, noise restriction, and safety restriction. The Beale AFB CLUP states that airfield safety areas are established to minimize the number of people exposed to aircraft crash hazards, and are determined by placing restrictions on land uses in various safety areas. Dimensions of the safety areas were determined by analyzing historical aircraft accident data and designating safety zone dimensions that encompass significant hazard areas. The Beale AFB CLUP designates three safety areas:

- The clear zone, which is located near the end of the runway (most restrictive);
- The approach-departure zone, which is located under the takeoff and landing slopes (less restrictive); and
- The overflight zone, which is the area located under the traffic pattern (least restrictive).

The study area is located at the edge of the Beale Air Force Base Overflight Zone; therefore it is subject to some development restrictions under the Land Use Compatibility Guidelines for Safety. According to the Beale Air Force Base Overflight Guidelines, the following types of development should be restricted: chemical and allied products manufacturing; petroleum refining; rubber and plastics manufacturing; regional shopping centers; colleges and universities; hospitals; jails and detention centers; motion picture theater complexes; professional sport developments; stadiums and arenas; auditoriums; concert halls and amphitheaters; fairgrounds and expositions; racetracks; and theme parks. The study area includes land uses within the above categories; which would create adverse effects to the proposed developments.

Whereas, the proximity to the base provides benefits to the City in terms of employment and economic development, the base can also create noise and safety concerns.

The General Plan Update includes the following goals and policies applicable to hazards and hazardous materials issues:

Goal 2.G To support the continued operation of Beale Air Force Base and its associated facilities while ensuring compatibility between urban development in Wheatland and aircraft operations.

Policy 2.G.1. The City shall work closely with appropriate agencies, including Beale Air Force Base and the Sacramento Area Council of Governments (SACOG), to ensure compatibility of land uses that fall within overflight zones.

Policy 2.G.2. The City shall work with Beale Air Force Base to coordinate changes to their flight patterns with land use decisions.

Goal 9.E To minimize the risk of loss of life, injury, damage to property, and economic and social dislocations resulting from aircraft hazards.

Policy 9.E.1. The City shall work with Beale Air Force Base to ensure that new development does not create safety hazards such as lights from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards.

Policy 9.E.2. The City shall ensure that development within the Beale Air Force Base approach and departure zones comply with Part 87 of the Federal Aviation Administration Regulations (objects affecting navigable airspace).

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.7-4 Development associated with the proposed General Plan Update would not interfere with an adopted emergency response plan or emergency evacuation plan.

The City of Wheatland currently does not have an applicable emergency response plan or emergency evacuation plan. The General Plan Update seeks to protect the community from injury and damage resulting from natural catastrophes and hazardous conditions by providing, and regularly updating, emergency service plans to ensure new and existing developments maintain adequate emergency access, and routes.

The City's most important policy tool for upgrading and maintaining its roadways to provide for effective and efficient traffic movement is the *Circulation Diagram*

and its associated standards (see figure 4.15-1 in Transportation Chapter). The *Circulation Diagram* provides adequate emergency access by providing a street system designed to accommodate future traffic volumes with acceptable levels of congestion. The GPU policies ensure that emergency vehicles will have access to an efficient citywide circulation system. For access to individual parcels and new development areas, the City's Zoning Ordinance, street standards, and processes governing development project approval control the adequacy of emergency vehicle access.

The General Plan Update includes the following goals and policies applicable to Hazards and Hazardous Materials issues:

Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions.

Policy 9.A.1. The City shall prepare and regularly update emergency services plans.

Policy 9.A.2. The City shall have major public and private development proposals reviewed by fire and police departments as well as other City department heads to insure compatibility with safety objectives.

Policy 9.A.4. The City shall consider safety hazards in formulating capital improvements.

Policy 9.A.5. The City shall incorporate safety provisions in City ordinances whenever applicable.

Policy 9.A.6. The City shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level.

Policy 9.A.7. The City shall ensure that during natural catastrophes and emergencies the City can continue to provide essential emergency public services.

Policy 9.A.9. The City shall coordinate disaster preparedness planning with other public agencies and organizations.

Implementation of the goals and policies above would reduce impacts to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.7-5 Development associated with the proposed General Plan Update would not expose people or structures to a significant risk or loss, injury or death involving wildland fires.

Structural and wildland fire hazards can threaten life and property in Wheatland. The agricultural areas on the Valley floor are the least fire-prone areas of the county, due to the presence of croplands, orchards, and irrigation. The relatively flat terrain of the proposed study area also makes the danger of wildland fires less hazardous. As wildland fires resulting from either natural or manmade causes occur in forest, brush, or grasslands, Wheatland is among the most fire secure areas in Yuba County.

Structural fires usually result from manmade causes and can spread easily. Structural fire hazards are greatest in those structures built before building and fire codes were established. Although structures do exist within the Wheatland area, which would have been constructed prior to established building and fire codes, the risk is insignificant.

The policies adopted in the General Plan Update seek to ensure that new development is constructed to minimize potential fire hazards and to provide public education concerning fire prevention. The service levels and maintenance of the City's Fire Department is addressed in the Public Services Chapter (4.13) of this EIR.

The General Plan Update the following goals and policies applicable to hazards and hazardous materials issues:

Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions.

Policy 9.A.3. The City shall initiate fire inspection programs for buildings and premises to identify safety objectives.

Policy 9.A.8. The City shall update building, fire, and other codes to address earthquakes, fire, and other hazards.

Goal 9.D To minimize the risk of loss of life, injury, and damage to property and watershed resources resulting from fires.

Policy 9.D.1. The City shall require that new development meets state and local standards for fire protection. The City Fire Department shall review development proposals for compliance with fire safety standards.

Policy 9.D.2. The City shall ensure that existing and new buildings of public assembly incorporate adequate fire protection measures to reduce

the potential loss of life and property in accordance with state and local codes and ordinances.

Policy 9.D.3. The City shall encourage and promote installation and maintenance of smoke detectors in existing residences and commercial facilities that were constructed prior to the requirement for their installation.

Policy 9.D.4. The City shall develop high-visibility fire prevention programs, including those offering voluntary home inspections and promoting awareness of home fire prevention measures.

Policy 9.D.5. The City shall enforce building and fire codes and city ordinances in regard to fire and fire protection.

Policy 9.D.6. The City shall continue to improve fire protection services, equipment, and facilities as required and as economically as possible.

Policy 9.D.7. The City shall require and maintain adequate street widths, clearances around structures, and turning radii to provide for fire and safety protection and access.

Policy 9.D.8. The City shall maintain water supply requirements for fire fighting needs in accordance with the Insurance Services Office "Fire Suppression Rating Schedule".

Policy 9.D.9. The City shall require that areas within the natural / urban interface, at a minimum, provide fire and safety protection that meet California Department of Forestry and Fire Protection (CDF) Fire Safe standards.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

4.8 HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section of the Wheatland General Plan Update EIR describes existing drainage pattern and water resources for the project site and the region, and evaluates potential impacts of the project with respect to drainage and water quality concerns. The hydrology and water quality impact assessment is primarily based on the *Yuba County General Plan*[1], *City of Wheatland General Plan Update Background Report, Public Review Draft*[2], *City of Wheatland General Plan Policy Document*[3], *Draft Drainage Report for Internal Drainage*[4] prepared by Civil Engineering Solutions, *External Source Flood Protection Plan*[5] prepared by Mead & Hunt, the *Yuba County Water Agency Ground Water Management Plan*,[6] and the *State Water Resources Control Board*[7].

ENVIRONMENTAL SETTING

Location

The City of Wheatland is located in Yuba County, California, and is approximately 13 miles southeast of Marysville, the County seat of Yuba County. The City is bisected by State Route (SR) 65 and lies between Bear River and Dry Creek (See Figure 3-2: General Plan study area in the Project Description Chapter).

Climate

The climate of Wheatland is characterized by hot dry summers and cold wet winters. Seasonal rainfall occurs from November through March. Rainfall originates from moisture collected over the Pacific Ocean then delivered by frontal storms that move to the east. Cloudburst storms may also occur any time from late fall to early spring, and may occur as an extremely severe sequence within a general winter rainstorm. Cloudbursts are high-intensity storms that can produce peak flows equal to or greater than those of the general rainstorm. High peak flows, short duration flood flows, and a small volume of runoff characterize flooding from these cloudbursts. Mean annual precipitation is approximately 20 inches. Summer afternoon temperatures can exceed 100 degrees Fahrenheit. Winter temperatures can fall below freezing but normally vary from the mid 30s to 50s.

Topography

The study area generally drains from the northeast to the southwest. A ridge of high ground separates the historic floodplains of Bear River and Dry Creek in the upper portion of the study area. The ridge disappears as the Bear River and Dry Creek draw closer together towards the confluence. Ground elevations in the plan area range from approximately 60 feet NGVD at the downstream end to 100 feet NGVD on the ridge at the upstream end of the Study area.

The section below describes the existing hydrological features of the Wheatland General Plan Update study area and the surrounding region, and the water quality of the existing resources within the study area.

Drainage

Two types of drainage systems affect the City of Wheatland: flood control systems and local drainage systems. The systems, jurisdictions, and current status are described below. Areas proposed for development located within a floodplain and a flood control area must first be removed from the floodplain with construction of appropriate flood control structures. Once removed from the floodplain, then the local drainage system can be designed.

Flood Control Systems

Flood control systems are typically designed to provide protection against 25-year to 200-year flood events. Examples of these facilities are dams, levees, drainage channels, and pump stations. Flood control for the City of Wheatland General Plan area is provided by a series of levees. These levees are intended to protect the City of Wheatland and adjacent areas (this is the study area as defined in the General Plan) from the following sources of flooding:

- North Bear River Levee – Located south of the study area with flows from east to west.
- South Dry Creek Levee – Located north of the study area with flows from east to west.
- West San Joaquin Drainage Canal Levee – Located east of the study area with flows from south to north and into Dry Creek northeast of study area.

The existing levee system does not provide an adequate level of flood protection for development around the City of Wheatland and adjacent areas including development in the General Plan Land Use Diagram. As such, much of the area around the study area is located in a Federal Emergency Management Agency (FEMA) flood zone. Improvements to the levee system are necessary for future development.

Jurisdiction

The Reclamation District 2103 is responsible for maintenance and operation of the Dry Creek levees, Bear River levee, and the San Joaquin drainage canal. These three channels are outside of the existing city limits, but are within the area of interest. In addition to Yuba County, portions of the Bear River levee system east of SR 65 are located in Placer County, and west of SR 65, the levees are partially located in Sutter County. Other Reclamation Districts within which these levee systems are located include: Reclamation District 817.

From 1998 to 2002, Reclamation District 2103 prepared plans for and improved the Bear River levee from east of SR 65 near the San Joaquin canal to approximately 13,000 feet west of SR 65. Because of these changes, Reclamation District 2103 sponsored a study to certify the rehabilitated Bear River north levee and improve the definition of the floodplains under existing conditions. Based on better topographic information and hydrologic and hydraulic analyses, an application was prepared requesting a Letter of Map Revision (LOMR) for the City of Wheatland and adjacent areas. FEMA requires the floodplain mapping to reflect existing 100- year flooding conditions.

A LOMR is a document issued by FEMA that officially removes a structure or an area from the FEMA Special Flood Hazard Area (SFHA). A LOMR request has been made to FEMA and is currently under review. If the LOMR were approved, portions of the study area designated as Zone A would be re-designated as Zone AE. Zone AE designates areas within the 100-year flood zone with the base flood elevations determined by detail hydraulic analyses. Some land in the study area will be removed from the current flood hazard Zone A, while other areas currently identified as flood hazard areas may no longer be in a flood hazard zone.

In accordance with FEMA levee policy, most of the flood zones were delineated based on the assumption of a failure of the Bear River and Dry Creek levees. The assessments in this report are based on the assumption that all the levees protecting the General Plan area will be repaired and certified in accordance with FEMA standards.

FEMA 100-Year Floodplain Zoning

The FEMA 100-year floodplains provide the elevations to establish whether an area should be included in a floodplain and determines the applicable insurance rates. Based on the proposed floodplain Letter of Map Revision (LOMR) submitted to FEMA for the City of Wheatland and adjacent area, a substantial portion of the northern area of the existing study area is within a FEMA floodplain as well as areas west and east of the city limits.

Developers, utility providers, or municipalities can submit an application for a Conditional Letter of Map Revision (CLOMR) or a LOMR. For a CLOMR, FEMA will provide a “letter from FEMA commenting on whether a proposed project, if built as proposed, would meet minimum National Flood Insurance Program Standards.” For a

LOMR, FEMA will provide "a letter from FEMA officially revising the current National Flood Insurance Program map to show changes to floodplains, floodways on flood elevations."

Areas outside of the FEMA "effective" 100-year floodplain can be developed following the normal City of Wheatland or County standards. In order to develop within the "effective" floodplain, the area to be developed must be protected by flood control facilities to safely handle a 100-year event. Prior to start of construction, the developer can submit an application for a CLOMR. The CLOMR can be prepared and submitted during the planning and design period. This provides FEMA a chance to uncover problem areas that need to be addressed before FEMA will approve the start of construction. Because most of the required information is submitted prior to construction, the follow-up application for a LOMR only needs to describe significant changes to the proposed plan and submit as-built drawings to complete the process and receive approval.

Current Status

The current FEMA floodplain map is Community Panel No. 060460A, adopted on September 29, 1986. The map is an outdated map that provides only an approximation of the flooding – not based on hydrologic and hydraulic studies. As such, the map does not include floodplain elevation information and is in need of substantial revision.

Under existing conditions, most the runoff generated in the Wheatland area collects behind the levees at the confluence of Dry Creek and Bear River. The existing conditions 100-year 24-hour runoff volume is approximately 1,400 acre-feet. The peak flow in Lower Grasshopper Slough at the downstream boundary of the study area is approximately 330 cfs. The proposed drainage for the study area will reduce the peak flow down to 140 cfs as a result of diverting flows from Grasshopper Slough North Tributaries 1 and 2 to Dry Creek. The General Plan conditions 100-year 24-hour runoff volume is expected to be 900 acre-feet.

From 1998 to 2002, Reclamation District 2103 prepared plans for and improved the Bear River levee from east of SR 65 near the San Joaquin canal to approximately 13,000 feet west of SR 65. Because of these changes, Reclamation District 2103 sponsored a study to certify the rehabilitated Bear River north levee and improve the definition of the floodplains under existing conditions. Based on better topographic information and hydrologic and hydraulic analyses, an application was prepared requesting a LOMR for the City of Wheatland and adjacent areas. FEMA requires the floodplain mapping to reflect existing 100-year flooding conditions. At the time that this report was prepared the LOMR was pending. It should be noted that Kleinfelder has conducted recent testing of the North Bear River levee. These tests have concluded that under-seepage issues exist. The solution to this issue will be identified by the appropriate Reclamation District.

Only the upper reach of the Bear River north levee has been submitted to FEMA for certification. The lower portion of the Bear River north levee from approximately 13,000

feet west of SR 65 to the confluence with Dry Creek, the Dry Creek south levee, and the San Joaquin Drainage Ditch levees are not currently FEMA certified. As such, these reaches of levee bounding the City of Wheatland and General Plan area must be considered to fail in a 100-year flood event as defined by FEMA.

Local Drainage Systems

Local drainage systems are typically provided to prevent flooding of streets and structures from 10-year to 100-year storm events. Examples of these facilities are culverts, drain lines, drain inlets, detention ponds, local open channels, detention basins, and pumping plants. These systems are located in areas that are protected by flood control systems or are not in an area subject to a flood control system.

Local flooding occurs because of inadequate sized facilities or deteriorated facilities such as drainage inlets, pipes, drainage ditches and related facilities that transport water to Bear River, Dry Creek, or the San Joaquin Drainage canal. The Wheatland Public Works Department operates and maintains the local drainage system within the City, as well as two facilities outside the city limits consisting of:

1. The northwest detention pond and discharge pumps located west of SR 65 and south of Dry Creek; and

2. Partial maintenance of the east side ditch that connects the Wheatland Ranch Subdivision detention basin to Dry Creek.

The system and related facilities are shown in Figure 4.8-1. Outside the city limits, except as noted above, the Yuba County Public Works Department operates the county local drainage systems which consist primarily of county roadway drain lines and side ditches. Local property owners maintain all other drainage facilities.

The existing City is separated into four general drainage areas; northeast, northwest, southeast, and southwest. The areas are separated by a higher east-west area through the approximate middle of town and the UPRR/SR 65 north-south line/road.

The northeast City drainage area drains through the Wheatland Ranch Subdivision into a detention basin constructed in 2002. The detention basin discharges into an existing ditch, outside the City limits to the northwest into Dry Creek. The flap valve closes when the water level is higher in Dry Creek than in the local discharge canal. The flap valve prevents the Dry Creek water from backflowing into areas south of the Dry Creek levee. When the flap valve is closed, local stormwater cannot be discharged into Dry Creek and can puddle on the land side of the levee. In addition, the northeast area has an east to west ditch that discharges stormwater to the west under a UPRR trestle and SR 65 bridge. The westerly discharge capacity is restricted because the downstream channel is confined and has limited capacity for carrying runoff west of SR 65. Possible solutions to allow discharge to Dry Creek when flows in Dry Creek are high are to install a detention basin/pump station or enlarge the east-west channel.

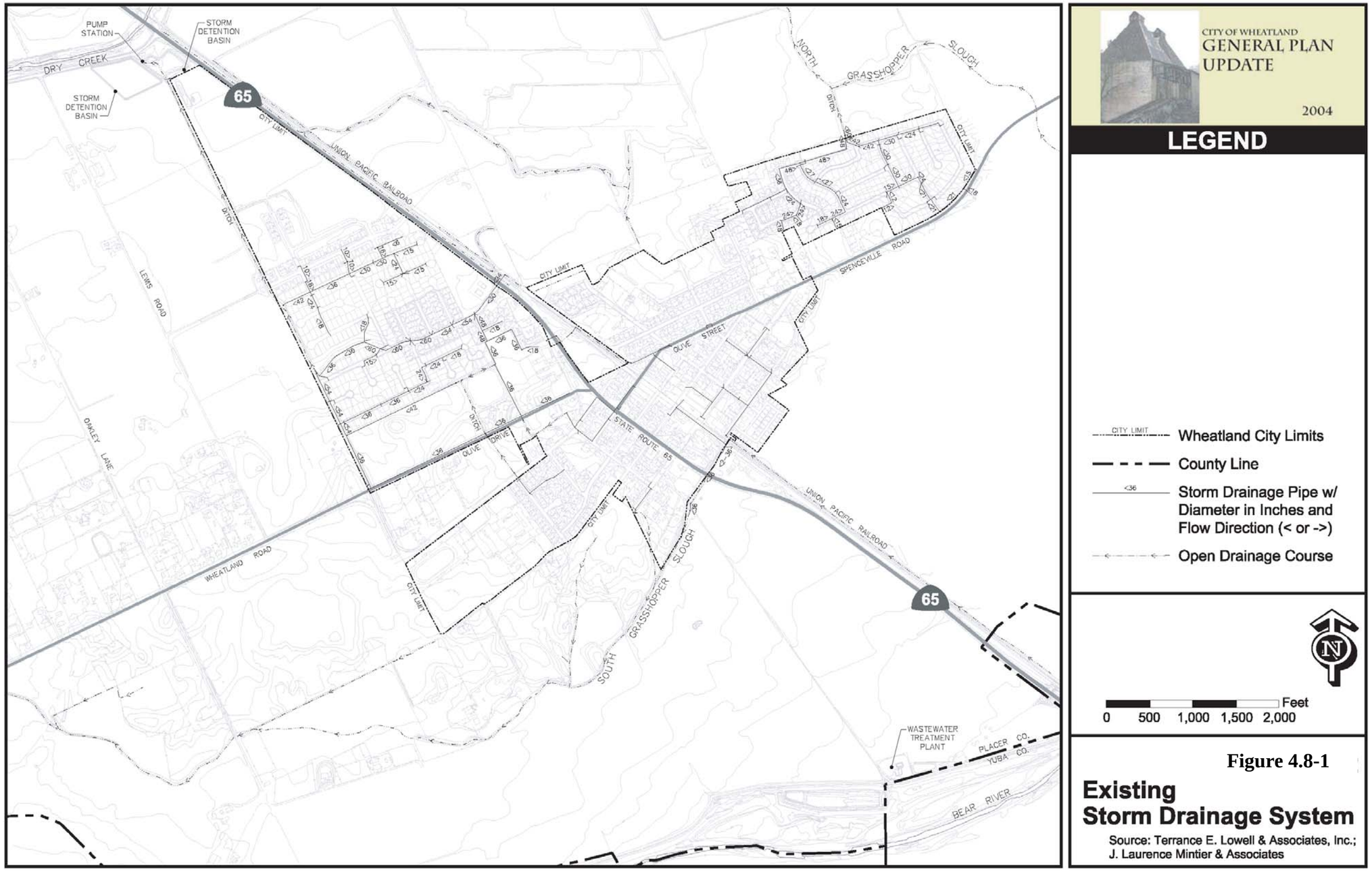


Figure 4.8-1

Existing Storm Drainage System

Source: Terrance E. Lowell & Associates, Inc.; J. Laurence Mintier & Associates

The northwest City drainage area drains through a system of pipes, open ditches, and a major north draining channel that discharges into the detention basin. The major north draining channel and detention basin are in the process of being improved and enlarged in conjunction with the Park Place Subdivision. When the northwest side of the City is removed from the FEMA 100-year floodplain, a berm around the detention basin must be raised 1-3 feet to maintain adequate freeboard. The detention basin berm cannot be raised at this time because the berm would restrict the flow of the existing "flood control system (FEMA)". This detention basin also receives stormwater from under SR 65 from the bridge area described in the northeast drainage.

The southeast City drainage area drains through a system of pipes and open ditches to a small 24-inch diameter concrete culvert that crosses to the west under the UPRR into the south fork of Grasshopper Slough. This pipe also drains a large area outside the City limits. Periodically flows are restricted at this point, resulting in water ponding on the east side of the UPRR and north of the Bear River. The natural ground slope outside the City limits in this area is generally downhill from the land side of the Bear River levee north toward the City. Possible solutions to allow this area to drain are installation of a detention basin/pump station on the east side of SR 65 with a discharge to Bear River, or enlarging the east-west culvert under the UPRR and SR 65 and enlarging the channel west of SR 65.

The southwest City drainage area drains through a system of pipes and open ditches and discharges into the south fork of Grasshopper Slough. This slough also receives stormwater runoff from the east as noted in the southeast drainage area description. The natural ground slope outside the City limits in this area is generally downhill from the land side of the Bear River levee north toward the City. The City's wastewater treatment is uphill from the south fork of Grasshopper Slough. The south fork Grasshopper Slough drains toward the west. This slough has been the subject of a preliminary drainage study by the proposed Heritage Oaks Estates and Jones Ranch projects. This slough crosses Wheatland Road west of the existing City limits and becomes a small ditch with limited capacity. Solutions to local drainage problems have been partially addressed by the Jones Ranch and Heritage Oaks Estates projects, which propose a series of detention basins and pumps to discharge storm water to the Bear River.

The City funds the operation and maintenance of the storm drainage system through general fund revenue except for the Wheatland Ranch Subdivision detention basin and the Park Place drainage canal, which is funded through a Lighting and Landscape District. New developments are required to provide for drainage facilities including pump systems and pipes to meet their demands and/or pay an impact fee based on their demand and use of existing system facilities. New development is required to construct all internal drainage system improvements associated with their projects.

The City requires engineering drainage studies to be provided with all new development plans. The studies are to identify existing onsite and offsite conditions, storm water flows, capacity of existing onsite and offsite inlets, culverts, ditches, canals, detention basins, pump systems, and determine if the proposed development would result in increased

stormwater runoff from the site and/or result in restricting flow from existing upstream uses under existing conditions. Any individual developing or improving land is required to mitigate all potential drainage impacts to upstream or downstream users, which could result from the development. Such corrective or design measures could include enlarging existing culverts and ditches, building detention basins and pumps to discharge to a flood control facility, and/or obtaining of flowage easements. Existing drainage system deficiencies include undersized or deteriorated drain lines and ditches, inadequate inlets or capacity, some broken and offset gutters and valley gutters. In addition to these physical needs, the City's Public Works Improvement Standards relative to water systems was last updated in 1992 and is in need of revision to make the standards consistent with current industry practice.

Existing Drainage Facilities

The existing drainage facilities in the City of Wheatland consist of drainage culverts, detention basins and pumping plant, and floodplains. Below is a description of the above existing facilities.

Drainage Culverts

Table 4.8-1 shows the locations of major drainage culverts in the study area. Most of these existing drainage culverts do not have adequate capacity to pass the 100-year flow, which could result in ponding behind the culverts during flood events.

Table 4.8-1
Existing Culverts

Stream	HEC-RAS Cross Section	Culvert Size (Feet)
Grasshopper Slough North Tributary 1	8940	6 [1]
	6550	2.5
	3570	2.5
Grasshopper Slough North Tributary 2	4850	3
Grasshopper Slough South	1035.5	4 (2 barrels)
	1034.5	3.5 (2 barrels)
	1032.5	6 x 5 [2]
	1030.5	11 x 6
	1021.5	2 (2 barrels)
	1015.5	4.5 (2 barrels)

*Source: Civil Engineering Solutions, Inc., 2005
[1]*Circular Culvert diameter- in feet.*
[2]*Box culvert spam x rise.*

Detention Basin and Pumping Plant

A detention basin and pump station exist west of SR 65 along Dry Creek. The pumping plant at the existing detention basin has a total pumping capacity of 41 cubic feet per second (cfs) at the elevation of 68.2. The estimated storage volume of the detention under existing conditions is approximately 109 acre-feet.

Existing Floodplains

Floodplains help to dissipate flow energy during flood conditions. The Wheatland area consists of floodplains associated with Grasshopper Slough North Tributary 1, Grasshopper Slough North Tributary 2, Sohrakoff Drainage Channel, Grasshopper Slough South, and Lower Grasshopper Slough. The 100-year flood surface water levels are not shown on the effective Flood Insurance Rate Map. Therefore, the water surface elevations in the *Draft Drainage Report for Internal Drainage*, dated November 2005, were computed using HEC-RAS unsteady flow modeling. The analysis performed by Civil Engineering Solutions, Inc. in the *Draft Drainage Report for Internal Drainage* indicates that large areas of the General Plan area would be inundated in the 100-year event (Figure 4.8-2).

Grasshopper Slough North Tributary 1

The City is protected from flooding from the Bear River and Dry Creek by levees. The study area between the Bear River and Dry Creek is drained by Grasshopper Slough. The Grasshopper Slough North watershed is located north of the existing developed area of the City of Wheatland. The watershed consists of two main branches: a north branch and a south branch. The northern branch of Grasshopper Slough is referred to in this study as "Grasshopper Slough North Tributary 1." The southern branch of Grasshopper Slough North is referred to in this study as "Grasshopper Slough North Tributary 2."

The Grasshopper Slough North Tributary 1 conveys runoff from areas northeast of the City, in a northwesterly direction reaching Dry Creek east of SR 65.

A ridge of high ground separates the historic floodplains of Bear River and Dry Creek in the upper portion of the General Plan area. Some of the runoff from areas south of the ridge drains into Grasshopper Slough North Tributary 1. A gap in the ridge allows the flow to travel north towards Dry Creek. As the channel emerges from the gap the water would spread out and cover a large portion of the area along the stream. The channel joins Dry Creek through a 36-inch culvert under the Dry Creek levee. This culvert is gated such that flows from Dry Creek would not be able to back up into the Grasshopper Slough system. The small size of the culvert relative to the large size of the upstream watershed results in flows overtopping the south bank of Grasshopper Slough North Tributary 1, upstream of the culvert location and draining to Grasshopper Slough North Tributary 2 in events less than the 100-year.

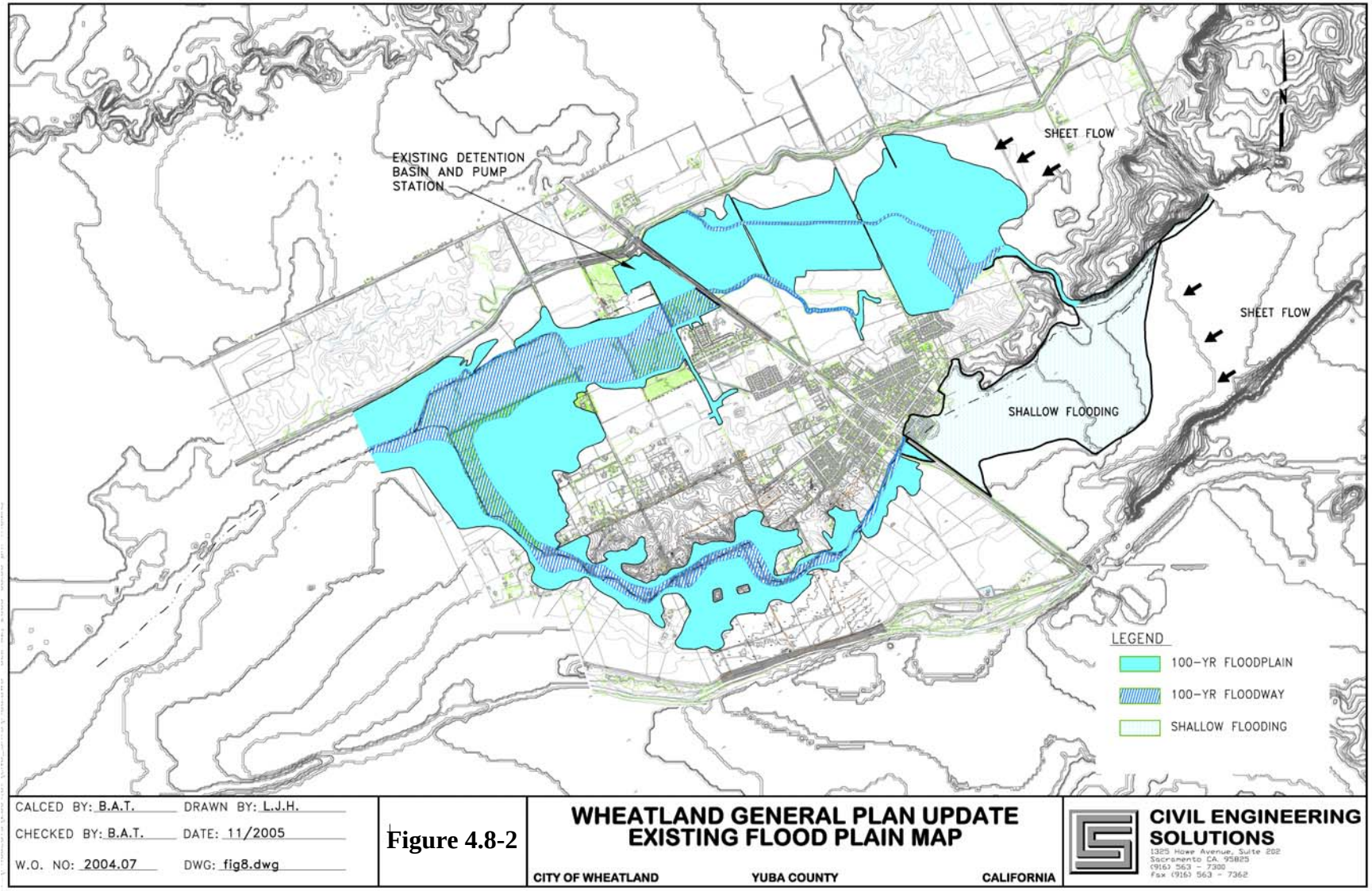

EXISTING DETENTION BASIN AND PUMP STATION
SHEET FLOW
SHEET FLOW
SHALLOW FLOODING
N
LEGEND
100-YR FLOODPLAIN
100-YR FLOODWAY
SHALLOW FLOODING
CALCED BY: B.A.T.
DRAWN BY: L.J.H.
CHECKED BY: B.A.T.
DATE: 11/2005
W.O. NO: 2004.07
DWG: fig8.dwg
WHEATLAND GENERAL PLAN UPDATE
EXISTING FLOOD PLAIN MAP
CITY OF WHEATLAND
YUBA COUNTY
CALIFORNIA
CIVIL ENGINEERING SOLUTIONS
1325 Howe Avenue, Suite 202
Sacramento CA 95825
(916) 563 - 7300
Fax (916) 563 - 7362

Figure 4.8-2

Grasshopper Slough North Tributary 2

Grasshopper Slough North Tributary 2 drains some City areas but mostly agricultural and rural areas north of the City through an open channel system east of Union Pacific railroad (UPRR) and SR 65. The system crosses SR 65 and UPRR at existing bridge structures. The historical channel has been filled in between SR 65 and Oakley Lane. The runoff sheetflows westerly to the Sohrakoff Drainage Channel located approximately 1,300 feet west of SR 65.

Sohrakoff Drainage Channel

The Sohrakoff Drainage Channel collects runoff from the northwest areas of the existing developed area of the City and conveys the flows north. Flows from Grasshopper Slough North Tributary 2 are intercepted by the Drain as well. The western bank of the Sohrakoff Channel passes through some low ground areas where overtopping can occur and flows would exit the drainage channel, sheet flowing west, in large events. The Sohrakoff Drainage Channel ends at the existing detention basin near Dry Creek. A dual pump system at the detention basin lifts flows from the basin into Dry Creek west of SR 65.

The historical drainage channel has been filled in between the Sohrakoff Drainage Channel and Oakley Lane. Runoff generated in the area between the Sohrakoff Channel and Oakley Lane sheetflows west into the remaining portion of Grasshopper Slough North Tributary 2.

Grasshopper Slough South

Grasshopper Slough South drains the area south and west of the City of Wheatland. The sheetflow generated on the agricultural lands along the Bear River upstream of UPRR drains into the channel at UPRR. The channel travels along the south side of Wheatland and then turns north at a location west of Oakley Lane to join the remaining portion of Grasshopper Slough North Tributary 2.

Lower Grasshopper Slough

The combined Grasshopper Slough North Tributary 2 and Grasshopper Slough South are referred to in this chapter as "Lower Grasshopper Slough." Lower Grasshopper Slough drains in a southwesterly direction to join with Dry Creek through a 60-inch culvert upstream of the confluence of Dry Creek and Bear River.

Water Quality Considerations

Regional Surface Water

The study area is located in the Bear River watershed. The Bear River is one of the primary drainages in Yuba County, with headwaters based near Emigrant Gap and Lake Spaulding in the Sierra Nevada. The river flows southwest to a point north of Auburn, where it turns toward the west and its eventual confluence with the Feather River. The Bear River forms the southern boundary of the study area and is located immediately south of the Yuba/Sutter County line.

Other watercourses in the immediate vicinity of the City of Wheatland include: Dry Creek, which flows westerly approximately one mile north of the City; Grasshopper Slough, which is between Dry Creek and the City, and roughly parallels Dry Creek until the two merge approximately four miles west of the City; and Grasshopper Slough South, which originates in the southern part of the City of Wheatland, and flows west to merge with Grasshopper Slough. Surface waters in the City generally drain into Grasshopper Slough or Grasshopper Slough South. Major surface water drainages identified in the study area are described in the drainage section.

During the Gold Rush era, siltation caused by hydraulic mining in the Sierra Nevada foothills extensively altered the original hydrological characteristics of the Sacramento Valley, resulting in significant damage. Streambeds rose by as much as 70 feet in the Wheatland vicinity, causing widespread flooding. The area's drainage patterns were altered further by the construction of levees and agricultural canals, as well as land leveling for farming operations. Some channels, including Grasshopper Slough, have been blocked.

Study Area Surface Water Quality

Water quality in the Study area is primarily characterized by surrounding land uses. In the Study area, the water quality of Grasshopper Slough, Dry Creek, and the Bear River could be influenced by both adjacent and upstream rural/agricultural land uses. Possible constituents associated with rural/agricultural land uses include fertilizers and pesticides, sediments, and to a lesser extent, heavy metals, petroleum hydrocarbons, and other pollutants attributed to the use of vehicles and agricultural equipment, as well as historic mining operations.

Agricultural Uses in the Study Area

The study area currently consists of agricultural, residential, commercial, and industrial land uses. The agricultural crops are usually treated with pesticides and/or herbicides. Although most chemicals used for agricultural purposes in the last ten years tend to have short residual life in the soil, chemicals could have potentially leached into detained water on the site.

According to the California Department of Pesticide Regulation (DPR), the top five agricultural pesticides used in Yuba County in 2002 (the most recent year for which data is available) were petroleum oil, mineral oil, sulfur, copper sulfate (pentahydrate), and propanil. Petroleum oil, mineral oil, and sulfur are used predominantly on orchards, while copper sulfate is used on rice, walnuts and for landscape maintenance and propanil is used on rice.

The *Yuba County General Plan* states that major importation of water to the Bear River watershed occurs near the headwaters. Some irrigation spill and ditch seepage enters from the ridge between the South Yuba and Bear Rivers. Exports from the Bear River watershed are made through conveyance facilities owned by Pacific Gas and Electric (PG&E) and the Nevada Irrigation District (NID). The diversions include nearly all of the imported water and some of the natural flow. The diverted water is used for irrigation, power generation, and domestic uses in the Auburn area. The net effect of the upstream uses, exports, and imports in the Yuba and Bear River basins has been to deplete the stream flow at the base of the foothills. However, the average depletion of the Bear River above Wheatland is relatively minor due to the imports of water from the Yuba Basin, located farther upstream. The Camp Far West Reservoir, located approximately 12 miles east of the study area, is fed by the Bear River, Rock Creek, and other minor tributaries. The reservoir has a capacity of 103,000 acre-feet and is owned by the South Sutter Water District.

A major tributary to the Bear River is Dry Creek, which runs parallel to the Bear River and is located near the northern Study area boundary. Dry Creek conveys approximately 11,200 acre-feet of water per year, imported via irrigation spill and flows from the Wolf Creek drainage north of Auburn.

Groundwater

The City of Wheatland is located above the Sacramento Valley Groundwater Basin, a 5,000 square mile basin, which encompasses Butte, Colusa, Glenn, Placer, Sacramento, Solano, Sutter, Tehama, Yolo, and Yuba Counties. Specifically, the City lies atop the South Yuba Subbasin, a 138 square mile aquifer system bounded on the north by the Yuba River, on the west by the Feather River, on the south by the Bear River, and on the east by the Sierra Nevada. Elevations range from about 150 feet in the northwest corner of the subbasin to about 30 feet in the southwest corner near the confluence of the Feather and Bear Rivers.

The South Yuba Subbasin is comprised of water-bearing continental deposits of Quaternary (Recent) to Late Tertiary (Miocene) age. The cumulative thickness of these deposits increases from a few hundred feet near the Sierra Nevada foothills to over 1,400 feet along the western margin of the basin. The base of the aquifer system overlies Pre-Tertiary metamorphosed igneous and sedimentary rock of the Sierra Nevada block. The deposits include historic dredger tailings as well as alluvium, stream channel deposits, and floodplain deposits.

The Bear River channel has been identified as a significant groundwater recharge area for Yuba County. Groundwater recharge areas identified in the Study area are illustrated in Figure 4.8-3.

Groundwater Quality

Water quality is generally excellent in most portions of the South Yuba Sub-basin, particularly at depths below 100 feet from the ground surface. The high quality of the groundwater is indicated by its low salinity. In general, total dissolved solids (TDS) concentrations are below 500 milligrams per liter (mg/L) throughout the Sub-basin. State-monitored water quality wells in the Sub-basin indicate a median TDS concentration of 224 mg/L. The groundwater chemistry is primarily calcium magnesium bicarbonate or magnesium calcium bicarbonate. The City of Wheatland currently (June 2004) draws its entire water supply from six (6) municipal well sites.

Groundwater quantity within the South Yuba Sub-basin varies by location, but overall reliance upon groundwater for domestic and agricultural use in the Sacramento Valley has increased steadily over the past few decades. The number of domestic and irrigation wells in the region increased from 9,109 in 1970 to 37,046 in 2002. The reasons for this increase include more demand, the need for reliable water supplies, the high costs of new surface water storage, and environmental concerns leading to the reduced diversion of surface water.

The California Department of Water Resources has estimated natural and applied inflows and outflows for the South Yuba Subbasin. Basin inflows include natural recharge of 53,700 acre-feet per year (afy) and applied recharge of 26,000 afy. Basin outflows include urban extraction of 6,000 afy, agricultural extraction of 93,400 afy, and subsurface outflow of 24,900 afy. The figures indicate a net deficit of 44,600 afy. Estimated total groundwater storage capacity in the South Yuba Subbasin is approximately 1,090,000 acre-feet.

Between 1950 and 1982, the Subbasin became increasingly overdrafted. Groundwater storage declined by 280,000 acre-feet, and a well-developed cone of depression formed. Within the cone of depression, groundwater levels dropped below adjacent river levels on the Bear, Feather, and Yuba Rivers, and fell below sea level as well. Beginning in 1982, an increase in surface water irrigation supplies, and corresponding reduction in groundwater pumping, allowed groundwater levels to return to an elevation above sea level. The depth to ground water in the Wheatland area as of June 2004 is approximately 80 to 100 feet. The City of Wheatland's wells draw water from depths ranging from 200 feet to 400 feet below grade. Currently, groundwater quantity problems in the City's wells do not exist. Water supply issues are discussed in more detail in section 4.16.

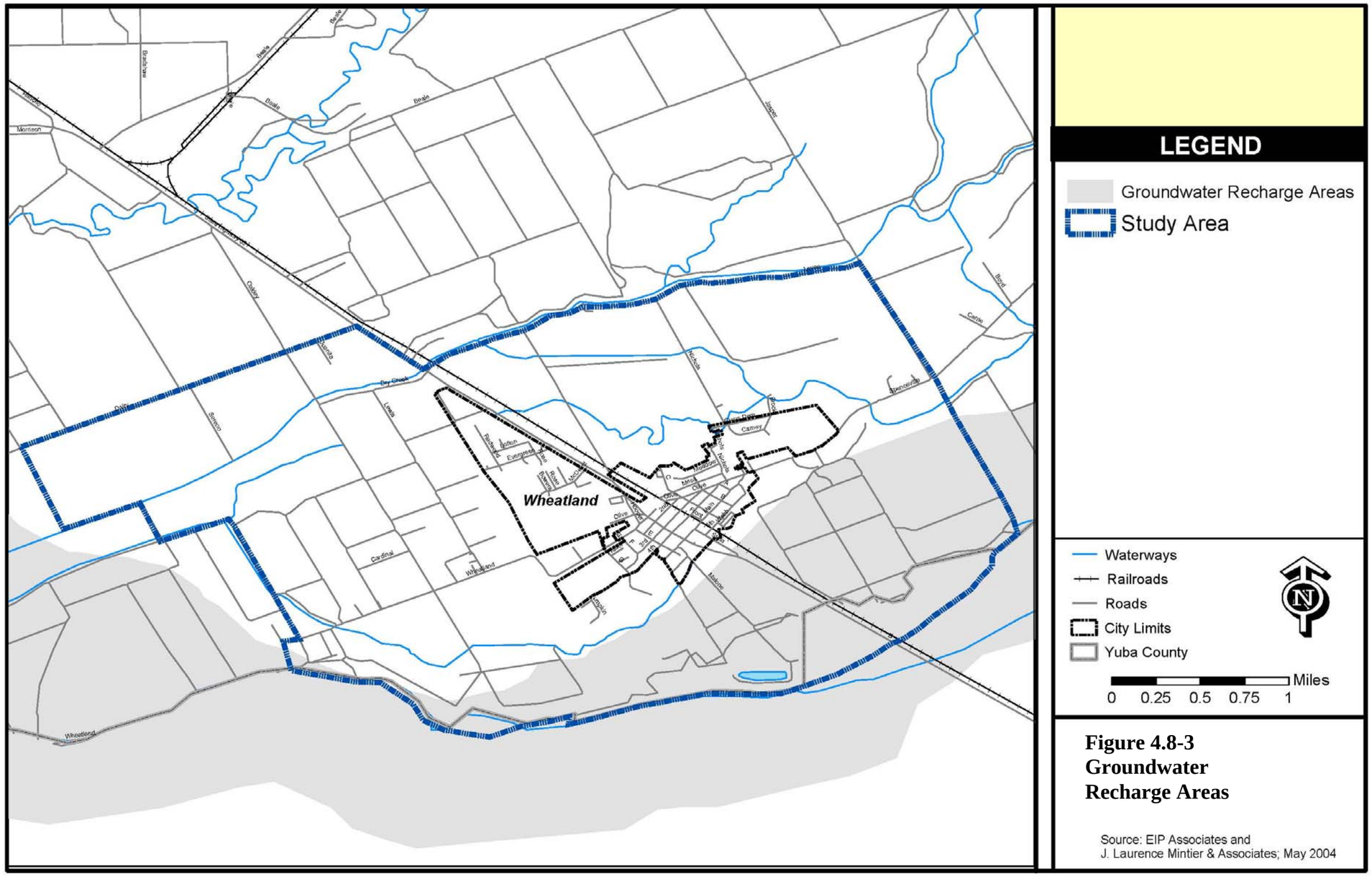


Figure 4.8-3
Groundwater Recharge Areas

Source: EIP Associates and J. Laurence Mintier & Associates; May 2004

The *Yuba County General Plan* recognizes that surface water supply cannot be divorced from consideration of groundwater recharge. The Plan states that some surface water must be reserved for groundwater recharge, as well as for protection of the aquatic environment.

REGULATORY CONTEXT

The following is a description of federal, State, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process.

Federal

Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMS), which are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-years floodplains.

FEMA allows non-residential development in the floodplain; however, construction activities are restricted within the flood hazard areas depending upon the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR). These standards are implemented at the State level through construction codes and local ordinances; however, these regulations only apply to residential and non-residential structure improvements. Roadway construction or modification is not explicitly addressed in the FEMA regulations. However, the California Department of Transportation (Caltrans) has also adopted criteria and standards for roadway drainage systems and projects situated within designated floodplains. Standards that apply to floodplain issues are based on federal regulations (Title 23, Part 650 of the CFR). At the State level, roadway design must comply with drainage standards included in Chapters 800-890 of the Caltrans Highway Design Manual.

National Pollutant Discharge Elimination System (NPDES)

As authorized by the California Clean Water Act, and implemented by the California Regulatory Water Quality Control Board, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

State

Inland Surface Water Plan

In March 2000, the State Water Resources Control Board (SWRCB) adopted Inland Surface Water Plan / Enclosed Bays and Estuaries Program (ISWP/EBEP) Phase I water quality objectives for inland surface waters. Included among the provisions of these objectives are: (a) that all point and nonpoint discharges must comply with identified water quality objectives; and (b) that effluent limits are to be imposed, either through National Pollutant Discharge Elimination System (NPDES) permits or Waste Discharge Requirements (WDRs), such that water quality objectives shall not be exceeded in the receiving water outside a designated mixing zone. The Central Valley Regional Water Quality Control Board (CVRWQCB) is responsible for ensuring that stormwater discharges meet the adopted numerical objectives within the Wheatland General Plan Update Study area.

California General Construction Activity Stormwater Permit

The U.S. Environmental Protection Agency (U.S. EPA) and the SWRCB regulate point sources of pollution, such as construction sites, that have the potential to discharge pollutants into the waters of the United States. This is accomplished through the issuance of NPDES stormwater discharge permits. NPDES Phase II regulations took effect in March 2003, requiring that applicants proposing construction activities involving disturbance of from one to five acres, and associated stormwater discharge, must obtain a NPDES permit from the State. Construction activities larger than five acres were already regulated, under NPDES Phase I (1990). (Phase II also required that small [population < 100,000] municipal separate storm sewer system [MS4] operators obtain a NPDES permit.) Landowners are responsible for applying for coverage under the permit and complying with permit requirements, but may delegate specific duties to developers and contractors by mutual consent.

Permit applicants are required to prepare, and retain at the construction site, a Storm Water Pollution Prevention Plan (SWPPP), which describes the site, erosion and sediment controls, means of waste disposal, implementation of local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-stormwater management control. Dischargers are also required to inspect construction sites before and after storms to identify stormwater discharge from construction activity, and to identify and implement controls where necessary.

According to the California Department of Water Resources (DWR), basic information for many of the State's groundwater basins is lacking. To this end, the California Legislature mandated in the Budget Act of 1999 that the Department of Water Resources prepare:

> "... the statewide update of the inventory of groundwater basins contained in Bulletin 118-80, which includes, but is not limited to, the following: the

> review and summary of boundaries and hydrographic features, hydrogeologic units, yield data, water budgets, well production characteristics, and water quality and active monitoring data; development of a water budget for each groundwater basin; development of a format and procedures for publication of water budgets on the Internet; development of the model groundwater management ordinance; and development of guidelines for evaluating local groundwater management plans."

Groundwater use in the Sacramento Valley Groundwater Basin is largely unregulated, although some local agencies in the Sacramento Valley have chosen to write groundwater management plans based on AB 3030, the Groundwater Management Act of 1992 (*California Water Code Sections 10750-10756)*. The Groundwater Management Act provides a systematic procedure for an existing local agency to develop a groundwater management plan.

The Yuba County Water Agency (YCWA) has prepared a Groundwater Management Plan for Yuba County. The purpose of the YCWA's Groundwater Management Plan is to build on and formalize the historically successful management of the County's groundwater resource and develop a framework for implementation of future activities.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

A hydrology/water quality impact would be considered significant if any of the following conditions, or potential thereof, would result with the proposed project implementation:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge;
- Result in adverse impacts from the construction of new (or expanded) drainage facilities;
- Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff;
- Substantial reduction in the flood carrying capacity in an existing waterway (100-year flood event);
- Substantial flooding, erosion or siltation; or
- Substantially degraded water quality (i.e., through sedimentation or pollutant loading).

Method of Analysis

The hydrology and water quality impact analysis for the General Plan Update study area is based on a *Draft Drainage Report for Internal Drainage* prepared for the study area by

Civil Engineering Solutions, November 2005, along with an *External Source Flood Protection Plan* by *Mead & Hunt, October 2005*.

The External Source Flood Protection Plan presents three (3) flood control alternatives and one (1) flood protection option for protecting the General Plan area. Each flood control alternative mitigates for the external flooding potential from the Bear River, Dry Creek, and the San Joaquin Drainage Ditch.

The Drainage Report for Internal Drainage presents four (4) alternative drainage plan concepts for the City of Wheatland to consider as measures to mitigate for internal drainage impacts from the General Plan implementation.

Project-Specific Impacts and Mitigation Measures

4.8-1 New development in the study area associated with the General Plan Update would result in increased runoff, therefore leading to potential flooding. The General Plan Land Use Plan, and circulation proposals could also result in the location of projects in flood zones, or alter the course of floodwaters.

Buildout of land uses and circulation improvements allowed by the General Plan Update would result in an increase in impermeable surfaces, such as roadways, sidewalks, and rooftops. The increase in impermeable surfaces would increase stormwater runoff. Increased runoff because of development in the study area would require new drainage facilities and/or modifications to existing/planned facilities before General Plan Update development.

Additional roadways, along with additional development proposed for the study area would also alter the course of floodwaters by creating new barriers. The Drainage Report prepared by Civil Engineering Solutions, Inc. for the General Plan study area includes a proposed drainage system, which would reduce future flows.

Proposed Roadways

The Wheatland General Plan study area extends in all directions from the existing City boundaries. Because the proposed roadways would cross over existing streams at a number of locations, culvert crossings would be required. The SR 65 bypass is proposed along the east boundary of the study area, which would represent a divide between undeveloped offsite areas to the east and the proposed developed area. Table 4.8-2 shows the culverts proposed at locations where the proposed roadways cross the existing and proposed drainage channels.

Table 4.8-2
Proposed Culverts

Stream	HEC-RAS Cross Section ID Number	Proposed Culvert Size (Feet)	Culvert Length (Feet)
Grasshopper Slough North Tributary 1	13060	42-inch CMP (1 barrel)	Existing – No Change
	12320	8 x 3 (3 barrels) [1]	76
	8940	5 (3 barrels) [2]	60
	8500	8 x 5 (3 barrels)	100
	6550	10 x 4 (2 barrels)	55
	3570	10 x 4 (2 barrels)	55
Grasshopper Slough North Tributary 2	7314	10 x 4 (2 barrels)	50
	4850	10 x 4 (2 barrels)	60
	4155	10 x 3 (2 barrels)	60
	1310	6 (2 barrels)	60
Grasshopper Slough South	1037.95	6 x 5 (4 barrels)	60
	1037.05	10 x 6 (2 barrels)	60
	1034.5	6 x 6 (4 barrels)	60
	1032.5	9 x 6 (3 barrels)	90
	1030.5	11 x 6 (2 barrels)	Existing – No Change
	1024.05	7 x 6 (3 barrels)	60
	1021.5	6 x 5 (5 barrels)	60
	1015.5	6 x 6 (4 barrels)	60
Sohrakoff	3740	6 (2 barrels)	60
	2035	4 (2 barrels)	70

[1] *Box culvert spam x rise*
[2] *Circular Culvert diameter- in feet.*
Source: Civil Engineering Solutions Inc., 2005

Proposed Drainage

The General Plan study area does not have adequate capacity within the channels to convey the existing flows. Without mitigation, development would result in increased flows, which would result in widening the existing floodplains. The computed future conditions flows are shown in Table 4.8-3. In order for development to occur, future flows will have to be reduced, channels will have to be constructed, and the floodplains will have to be encroached. The General Plan Policy Document includes measures that encourage the reduction of flows. Limiting post-development flows to be below, or consistent with existing conditions would be consistent with the policies included in the General Plan Update. Flows would also be reduced by the proposed regional detention basins.

Table 4.8-3
Post-Project Peak Flow Rates

Stream	Location	HEC-RAS Cross Section ID Number	100-Year Flow (Cubic Feet per second)
Grasshopper Slough North Tributary 1	Proposed Boulevard	12320	67
	Proposed Boulevard	8499.99	409
	Nichols road	6550	391
Grasshopper Slough North Tributary 2	B Street	7349	53
	C Street	4850	144
	Proposed Boulevard	1310	154
Sohrakoff Channel	Dry Creek Lee Road	3740	126
	Proposed Boulevard	2035	156
Lower Grasshopper Slough	Proposed Road No. 1	1037.95	410
	Proposed Road No. 2	1037.05	108
	UPRR	1035.5	327
	State Street	1034.5	323
	Hwy 65	1032.5	307
	Main Street Extension	1024.05	506
	Oakley Lane	1021.5	500
	Wheatland Road	1015.5	521
Lower Grasshopper Slough	Below Grasshopper South confluence	1008	539

Source: Civil Engineering Solutions Inc., 2005

Interior Drainage Alternatives

As stated above, the Drainage Report for Internal Drainage presents four (4) alternative drainage plan concepts for the City of Wheatland to consider as measures to mitigate for internal drainage impacts from the General Plan implementation.

Alternative 1

In Alternative 1, each development would be responsible to mitigate the associated post-project peak release flows reducing the flow to pre-project conditions. Alternative 1, offers the maximum flexibility for phasing of the developments, but requires redundant mitigation, as each project would be required to provide measures independently.

Grasshopper Slough North Tributary 1

The floodplain along Grasshopper Slough North Tributary 1 covers a large portion of the area along the stream. The sheet flow generated upstream of the General Plan study area along Dry Creek would be reduced in a detention basin (Pond R2) to be located upstream of the proposed SR 65 Bypass. The out flow from the detention based is proposed to be drained through a storm drain to

Grasshopper Slough North Tributary 1. A drainage easement would be required for the storm drain because streets are not proposed in the area. The flow along the stream would be contained in the channel upstream of Nichols Road.

Sheetflow generated upstream of the General Plan study area along the Bear River would be collected into a proposed detention basin (Pond R1) upstream of the proposed SR 65 Bypass. A proposed culvert would meter the flow out of the detention basin into the existing channel draining from the proposed SR 65 Bypass into Grasshopper Slough North Tributary 1. The existing clay mining area along the left bank of the channel downstream of Nichols Road is expected to be filled. The existing levees along the channel would have to be raised to contain the future flows even with mitigation with local and regional detention basins in place. The channel downstream of Nichols Road is proposed to be widened and deepened as shown in Figure 10 of the *Drainage Report* (see Appendix E of this Draft EIR).

The existing 36-inch culvert at the end of Grasshopper Slough North Tributary 1 is anticipated to not drain into Dry Creek under high tailwater conditions and a detention basin and pump station (Pond R4) are proposed at Dry Creek. The same detention basin would also receive flows from Grasshopper Slough North Tributary 2.

Grasshopper Slough North Tributary 2

The Grasshopper Slough North Tributary 2 crosses SR 65 and UPRR at existing bridge structures. The historical channel has been filled in between SR 65 and Oakley Lane. A new channel is proposed to divert the flow north to Dry Creek upstream of UPRR. The proposed channel would not be able to drain into Dry Creek under high tailwater conditions and a detention basin and pump station (Pond R4) are proposed at Dry Creek. The detention basin area and pump station capacity were determined by balancing the cost of land and capital cost of the pump station. The minimum cost was found to be a detention basin area of 17 acres and a pump station of 100 cubic feet per second (cfs), as shown in Figure 11 of the *Drainage Report*, (see Appendix E of this Draft EIR). The land cost was assumed to be $200,000 per acre and the capital cost of the pump station was assumed at $35,000 per cfs.

Sohrakoff Drainage Channel

Under proposed conditions the Sohrakoff Drainage Channel will continue to collect runoff from the northern areas of the existing developed area of the City as well as the General Plan study area north of the existing City limits and east of the channel. Flows from the Grasshopper Slough North Tributary 2 will no longer be intercepted by the Drain because the flows will be diverted north upstream of UPRR.

Grasshopper Slough South

Grasshopper Slough South drains the area south of the City of Wheatland. The sheetflow generated in the areas upstream of UPRR will be collected into a proposed channel as shown on Figure 10 (see Appendix E of this Draft EIR). The existing corrugated metal pipe culverts under UPRR and State Street do not have adequate capacity to convey the projected future upstream flows. The area upstream of UPRR will be inundated during the 100-year event without additional drainage improvements. Under existing conditions, the peak flow reaching the twin 48-inch culverts under UPRR is approximately 400 cfs. The culverts lack adequate capacity to transmit the flows downstream. A regional detention basin (Pond R3) is proposed upstream of UPRR to reduce the downstream flows. The proposed detention basin would reduce the future 100-year flows to approximately 100 cfs. A single 42-inch outlet structure is recommended for the detention basin. As an alternative, pumping flow above the capacity of the culverts to Bear River was considered but was found to be more costly than a detention basin. The capacity of the UPRR culverts was estimated to be approximately 100 cfs.

Local Detention

Each future development shall reduce its post-project flows to or below existing conditions, consistent with General Plan policy numbers 5.E.4, 5.E.6 and 5.E.8. Actual local detention basins were not analyzed in the drainage study because data for future developments are not available. Instead, local detention basins were assumed to reduce future flows to existing conditions and so future conditions subbasins were analyzed as if they were not developed.

According to the *Drainage Report*, the storm drain trunk lines are proposed to convey the 10-year flows along the proposed streets. The proposed storm drain sizes were based on the assumption that each future development would reduce post-development flows to existing conditions. Storm drains would be sized for areas that would not be able to drain into a stream without crossing a major street. Future storm drain sizes and lengths are anticipated to vary due to future development boundaries.

<u>Alternative 2</u>

In Alternative 2, the regional drainage system would collect and provide facilities for development post-project un-mitigated flows. The detention and release of the City's flow would be released into the Bear River and Dry Creek. Alternative 2, would require increased pipe sizes and channel capacities necessitating excavation of the existing drainage corridors and/or new parallel channels around the City to handle the increased post-development flows. New channels would provide sufficient capacity for the ultimate buildout of the General Plan.

Alternative 2, requires a similar scope of improvements as in Alternative 1, but with the following additional improvements (See Figure 12 for Alternative 2 in Appendix E of this Draft EIR).

- Additional regional detention and pumping;
- Increased trunk pipe sizes; and
- Reconstructed and/or parallel regional channel systems.

Alternative 2, would require significant regional improvement installation prior to development, and provide increased conveyance throughout the City. The result is a large amount of flows ending up in the west and south plan areas, which could not be contained in a channel system matching existing channel flow elevations west of the plan area. Thus, significant fill materials or additional plan improvements would be necessary for the west and south areas to be allowed to develop.

Alternative 3

Alternative 3, is similar to Alternative 2, but adds detention throughout the study area to reduce westward flows. In addition, in the south and west areas a deepened channel system would be produced, which would require a pump station to either discharge to the existing channel west of the General Plan area or into Dry Creek. The detention and release of the City's internal flows to Bear River and Dry Creek would also occur at the regional improvements. Increased pipe sizes and channel capacities are required in this alternative to handle the post-development flows from General Plan buildout. Alternative 3, requires a similar scope of improvements as in Alternative 1, but with the following additional improvements (See Figure 13 for Alternative 3 regional improvements in Appendix E of this Draft EIR).

- Additional regional detention and pumping;
- Pumping and deepened detention in the west area;
- Increased trunk pipe sizes;
- Reconstructed and/or parallel regional channel systems; and
- Deeper channels in the west and south areas.

Alternative 3, would require significant regional improvement installation prior to development.

Alternative 4

In Alternative 4, the proposed General Plan area would be divided into five (5) regional watersheds, and a stand-alone watershed plan would be developed specifically for each watershed. The timing of development in each watershed would affect the scope of improvements required. For example, development on one regional watershed would require drainage improvements in the developed

watershed that consider the developmental condition and flows of adjacent watersheds.

Increased pipe sizes and channel capacities are required in this alternative to handle the General Plan buildout post-development flows. Alternative 4, would propose to parallel existing drainage corridors around the City with new channels that provide sufficient capacity for the ultimate buildout condition. Alternative 4, requires a similar scope of improvements as in Alternative 1, but with the following additional improvements:

- Additional regional detention and pumping;
- Increased trunk pipe sizes; and
- Reconstructed and/or parallel regional channel systems.

Each watershed in Alternative 4 would require regional drainage improvements prior to development within the watershed.

The buildout of the General Plan Update would create increased impervious surfaces, channel crossings, and peak-flow timing. For the above reasons implementation of the Land Use Plan could lead to structures within areas that have a potential to flood during a 100-year storm. The buildout of the Land Use Plan or construction of circulation improvements could also alter (redirect) the course of floodwaters, posing flood risks to new areas. The City's storm drainage system consists of collection, conveyance, detention, and pumping facilities. Stormwater is ultimately pumped and discharged directly into the Bear River and Dry Creek. Future development will require the development of a new storm drainage and flood protection system. Implementation of any of the above four Alternatives would provide adequate capacity for future stormwater flows. Policies of this chapter also require the development of new storm drainage, as proposed by the *Drainage Report*, and flood protection system in the safest and most efficient manner.

The General Plan Update includes the following goals and policies applicable to internal flood hazard issues:

Goal 5.E To collect and dispose of stormwater in a manner that protects the City's residents and property from the hazards of flooding, manages stormwater in a manner that is safe and environmentally sensitive, and enhances the environment.

Policy 5.E.1. The City shall prepare a Storm Drainage Master Plan and Flood Protection Master Plan to assure adequate protection for residents and property.

Policy 5.E.2. The City shall encourage project designs that minimize drainage concentrations and impervious coverage.

Policy 5.E.3. The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities.

Policy 5.E.4. The City shall require projects that have significant impacts on the quantity and quality of surface water runoff to incorporate mitigation measures for impacts related to urban runoff.

Policy 5.E.5. Future drainage system requirements shall comply with applicable state and federal pollutant discharge requirements.

Policy 5.E.6. The City shall allow stormwater detention facilities to mitigate drainage impacts and reduce storm drainage system costs. To the extent practical, stormwater detention facilities should be designed for multiple purposes, including recreational (e.g., parks, ball fields, etc.) and/or stormwater quality improvement.

Policy 5.E.7. The City shall consider using stormwater of adequate quality to replenish local groundwater basins, restore wetlands and riparian habitat, and irrigate agricultural lands.

Policy 5.E.8. The City shall require detention storage with measured release to ensure that the capacity of downstream creeks and sloughs will not be exceeded. To this end:

a) Outflow to creeks and sloughs shall be monitored and controlled to avoid exceeding downstream channel capacities;

b) Storage facilities shall be coordinated and managed to prevent problems caused by timing of storage outflows.

Policy 5.E.9. The City shall require the preparation of watershed drainage plans for proposed developments. These plans shall define needed drainage improvements and estimate construction costs for these improvements.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.8-2 Development associated with the General Plan Update would be within the 100-Year flood hazard area.

The City of Wheatland is experiencing an unprecedented population growth that is anticipated to continue in the foreseeable future. In order to provide a current basis for evaluating future growth on both public and private lands the Wheatland City Council made the decision to update the 1980 General Plan.

As part of the General Plan Update, an External Source Flood Protection Plan was prepared to evaluate flooding from external sources in the City of Wheatland and surrounding areas, and provide alternative measures to mitigate for the future flooding potential from Bear River south of the City of Wheatland.

To mitigate for the flooding issues associated with the City of Wheatland and the General Plan Study area, three alternative flood control systems, all consisting of levee improvements, were developed and evaluated. These alternatives were developed with the objective to protect the Preferred Land Use Alternative approved by the General Plan Steering Committee on April 7, 2005, from external sources of flooding described above in accordance with FEMA standards. The alternatives are:

- Alternative 1 – Oakley Lane Cross Levee
- Alternative 2 – Pleasant Grove Road Cross Levee
- Alternative 3 – No Cross Levee

Several common features associated with all three of the alternatives include the fact that the construction of all three of the proposed alternatives will require the submittal of a LOMR request to FEMA for levee certification and appropriate zoning to allow development. In addition, all three of the alternatives include the reconstruction of at least the upstream 4.4 mile section of the south Dry Creek Levee and 1,000 feet of the west San Joaquin Drainage Ditch levee. The specific requirements for the three selected alternatives are discussed below.

<u>Alternative 1 – Oakley Lane Cross Levee</u>

The Oakley Lane Cross Levee Alternative includes construction of a cross levee between the downstream end of the north Bear River levee and the south Dry Creek levee along the shortest route between the two levees plus improvements to the existing Dry Creek south levee and San Joaquin Drainage Ditch west levee. The resulting cross levee would be located approximately 3,000 feet west of and parallel to Oakley Lane, in a generally north-south direction. The location of the south end of the levee was selected based on the pending LOMR, using the full extent of the FEMA certifiable reach of the north Bear River levee.

The crest of the new Oakley Lane Cross Levee would be at a minimum elevation of 73.4. The crest elevation was developed using hydraulic models for the Bear

River and simulating a failure of the lower portion of the north Bear River levee (downstream from the portion of the levee that has a pending LOMR and is FEMA certifiable) during the 100-year flood, in accordance with FEMA guidelines for a non-FEMA-certifiable levee. Results from the hydraulic analysis were used to establish the levee height at three feet above the backwater from the Bear River levee failure for the 100-year flood, in accordance with FEMA guidelines.

The maximum height of the cross levee would be approximately 14.5 feet above existing grade and the south end of the cross levee ties into high ground at contour elevation 73.4. The cross levee would be approximately 6,700 feet long with a 16-foot crest width, a 3 horizontal to 1 vertical upstream (or west) side slope, and a 2 horizontal to 1 vertical downstream (or east) side slope. Approximately 17 acres of right-of-way would be required to build and maintain the levee.

In addition to construction of the Oakley Lane Cross Levee, improvements to existing levees would also be required for this alternative to meet FEMA standards. Approximately 4.4 miles of the south Dry Creek levee from the point of intersection of the cross levee upstream to the San Joaquin Drainage Ditch and approximately 1,000 feet of the west San Joaquin Drainage Ditch levee would need to be reconstructed, raised, and widened to provide the required 100-year freeboard and acceptable stability. Approximately 42 acres of additional right-of-way would be required to build and maintain the reconstructed levee.

Alternative 2 – Pleasant Grove Road Cross Levee

The Pleasant Grove Road Cross Levee Alternative includes construction of a cross levee between the north Bear River levee and the south Dry Creek levee, parallel to and just east of Pleasant Grove/Forty Mile Road and improvements to the existing Dry Creek south levee, San Joaquin Drainage Ditch west levee, and downstream section of the north Bear River levee. The crest of the cross levee would be at elevation 76.0, which is three feet above the Bear River 100-year flood profile. Final design of the levees on the south side of Dry Creek and north side of the Bear River may result in the cross levee being higher than 76.0. The Bear River hydraulic model was used to establish the 100-year flood elevations at the cross levee location. The downstream section of the north Bear River levee that is currently not FEMA certifiable would be reconstructed and certified and, as such, be able to contain the 100-year flood. Openings in the cross levee would be designed to allow flows to pass downstream and to protect against flooding caused by backwater flood stages from the Feather River.

With the crest elevation at 76.0, the maximum height of the cross levee is approximately 16.5 feet above existing grade. The cross levee would be approximately 3,800 feet long, with a crest width of 16 feet, a 3 horizontal to 1 vertical upstream (or west) side slope, a 2 horizontal to 1 vertical downstream (or east) side slope, and a ten foot bench between the cross levee and road

embankment. Approximately ten acres of right-of-way would be required to build and maintain the levee.

In addition to construction of the Pleasant Grove Road Cross Levee, improvements to existing levees are also required for this alternative to meet FEMA standards. Improvements would consist of reconstructing, raising, and widening the levee to provide the required 100-year freeboard and stability. The improvements include the following levees:

- Approximately 2.1 miles of the north Bear River levee, between the cross levee and the downstream end of the FEMA certifiable reach of the north Bear River levee;

- Approximately 6.0 miles of the south Dry Creek levee, from the point of intersection of the Pleasant Grove Road Cross Levee upstream to the San Joaquin Drainage Ditch; and

- Approximately 1,000 feet of the west San Joaquin Drainage Ditch levee.

Approximately 85 acres of additional right-of-way would be required to build and maintain the reconstructed levees.

Alternative 3 – No Cross Levee

The No Cross Levee Alternative would include approximately 10.1 miles of existing perimeter levee improvements with no cross levee. Improvements to the existing levees that are not currently FEMA certifiable are required for this alternative to meet FEMA standards. Improvements would consist of reconstructing, raising, and widening the levee to provide the required 100-year freeboard and stability. The improvements include the following levees:

- The north Bear River levee from the downstream point of the levee that is currently FEMA certifiable and extending to the confluence of Dry Creek;

- The south Dry Creek levee from the confluence of Bear River upstream to the San Joaquin drainage ditch; and

- The west San Joaquin drainage ditch levee.

All of the levee improvements were evaluated with the hydraulic models, using the resulting 100-year flood elevations plus three feet to establish top of levee elevations. Approximately 115 acres of additional right-of-way would be required to build and maintain the reconstructed levees.

The flood control alternatives each provide equivalent flood protection for the General Plan Update Land Use Diagram. However, it is the responsibility of the regional reclamation districts to choose the most appropriate means of flood protection. It should also be noted that prior to implementation of the reclamation district chosen alternative, additional environmental review would be completed.

The General Plan Update includes the following goals and policies applicable to external flood hazard issues:

Goal 9.C To protect the lives and property of the citizens of Wheatland from hazards and manage floodplains for their open space and natural resource values.

Policy 9.C.1. The City shall continue to implement floodplain zoning and undertake other actions required to comply with state floodplain requirements, and to maintain the City's eligibility under the Federal Flood Insurance Program.

Policy 9.C.2. The City shall require evaluation of potential flood hazards prior to approval of development projects. The City shall require proponents of new development to submit accurate topographic and flow characteristics information.

Policy 9.C.3. The City shall not allow development in areas subject to flooding unless adequate mitigation is provided, to include project levees designed for a standard project flood.

Policy 9.C.4. The City shall require flood-proofing of structures and outdoor storage areas for hazardous materials in areas subject to flooding. Hazardous materials and wastes shall be contained within floodproofed structures or storage areas.

Policy 9.C.5. The City shall prohibit the construction of facilities essential for emergencies and large public assembly in the 100-year floodplain, unless the structure and road access are free from flood inundation.

Policy 9.C.6. The City shall continue to work closely with the U.S. Army Corps of Engineers, Reclamation Districts 2103 and 817, the Federal Emergency Management Agency (FEMA), and the State Department of Water Resources in defining existing and potential flood problem areas and solutions.

Policy 9.C.7. The City shall preserve floodways and floodplains for non-urban uses, except that development may be allowed in a floodplain with mitigation measures that are in conformance with the City’s Flood Protection Master Plan.

Policy 9.C.8. The City shall formulate emergency management plans for the safe evacuation of people from areas subject to inundation from dam failure. Plans shall be reviewed and periodically updated.

Policy 9.C.9. The City shall participate in the National Flood Insurance Program.

Policy 9.C.10. The City shall require that roadway systems for areas protected from flooding by levees be designed to provide multiple escape routes for residents in the event of a levee failure.

Policy 9.C.11. The City shall develop evacuation routes and a disaster plan in the remote event of a failure to Camp Far West Dam.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.8-3 Development in the study area could result in erosion, sedimentation, and subsequent degradation of the surface water quality.

Development of the proposed land uses and circulation improvements within the study area would have the potential to degrade water quality. Short-term water quality impacts would occur during individual site construction, and long-term impacts would be experienced during the lifetime of development.

Short-term grading and construction activities may cause an increase in erosion leading to sedimentation of streams in the affected watershed. Pollutants may also be transported from construction areas to downstream locations due to improper handling practices. Solvents, fuels, lubricants, and chemical wastes may be spilled, dumped or discarded on construction sites. These contaminants may be picked up in site runoff and ultimately enter downstream waterways.

The degree to which construction activities affect water quality is partly determined by the time of year during which construction occurs. Construction during winter rainy season would result in an increased potential for erosion, sedimentation, and contaminant transport in surface runoff. Decreased water quality during individual project construction would be a potentially significant impact.

Long-term occupation of the proposed land uses would introduce non-point sources of pollution such as fertilizers, pesticides, household chemicals, and automobile products (including fuels, and lubricants spilled, leaked, or dumped) within the study area.

Runoff water quality is at its worst during the first storm following a prolonged dry period due to the "first flush" effect: the storm tends to remove pollutants that have accumulated over the preceding dry period. These pollutants include sediments, hydrocarbons, heavy metals, and bacterial contaminants that originate from urban sources like those identified above. Subsequent stormwater runoff is of generally better quality because exposed surfaces are typically less contaminated with pollutants.

Stormwater pollution control is implemented through the use of NPDES permits, which are applied to industry, municipalities, and construction activities. The Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s). Phase II of the program adopts a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes. The City of Wheatland currently and at buildout would qualify as a Small MS4 (population < 100,000).

The MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct chemical monitoring, though small municipalities are not.

In addition, subsequent developments greater than one acre in area would be required to obtain construction NPDES permits. Landowners are responsible for applying for coverage under the permit and complying permit requirements, but may delegate specific duties to developers and contractors by mutual consent. Violation of downstream receiving water quality standards or non-compliance with the NPDES program would be considered a substantial impact.

Construction General Permit applicants are required to prepare, and retain at the construction site, a Storm Water Pollution Prevention Plan (SWPPP), which describes the site, erosion and sediment controls, means of waste disposal, implementation of local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-stormwater management control. Dischargers are also required to inspect construction sites before and after storms to identify stormwater discharge from construction activity, and to identify and implement controls where necessary.

The General Plan Update includes the following goals and policies applicable to water quality issues:

Goal 5.E To collect and dispose of stormwater in a manner that protects the City's residents and property from the hazards of flooding, manages stormwater in a manner that is safe and environmentally sensitive, and enhances the environment.

Policy 5.E.1. The City shall prepare a Storm Drainage Master Plan and Flood Protection Master Plan to assure adequate protection for residents and property.

Policy 5.E.2. The City shall encourage project designs that minimize drainage concentrations and impervious coverage.

Policy 5.E.3. The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities.

Policy 5.E.4. The City shall require projects that have significant impacts on the quantity and quality of surface water runoff to incorporate mitigation measures for impacts related to urban runoff.

Policy 5.E.5. Future drainage system requirements shall comply with applicable state and federal pollutant discharge requirements.

Policy 5.E.6. The City shall allow stormwater detention facilities to mitigate drainage impacts and reduce storm drainage system costs. To the extent practical, stormwater detention facilities should be designed for multiple purposes, including recreational (e.g., parks, ball fields, etc.) and/or stormwater quality improvement.

Policy 5.E.7. The City shall consider using stormwater of adequate quality to replenish local groundwater basins, restore wetlands and riparian habitat, and irrigate agricultural lands.

Policy 5.E.8. The City shall require detention storage with measured release to ensure that the capacity of downstream creeks and sloughs will not be exceeded. To this end:

a. Outflow to creeks and sloughs shall be monitored and controlled to avoid exceeding downstream channel capacities;

b. Storage facilities shall be coordinated and managed to prevent problems caused by timing of storage outflows.

Policy 5.E.9. The City shall require the preparation of watershed drainage plans for proposed developments. These plans shall define needed drainage improvements and estimate construction costs for these improvements.

Goal 8.A To protect and enhance the natural quantity and qualities of the Wheatland area's rivers, creeks, sloughs, and groundwater.

Policy 8.A.1. The City shall cooperate with Yuba County in the conservation of Bear River and Dry Creek for the protection of water resources and open space qualities.

Policy 8.A.5. The City shall require proposed developments to comply with streambed alteration and watershed protection regulations as administered by the California Department of Fish and Game and regulations adopted by the Environmental Health Department.

Policy 8.A.8. The City shall endeavor to protect, preserve, and improve riparian corridors.

Implementation of the goals and policies above would minimize impacts to water quality; however not to a *less-than-significant* level. The resultant impact would therefore remain ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the potential impacts to a *less-than-significant* level.

4.8-3 *For future development projects, applicants shall obtain NPDES Construction General Permit, which requires the submittal of a Notice of Intent (NOI) with applicable fee to the State Water Resources Control Board (SWRCB) and the preparation of a Stormwater Pollution Prevention Plan (SWPPP) to be submitted to the City Engineer for review.*

4.8-4 Development in the study area could result in loss of groundwater supplies or interfere substantially with groundwater recharge.

The availability, quantity, and quality of water are vital to natural processes and human activities. Water is essential to the development of housing, commerce, industry, agriculture, and recreation. A groundwater aquifer underlies the City of Wheatland and serves as the City's municipal water supply. Wheatland currently (June 2004) draws its entire water supply from six (6) municipal well sites.

The overall reliance upon groundwater for domestic and agricultural use in the Sacramento Valley has increased steadily over the past few decades. The number of domestic and irrigation wells in the region increased from 9,109 in 1970 to 37,046 in 2002. The reasons for this increase include more demand, the need for reliable water supplies, the high costs of new surface water storage, and environmental concerns leading to the reduced diversion of surface water.

Development proposed within the General Plan study area encompasses approximately 10,420 acres. The General Plan Update (GPU) would result in a substantial increase in the total population in the Wheatland study area at buildout. The GPU would induce direct population growth through the construction of new housing units and the attraction of additional commercial enterprises. The GPU also incorporates construction of additional infrastructure, including roads, utilities, and government services that would indirectly contribute to growth, and impact groundwater levels.

The population growth associated with the General Plan Update would be substantial, at 10 times greater than existing population. This expansion would trigger a commensurate demand for groundwater supplies. As the physical dimensions of Wheatland expand, and impervious surfaces increase, additional runoff could potentially exceed the capacity of stormwater drainage systems, as the groundwater level decreases.

The *Yuba County General Plan* states that some surface water must be reserved for groundwater recharge, as well as for protection of the aquatic environment. However, surface water would simultaneously incur additional demands due to growth. Groundwater resources are regional in nature and require a cooperative effort to ensure protection of water quality and quantity. Policies in this section seek to protect groundwater and maintain the highest quality for human and natural use. The General Plan also seeks to ensure a safe and adequate water supply for existing and future development, and promote water conservation and reuse. See Chapter 4.16 for a more detailed discussion regarding General Plan Update water demands.

The General Plan Update includes the following goals and policies applicable to groundwater issues:

Goal 5.C To ensure a safe and reliable water supply sufficient to meet the future needs of the City.

Policy 5.C.1. The City shall protect the groundwater basin from overdraft from City use of groundwater. To this end, the City shall study, working closely with other public and private entities as deemed appropriate, the safe yield of the groundwater basin. Water management programs such as conjunctive use and recharge programs will also be considered. The City shall use this

information to determine the most appropriate long-term water supply to serve Wheatland.

Policy 5.C.2. If the results of studies undertaken pursuant to Policy 5.C.1 indicate an imbalance between safe groundwater yield and projected water requirements, the City shall develop a response plan to address the imbalance. This response plan will include an appropriate mix of water conservation measures, reuse, surface water supplements, and other water management techniques.

Policy 5.C.3. The City shall promote efficient water use and reduced water demand by:

a) Requiring water-conserving building design and equipment in new construction;
b) Encouraging water-conserving landscaping and other conservation measures; and
c) Encouraging retrofitting of existing development with water-conserving devices.

Policy 5.C.4. The City shall work with other agencies to promote water conservation measures countywide for both urban and agricultural uses.

Policy 5.C.5. The City shall only approve new development that relies on an adequate City water supply and delivery system**.**

Policy 5.C.6. The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.

Policy 5.C.7. The City shall investigate processes for monitoring water demand growth trends to anticipate water supply needs.

Policy 5.C.8. The City shall monitor water quality regularly to ensure that safe drinking water standards are met and maintained in accordance with State and EPA regulations and take necessary measures to prevent contamination.

Policy 5.C.9. The City shall ensure that water supply capacity and infrastructure are in place prior to granting building permits for new development.

Policy 5.C.10. The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate

capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.

Policy 5.C.11. The City shall ensure adequate water pressure throughout the urban area for fire protection purposes.

Goal 8.A To protect and enhance the natural quantity and qualities of the Wheatland area's rivers, creeks, sloughs, and groundwater.

Policy 8.A.1. The City shall cooperate with Yuba County in the conservation of Bear River and Dry Creek for the protection of water resources and open space qualities.

Policy 8.A.2. The City shall monitor any activities that may degrade the aquifers of Bear River or Dry Creek as it impacts City water supply and shall support the maintenance of high water quality in these water bodies.

Policy 8.A.3. The City shall cooperate with other jurisdictions in jointly studying the potential for using surface water sources to balance the groundwater supply so as to protect against aquifer overdrafts and water quality degradation.

Policy 8.A.4. The City shall help protect groundwater resources from overdraft by promoting water conservation and groundwater recharge efforts.

Policy 8.A.5. The City shall require proposed developments to comply with streambed alteration and watershed protection regulations as administered by the California Department of Fish and Game and regulations adopted by the Environmental Health Department.

Policy 8.A.7. The City shall retain to the extent feasible the environmental and ecological features of the creeks, sloughs and rivers in their natural state.

Policy 8.A.8. The City shall endeavor to protect, preserve, and improve riparian corridors.

Policy 8.A.9. The City shall require runoff controls in conjunction with development projects and agriculture production to limit toxics and nutrients from entering waterways.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

Endnotes

[1] Yuba County, Yuba County General Plan, May 1994.
[2] City of Wheatland, General Plan Update, Background Report, Public July 2004.
[3] City of Wheatland, Revised Draft General Plan Policy Document, Chapters 1, Land Use and Community Character, Chapter 5, Public Facilities and Services, and Chapter 8, Environmental Resources, July 2005.
[4] City of Wheatland, General Plan Update, Draft Drainage Report for Internal Drainage, Civil Engineering Solutions, Inc., November 2005.
[5] City of Wheatland, General Plan Update, External Source Flood Protection Plan, Mead & Hunt, October 20, 2005.
[6] Yuba County Water Agency, Groundwater Management Plan, March 2005.
[7] State Water Resources Control Board, Stormwater Program, www.swrcb.ca.gov/stormwtr/municipal.html, November 2005.

4.9 LAND USE AND PLANNING

Introduction

This chapter describes the existing land use setting of the Wheatland General Plan Update study area. The chapter discusses the current land uses within and around the City, as well as looking at projected and planned growth within the City's Sphere of Influence. The proposed General Plan Update Land Use Map was analyzed for compatibility with surrounding land uses. Information in this chapter is primarily based upon the *Wheatland General Plan Update Background Report.*[1]

Environmental Setting

This section presents regional setting, background information, boundaries, and existing land use conditions in the Wheatland General Plan study area.

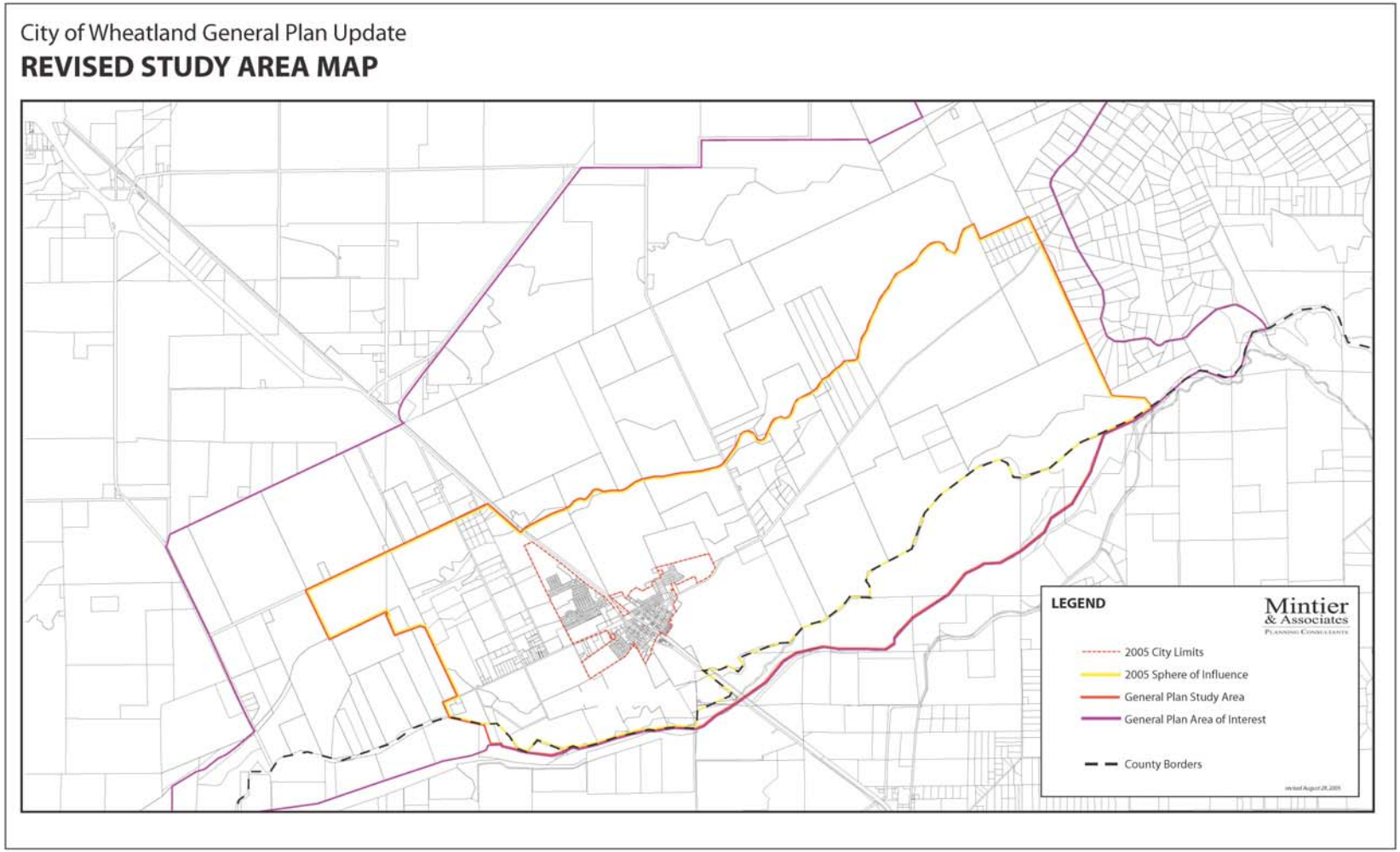
Regional Setting

Wheatland is located in Northern California's Central Valley along State Route 65 in Yuba County. The City is located approximately one mile north of the Bear River and the tri-county boundary of Sutter, Placer and Yuba Counties. Marysville (the county seat) and Yuba City, which are both about twelve miles to the north of Wheatland, are the closest cities of significant size. Sacramento is approximately forty miles to the south and Beale Air Force Base is located eight miles to the northeast. Wheatland is also the gateway city to Camp Far West, a recreation area of regional significance.

Boundaries

The City of Wheatland has two municipal boundaries - the first is the more familiar city limits, and the second is the City's Sphere of Influence. Two other boundaries have been created for the purposes of this General Plan Update (GPU). The first is a study area boundary that represents all land to be analyzed in the GPU process. The second is an Area of Interest boundary that includes all of the land within the Sphere of Influence, as well as lands that are being considered for State Route 65 Bypass Alternatives. All of the boundaries are shown on 4.9-1.

Figure 4.9-1


City of Wheatland General Plan Update
REVISED STUDY AREA MAP
LEGEND
Mintier & Associates
Planning Consultants
2005 City Limits
2005 Sphere of Influence
General Plan Study Area
General Plan Area of Interest
County Borders

City limits

The existing city limits represent all incorporated lands that are governed by the City of Wheatland. The city limits run roughly from Grass Hopper Slough in the north to Sixth Street in the south and from Wheatland Cemetery in the west to the Wheatland Park subdivision in the east. As of June 2004, the total land area within the city limits was 504 acres, or 0.8 square miles.

Wheatland Sphere of Influence

A Sphere of Influence (SOI) is an area designated as the physical boundaries and service area of a local governmental agency, as determined by the applicable Local Agency Formation Commission (LAFCO), and is periodically reviewed and updated. Wheatland's SOI was adopted by the Yuba County LAFCO on June 7, 1995. The boundary borders Dry Creek to the north, the County Line to the south, Ace Hardware to the west, and almost reaches Camp Far West Road to the east. As of 2004, the Sphere of Influence encompassed 8,636 acres.

General Plan Update Study Area

The General Plan Update study area is contiguous with the Sphere of Influence boundary. However, the portion of the study area analyzed for urban development is the portion of the SOI west of Jasper Lane. The study area includes the area for which the City has interest regarding future developments and their associated impacts on Wheatland. The study area runs parallel to the Sphere of Influence along the northern and eastern borders, and extends beyond to the Bear River in the south, and continues from ACE Hardware in the west. The study area encompasses approximately 10,420 acres.

Area of Interest

The Area of Interest boundary was established to include all of the land within the Sphere of Influence as well as land that could possibly be included in one of the State Route 65 Bypass alternatives. This boundary runs roughly from Best Slough in the north to the county line in the south, and from Camp Far West Road in the east to Forty Mile Road in the west.

Existing Land Uses Within the City

Table 4.9-1 shows land uses within the City by acreage and percentage, and Figure 4.9-2 illustrates the land uses. Land uses are identified as single family residential, multi-family residential, commercial, industrial, public, parks, roads and infrastructure, and vacant.

Figure 4.9-2
City of Wheatland Land Uses

Single Family Residential

Single-family residential land is defined as one detached house on a single parcel of land. Approximately 207.5 acres of land within the city limits are developed as single family residential. This accounts for approximately 41 percent of developed citywide land. An additional 72.81 acres (15 percent) of land exists that is zoned for single family residential but not yet developed.

Multi-Family Residential

Multi-family residential land is defined as a duplex or larger multi-unit structure on a single parcel of land. Approximately 22.6 acres of land within the city limits are developed as multi-family residential. This accounts for approximately 4 percent of developed citywide land. An additional 3.9 acres (1 percent) of land exists that is zoned for multi-family residential but not yet developed.

Table 4.9-1
Acreages of Existing Land Uses

Land Use Designation	Acres	Percent Total
Single Family Residential	201.92	40%
Multi-Family Residential	22.54	4%
Commercial	16.94	3%
Industrial	0.79	1%
Public	87.71	17%
Parks	9.45	2%
Roads and Infrastructure	81.63	16%
Vacant	83.04	17%
Total	***504.02****	***100%***

* Based on GIS database information, 2004.
Sources: Terrance E. Lowell and Associates; and J. Laurence Mintier & Associates, 2004

Commercial

Developed commercial land uses account for 16.9 acres (3 percent) of the City. An additional 6.33 acres (1 percent) of land zoned for commercial uses exists that are not yet developed.

Industrial

One industrial facility is located in the center of Wheatland between Second Street and Third Street, adjacent to the Union Pacific railroad tracks. This facility is approximately 0.8 acres and accounts for 1 percent of the City. Currently undeveloped parcels do not exist that are zoned for industry.

Public

Public lands include developments such as the Waste Water Treatment Plant, community centers, and institutional facilities such as schools, police and fire stations, and City Hall. Developed public/quasi-public lands make up 87.7 acres (17 percent) of the total land in Wheatland. Currently undeveloped parcels do not exist that are zoned public.

Parks

Currently four public parks in Wheatland (see Section 4.14 for more information), which make up a total of 3.9 acres, or one (1) percent of the City.

Roads and Infrastructure

Roads and infrastructure make up a significant portion of Wheatland's total land. Currently 81.6 acres (16 percent) of land is developed as roads or infrastructure within the City.

Vacant

Vacant land within the city limits is important when considering development in Wheatland. In 2004, approximately 83.0 acres of vacant land was located within the City (17 percent). Of this, 72.81 acres are zoned single family, 3.9 acres multi-family, and 6.33 acres commercial. Assuming that changes to the existing zoning are not made, the City has a potential holding capacity for 517 additional housing units (448 single and 69 multi-family).

Development Activity

Figure 4.9-3 shows the current and potential development activity for Wheatland. Each project is identified on the map by a number. Table 4.9-2 provides a description of each parcels size, their zoned use, and their associated number.

Figure 4.9-3
Current/Potential Developments

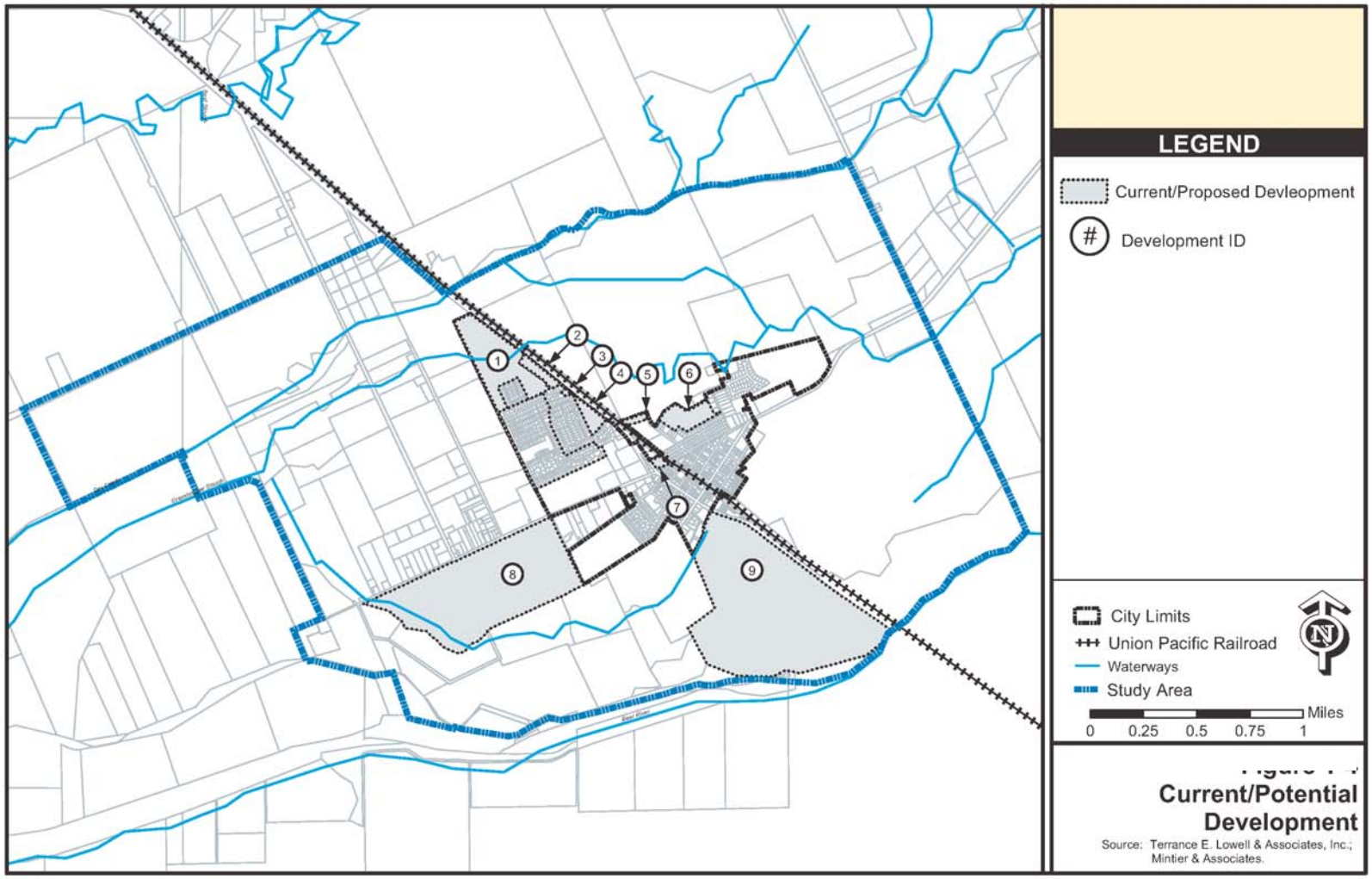


Table 4.9-2
Development Activity

Map #	Parcel / Project Description
1.	47.5 acre lot, zoned R-1, with 210 projected single-family dwelling units
2.	7.6 acre commercial lot
3.	0.3 acre commercial lot
4.	6.6 acre commercial lot, with a pending application for grocery, retail and fast food
5.	2.24 acre lot, zoned R-4, with a potential for 40 attached dwelling units
6.	12 acre lot, zoned R-1, with a potential for 54 dwelling units
7.	2.2 acre commercial lot
8.	The Jones Ranch project has been approved by the City, and is pending annexation. 140+/- acres zoned R-1, 442 single-family lots 9 +/- acres zoned R-2, 56 two-family dwelling units 5 +/- acres zoned R-3, 55 multi-family dwelling units 2 +/- acres zoned C-1
9.	The Heritage Oaks Estate project has been approved by the City, and is pending annexation. The project contains 5 lots: 181+/- acres zoned R-1, 590 single-family dwelling units 7 +/- acres zoned R-2, 80 two-family dwelling units 6 +/- acres zoned R-3, 108 multi-family dwelling units 6.5 +/- acres zoned C-3 for self storage 14 +/- acres zoned C-3, 120,000 square feet of commercial and an 80-room hotel

Sources: Terrance E. Lowell and Associates, 2004; Carstens Consulting, 2004; and J. Laurence Mintier & Associates, 2004.

Heritage Oaks Estates

The Heritage Oaks Estates property is located directly south of the City on the west side of State Route 65 and was approved by the City Council in November 2003 for annexation, General Plan land use designations, and prezoning. Annexation of the properties is currently pending with the Yuba County Local Agency Formation Commission (LAFCO).

The project consists of 234 acres, with approval of 590 single-family lots, 80 two-family units (40 structures), 108 multi-family units, a 120,000 square foot commercial center, an 80-room hotel, and a self-storage facility on 6.5 acres. Construction may begin in 2006 on the single-family homes, with anticipated completion of all phases in 14 years.

Jones Ranch

Jones Ranch is located just west of the City and Wheatland Union High School on the south side of Wheatland Road. The project was approved by City Council in December 2003 for annexation, General Plan land use designation, and pre-zoning. Jones Ranch was approved for 442 single-family lots, 56 two-family units (28 structures), 55 multi-

family units, and 2 acres of neighborhood commercial. Construction may start in 2006 with an anticipated completion within 10 years.

Unincorporated Island

The unincorporated island is located between the new Junior High School and Wheatland High School in the western part of the City. The site contains 8 developed single family residences. The land is projected to hold an additional 50 single family units within the next 10 years. The island is included in the Jones Ranch annexation.

Almond Estates

Almond Estates is a 47.5 acre parcel located in the north part of Wheatland along State Route 65. The site is zoned R-1 with a development potential for 205 single-family lots. The site has existing constraints regarding drainage and access to State Route 65. A Tentative Map is currently being processed by the City. The Tentative Map includes 169 residential lots (60' x 100' min), two drainage corridor lots, one sewer lift station lot, eight landscape corridors, and one emergency access lot.

Wilson's Settlers Village

Wilson's Settlers Village is a proposed shopping center located at the northwest corner of State Route 65 and McDevitt Drive. The site is 6.6 acres and zoned C-3 Commercial/ Planned Development Combining District. The City recently approved a 24,000 square foot retail building, 18,000 square foot retail building, 2,800 square foot fast food restaurant with a drive-up window, and a coffee hut.

Existing Land Use Designations

1986 Land Use Element Land Use Map and Land Use Categories

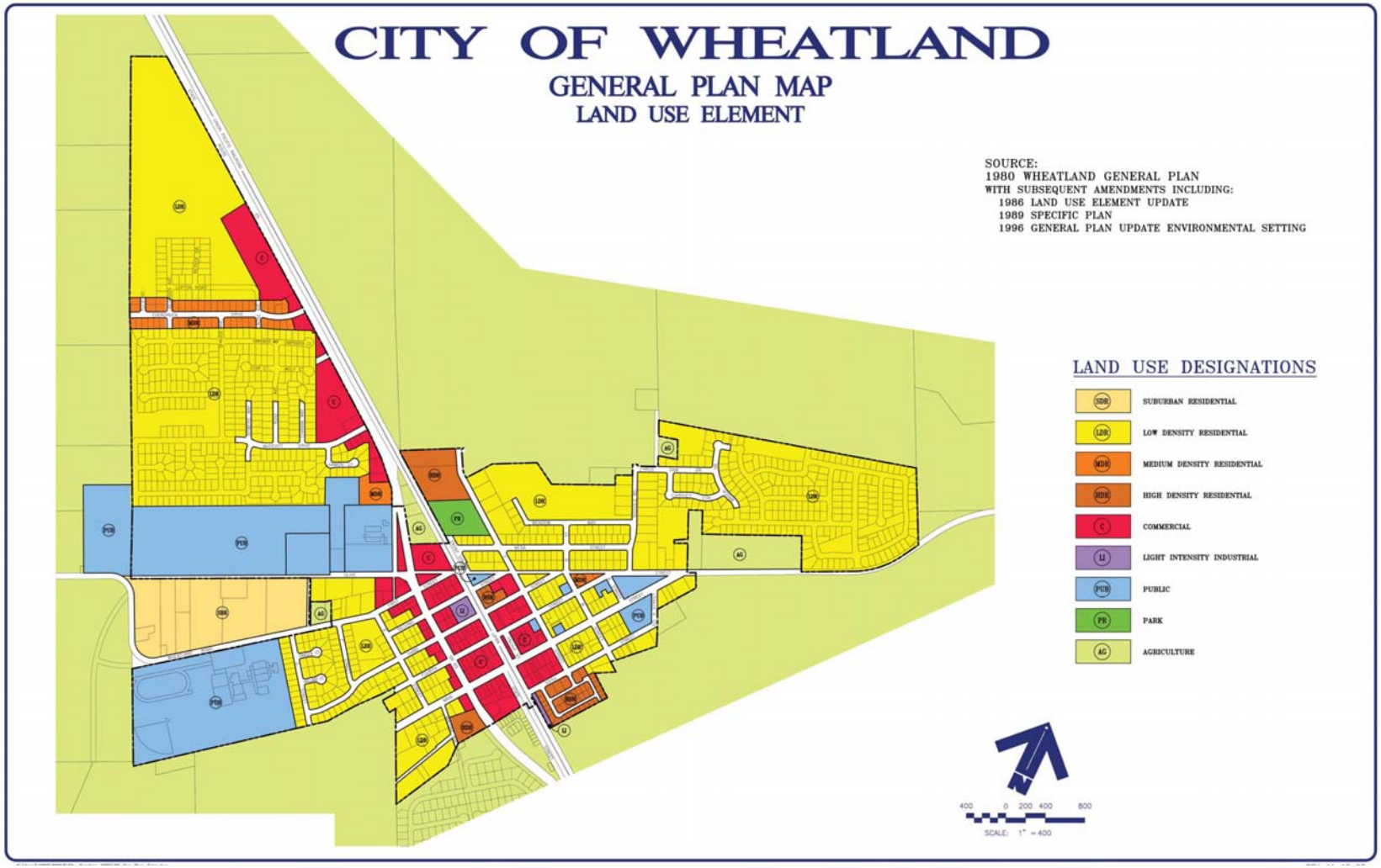
The patterns of future development in Wheatland are governed by the distribution of allowable land uses and densities as shown on the General Plan Land Use Element Map (see Figure 4.9-4), adopted as part of the *1986 Land Use Element*. The Land Use Map, which was last revised in September 1990, shows ten land use designations. Table 4.9-3 summarizes the basic standard for each of these designations.

Table 4.9-3
1986 Land Use Element Land Use Designations

Category	Designation	Residential Densities*	Examples of Appropriate Activities
Residential	Suburban	0.5 to 3.0 du/ac	Residential; single family detached homes, without buildings. Large gardens. Small-scale livestock such as chickens, a horse, or a few goats. Semi-improved lots.
	Low Density	2.0 to 5.0 du/ac	Residential; single family detached homes. Townhouses with open space, mobilehome parks. No animals except pets on parcels less than one acre. No non-residential uses except churches, schools, and necessary utilities.
	Medium Density	5.0 to 10.0 du/ac	Residential; duplex, townhouses, mobilehome parks. Small pets only. No non-residential uses except churches, schools, and necessary utilities.
	High Density	9.0 to 18.0 du/ac	Multi-family residential; apartments with more than 3 families per structure. Small pets only. Some non-residential uses, if compatible (such as professional offices).
Commercial	Commercial	Not/ applicable	Retail sales, restaurants, banks, real estate, professional offices, entertainment facilities, auto sales and service, motels, personal services, convenience shopping, some outdoor sales. Some high-intensity residential, where compatible (by use permit). Also service stations and similar uses.
Industrial	Light Intensity	Not/ applicable	Light manufacturing, small warehouses, welding and auto body shops, laboratories, wholesaling; municipal utilities, corporation yards, waste disposal areas; heavy machinery sales and service. No residential uses.
	Heavy Intensity	Not/ applicable	Large agricultural products processing plants, warehouses, transportation (rail) depots/loading facilities, heavy manufacturing, mineral extraction, chemical or paint processing, and similar uses. No residential uses.
Public	Public	Not/ applicable	Schools, hospitals, municipal buildings, libraries, transportation facilities, auditoriums or cultural centers, post offices.
Parks	Parks	Not/ applicable	Small neighborhood playlots, City parks with and without improvements. No other uses.
Agricultural	Agricultural	Parcels 5 acres and over	Orchards, row crops, pasture, livestock, dairies, poultry, produce stands. No agricultural chemical, machinery repair or manufacture unless small-scale, and by use permit only. No residential use besides one dwelling unit on parcel; no industrial or commercial use except as directly related to farm operation.

* Allowable dwelling units/acre densities can be converted to population densities by using a multiplier of 2.7 persons per dwelling unit. The element has no provisions for floor area ratios for commercial or industrial land uses.
Source: City of Wheatland Land Use Element and Environmental Impact Report (October 1986).

Figure 4.9-4
General Plan Land Use Element



In areas with existing development, the designations shown on the Land Use Element Map are largely reflective of existing use patterns, while designations for vacant land were influenced by their proximity to the existing and future circulation network. Commercial designations are shown for the downtown area and along State Route 65. In addition to existing industrial uses, future industrial uses are planned for the west side of State Route 65 at the north end of town. The Map designates Suburban Residential uses in the area just outside of the city limits west of town on the north side of Wheatland Road. Low Density Residential uses are designated in the peripheral parts of the town on all sides. Other designations (Medium and High Density Residential, Public, and Parks) are scattered throughout the city, while Agricultural designations surround the town on all sides.

Table 4.9-4 shows how the respective acreage within each designation shown on the Land Use Map as well as the percentage of the existing city area covered by each as of January 1996. As the table indicates, approximately two-thirds of the land within the city limits is designated for residential development, almost all of which is set-aside for low-density uses.

Table 4.9-4
Acres By Land Use Designation
1986 Land Use Element

Category	Designation	Acres	Percent of Total
Residential	Low Density	270.7	61.8%
	Medium Density	8.4	1.9%
	High Density	20.5	4.7%
Commercial	Commercial	47.9	10.9%
Industrial	Light Intensity	1.5	0.3%
	Heavy Intensity	0.0	0.0%
Public	Public	85.2	19.4%
Parks	Parks	3.9	0.9%
Agricultural	Agricultural	0.0	0.0%
Total		**438.1***	**100.0%**

* The 2004 city acreage is greater (504 acres) because of annexations made since 1996. This number includes infrastructure.
Sources: City of Wheatland Land Use Element and Environmental Impact Report (October 1986); Crawford Multari & Starr, January 1996.

1995 Specific Plan

In the early 1990's, increasing development pressure in and around Wheatland prompted to the City to consider several limitations to the growth anticipated in the City's General Plan, including the following:

- The City's sewage treatment plant was near capacity;

- Drainage issues needed to be addressed in the northern half of the city if development were to proceed in an orderly fashion;
- Issues of funding ongoing services to newly developed areas had to be reviewed; and
- Adequate water supply and traffic circulation measures had to be implemented if Wheatland was to responsibly handle substantial additional growth within its existing city limits.

In order to address these issues, the City determined that the most cost effective and expeditious approach would be to prepare a specific plan. The *1990 Specific Plan* covers most of the large vacant developable properties within roughly the northern half of the City, but does not take into consideration development of unincorporated land that might be appropriate for future annexation and development. The decision to focus on the city limits was made in part because of the availability within city limits of a substantial amount of developable land. The City was also concerned that any major expansions of the City's boundaries would require a new wastewater treatment plant and major new arterial roads. The *Specific Plan* was adopted in September 10, 1990, and called for development of an additional 850 housing units, the vast majority of which were single-family units.

Existing Zoning

Under state law, cities and counties have broad latitude in establishing zoning standards and procedures. Outside of a general requirement for open space zoning and several special requirements governing residential zoning, State law establishes only broadly the scope of zoning regulation and sets minimum standards for its adoption and administration. One key requirement, however, is that zoning be consistent with the general plan.

Zoning Districts

Wheatland's *Zoning Ordinance*, which was adopted in April 1991, has 11 basic classifications and 3 combining districts that regulate building density, intensity, and type of use. Figure 4.9-4 shows the current 2004 zoning for the city and the following paragraphs describe the basic purposes of each zone, as well as property development standards for each. The *Zoning Ordinance* should be consulted for specific questions regarding permitted, accessory, and conditional uses.

A-E Agriculture-Exclusive

The A-E zone is a Yuba County zoning designation intended to be applied in fertile areas in which agriculture the predominant use and in which the protection of this use from encroachment of incompatible uses is essential. This zoning is designated to the land surrounding Wheatland. Land does not exist within the City which is classified A-E.

RE½ Residential Estates

The RE district provides for very low-density areas for single-family residences. In particular, it is intended to permit a reduction in streets, public utilities, and related public services, not possible in higher density residential areas. Land within the City is not classified RE½.

R-1 Single-Family Residential

The R-1 district provides areas for single-family dwellings. The district is intended to accommodate single-family homes together with the schools, parks, open space, and other public services required for a traditional neighborhood environment. The R-1 district covers over 60 percent of the land in the City.

R-2 Two-Family Residential

The R-2 family residential district designates land suitable for family and duplex dwellings. The R-2 district is consistent with the medium density residential designation of the Wheatland General Plan.

R-3 Multi-Family Residential Limited

The R-3 multi-family residential district is intended to accommodate a limited number of multi-family residences and departments that are designed to maintain, preserve, and protect the character of development in surrounding areas. The district is consistent with the high-density designation of the General Plan.

C-1 Neighborhood Commercial

The C-1 district provides locations for convenience shopping facilities serving the residential neighborhoods. The district is intended to support commercial uses that meet the daily needs of neighborhood residents.

C-2 Retail Commercial

The C-2 district is designed to stabilize, improve, and protect the commercial characteristics of Downtown Wheatland, which is the only part of the City designated C-2. The district is intended to provide a complete and intensive commercial center.

C-3 Heavy Commercial

The C-3 district provides for retail, wholesale, highway, and heavy commercial uses, along with amusement, lodging, warehousing and distribution, maintenance, repair and servicing activities. The minimum parcel size is two acres. The district is intended to be applied in the immediate vicinity of arterial streets, freeways, or the service/frontage drives.

M-1 Light Industrial District

The M-1 classification is applied to areas where light manufacturing, wholesaling, storage, and transfer functions can serve the community's need for industrial activities that are not offensive to nearby commercial and residential uses. The M-1 zone is consistent with the light intensity industrial land use designation of the General Plan.

M-2 Heavy Industrial

The purpose of the M-2 district is to provide appropriate sites for manufacturing and processing uses which, by their nature, require locations buffered from other uses so as not to create nuisances or have deleterious effects upon neighboring properties. Land is not located within the City that is classified M-2.

F-W Floodway

The floodway or F-W district is intended to be applied to lands, which lie within stream or river or drainage channels and to adjacent areas which are periodically inundated. The F-W provisions are intended to provide measures for the protection of life and property in the floodway areas. Land is not located within the City that is classified F-W.

F-P Floodplain Combining District

The floodplain or F-P combining district is intended to be combined with principal districts in areas other than floodway areas which have been inundated by overflow floodwaters in the past and which may reasonably be expected to be inundated by such floodwaters in the future. The floodplain zone is intended to limit the use of areas subject to such inundation and flooding to protect lives and property from loss, destruction, and damage due to floodwaters and to the transportation by water of wreckage and debris. Land is not located within the City that classified F-P.

PD Planned Development Combining District

The PD coming in district is intended to be applied to parcels of land which are suitable for, and of sufficient acreage to contain, planned development projects for which development plans have been submitted and approved. Application for establishment of a PD district include the following:

- A map or maps showing topography of the land; street system and lot design; areas proposed to be dedicated or reserved for parks, playgrounds, parkways, school sites, public or quasi-public buildings, and other such uses; areas proposed for commercial uses, off-street parking, multiple and single family dwellings, and all other uses proposed to be established within the district; and proposed locations of buildings on the land.

- General elevations or perspective drawings of all proposed buildings and structures other than single family residences

- Other data and information which may be deemed necessary by the planning commission for proper consideration of the application

A Agriculture Combining

The agricultural combining district can be applied to any zoning district and allows for agricultural uses, so long as the requirements of the original zoning district are met. Land is not located within the City that is classified A.

IND-PK Industrial Park Combining

The purpose of the IND-PK combining district is to provide a location for the development of administrative, research, warehousing, and manufacturing establishments of a non-nuisance type, which require an environment of a higher quality than that normally associated with an industrial district. The IND-PK combining zone is intended to be combined with the C-3 Heavy Commercial, M-1 Light Industrial, and M-2 Heavy Industrial principal zones. Land is not located within the City that is classified IND-PK.

Zoning by Acreage

Table 4.9-5 shows a breakdown of acreages by zone. Currently, approximately 78 percent (391.3 acres) of the City is zoned for residential uses, 6 percent (31.4 acres) is zoned for commercial uses, and 0.2 percent (1.0 acre) is zoned for industrial uses.

Table 4.9-5
2004 Zoning by Acreage

Zone	Acres	% Total
A-E	0.00	0%
RE 1/2	0.00	0%
R-1	366.04	72.6%
R-2	8.94	1.7%
R-3	16.32	3.2%
C-1	1.24	0.2%
C-2	7.80	1.6%
C-3	22.34	4.4%
M-1	1.02	0.2%
M-2	0.00	0%
FW	0.00	0%
F-P	0.00	0%
PD	0.00	0%
A	0.00	0%
IND-PK	0.00	0%
Total	***422.68****	***100%***

* This total does not include roads, railroads, or infrastructure
Sources: City of Wheatland Zoning Ordinance, 2003; and J. Laurence Mintier & Associates, 2004.

Proposed Land Use Designations for Wheatland General Plan Update Land Use Map

The General Plan Area includes all land designated for or to be considered for future development as part of Wheatland. This boundary is the same as the City's Sphere of Influence, and includes areas designated for urban reserve

The *Land Use Diagram* shows ten land use designations (See Figure 4.9-5). These are defined in the following subsection. State law mandates that general plans include standards of population density and building intensity for all of the territory covered by the plan. To satisfy this requirement, the General Plan includes such standards for each of the land use designations appearing on the *Land Use Diagram*. These standards are stated differently for residential and non-residential development. Following are explanations of how these standards operate.

Residential Uses

Standards of population density for residential uses can be derived by multiplying the maximum allowable number of dwelling units per gross acre by the average number of persons per dwelling unit assumed for the applicable residential designation. Typically, household sizes are larger in single-family homes than in multiple-family units, therefore

assumed household sizes vary according to the type and density of housing allowed in each residential designation. Standards of building intensity for residential uses are stated as the allowable range of dwelling units per gross acre.

The assumed average number of persons per dwelling unit for each residential designation has been extrapolated from population and housing unit estimates prepared by the Sacramento Area Council of Governments (SACOG) and the State of California Department of Finance. These are summarized in Table 4.9-6 following the descriptions of the land use designations. It is important to note that the average person per dwelling unit figures cited under each residential designation do not represent City policy; they simply provide the basis for correlating the permitted number of dwelling units per acre with the potential residents of those units.

Non-Residential Uses

Standards of building intensity for non-residential uses in the *General Plan* are stated as maximum *floor-area ratios* (FARs). A floor-area ratio is the ratio of the gross building square footage on a lot to the net square footage of the lot.

For example, on a lot with 10,000 net square feet of land area, a FAR of 1.00 will allow 10,000 square feet of gross building floor area to be built, regardless of the number of stories in the building (e.g., 5,000 square feet per floor on two floors or 10,000 square feet on one floor

Standards of population density for non-residential uses can be derived by multiplying one acre (43,560 square feet) by the applicable FAR and then dividing by the assumed average square footage of building area per employee. The assumed average square footage of nonresidential building floor area per employee is based on historic averages and market studies.

The General Plan includes ten residential, commercial, employment, and other land use designations to depict the types of land uses that will be allowed in the General Plan Area.

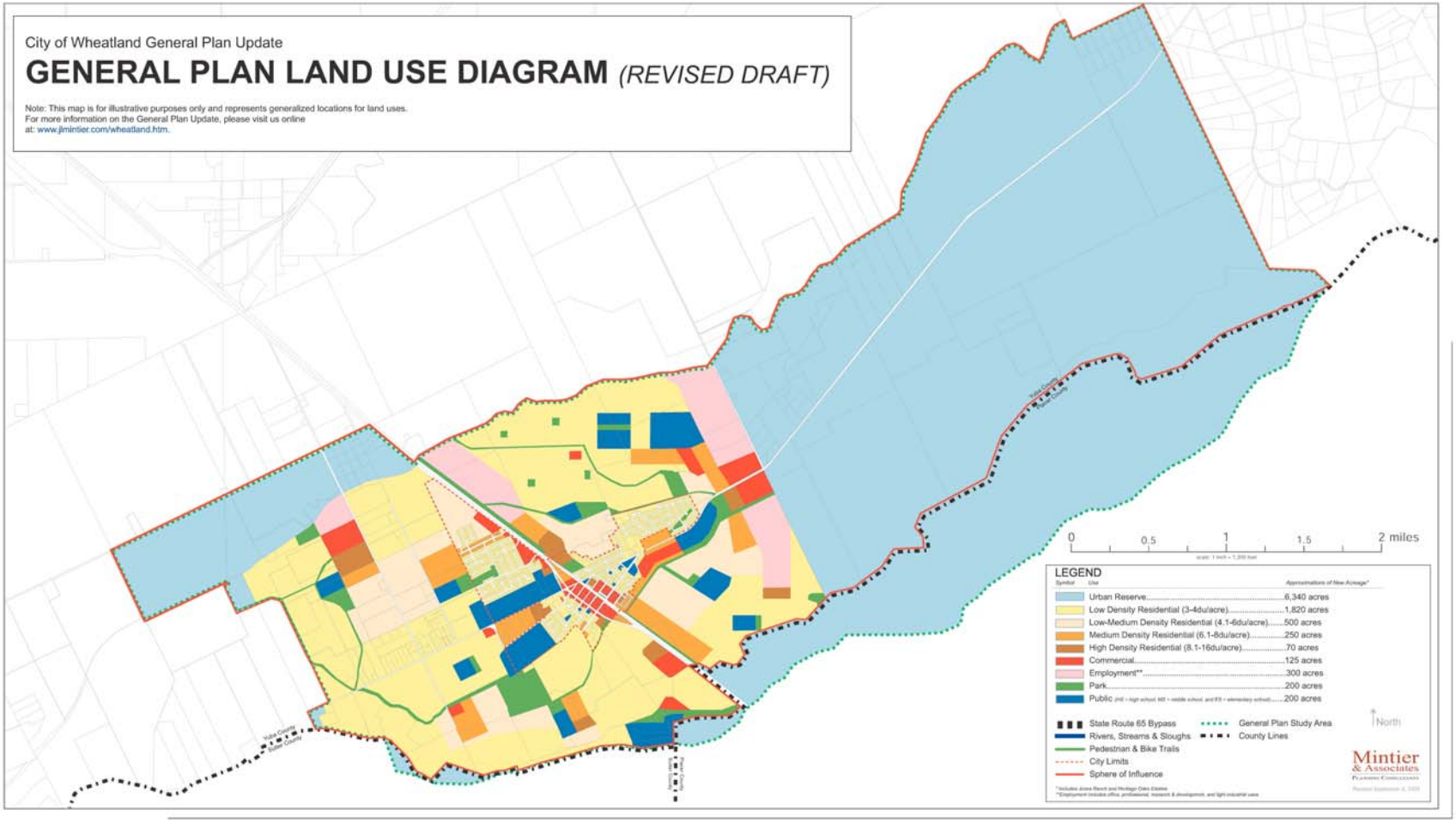
Each land use designation is defined in terms of the allowable uses and density and intensity standards. Land use designations also allow for similar and compatible uses, which may be implemented through the Planned Development (PD) overlay zone.

Table 4.9-6
City of Wheatland General Plan
Summary of Land Use Designations and Standards

Land Use Designation		Residential Density Range (DUs per gross acre)	Assumed Average Population per Household	Non-Residential Building Intensities (Max FAR)[b]	Assumed Average Employee Density (sq. ft. per employee)
Residential					
LDR	Low Density Residential	3.0 to 4.0	2.4	0.30	-
LMDR	Low-Medium Density Residential	4.0 to 6.0	2.4	0.40	-
MDR	Medium Density Residential	6.0 to 8.0	2.4	0.50	-
HDR	High Density Residential	8.0 to 16.0	2.4	0.50	-
Commercial					
COM	Commercial	-	-	0.50	400
MU	Mixed-Use	8.0 to 16.0	2.4	0.50	400
Employment					
EMP	Employment	-	-	0.50	350
Public, Park, and Open Space					
PUBLIC	Public	-	-	0.50	-
PARK	Park and Open Space	-	-	0.10	-
Urban Reserve					
UR	Urban Reserve	Not applicable			

[a] Assumed average household size for the purposes of estimating population holding capacity
[b] FARs apply to nonresidential uses only; FARs in residential designations apply to the limited permitted nonresidential uses in residential designations.
DUs - Dwelling Units
FAR - Floor Area Ratio

Figure 4.9-5


City of Wheatland General Plan Update
GENERAL PLAN LAND USE DIAGRAM (REVISED DRAFT)
Note: This map is for illustrative purposes only and represents generalized locations for land uses.
For more information on the General Plan Update, please visit us online
at: www.jimintier.com/wheatland.htm.
0
0.5
1
1.5
2 miles
LEGEND
Urban Reserve....6,340 acres
Low Density Residential (3-4du/acre)....1,820 acres
Low-Medium Density Residential (4.1-6du/acre)....500 acres
Medium Density Residential (6.1-8du/acre)....250 acres
High Density Residential (8.1-16du/acre)....70 acres
Commercial....125 acres
Employment**....300 acres
Park....200 acres
Public....200 acres
State Route 65 Bypass
Rivers, Streams & Sloughs
Pedestrian & Bike Trails
City Limits
Sphere of Influence
General Plan Study Area
County Lines
North
Mintier & Associates

Low Density Residential (LDR)

This designation provides for single-family detached homes, secondary residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 3.0 to 4.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.30.

Low-Medium Density Residential (LMDR)

This designation provides for single-family detached homes, secondary residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 4.1 to 6.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.40.

Medium Density Residential (MDR)

This designation provides for single family detached and attached homes, secondary residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 6.1 to 8.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.50.

High Density Residential (HDR)

This designation provides for single-family detached and attached homes, secondary residential units, multi-family residential units, and similar and compatible uses. Residential densities shall be in the range of 8.1 to 16.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.50.

Commercial (COM)

This designation provides for neighborhood and locally-oriented retail and service uses, retail and service uses, restaurants, banks, entertainment uses, professional and administrative offices, public and quasi-public uses, and similar and compatible uses. The FAR shall not exceed 0.50.

Mixed-Use (MU)

This designation provides for retail and service uses, restaurants, banks, entertainment uses, professional and administrative offices, residential units above the ground floor, public and quasi-public uses, and similar and compatible uses.

The FAR for commercial uses shall not exceed 0.50. The FAR for non-residential uses shall not exceed 0.4. Residential densities shall be in the range of 8.0 to 16.0 units per gross acre. Residential uses shall be subject to discretionary review and approval.

Employment (EMP)

This designation provides for office parks, research and development, warehouses and light manufacturing related to research and development, general commercial uses that cater to industrial uses in this designation, professional offices, public and quasi-public uses, and similar and compatible uses. The FAR shall not exceed 0.50.

Public (PUBLIC)

This designation provides for public facilities such as schools, hospitals, sanitariums, penal institutions, libraries, museums, government offices and courts, churches, meeting halls, cemeteries and mausoleums, public facilities, and similar and compatible uses. The FAR shall not exceed 0.50.

Park and Open Space (PARK)

This designation provides for outdoor recreational uses, equestrian uses, habitat protection, irrigation canals, reservoirs, watershed management, public and quasi-public uses, and areas typically limited for human occupation due to public health and safety hazards such as floodways, unstable soils, or areas containing wildlife habitat and other environmentally-sensitive features. Such land areas are primarily publicly owned, but may include private property. The FAR for nonresidential uses shall not exceed 0.10.

Urban Reserve (UR)

This designation is applied to land that may be considered for development in the future with urban uses. Urban development may not occur on lands designated Urban Reserve before the General Plan is amended to specify a primary land use designation for the property. Allowable uses shall include wastewater treatment facilities and other uses specified under the Agriculture (A) and Open Space (OS) designations.

REGULATORY SETTING

Local Agency Formation Commission (LAFCO)

The Cortese-Knox Local Government Reorganization Act of 1985 created local agency formation commissions (LAFCOs) in each county in California to regulate the organization and extension of services provided by cities and special districts. The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (*Government Code §56000 et seq.*) revised the existing Act with updated city and special district organization and annexations. The 2000 revisions to the Act declared "among the purposes of the commission are the discouragement of urban sprawl and encouragement of the orderly formation and development of local agencies based upon local conditions and circumstances. In meeting these responsibilities, each LAFCO is required "to review and approve or disapprove, with or without amendment, wholly, partially, or

conditionally, proposals for changes of organization or reorganization" (*Government Code §56375 [a]*). Annexations to cities are also regulated by the Cortese-Knox-Hertzberg Act. As such, the Yuba Commission LAFCO reviews and approves annexations to the City of Wheatland. Generally, any land that is contiguous to a city and within its sphere of influence may be annexed to the city. Proponents of an annexation must obtain the approval of LAFCO.

LAFCO regulates, through approval or denial, the boundary changes proposed by other public agencies or individuals. LAFCO does not have the power to initiate boundary changes on their own, except for proposals involving the dissolution or consolidation of special districts and the merging of subsidiary districts. Typical applicants include developers seeking annexation to cities in order to obtain more favorable development and urban services extended to the new housing, and cities wishing to annex pockets or "islands" of unincorporated land located within their borders in order to avoid duplication of services with the county. LAFCO also mediates between city and county services with regard to spheres of influence.

Wheatland General Plan Update

The project involves establishment of goals and policies aimed at guiding community design within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Zoning Ordinance

The Zoning ordinance applies more specific zoning regulations to support the land use designations in the City of Wheatland General Plan Update. The City will update the Zoning Ordinance to ensure that it is consistent with the land use designations found in the General Plan Update.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

The land use impact analysis considers the proposed project's consistency with several standards, including the existing land uses, and the zoning ordinance. A land use impact may also be considered significant if any of the following conditions, or potential thereof, would result if the proposed project's implementation would:

- disrupt or divide the physical arrangement of an established community;
- result in a significant change in the character of Wheatland;
- conflict with any applicable land use plan, policy, regulation of an agency with jurisdiction over the project (including, but not limited to, the specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

- result in an increased potential for conflict as a result of incompatible land uses.

Method of Analysis

Determination of land use impacts were based on information from the City of Wheatland General Plan Background report and Policy Document.

Project-Specific Impacts and Mitigation Measures

4.9-1 The General Plan Update would not physically divide an established community, or detract from existing areas within the City of Wheatland.

An intent of the General Plan Land Use Diagram is to plan for orderly, logical development that supports compatibility among adjacent uses. The designation of land use categories takes into account the surrounding land uses, and proposed uses, and development intensities that respect the existing uses. Consequently, buildout of the General Plan Update would not disrupt the physical arrangement of existing land uses with the City.

Downtown Wheatland

Downtown Wheatland is an important part of Wheatland's small-town character and community heritage. Although, Downtown is centrally located in the community with access to SR 65, and contains several historic buildings, the downtown area provides limited shopping and employment opportunities for its residents, employees, and visitors.

The General Plan Update Land Use Diagram includes significant amounts of commercial, office, and business park development in other areas of the City, such as along the SR 65 Bypass and in the northeast. Because future commercial and employment areas would potentially detract from Downtown as the central destination of the City, the policies in the *Land Use and Community Character* chapter of the General Plan Policy Document seek to preserve and enhance the Downtown district by promoting increased retail, office, government, mixed-use, and entertainment uses, and providing for parking, streetscape, and building facade improvements. In addition, the policies also address the design of commercial facilities to reflect the character of Wheatland, preserve and enhance Downtown, and provide accessibility for pedestrians, bicyclists, and transit riders.

Existing Residential Neighborhoods

The greatest assets of older neighborhoods are mature trees and landscaping, architectural variety in homes and buildings, and historic character and structures. If left unchecked, however, the natural aging process can lead to poorly maintained homes and yards, loss of trees, poorly maintained streets, alleys, and

sidewalks, deteriorating infrastructure, graffiti, dilapidated and vacant buildings, crime, and decline in property values. Because the potential for new development in existing residential areas is limited, the majority of new, planned residential communities would be located outside the City. Therefore, neighborhood conservation efforts focus on maintenance of both public and private property within the City limits to conserve and enhance the best qualities of existing residential neighborhoods as the City grows. The policies and programs of this section aim to ensure maintenance of quality in existing neighborhoods over time.

The General Plan Update includes the following goals and policies applicable to Land Use issues:

Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.2. The City shall ensure that development occurs in an orderly sequence based on the logical and practical extension of public facilities and services.

Policy 1.A.5. The City shall encourage the acquisition of Community Development Block Grants (CDBG) to revitalize infill areas.

Policy 1.A.11. The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-housing balance to ensure an adequate mix of economic and residential opportunities.

Goal 1.B To provide adequate land in a range of residential densities to accommodate the housing needs of all income groups expected to reside in Wheatland.

Policy 1.B.1. The City shall support residential development at a manageable pace to achieve its fair share of regional housing needs and provide for orderly extension of infrastructure and public services.

Policy 1.B.2. The City shall require residential project design to reflect and consider natural features, noise exposure of residents, visibility of structures, circulation, access, and the relationship of the project to surrounding uses. Residential densities and lot patterns will be determined by these and other factors.

Policy 1.B.3. The City shall discourage the development of isolated, remote, disconnected, and/or gated residential projects, which do not contribute to the sense of an integrated community.

Policy 1.B.4. The City shall encourage multi-family housing to be located throughout the community, but especially near transportation corridors, Downtown, major commercial areas, neighborhood commercial centers, and employment centers.

Policy 1.B.5. The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.

Goal 1.C To provide for new residential development in planned neighborhoods to be developed in an orderly style and designed to promote walking, bicycling, and transit use.

Policy 1.C.1. The City shall promote new residential development in a range of residential densities that reflects the positive qualities of Wheatland's existing residential neighborhoods (e.g., street trees, pedestrian-orientation, mix of housing types and sizes).

Policy 1.C.2. The City shall encourage the creation of well-defined residential neighborhoods. Each neighborhood should have a clear focal point, such as a park, school, or other open space and community facility, and shall be designed to promote pedestrian convenience.

Policy 1.C.3. The City shall encourage the development of new neighborhoods that are walkable and connected to the existing city core as well as each other.

Policy 1.C.4. The City shall require that development plans for new residential neighborhoods address the following:

a. The distribution, location, and extent of land uses, including standards for land use intensity.
b. Compatibility of new development with adjacent existing and proposed development.
c. Provision of a range of housing types to ensure socially- and economically-integrated neighborhoods.
d. Distribution and location of roadways, including design standards for and the precise alignment of arterial, collector, and local streets, and bikeways.
e. Provisions for the extension of the existing city roadway system into new development areas. New development shall be linked to adjacent existing neighborhoods and planned neighborhoods by collector and local streets.
f. Provisions for adequate schools and child care facilities.

g. Distribution and location of neighborhood commercial centers, parks, schools, child care centers, and other public- and quasi-public facilities.

h. Provisions for linking residential neighborhoods, parks, schools, Downtown, shopping areas, and employment centers through a system of pedestrian pathways, bicycle routes, and linear open-space corridors along sloughs, Dry Creek, and the Bear River.

i. Provisions for development phasing to ensure orderly and contiguous development consistent with population projections of the General Plan, and Policy 1.A.4.

j. Provisions for minimizing conflicts between new development and agricultural uses.

Policy 1.C.5. The City shall require residential subdivisions to provide well-connected internal and external street, bicycle, and pedestrian systems.

Policy 1.C.6. The City shall encourage installation of current and emerging technological infrastructure in new and existing development for home telecommuting and electric vehicles charging.

Goal 1.D To conserve and enhance the best qualities of existing residential neighborhoods as the City grows.

Policy 1.D.1. The City shall ensure that decisions concerning land use and development are not detrimental to the positive character and identity of Wheatland's existing residential neighborhoods.

Policy 1.D.2. The City shall sponsor community volunteer clean-up campaigns.

Policy 1.D.3. The City shall encourage infill and reuse in existing neighborhoods that maintain the character and quality of the surrounding neighborhood and does not negatively affect surrounding land uses.

Policy 1.D.4. The City shall promote street tree planting and maintenance and seek ways to establish ongoing funding for street tree maintenance.

Policy 1.D.5. The City shall provide for infrastructure improvements in older neighborhoods through redevelopment funding.

Policy 1.D.6. The City shall enforce City nuisance and fire safety ordinances for property and buildings that become eyesores and present health and safety problems.

Goal 1.F To develop and maintain an economically, socially, and physically attractive Downtown.

Policy 1.F.1. The City shall work with downtown property and business owners to revitalize and extend the downtown east to the proposed civic center.

Policy 1.F.2. The City shall form a Redevelopment Agency to initiate Downtown revitalization programs.

Policy 1.F.3. The City shall work with Downtown property and business owners to form a Downtown Improvement Association.

Policy 1.F.4. The City shall work jointly with Downtown property and business owners to create and support programs that improve the appearance of Downtown. These can include clean-ups, active Building Code and other City Code enforcement, and beautification programs.

Policy 1.F.5. The City shall promote the overall safety in Downtown through greater police visibility, increased lighting, and protection for pedestrians.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.9-2 Development associated with the General Plan Update would substantially alter the character of Wheatland.

Implementation of the General Plan Update would substantially change the existing character of Wheatland. At buildout of the General Plan Update, the population of the City of Wheatland would be 30,100, which is an anticipated increase of nearly 27,000 people. Additionally, the General Plan Update contains employment generating land uses that would produce an approximate total of 11,080 jobs within the City of Wheatland. This growth would increase the jobs to housing ration in Wheatland to 0.9, and would help establish Wheatland as an employment center in the region. Establishing Wheatland as an employment center would increase the amount of people in the region who commute into Wheatland, and would substantially help in decreasing the number of Wheatland residents who commute to jobs outside the City.

Currently, the majority of development within the City of Wheatland is single-family residential, particularly at lower densities. The General Plan Update continues the pattern of low-density residential development, but also increases the amount of medium and high-density residential development. Additionally, Wheatland currently has a limited employment sector. The General Plan Update designates a large amount of employment generating land uses, centered around the proposed SR 65 Bypass, to encourage economic development and employment opportunities for Wheatland residents. The General Plan Update includes more, and larger areas of employment generating land uses, including office parks, research and development, warehouses and light manufacturing related to research and development, general commercial uses that cater to industrial uses in this designation, professional offices, public and quasi-public uses, and similar and compatible uses. These land use changes, and increases in land use density, and intensity would substantially alter the character of the City, and create a more urbanized, job intensive environment.

The General Plan Update includes the following goals and policies regarding land use issues:

Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.1. The City shall strive to preserve Wheatland's traditional small-town qualities and historic heritage, while expanding its residential and employment base.

Policy 1.A.3. The City shall designate land for development consistent with the needs of the community and consistent with its efforts to maintain a positive fiscal balance for the City.

Policy 1.A.11. The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-housing balance to ensure an adequate mix of economic and residential opportunities.

Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality.

Policy 1.G.1. The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses.

Policy 1.G.2. The City shall only approve new employment development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from

residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials.

Policy 1.G.3. The City shall promote the development of new high technology uses in the employment locations near the SR 65 bypass.

Policy 1.G.4. The City shall promote the development of business park and research and development uses in Wheatland.

Policy 1.G.5. The City shall require new developments projects to pay their fair share of infrastructure construction costs as pursuant to the City's Fee Study.

Policy 1.G.6. The City shall require that proposed commercial, employment and residential development is phased in order to insure the continuation of an adequate tax base to fund necessary infrastructure and City services.

Policy 1.G.7. The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use.

Implementation of the goals and policies above would reduce the impact; however, the above impact would remain ***significant***.

Mitigation Measure(s)
Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level; therefore, the impact would remain *significant and unavoidable*.

4.9-3 The General Plan Update may result in conflict with existing plans or regulations.

Updating the existing General Plan involves revisions and/or additions to existing policies and land use designations; therefore, the updated plan is often inconsistent with exiting regulations. For example, changes in land use patterns resulting from approval of this General Plan Update may be in conflict with the existing Wheatland Zoning Code. Existing zoning districts may not accommodate proposed land uses or intensities; therefore, revisions to the Zoning Code would be necessary.

The General Plan Update includes the following goals and policies applicable to Land Use issues:

Goals 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.6. The City shall work with the Sacramento Area Council of Governments (SACOG) and Yuba County to coordinate the City's General Plan with regional planning efforts.

Policy 1.A.8. The City shall establish a Memorandum of Understanding with Yuba County in order to maintain agricultural preservation zoning on farmland surrounding the City.

Policy 1.A.10. The City shall assure that the Zoning Ordinance and Zoning Map are consistent with the General Plan.

Goal 1.H To maintain land as Urban Reserve for consideration for future development.

Policy 1.H.1. No urban development of Urban Reserve areas will be permitted without a General Plan amendment. No General Plan amendment will be considered without an analysis that includes the factors listed in Policy 1.H.2.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.9-4 The General Plan Update may result in land use conflicts, and incompatibility between existing, and proposed land uses.

The General Plan Update proposes new land uses that may cause conflicts between existing and proposed land uses. The General Plan Update Land Use Diagram proposes residential development at urbanized densities close to productive agricultural land. Productive agricultural uses may have adverse impacts on residential development, including noise, and odor impacts. Additionally, the General Plan Update proposes residential land uses near industrial uses. The industrial uses may cause adverse impacts to the residential land uses, in the form of noise, odor, and truck traffic.

The majority of the study area is designated for urban use, which would not be developed all at once. Development of the study area would proceed in a "phased" manor thereby making incompatibilities of agricultural and residential uses a temporary issue. As development spreads, consistent with the General Plan, the outermost communities would bear the impacts of adjacency to agricultural land uses. The final "edge" properties, those located along the western portion of the sphere of influence boundary bounded to the east by Jasper Lane, at General Plan Update buildout would be required to implement

agricultural buffers to mitigate for potential impacts. Therefore, impacts by surrounding agricultural land uses on early residential developments would occur until the construction of surrounding planned urban development. The impacts from adjacent agricultural and residential land uses would continue to migrate from development to development until implementation of buffers along the "edge" properties.

The General Plan Update includes the following goals and policies applicable to Land Use issues:

Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality.

Policy 1.G.1. The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses.

Policy 1.G.2. The City shall only approve new employment development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials.

Policy 1.G.3. The City shall promote the development of new high technology uses in the employment locations near the SR 65 bypass.

Policy 1.G.4. The City shall promote the development of business park and research and development uses in Wheatland.

Policy 1.G.5. The City shall require new developments projects to pay their fair share of infrastructure construction costs as pursuant to the City's Fee Study.

Policy 1.G.6. The City shall require that proposed commercial, employment and residential development is phased in order to insure the continuation of an adequate tax base to fund necessary infrastructure and City services.

Policy 1.G.7. The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use.

Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland.

Policy 1.I.1. The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.

Policy 1.I.2. The City shall support the local agricultural economy by encouraging the location of agricultural support industries in the city, establishing and promoting marketing of local farm products, exploring economic incentives, and support for continuing agricultural uses adjacent to the city, and providing its fair share of adequate housing to meet the needs of agricultural labor.

Policy 1.I.3. The City shall promote good neighbor policy between residential property owners and adjacent farming operations by supporting the right of the farmers and ranchers to conduct agricultural operations in compliance with state laws.

Policy 1.I.4. The City shall work with agribusiness to reduce vandalism, trespassing, roadway hazards, and other public safety issues.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

Endnotes
[1] City of Wheatland, General Plan Update Background Report, July 2004.

4.9 LAND USE AND PLANNING

Introduction

This chapter describes the existing land use setting of the Wheatland General Plan Update study area. The chapter discusses the current land uses within and around the City, as well as looking at projected and planned growth within the City's Sphere of Influence. The proposed General Plan Update Land Use Map was analyzed for compatibility with surrounding land uses. Information in this chapter is primarily based upon the *Wheatland General Plan Update Background Report.*[1]

Environmental Setting

This section presents regional setting, background information, boundaries, and existing land use conditions in the Wheatland General Plan study area.

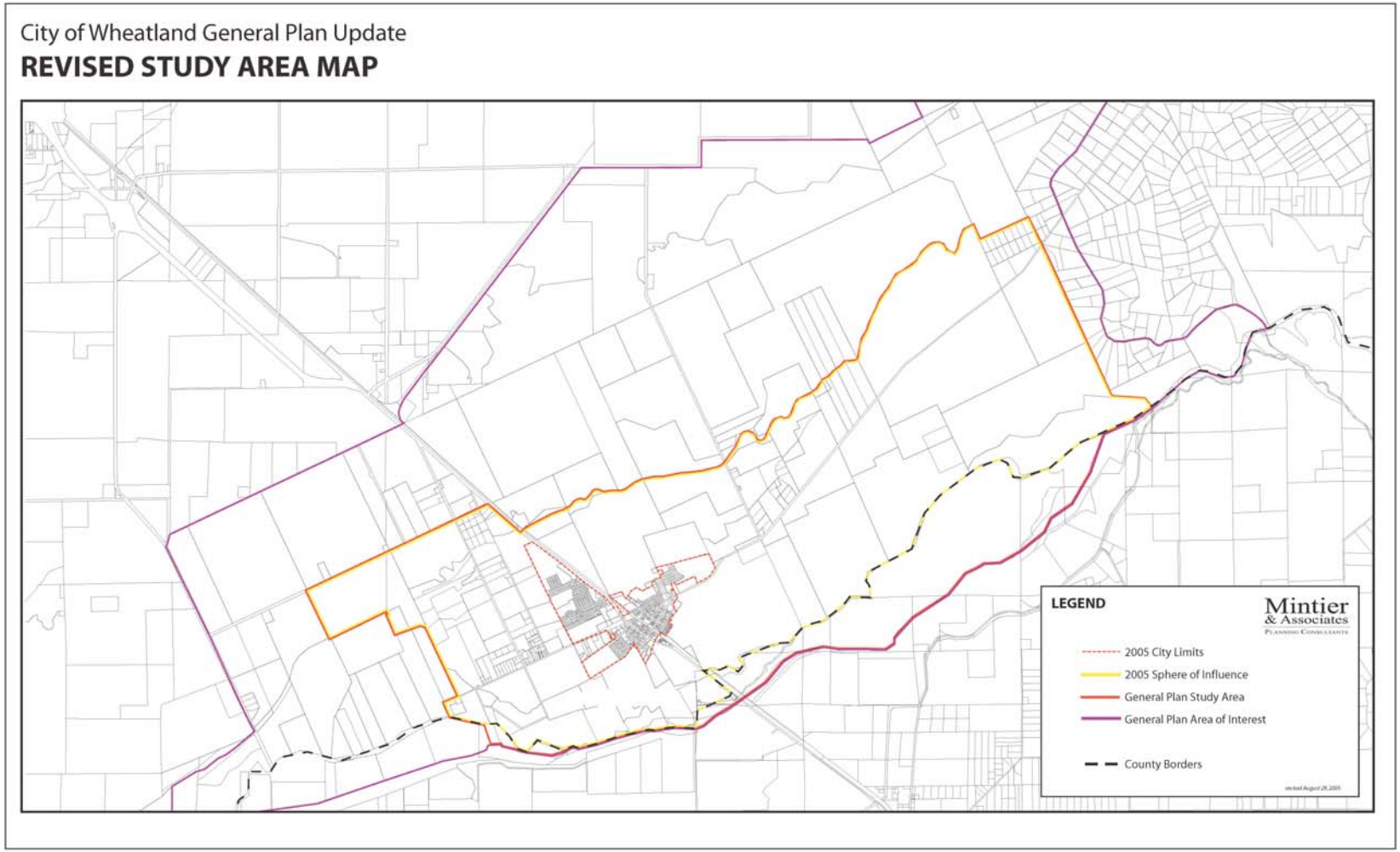
Regional Setting

Wheatland is located in Northern California's Central Valley along State Route 65 in Yuba County. The City is located approximately one mile north of the Bear River and the tri-county boundary of Sutter, Placer and Yuba Counties. Marysville (the county seat) and Yuba City, which are both about twelve miles to the north of Wheatland, are the closest cities of significant size. Sacramento is approximately forty miles to the south and Beale Air Force Base is located eight miles to the northeast. Wheatland is also the gateway city to Camp Far West, a recreation area of regional significance.

Boundaries

The City of Wheatland has two municipal boundaries - the first is the more familiar city limits, and the second is the City's Sphere of Influence. Two other boundaries have been created for the purposes of this General Plan Update (GPU). The first is a study area boundary that represents all land to be analyzed in the GPU process. The second is an Area of Interest boundary that includes all of the land within the Sphere of Influence, as well as lands that are being considered for State Route 65 Bypass Alternatives. All of the boundaries are shown on 4.9-1.

Figure 4.9-1


City of Wheatland General Plan Update
REVISED STUDY AREA MAP
LEGEND
Mintier & Associates
Planning Consultants
2005 City Limits
2005 Sphere of Influence
General Plan Study Area
General Plan Area of Interest
County Borders

City limits

The existing city limits represent all incorporated lands that are governed by the City of Wheatland. The city limits run roughly from Grass Hopper Slough in the north to Sixth Street in the south and from Wheatland Cemetery in the west to the Wheatland Park subdivision in the east. As of June 2004, the total land area within the city limits was 504 acres, or 0.8 square miles.

Wheatland Sphere of Influence

A Sphere of Influence (SOI) is an area designated as the physical boundaries and service area of a local governmental agency, as determined by the applicable Local Agency Formation Commission (LAFCO), and is periodically reviewed and updated. Wheatland's SOI was adopted by the Yuba County LAFCO on June 7, 1995. The boundary borders Dry Creek to the north, the County Line to the south, Ace Hardware to the west, and almost reaches Camp Far West Road to the east. As of 2004, the Sphere of Influence encompassed 8,636 acres.

General Plan Update Study Area

The General Plan Update study area is contiguous with the Sphere of Influence boundary. However, the portion of the study area analyzed for urban development is the portion of the SOI west of Jasper Lane. The study area includes the area for which the City has interest regarding future developments and their associated impacts on Wheatland. The study area runs parallel to the Sphere of Influence along the northern and eastern borders, and extends beyond to the Bear River in the south, and continues from ACE Hardware in the west. The study area encompasses approximately 10,420 acres.

Area of Interest

The Area of Interest boundary was established to include all of the land within the Sphere of Influence as well as land that could possibly be included in one of the State Route 65 Bypass alternatives. This boundary runs roughly from Best Slough in the north to the county line in the south, and from Camp Far West Road in the east to Forty Mile Road in the west.

Existing Land Uses Within the City

Table 4.9-1 shows land uses within the City by acreage and percentage, and Figure 4.9-2 illustrates the land uses. Land uses are identified as single family residential, multi-family residential, commercial, industrial, public, parks, roads and infrastructure, and vacant.

Figure 4.9-2
City of Wheatland Land Uses

Single Family Residential

Single-family residential land is defined as one detached house on a single parcel of land. Approximately 207.5 acres of land within the city limits are developed as single family residential. This accounts for approximately 41 percent of developed citywide land. An additional 72.81 acres (15 percent) of land exists that is zoned for single family residential but not yet developed.

Multi-Family Residential

Multi-family residential land is defined as a duplex or larger multi-unit structure on a single parcel of land. Approximately 22.6 acres of land within the city limits are developed as multi-family residential. This accounts for approximately 4 percent of developed citywide land. An additional 3.9 acres (1 percent) of land exists that is zoned for multi-family residential but not yet developed.

Table 4.9-1
Acreages of Existing Land Uses

Land Use Designation	Acres	Percent Total
Single Family Residential	201.92	40%
Multi-Family Residential	22.54	4%
Commercial	16.94	3%
Industrial	0.79	1%
Public	87.71	17%
Parks	9.45	2%
Roads and Infrastructure	81.63	16%
Vacant	83.04	17%
Total	***504.02****	***100%***

* Based on GIS database information, 2004.
Sources: Terrance E. Lowell and Associates; and J. Laurence Mintier & Associates, 2004

Commercial

Developed commercial land uses account for 16.9 acres (3 percent) of the City. An additional 6.33 acres (1 percent) of land zoned for commercial uses exists that are not yet developed.

Industrial

One industrial facility is located in the center of Wheatland between Second Street and Third Street, adjacent to the Union Pacific railroad tracks. This facility is approximately 0.8 acres and accounts for 1 percent of the City. Currently undeveloped parcels do not exist that are zoned for industry.

Public

Public lands include developments such as the Waste Water Treatment Plant, community centers, and institutional facilities such as schools, police and fire stations, and City Hall. Developed public/quasi-public lands make up 87.7 acres (17 percent) of the total land in Wheatland. Currently undeveloped parcels do not exist that are zoned public.

Parks

Currently four public parks in Wheatland (see Section 4.14 for more information), which make up a total of 3.9 acres, or one (1) percent of the City.

Roads and Infrastructure

Roads and infrastructure make up a significant portion of Wheatland's total land. Currently 81.6 acres (16 percent) of land is developed as roads or infrastructure within the City.

Vacant

Vacant land within the city limits is important when considering development in Wheatland. In 2004, approximately 83.0 acres of vacant land was located within the City (17 percent). Of this, 72.81 acres are zoned single family, 3.9 acres multi-family, and 6.33 acres commercial. Assuming that changes to the existing zoning are not made, the City has a potential holding capacity for 517 additional housing units (448 single and 69 multi-family).

Development Activity

Figure 4.9-3 shows the current and potential development activity for Wheatland. Each project is identified on the map by a number. Table 4.9-2 provides a description of each parcels size, their zoned use, and their associated number.

Figure 4.9-3
Current/Potential Developments

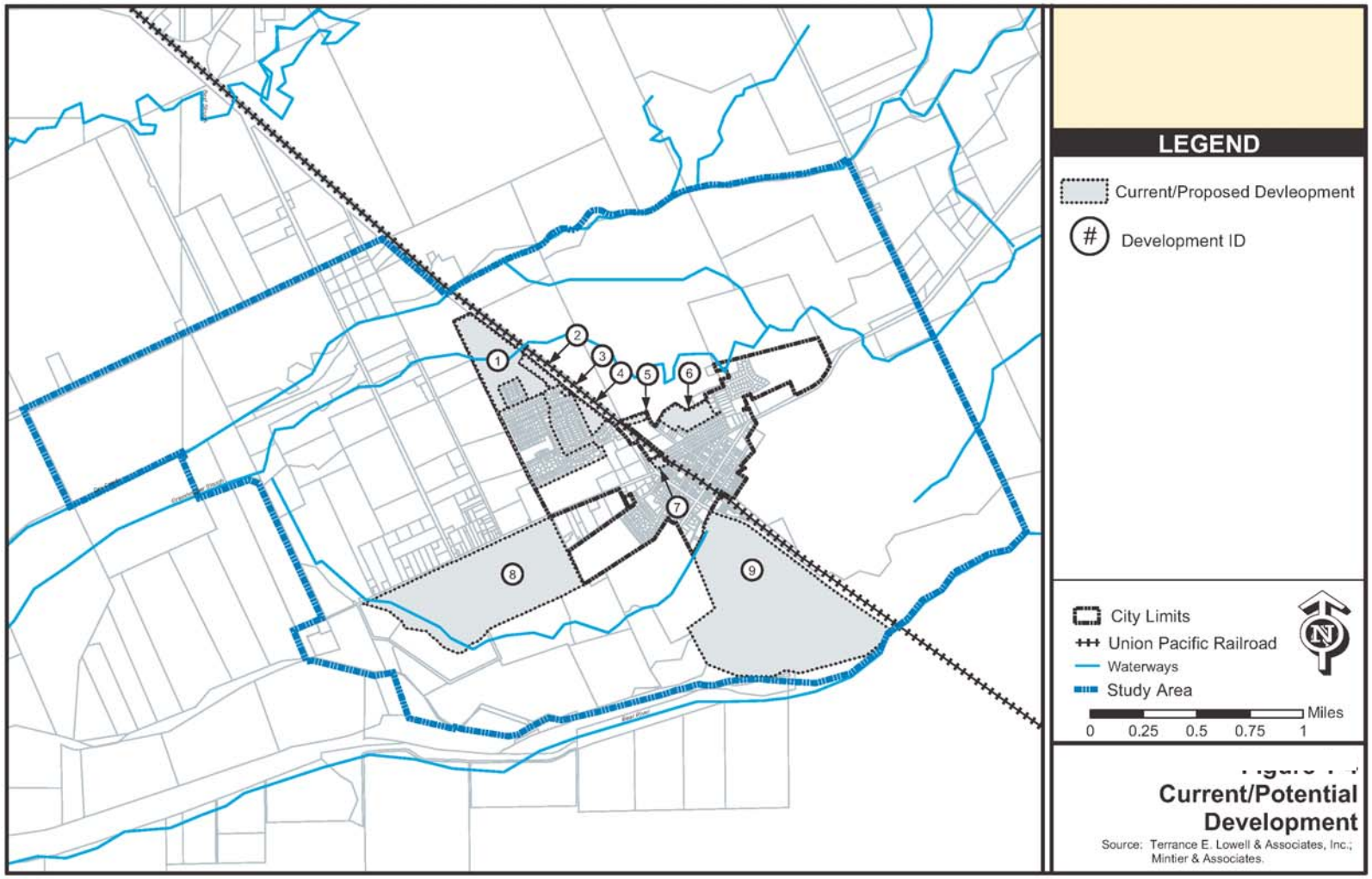


Table 4.9-2
Development Activity

Map #	Parcel / Project Description
1.	47.5 acre lot, zoned R-1, with 210 projected single-family dwelling units
2.	7.6 acre commercial lot
3.	0.3 acre commercial lot
4.	6.6 acre commercial lot, with a pending application for grocery, retail and fast food
5.	2.24 acre lot, zoned R-4, with a potential for 40 attached dwelling units
6.	12 acre lot, zoned R-1, with a potential for 54 dwelling units
7.	2.2 acre commercial lot
8.	The Jones Ranch project has been approved by the City, and is pending annexation. 140+/- acres zoned R-1, 442 single-family lots 9 +/- acres zoned R-2, 56 two-family dwelling units 5 +/- acres zoned R-3, 55 multi-family dwelling units 2 +/- acres zoned C-1
9.	The Heritage Oaks Estate project has been approved by the City, and is pending annexation. The project contains 5 lots: 181+/- acres zoned R-1, 590 single-family dwelling units 7 +/- acres zoned R-2, 80 two-family dwelling units 6 +/- acres zoned R-3, 108 multi-family dwelling units 6.5 +/- acres zoned C-3 for self storage 14 +/- acres zoned C-3, 120,000 square feet of commercial and an 80-room hotel

Sources: Terrance E. Lowell and Associates, 2004; Carstens Consulting, 2004; and J. Laurence Mintier & Associates, 2004.

Heritage Oaks Estates

The Heritage Oaks Estates property is located directly south of the City on the west side of State Route 65 and was approved by the City Council in November 2003 for annexation, General Plan land use designations, and prezoning. Annexation of the properties is currently pending with the Yuba County Local Agency Formation Commission (LAFCO).

The project consists of 234 acres, with approval of 590 single-family lots, 80 two-family units (40 structures), 108 multi-family units, a 120,000 square foot commercial center, an 80-room hotel, and a self-storage facility on 6.5 acres. Construction may begin in 2006 on the single-family homes, with anticipated completion of all phases in 14 years.

Jones Ranch

Jones Ranch is located just west of the City and Wheatland Union High School on the south side of Wheatland Road. The project was approved by City Council in December 2003 for annexation, General Plan land use designation, and pre-zoning. Jones Ranch was approved for 442 single-family lots, 56 two-family units (28 structures), 55 multi-

family units, and 2 acres of neighborhood commercial. Construction may start in 2006 with an anticipated completion within 10 years.

Unincorporated Island

The unincorporated island is located between the new Junior High School and Wheatland High School in the western part of the City. The site contains 8 developed single family residences. The land is projected to hold an additional 50 single family units within the next 10 years. The island is included in the Jones Ranch annexation.

Almond Estates

Almond Estates is a 47.5 acre parcel located in the north part of Wheatland along State Route 65. The site is zoned R-1 with a development potential for 205 single-family lots. The site has existing constraints regarding drainage and access to State Route 65. A Tentative Map is currently being processed by the City. The Tentative Map includes 169 residential lots (60' x 100' min), two drainage corridor lots, one sewer lift station lot, eight landscape corridors, and one emergency access lot.

Wilson's Settlers Village

Wilson's Settlers Village is a proposed shopping center located at the northwest corner of State Route 65 and McDevitt Drive. The site is 6.6 acres and zoned C-3 Commercial/ Planned Development Combining District. The City recently approved a 24,000 square foot retail building, 18,000 square foot retail building, 2,800 square foot fast food restaurant with a drive-up window, and a coffee hut.

Existing Land Use Designations

1986 Land Use Element Land Use Map and Land Use Categories

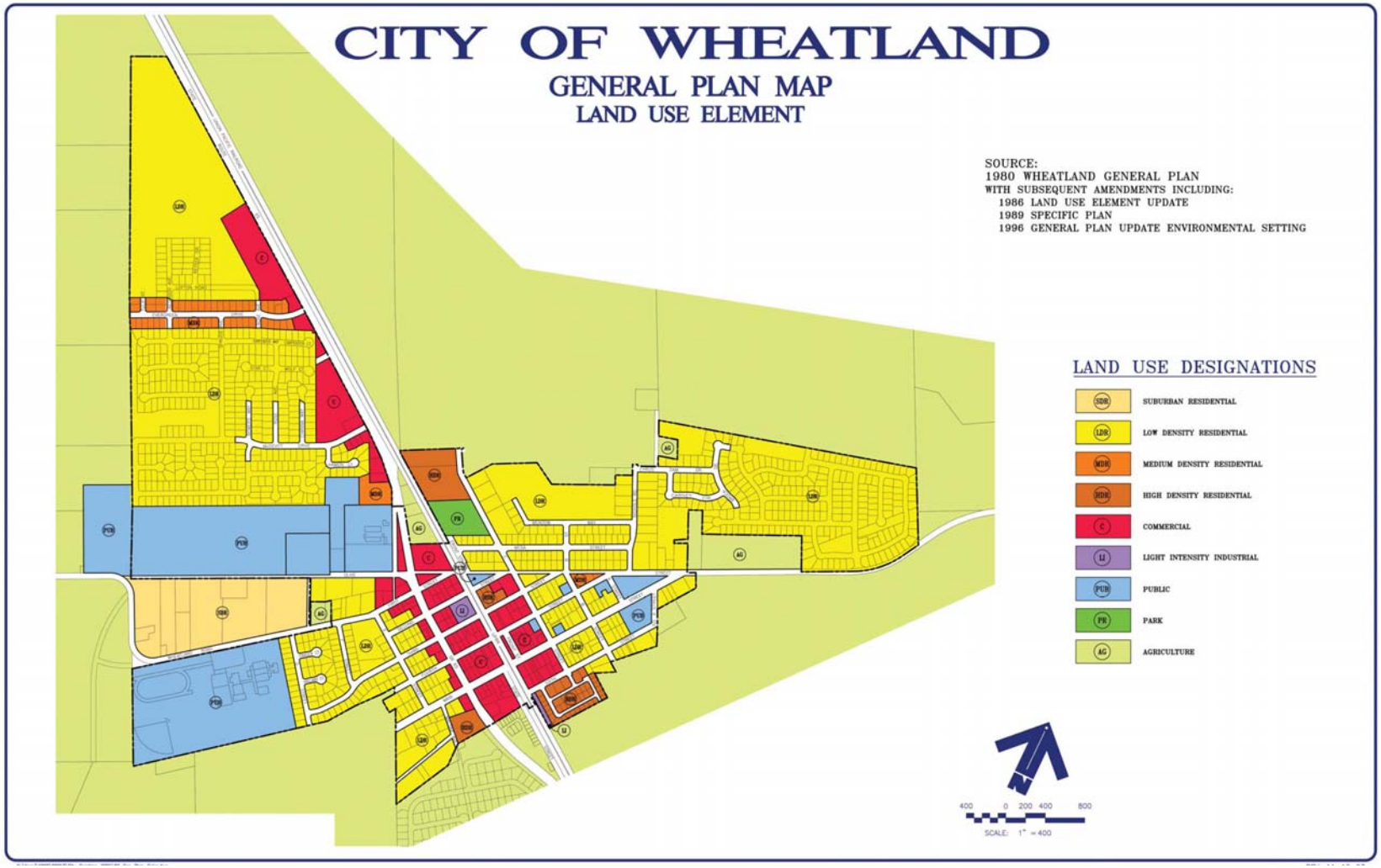
The patterns of future development in Wheatland are governed by the distribution of allowable land uses and densities as shown on the General Plan Land Use Element Map (see Figure 4.9-4), adopted as part of the *1986 Land Use Element*. The Land Use Map, which was last revised in September 1990, shows ten land use designations. Table 4.9-3 summarizes the basic standard for each of these designations.

Table 4.9-3
1986 Land Use Element Land Use Designations

Category	Designation	Residential Densities*	Examples of Appropriate Activities
Residential	Suburban	0.5 to 3.0 du/ac	Residential; single family detached homes, without buildings. Large gardens. Small-scale livestock such as chickens, a horse, or a few goats. Semi-improved lots.
	Low Density	2.0 to 5.0 du/ac	Residential; single family detached homes. Townhouses with open space, mobilehome parks. No animals except pets on parcels less than one acre. No non-residential uses except churches, schools, and necessary utilities.
	Medium Density	5.0 to 10.0 du/ac	Residential; duplex, townhouses, mobilehome parks. Small pets only. No non-residential uses except churches, schools, and necessary utilities.
	High Density	9.0 to 18.0 du/ac	Multi-family residential; apartments with more than 3 families per structure. Small pets only. Some non-residential uses, if compatible (such as professional offices).
Commercial	Commercial	Not/ applicable	Retail sales, restaurants, banks, real estate, professional offices, entertainment facilities, auto sales and service, motels, personal services, convenience shopping, some outdoor sales. Some high-intensity residential, where compatible (by use permit). Also service stations and similar uses.
Industrial	Light Intensity	Not/ applicable	Light manufacturing, small warehouses, welding and auto body shops, laboratories, wholesaling; municipal utilities, corporation yards, waste disposal areas; heavy machinery sales and service. No residential uses.
	Heavy Intensity	Not/ applicable	Large agricultural products processing plants, warehouses, transportation (rail) depots/loading facilities, heavy manufacturing, mineral extraction, chemical or paint processing, and similar uses. No residential uses.
Public	Public	Not/ applicable	Schools, hospitals, municipal buildings, libraries, transportation facilities, auditoriums or cultural centers, post offices.
Parks	Parks	Not/ applicable	Small neighborhood playlots, City parks with and without improvements. No other uses.
Agricultural	Agricultural	Parcels 5 acres and over	Orchards, row crops, pasture, livestock, dairies, poultry, produce stands. No agricultural chemical, machinery repair or manufacture unless small-scale, and by use permit only. No residential use besides one dwelling unit on parcel; no industrial or commercial use except as directly related to farm operation.

* Allowable dwelling units/acre densities can be converted to population densities by using a multiplier of 2.7 persons per dwelling unit. The element has no provisions for floor area ratios for commercial or industrial land uses.
Source: City of Wheatland Land Use Element and Environmental Impact Report (October 1986).

Figure 4.9-4
General Plan Land Use Element



In areas with existing development, the designations shown on the Land Use Element Map are largely reflective of existing use patterns, while designations for vacant land were influenced by their proximity to the existing and future circulation network. Commercial designations are shown for the downtown area and along State Route 65. In addition to existing industrial uses, future industrial uses are planned for the west side of State Route 65 at the north end of town. The Map designates Suburban Residential uses in the area just outside of the city limits west of town on the north side of Wheatland Road. Low Density Residential uses are designated in the peripheral parts of the town on all sides. Other designations (Medium and High Density Residential, Public, and Parks) are scattered throughout the city, while Agricultural designations surround the town on all sides.

Table 4.9-4 shows how the respective acreage within each designation shown on the Land Use Map as well as the percentage of the existing city area covered by each as of January 1996. As the table indicates, approximately two-thirds of the land within the city limits is designated for residential development, almost all of which is set-aside for low-density uses.

Table 4.9-4
Acres By Land Use Designation
1986 Land Use Element

Category	Designation	Acres	Percent of Total
Residential	Low Density	270.7	61.8%
	Medium Density	8.4	1.9%
	High Density	20.5	4.7%
Commercial	Commercial	47.9	10.9%
Industrial	Light Intensity	1.5	0.3%
	Heavy Intensity	0.0	0.0%
Public	Public	85.2	19.4%
Parks	Parks	3.9	0.9%
Agricultural	Agricultural	0.0	0.0%
Total		**438.1***	**100.0%**

* The 2004 city acreage is greater (504 acres) because of annexations made since 1996. This number includes infrastructure.
Sources: City of Wheatland Land Use Element and Environmental Impact Report (October 1986); Crawford Multari & Starr, January 1996.

1995 Specific Plan

In the early 1990's, increasing development pressure in and around Wheatland prompted to the City to consider several limitations to the growth anticipated in the City's General Plan, including the following:

- The City's sewage treatment plant was near capacity;

- Drainage issues needed to be addressed in the northern half of the city if development were to proceed in an orderly fashion;
- Issues of funding ongoing services to newly developed areas had to be reviewed; and
- Adequate water supply and traffic circulation measures had to be implemented if Wheatland was to responsibly handle substantial additional growth within its existing city limits.

In order to address these issues, the City determined that the most cost effective and expeditious approach would be to prepare a specific plan. The *1990 Specific Plan* covers most of the large vacant developable properties within roughly the northern half of the City, but does not take into consideration development of unincorporated land that might be appropriate for future annexation and development. The decision to focus on the city limits was made in part because of the availability within city limits of a substantial amount of developable land. The City was also concerned that any major expansions of the City's boundaries would require a new wastewater treatment plant and major new arterial roads. The *Specific Plan* was adopted in September 10, 1990, and called for development of an additional 850 housing units, the vast majority of which were single-family units.

Existing Zoning

Under state law, cities and counties have broad latitude in establishing zoning standards and procedures. Outside of a general requirement for open space zoning and several special requirements governing residential zoning, State law establishes only broadly the scope of zoning regulation and sets minimum standards for its adoption and administration. One key requirement, however, is that zoning be consistent with the general plan.

Zoning Districts

Wheatland's *Zoning Ordinance*, which was adopted in April 1991, has 11 basic classifications and 3 combining districts that regulate building density, intensity, and type of use. Figure 4.9-4 shows the current 2004 zoning for the city and the following paragraphs describe the basic purposes of each zone, as well as property development standards for each. The *Zoning Ordinance* should be consulted for specific questions regarding permitted, accessory, and conditional uses.

A-E Agriculture-Exclusive

The A-E zone is a Yuba County zoning designation intended to be applied in fertile areas in which agriculture the predominant use and in which the protection of this use from encroachment of incompatible uses is essential. This zoning is designated to the land surrounding Wheatland. Land does not exist within the City which is classified A-E.

RE½ Residential Estates

The RE district provides for very low-density areas for single-family residences. In particular, it is intended to permit a reduction in streets, public utilities, and related public services, not possible in higher density residential areas. Land within the City is not classified RE½.

R-1 Single-Family Residential

The R-1 district provides areas for single-family dwellings. The district is intended to accommodate single-family homes together with the schools, parks, open space, and other public services required for a traditional neighborhood environment. The R-1 district covers over 60 percent of the land in the City.

R-2 Two-Family Residential

The R-2 family residential district designates land suitable for family and duplex dwellings. The R-2 district is consistent with the medium density residential designation of the Wheatland General Plan.

R-3 Multi-Family Residential Limited

The R-3 multi-family residential district is intended to accommodate a limited number of multi-family residences and departments that are designed to maintain, preserve, and protect the character of development in surrounding areas. The district is consistent with the high-density designation of the General Plan.

C-1 Neighborhood Commercial

The C-1 district provides locations for convenience shopping facilities serving the residential neighborhoods. The district is intended to support commercial uses that meet the daily needs of neighborhood residents.

C-2 Retail Commercial

The C-2 district is designed to stabilize, improve, and protect the commercial characteristics of Downtown Wheatland, which is the only part of the City designated C-2. The district is intended to provide a complete and intensive commercial center.

C-3 Heavy Commercial

The C-3 district provides for retail, wholesale, highway, and heavy commercial uses, along with amusement, lodging, warehousing and distribution, maintenance, repair and servicing activities. The minimum parcel size is two acres. The district is intended to be applied in the immediate vicinity of arterial streets, freeways, or the service/frontage drives.

M-1 Light Industrial District

The M-1 classification is applied to areas where light manufacturing, wholesaling, storage, and transfer functions can serve the community's need for industrial activities that are not offensive to nearby commercial and residential uses. The M-1 zone is consistent with the light intensity industrial land use designation of the General Plan.

M-2 Heavy Industrial

The purpose of the M-2 district is to provide appropriate sites for manufacturing and processing uses which, by their nature, require locations buffered from other uses so as not to create nuisances or have deleterious effects upon neighboring properties. Land is not located within the City that is classified M-2.

F-W Floodway

The floodway or F-W district is intended to be applied to lands, which lie within stream or river or drainage channels and to adjacent areas which are periodically inundated. The F-W provisions are intended to provide measures for the protection of life and property in the floodway areas. Land is not located within the City that is classified F-W.

F-P Floodplain Combining District

The floodplain or F-P combining district is intended to be combined with principal districts in areas other than floodway areas which have been inundated by overflow floodwaters in the past and which may reasonably be expected to be inundated by such floodwaters in the future. The floodplain zone is intended to limit the use of areas subject to such inundation and flooding to protect lives and property from loss, destruction, and damage due to floodwaters and to the transportation by water of wreckage and debris. Land is not located within the City that classified F-P.

PD Planned Development Combining District

The PD coming in district is intended to be applied to parcels of land which are suitable for, and of sufficient acreage to contain, planned development projects for which development plans have been submitted and approved. Application for establishment of a PD district include the following:

- A map or maps showing topography of the land; street system and lot design; areas proposed to be dedicated or reserved for parks, playgrounds, parkways, school sites, public or quasi-public buildings, and other such uses; areas proposed for commercial uses, off-street parking, multiple and single family dwellings, and all other uses proposed to be established within the district; and proposed locations of buildings on the land.

- General elevations or perspective drawings of all proposed buildings and structures other than single family residences

- Other data and information which may be deemed necessary by the planning commission for proper consideration of the application

A Agriculture Combining

The agricultural combining district can be applied to any zoning district and allows for agricultural uses, so long as the requirements of the original zoning district are met. Land is not located within the City that is classified A.

IND-PK Industrial Park Combining

The purpose of the IND-PK combining district is to provide a location for the development of administrative, research, warehousing, and manufacturing establishments of a non-nuisance type, which require an environment of a higher quality than that normally associated with an industrial district. The IND-PK combining zone is intended to be combined with the C-3 Heavy Commercial, M-1 Light Industrial, and M-2 Heavy Industrial principal zones. Land is not located within the City that is classified IND-PK.

Zoning by Acreage

Table 4.9-5 shows a breakdown of acreages by zone. Currently, approximately 78 percent (391.3 acres) of the City is zoned for residential uses, 6 percent (31.4 acres) is zoned for commercial uses, and 0.2 percent (1.0 acre) is zoned for industrial uses.

Table 4.9-5
2004 Zoning by Acreage

Zone	Acres	% Total
A-E	0.00	0%
RE 1/2	0.00	0%
R-1	366.04	72.6%
R-2	8.94	1.7%
R-3	16.32	3.2%
C-1	1.24	0.2%
C-2	7.80	1.6%
C-3	22.34	4.4%
M-1	1.02	0.2%
M-2	0.00	0%
FW	0.00	0%
F-P	0.00	0%
PD	0.00	0%
A	0.00	0%
IND-PK	0.00	0%
Total	***422.68****	***100%***

* This total does not include roads, railroads, or infrastructure
Sources: City of Wheatland Zoning Ordinance, 2003; and J. Laurence Mintier & Associates, 2004.

Proposed Land Use Designations for Wheatland General Plan Update Land Use Map

The General Plan Area includes all land designated for or to be considered for future development as part of Wheatland. This boundary is the same as the City's Sphere of Influence, and includes areas designated for urban reserve

The *Land Use Diagram* shows ten land use designations (See Figure 4.9-5). These are defined in the following subsection. State law mandates that general plans include standards of population density and building intensity for all of the territory covered by the plan. To satisfy this requirement, the General Plan includes such standards for each of the land use designations appearing on the *Land Use Diagram*. These standards are stated differently for residential and non-residential development. Following are explanations of how these standards operate.

Residential Uses

Standards of population density for residential uses can be derived by multiplying the maximum allowable number of dwelling units per gross acre by the average number of persons per dwelling unit assumed for the applicable residential designation. Typically, household sizes are larger in single-family homes than in multiple-family units, therefore

assumed household sizes vary according to the type and density of housing allowed in each residential designation. Standards of building intensity for residential uses are stated as the allowable range of dwelling units per gross acre.

The assumed average number of persons per dwelling unit for each residential designation has been extrapolated from population and housing unit estimates prepared by the Sacramento Area Council of Governments (SACOG) and the State of California Department of Finance. These are summarized in Table 4.9-6 following the descriptions of the land use designations. It is important to note that the average person per dwelling unit figures cited under each residential designation do not represent City policy; they simply provide the basis for correlating the permitted number of dwelling units per acre with the potential residents of those units.

Non-Residential Uses

Standards of building intensity for non-residential uses in the *General Plan* are stated as maximum *floor-area ratios* (FARs). A floor-area ratio is the ratio of the gross building square footage on a lot to the net square footage of the lot.

For example, on a lot with 10,000 net square feet of land area, a FAR of 1.00 will allow 10,000 square feet of gross building floor area to be built, regardless of the number of stories in the building (e.g., 5,000 square feet per floor on two floors or 10,000 square feet on one floor

Standards of population density for non-residential uses can be derived by multiplying one acre (43,560 square feet) by the applicable FAR and then dividing by the assumed average square footage of building area per employee. The assumed average square footage of nonresidential building floor area per employee is based on historic averages and market studies.

The General Plan includes ten residential, commercial, employment, and other land use designations to depict the types of land uses that will be allowed in the General Plan Area.

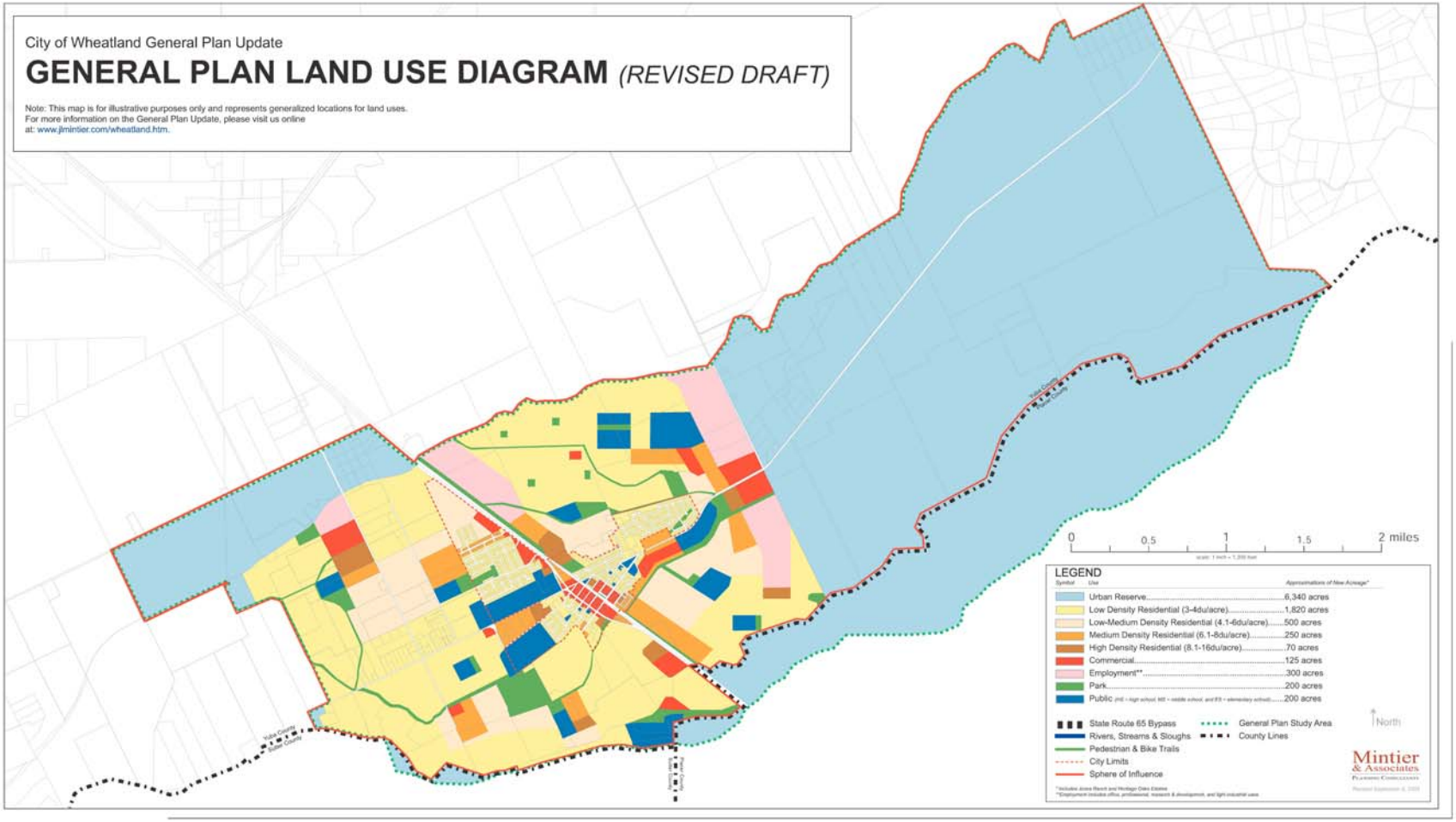
Each land use designation is defined in terms of the allowable uses and density and intensity standards. Land use designations also allow for similar and compatible uses, which may be implemented through the Planned Development (PD) overlay zone.

Table 4.9-6
City of Wheatland General Plan
Summary of Land Use Designations and Standards

Land Use Designation		Residential Density Range (DUs per gross acre)	Assumed Average Population per Household	Non-Residential Building Intensities (Max FAR)[b]	Assumed Average Employee Density (sq. ft. per employee)
Residential					
LDR	Low Density Residential	3.0 to 4.0	2.4	0.30	-
LMDR	Low-Medium Density Residential	4.0 to 6.0	2.4	0.40	-
MDR	Medium Density Residential	6.0 to 8.0	2.4	0.50	-
HDR	High Density Residential	8.0 to 16.0	2.4	0.50	-
Commercial					
COM	Commercial	-	-	0.50	400
MU	Mixed-Use	8.0 to 16.0	2.4	0.50	400
Employment					
EMP	Employment	-	-	0.50	350
Public, Park, and Open Space					
PUBLIC	Public	-	-	0.50	-
PARK	Park and Open Space	-	-	0.10	-
Urban Reserve					
UR	Urban Reserve	Not applicable			

[a] Assumed average household size for the purposes of estimating population holding capacity
[b] FARs apply to nonresidential uses only; FARs in residential designations apply to the limited permitted nonresidential uses in residential designations.
DUs - Dwelling Units
FAR - Floor Area Ratio

Figure 4.9-5


City of Wheatland General Plan Update
GENERAL PLAN LAND USE DIAGRAM (REVISED DRAFT)
Note: This map is for illustrative purposes only and represents generalized locations for land uses.
For more information on the General Plan Update, please visit us online
at: www.jimintier.com/wheatland.htm.
0
0.5
1
1.5
2 miles
LEGEND
Urban Reserve....6,340 acres
Low Density Residential (3-4du/acre)....1,820 acres
Low-Medium Density Residential (4.1-6du/acre)....500 acres
Medium Density Residential (6.1-8du/acre)....250 acres
High Density Residential (8.1-16du/acre)....70 acres
Commercial....125 acres
Employment**....300 acres
Park....200 acres
Public....200 acres
State Route 65 Bypass
Rivers, Streams & Sloughs
Pedestrian & Bike Trails
City Limits
Sphere of Influence
General Plan Study Area
County Lines
North
Mintier & Associates

Low Density Residential (LDR)

This designation provides for single-family detached homes, secondary residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 3.0 to 4.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.30.

Low-Medium Density Residential (LMDR)

This designation provides for single-family detached homes, secondary residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 4.1 to 6.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.40.

Medium Density Residential (MDR)

This designation provides for single family detached and attached homes, secondary residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 6.1 to 8.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.50.

High Density Residential (HDR)

This designation provides for single-family detached and attached homes, secondary residential units, multi-family residential units, and similar and compatible uses. Residential densities shall be in the range of 8.1 to 16.0 units per gross acre. The FAR for nonresidential uses shall not exceed 0.50.

Commercial (COM)

This designation provides for neighborhood and locally-oriented retail and service uses, retail and service uses, restaurants, banks, entertainment uses, professional and administrative offices, public and quasi-public uses, and similar and compatible uses. The FAR shall not exceed 0.50.

Mixed-Use (MU)

This designation provides for retail and service uses, restaurants, banks, entertainment uses, professional and administrative offices, residential units above the ground floor, public and quasi-public uses, and similar and compatible uses.

The FAR for commercial uses shall not exceed 0.50. The FAR for non-residential uses shall not exceed 0.4. Residential densities shall be in the range of 8.0 to 16.0 units per gross acre. Residential uses shall be subject to discretionary review and approval.

Employment (EMP)

This designation provides for office parks, research and development, warehouses and light manufacturing related to research and development, general commercial uses that cater to industrial uses in this designation, professional offices, public and quasi-public uses, and similar and compatible uses. The FAR shall not exceed 0.50.

Public (PUBLIC)

This designation provides for public facilities such as schools, hospitals, sanitariums, penal institutions, libraries, museums, government offices and courts, churches, meeting halls, cemeteries and mausoleums, public facilities, and similar and compatible uses. The FAR shall not exceed 0.50.

Park and Open Space (PARK)

This designation provides for outdoor recreational uses, equestrian uses, habitat protection, irrigation canals, reservoirs, watershed management, public and quasi-public uses, and areas typically limited for human occupation due to public health and safety hazards such as floodways, unstable soils, or areas containing wildlife habitat and other environmentally-sensitive features. Such land areas are primarily publicly owned, but may include private property. The FAR for nonresidential uses shall not exceed 0.10.

Urban Reserve (UR)

This designation is applied to land that may be considered for development in the future with urban uses. Urban development may not occur on lands designated Urban Reserve before the General Plan is amended to specify a primary land use designation for the property. Allowable uses shall include wastewater treatment facilities and other uses specified under the Agriculture (A) and Open Space (OS) designations.

REGULATORY SETTING

Local Agency Formation Commission (LAFCO)

The Cortese-Knox Local Government Reorganization Act of 1985 created local agency formation commissions (LAFCOs) in each county in California to regulate the organization and extension of services provided by cities and special districts. The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (*Government Code §56000 et seq.*) revised the existing Act with updated city and special district organization and annexations. The 2000 revisions to the Act declared "among the purposes of the commission are the discouragement of urban sprawl and encouragement of the orderly formation and development of local agencies based upon local conditions and circumstances. In meeting these responsibilities, each LAFCO is required "to review and approve or disapprove, with or without amendment, wholly, partially, or

conditionally, proposals for changes of organization or reorganization" (*Government Code §56375 [a]*). Annexations to cities are also regulated by the Cortese-Knox-Hertzberg Act. As such, the Yuba Commission LAFCO reviews and approves annexations to the City of Wheatland. Generally, any land that is contiguous to a city and within its sphere of influence may be annexed to the city. Proponents of an annexation must obtain the approval of LAFCO.

LAFCO regulates, through approval or denial, the boundary changes proposed by other public agencies or individuals. LAFCO does not have the power to initiate boundary changes on their own, except for proposals involving the dissolution or consolidation of special districts and the merging of subsidiary districts. Typical applicants include developers seeking annexation to cities in order to obtain more favorable development and urban services extended to the new housing, and cities wishing to annex pockets or "islands" of unincorporated land located within their borders in order to avoid duplication of services with the county. LAFCO also mediates between city and county services with regard to spheres of influence.

Wheatland General Plan Update

The project involves establishment of goals and policies aimed at guiding community design within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Zoning Ordinance

The Zoning ordinance applies more specific zoning regulations to support the land use designations in the City of Wheatland General Plan Update. The City will update the Zoning Ordinance to ensure that it is consistent with the land use designations found in the General Plan Update.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

The land use impact analysis considers the proposed project's consistency with several standards, including the existing land uses, and the zoning ordinance. A land use impact may also be considered significant if any of the following conditions, or potential thereof, would result if the proposed project's implementation would:

- disrupt or divide the physical arrangement of an established community;
- result in a significant change in the character of Wheatland;
- conflict with any applicable land use plan, policy, regulation of an agency with jurisdiction over the project (including, but not limited to, the specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

- result in an increased potential for conflict as a result of incompatible land uses.

Method of Analysis

Determination of land use impacts were based on information from the City of Wheatland General Plan Background report and Policy Document.

Project-Specific Impacts and Mitigation Measures

4.9-1 The General Plan Update would not physically divide an established community, or detract from existing areas within the City of Wheatland.

An intent of the General Plan Land Use Diagram is to plan for orderly, logical development that supports compatibility among adjacent uses. The designation of land use categories takes into account the surrounding land uses, and proposed uses, and development intensities that respect the existing uses. Consequently, buildout of the General Plan Update would not disrupt the physical arrangement of existing land uses with the City.

Downtown Wheatland

Downtown Wheatland is an important part of Wheatland's small-town character and community heritage. Although, Downtown is centrally located in the community with access to SR 65, and contains several historic buildings, the downtown area provides limited shopping and employment opportunities for its residents, employees, and visitors.

The General Plan Update Land Use Diagram includes significant amounts of commercial, office, and business park development in other areas of the City, such as along the SR 65 Bypass and in the northeast. Because future commercial and employment areas would potentially detract from Downtown as the central destination of the City, the policies in the *Land Use and Community Character* chapter of the General Plan Policy Document seek to preserve and enhance the Downtown district by promoting increased retail, office, government, mixed-use, and entertainment uses, and providing for parking, streetscape, and building facade improvements. In addition, the policies also address the design of commercial facilities to reflect the character of Wheatland, preserve and enhance Downtown, and provide accessibility for pedestrians, bicyclists, and transit riders.

Existing Residential Neighborhoods

The greatest assets of older neighborhoods are mature trees and landscaping, architectural variety in homes and buildings, and historic character and structures. If left unchecked, however, the natural aging process can lead to poorly maintained homes and yards, loss of trees, poorly maintained streets, alleys, and

sidewalks, deteriorating infrastructure, graffiti, dilapidated and vacant buildings, crime, and decline in property values. Because the potential for new development in existing residential areas is limited, the majority of new, planned residential communities would be located outside the City. Therefore, neighborhood conservation efforts focus on maintenance of both public and private property within the City limits to conserve and enhance the best qualities of existing residential neighborhoods as the City grows. The policies and programs of this section aim to ensure maintenance of quality in existing neighborhoods over time.

The General Plan Update includes the following goals and policies applicable to Land Use issues:

Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.2. The City shall ensure that development occurs in an orderly sequence based on the logical and practical extension of public facilities and services.

Policy 1.A.5. The City shall encourage the acquisition of Community Development Block Grants (CDBG) to revitalize infill areas.

Policy 1.A.11. The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-housing balance to ensure an adequate mix of economic and residential opportunities.

Goal 1.B To provide adequate land in a range of residential densities to accommodate the housing needs of all income groups expected to reside in Wheatland.

Policy 1.B.1. The City shall support residential development at a manageable pace to achieve its fair share of regional housing needs and provide for orderly extension of infrastructure and public services.

Policy 1.B.2. The City shall require residential project design to reflect and consider natural features, noise exposure of residents, visibility of structures, circulation, access, and the relationship of the project to surrounding uses. Residential densities and lot patterns will be determined by these and other factors.

Policy 1.B.3. The City shall discourage the development of isolated, remote, disconnected, and/or gated residential projects, which do not contribute to the sense of an integrated community.

Policy 1.B.4. The City shall encourage multi-family housing to be located throughout the community, but especially near transportation corridors, Downtown, major commercial areas, neighborhood commercial centers, and employment centers.

Policy 1.B.5. The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.

Goal 1.C To provide for new residential development in planned neighborhoods to be developed in an orderly style and designed to promote walking, bicycling, and transit use.

Policy 1.C.1. The City shall promote new residential development in a range of residential densities that reflects the positive qualities of Wheatland's existing residential neighborhoods (e.g., street trees, pedestrian-orientation, mix of housing types and sizes).

Policy 1.C.2. The City shall encourage the creation of well-defined residential neighborhoods. Each neighborhood should have a clear focal point, such as a park, school, or other open space and community facility, and shall be designed to promote pedestrian convenience.

Policy 1.C.3. The City shall encourage the development of new neighborhoods that are walkable and connected to the existing city core as well as each other.

Policy 1.C.4. The City shall require that development plans for new residential neighborhoods address the following:

a. The distribution, location, and extent of land uses, including standards for land use intensity.
b. Compatibility of new development with adjacent existing and proposed development.
c. Provision of a range of housing types to ensure socially- and economically-integrated neighborhoods.
d. Distribution and location of roadways, including design standards for and the precise alignment of arterial, collector, and local streets, and bikeways.
e. Provisions for the extension of the existing city roadway system into new development areas. New development shall be linked to adjacent existing neighborhoods and planned neighborhoods by collector and local streets.
f. Provisions for adequate schools and child care facilities.

g. Distribution and location of neighborhood commercial centers, parks, schools, child care centers, and other public- and quasi-public facilities.

h. Provisions for linking residential neighborhoods, parks, schools, Downtown, shopping areas, and employment centers through a system of pedestrian pathways, bicycle routes, and linear open-space corridors along sloughs, Dry Creek, and the Bear River.

i. Provisions for development phasing to ensure orderly and contiguous development consistent with population projections of the General Plan, and Policy 1.A.4.

j. Provisions for minimizing conflicts between new development and agricultural uses.

Policy 1.C.5. The City shall require residential subdivisions to provide well-connected internal and external street, bicycle, and pedestrian systems.

Policy 1.C.6. The City shall encourage installation of current and emerging technological infrastructure in new and existing development for home telecommuting and electric vehicles charging.

Goal 1.D To conserve and enhance the best qualities of existing residential neighborhoods as the City grows.

Policy 1.D.1. The City shall ensure that decisions concerning land use and development are not detrimental to the positive character and identity of Wheatland's existing residential neighborhoods.

Policy 1.D.2. The City shall sponsor community volunteer clean-up campaigns.

Policy 1.D.3. The City shall encourage infill and reuse in existing neighborhoods that maintain the character and quality of the surrounding neighborhood and does not negatively affect surrounding land uses.

Policy 1.D.4. The City shall promote street tree planting and maintenance and seek ways to establish ongoing funding for street tree maintenance.

Policy 1.D.5. The City shall provide for infrastructure improvements in older neighborhoods through redevelopment funding.

Policy 1.D.6. The City shall enforce City nuisance and fire safety ordinances for property and buildings that become eyesores and present health and safety problems.

Goal 1.F To develop and maintain an economically, socially, and physically attractive Downtown.

Policy 1.F.1. The City shall work with downtown property and business owners to revitalize and extend the downtown east to the proposed civic center.

Policy 1.F.2. The City shall form a Redevelopment Agency to initiate Downtown revitalization programs.

Policy 1.F.3. The City shall work with Downtown property and business owners to form a Downtown Improvement Association.

Policy 1.F.4. The City shall work jointly with Downtown property and business owners to create and support programs that improve the appearance of Downtown. These can include clean-ups, active Building Code and other City Code enforcement, and beautification programs.

Policy 1.F.5. The City shall promote the overall safety in Downtown through greater police visibility, increased lighting, and protection for pedestrians.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.9-2 Development associated with the General Plan Update would substantially alter the character of Wheatland.

Implementation of the General Plan Update would substantially change the existing character of Wheatland. At buildout of the General Plan Update, the population of the City of Wheatland would be 30,100, which is an anticipated increase of nearly 27,000 people. Additionally, the General Plan Update contains employment generating land uses that would produce an approximate total of 11,080 jobs within the City of Wheatland. This growth would increase the jobs to housing ration in Wheatland to 0.9, and would help establish Wheatland as an employment center in the region. Establishing Wheatland as an employment center would increase the amount of people in the region who commute into Wheatland, and would substantially help in decreasing the number of Wheatland residents who commute to jobs outside the City.

Currently, the majority of development within the City of Wheatland is single-family residential, particularly at lower densities. The General Plan Update continues the pattern of low-density residential development, but also increases the amount of medium and high-density residential development. Additionally, Wheatland currently has a limited employment sector. The General Plan Update designates a large amount of employment generating land uses, centered around the proposed SR 65 Bypass, to encourage economic development and employment opportunities for Wheatland residents. The General Plan Update includes more, and larger areas of employment generating land uses, including office parks, research and development, warehouses and light manufacturing related to research and development, general commercial uses that cater to industrial uses in this designation, professional offices, public and quasi-public uses, and similar and compatible uses. These land use changes, and increases in land use density, and intensity would substantially alter the character of the City, and create a more urbanized, job intensive environment.

The General Plan Update includes the following goals and policies regarding land use issues:

Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.1. The City shall strive to preserve Wheatland's traditional small-town qualities and historic heritage, while expanding its residential and employment base.

Policy 1.A.3. The City shall designate land for development consistent with the needs of the community and consistent with its efforts to maintain a positive fiscal balance for the City.

Policy 1.A.11. The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-housing balance to ensure an adequate mix of economic and residential opportunities.

Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality.

Policy 1.G.1. The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses.

Policy 1.G.2. The City shall only approve new employment development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from

residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials.

Policy 1.G.3. The City shall promote the development of new high technology uses in the employment locations near the SR 65 bypass.

Policy 1.G.4. The City shall promote the development of business park and research and development uses in Wheatland.

Policy 1.G.5. The City shall require new developments projects to pay their fair share of infrastructure construction costs as pursuant to the City's Fee Study.

Policy 1.G.6. The City shall require that proposed commercial, employment and residential development is phased in order to insure the continuation of an adequate tax base to fund necessary infrastructure and City services.

Policy 1.G.7. The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use.

Implementation of the goals and policies above would reduce the impact; however, the above impact would remain ***significant***.

Mitigation Measure(s)
Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level; therefore, the impact would remain *significant and unavoidable*.

4.9-3 The General Plan Update may result in conflict with existing plans or regulations.

Updating the existing General Plan involves revisions and/or additions to existing policies and land use designations; therefore, the updated plan is often inconsistent with exiting regulations. For example, changes in land use patterns resulting from approval of this General Plan Update may be in conflict with the existing Wheatland Zoning Code. Existing zoning districts may not accommodate proposed land uses or intensities; therefore, revisions to the Zoning Code would be necessary.

The General Plan Update includes the following goals and policies applicable to Land Use issues:

Goals 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy 1.A.6. The City shall work with the Sacramento Area Council of Governments (SACOG) and Yuba County to coordinate the City's General Plan with regional planning efforts.

Policy 1.A.8. The City shall establish a Memorandum of Understanding with Yuba County in order to maintain agricultural preservation zoning on farmland surrounding the City.

Policy 1.A.10. The City shall assure that the Zoning Ordinance and Zoning Map are consistent with the General Plan.

Goal 1.H To maintain land as Urban Reserve for consideration for future development.

Policy 1.H.1. No urban development of Urban Reserve areas will be permitted without a General Plan amendment. No General Plan amendment will be considered without an analysis that includes the factors listed in Policy 1.H.2.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.9-4 The General Plan Update may result in land use conflicts, and incompatibility between existing, and proposed land uses.

The General Plan Update proposes new land uses that may cause conflicts between existing and proposed land uses. The General Plan Update Land Use Diagram proposes residential development at urbanized densities close to productive agricultural land. Productive agricultural uses may have adverse impacts on residential development, including noise, and odor impacts. Additionally, the General Plan Update proposes residential land uses near industrial uses. The industrial uses may cause adverse impacts to the residential land uses, in the form of noise, odor, and truck traffic.

The majority of the study area is designated for urban use, which would not be developed all at once. Development of the study area would proceed in a "phased" manor thereby making incompatibilities of agricultural and residential uses a temporary issue. As development spreads, consistent with the General Plan, the outermost communities would bear the impacts of adjacency to agricultural land uses. The final "edge" properties, those located along the western portion of the sphere of influence boundary bounded to the east by Jasper Lane, at General Plan Update buildout would be required to implement

agricultural buffers to mitigate for potential impacts. Therefore, impacts by surrounding agricultural land uses on early residential developments would occur until the construction of surrounding planned urban development. The impacts from adjacent agricultural and residential land uses would continue to migrate from development to development until implementation of buffers along the "edge" properties.

The General Plan Update includes the following goals and policies applicable to Land Use issues:

Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality.

Policy 1.G.1. The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses.

Policy 1.G.2. The City shall only approve new employment development that has adequate infrastructure and services. Employment development shall be required to provide sufficient buffering from residential areas to avoid impacts associated with noise, odors and the potential release of hazardous materials.

Policy 1.G.3. The City shall promote the development of new high technology uses in the employment locations near the SR 65 bypass.

Policy 1.G.4. The City shall promote the development of business park and research and development uses in Wheatland.

Policy 1.G.5. The City shall require new developments projects to pay their fair share of infrastructure construction costs as pursuant to the City's Fee Study.

Policy 1.G.6. The City shall require that proposed commercial, employment and residential development is phased in order to insure the continuation of an adequate tax base to fund necessary infrastructure and City services.

Policy 1.G.7. The City shall ensure that intensive industrial or manufacturing uses are located in areas compatible with adjacent use.

Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland.

Policy 1.I.1. The City shall discourage leapfrog development and development in peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations.

Policy 1.I.2. The City shall support the local agricultural economy by encouraging the location of agricultural support industries in the city, establishing and promoting marketing of local farm products, exploring economic incentives, and support for continuing agricultural uses adjacent to the city, and providing its fair share of adequate housing to meet the needs of agricultural labor.

Policy 1.I.3. The City shall promote good neighbor policy between residential property owners and adjacent farming operations by supporting the right of the farmers and ranchers to conduct agricultural operations in compliance with state laws.

Policy 1.I.4. The City shall work with agribusiness to reduce vandalism, trespassing, roadway hazards, and other public safety issues.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

Endnotes
[1] City of Wheatland, General Plan Update Background Report, July 2004.

4.10 MINERAL RESOURCES

INTRODUCTION

This section focuses on various mineral characteristics of the Wheatland General Plan Update study area. Information for this analysis was based on information from the *Yuba County General Plan*[1], and review of literature and air photos to determine minerals on the project site.

ENVIRONMENTAL SETTING

The City of Wheatland is located within the northeastern portion of the Sacramento Valley, which is within the Great Valley geomorphic province. The Great Valley, an elongated lowland, extends 500 miles north and south, separating the Sierra Nevada from the Coast Ranges. This elongated asymmetric structural basin or trough was formed by the westward tilting of the Sierra Nevada block against the eastern flank of the Coast Ranges. The basement rock complex of the Sierra extends westward, beneath the Valley, on a gentle slope reaching points near the Coast Ranges. Elevation in the Valley is generally several hundred feet above sea level, but ranges from a low point below sea level to approximately 1,000 feet above sea level.

The Great Valley is filled with thick sedimentary rock sequences or strata, which began deposition approximately 200 million years ago. Large alluvial fans have developed on each side of the Valley. The larger and more gently sloping fans are located on the east side of the Valley and overlie metamorphic and igneous basement rocks. This basement rock is exposed in the Sierra Nevada Foothills and consists of metasediments, volcanics, and granites. The sediments that form the Valley floor were largely derived by erosion of the Sierra Nevada. The smaller and steeper slopes on the west side of the Valley overlie sedimentary rocks more closely related to the Coast Ranges.

Mineral Resources

According to the *Yuba County General Plan Environmental Setting and Background Report (YCGP-ESBR)*, raw or manufactured mineral products are used every day in developed nations. Unlike most natural resources, minerals are not renewable. A mineral resource is a concentration of elements in a particular location in such a form that a usable mineral commodity can be extracted from the deposit.

Mineral resources present in Yuba County include precious metals (gold, platinum, molybdenite), copper, zinc, Fullers earth, sand and gravel, and crushed stone. Most of Yuba County lies within the Sierra Nevada gold belt districts with sparse seam-type auriferous deposits. Each of these unique resources should be carefully managed to meet the current and future requirements of the County.

The mineral resources under greatest urbanization pressure are the construction materials, especially sand and gravel, and crushed stone. Increasing urbanization in the San Francisco Bay and Sacramento areas has resulted in the depletion or obliteration of local aggregate resources. These areas are looking to more remote areas to meet their resource requirements. The *Yuba County General Plan* stresses that planning should be undertaken to ensure continued access to the mineral resources present in Yuba County.

Study Area

The California Geological Survey (formerly California Division of Mines and Geology [CDMG]) has not identified the potential for mineral resources within the proposed Wheatland General Plan Update study area. Approximately three miles to the northwest, mineral resources have been evaluated, as described in CDMG *Special Report 132* (1988) which delineated the Yuba City-Marysville production-consumption region for Portland Cement Concrete (PCC) grade aggregate. However, the information given in the report is not adequate to identify the potential for resources in close proximity to the study area. Borings from drill holes less than one mile outside the northwestern boundary of the study area indicate the potential for commercial grade aggregate deposits.

The *YCGP-ESBR* identifies one mineral resource extraction site within the Wheatland General Plan Update study area (see Figure 2-11 of the *YCGP-ESBR*). The Wheatland Clay Pit is located approximately 2.5 miles north of downtown Wheatland in the Nichols Ranch area and is operated by Gladding McBean. The disturbed area is approximately one acre.

REGULATORY CONTEXT

Existing policies, laws and regulations that would apply to the General Plan Update are summarized below.

California Building Standards Code / Uniform Building Code

Site development and design are regulated in the State of California by the California Building Standards Code (CBC), based on the Uniform Building Code (UBC) and suited to the unique sensitivity of the state's geology and faultlines. CBC and UBC regulations must be adhered to with regard to expansive soils, drainage, erosion, earthquake resistance, and required safety measures during on-site development.

Wheatland General Plan Update

The project involves establishment of goals and policies aimed at preserving mineral resources within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Impacts and Mitigation Measures

Standards of Significance

The proposed project could have a significant effect on the environment when it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state;

- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Method of Analysis

Determinations of impacts to mineral resources were based on information from the *Yuba County General Plan*, and review of literature and air photos to determine minerals on the project site.

Project-Specific Impacts and Mitigation Measures

4.10-1 Development associated with the proposed General Plan Update would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

According to the *Yuba County General Plan Environmental Setting and Background Report* (p. 2-24), mineral resources present in the county include precious metals, copper, zinc, Fullers earth, sand and gravel, and crushed stone. However, the City of Wheatland is located outside of the recognized Mineral land Classification Area as identified in the *Yuba County General Plan ESBR*. Therefore, the study area does not contain any significant quantities of mineral resources.

Because the study area does not contain any significant quantities of mineral resources, the General Plan Update does not contain goals and policies pertaining to regional mineral resources. Therefore, the General Plan Update would have ***no impact*** regarding loss of availability of a known mineral resource.

The General Plan Update includes the following goals and policies generally related to mineral resources.

Goals 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible.

Mitigation Measure(s)
None require.

4.10-2 Development associated with the proposed General Plan Update would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan

As discussed above, the City of Wheatland is located outside of the recognized Mineral Resource Zones 3 as identified in the *Yuba County General Plan Environmental Setting and Background Report*.

Because the study area does not contain any significant quantities of mineral resources, the General Plan Update does not contain goals and policies pertaining to regional mineral resources. Therefore, the General Plan Update would have ***no impact*** regarding loss of availability of a known mineral resource.

The General Plan Update includes the following goals and policies generally related to mineral resources.

Goals 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible.

Mitigation Measure(s)
None required.

Endnotes

[1] Yuba County, Yuba County General Plan, 1994.

4.11 NOISE

INTRODUCTION

This section discusses the existing noise environment in the immediate project vicinity and identifies potential noise-related impacts and mitigation measures associated with the proposed project. Specifically, this section analyzes potential noise impacts due to and upon development within the project site relative to applicable noise criteria and to the existing ambient noise environment. This section is primarily based on the *Wheatland General Plan Update Background Report*[1] *(2004)*, and from noise level analyses provided by Bollard Acoustical Consultants, Inc.[2]

ENVIRONMENTAL SETTING

The environmental setting of the Wheatland General Plan Update noise chapter relies upon the Wheatland General Plan Update Background Report, Public Review Draft, prepared for the City of Wheatland, July 2, 2004.

Existing Noise Setting

The ambient noise environment in Wheatland is defined primarily by traffic on State Route (SR) 65 and local roadways, Union Pacific Railroad (UPRR) operations, and distant aircraft operations associated with Beale Air Force Base. The noise environment in Wheatland is also locally influenced by commercial uses (car wash, light auto repair, and HVAC warehouse), active recreation areas of parks and outdoor play areas of schools. Airports do not reside within Wheatland, but a portion of the study area is located within the noise impact contours for Beale AFB. Significant industrial noise sources were not identified within the City of Wheatland. Subjectively, the ambient noise environment in Wheatland is considered to be fairly quiet at locations removed from SR 65 and the railroad tracks. The individual noise generations of the various representative noise sources identified within Wheatland are described below.

Purpose of the Noise Element

The Noise Element provides a basis for comprehensive local policies to control and abate environmental noise and to protect the citizens of Wheatland from excessive noise exposure. The fundamental goals of the noise portion of the General Plan are as follows:

- To provide sufficient information concerning the community noise environment so that noise may be effectively considered in the land use planning process.

- To develop strategies for abating excessive noise exposure through cost-effective mitigation measures in combination with appropriate zoning to avoid incompatible land uses.

- To protect those existing regions of the planning area whose noise environments are deemed acceptable and also those locations throughout the community deemed "noise sensitive."

- To protect existing noise-producing commercial and industrial uses in the City of Wheatland from encroachment by noise-sensitive land uses.

Fundamentals of Noise

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness. Table 4.11-1 shows examples of noise levels for several common noise sources and environments.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighing network. A strong correlation is evident between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of A-weighted levels.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The Day-Night Average Level (Ldn) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 4.11-1
Typical A-Weighted Sound Levels of Common Noise Sources

Loudness Ratio Level	A-Weighted Sound Level (dBA)	
	130	Threshold of pain
64	120	Jet aircraft take-off at 100 feet
32	110	Riveting machine at operators position
16	100	Cut-off saw at operators position
8	90	Bulldozer at 50 feet
4	80	Diesel locomotive at 300 feet
2	70	Commercial jet aircraft interior during flight
1	60	Normal conversation speech at 5-10 feet
1/2	50	Open office background level
1/4	40	Background level within a residence
1/8	30	soft whisper at 2 feet
1/16	20	Interior of recording studio

Noise in the community has often been cited as being a health problem, not in terms of actual physiological damages such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of

noise in the community arise from interference with human activities such as sleep, speech, recreation and tasks demanding concentration or coordination. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases, and the acceptability of the environment for people decreases. This decrease in acceptability and the threat to public well-being are the bases for land use planning policies preventing exposures to excessive community noise levels.

To control noise from fixed sources, which have developed from processes other than zoning or land use planning, many jurisdictions have adopted community noise control ordinances. Such ordinances are intended to abate noise nuisances and to control noise from existing sources. They may also be used as performance standards to judge the creation of a potential nuisance, or potential encroachment of sensitive uses upon noise-producing facilities. Community noise control ordinances are generally designed to resolve noise problems on a short-term basis (usually by means of hourly noise level criteria), rather than on the basis of 24-hour or annual cumulative noise exposures.

In addition to the A-weighted noise level, other factors should be considered in establishing criteria for noise sensitive land uses. For example, sounds with noticeable tonal content such as whistles, horns, droning or high-pitched sounds may be more annoying than the A-weighted sound level alone suggests. Many noise standards apply a penalty, or correction, of 5 dBA to such sounds. The effects of unusual tonal content are generally more of a concern at nighttime, when residents may notice the sound in contrast to low levels of background noise.

Because many rural residential areas experience very low noise levels, residents may express concern about the loss of "peace and quiet" due to the introduction of a sound, which was not audible previously. In very quiet environments, the introduction of virtually any change in local activities will cause an increase in noise levels. A change in noise level and the loss of "peace and quiet" is the inevitable result of land use or activity changes in such areas. Audibility of a new noise source and/or increases in noise levels within recognized acceptable limits are not usually considered to be significant noise impacts, but these concerns should be addressed and considered in the planning and environmental review processes.

Technical acoustical terms are described in Table 4.11-2.

Table 4.11-2: Acoustical Terminology	
Acoustics	The science (or physics) of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response filter that conditions a given sound signal to approximate human response.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours (10 p.m. - 7 a.m.) weighted by a factor of 10 prior to averaging.
Decibel or dB	A Bel is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bel.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
Peak Noise	The level Corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
RT_{60}	The time it takes reverberant sound to decay by 60 dB once the source is removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
SEL	A single-number rating indicating the total energy of a discrete noise event compressed into a one (1)-second time duration.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB at 1,000 Hz for persons with good hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

Source: Bollard Acoustical Consultants, 2005.

Existing Noise Environment

Transportation Noise Sources

The major noise sources in Wheatland consist of SR 65 and local traffic on City streets, commercial uses, Beale Air Force Base operations, active recreation areas of parks, outdoor play areas of schools, and railroad operations on the Union Pacific Railroad. Each of these noise sources is discussed individually below.

Roadways

The Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA-RD-77-108) with the Calveno vehicle noise emission curves was used to predict traffic noise levels within the Wheatland General Plan study area. The FHWA Model is the traffic noise prediction model currently preferred by the Federal Highway Administration, the State of California Department of Transportation (Caltrans), and most City and County governments, for use in traffic noise assessment. Although the FHWA Model is in the process of being updated by a more sophisticated traffic noise prediction model, the use of RD-77-108 is considered acceptable for the development of General Plan traffic noise predictions.

SR 65 is the most heavily traveled roadway in the City of Wheatland. The FHWA Model was used with traffic data obtained from published Caltrans traffic counts and Bollard Acoustical field surveys to develop Ldn contours for SR 65 within the City of Wheatland, as well as local roadways. The FHWA Model input data for those roadways is provided in Table 4.11-3. The distances from the centerlines of the major roadways to the 60 and 65 dB Ldn contours are also summarized in Table 4.11-3. Many roadways are not contained in Table 4.11-3 because these roadways are not major traffic arterials within the City of Wheatland.

Railroads

The railroad tracks in Wheatland are operated by the Union Pacific Railroad. The tracks run from north to south and generally parallel SR 65. According to noise level measurements and field observations conducted by Bollard Acoustical, this line was observed to support approximately 30 train operations in a 24-hour period. Give this level of railroad activity, a measured average railroad Sound Exposure Level (SEL) of 98 dB at the measurement distance of 200 feet, and a random distribution of railroad activity throughout the day and nighttime periods, the Ldn computed for the railroad tracks in Wheatland was 70 dB at a distance of 200 feet from the tracks. Table 4.11-4 shows the distances from the railroad tracks to the 60 and 65 dB Ldn railroad noise contours based on 30 operations per day, and likely variations from that observed number of daily operations.

Table 4.11-3
FHWA-RD-77-108 Highway Traffic Noise Prediction Model Data Inputs and Distances To 60 and 65 DB LDN Contours
City of Wheatland Noise Element - Existing (2004) Conditions

		Segment Description					Truck Usage			Distance to Ldn Contours, feet	
Segment	**Roadway Name**	**From**	**To**	**ADT**	**Day %**	**Night %**	**Med.**	**Hvy.**	**Speed**	**60 dB Ldn**	**65 dB**
1	SR 65	North of Evergreen		17370	83	17	12	16	35	429	199
2		Evergreen Dr	Mc Devitt Dr	17710	83	17	12	16	35	435	202
3		Mc Devitt Dr	First St	18670	83	17	12	16	35	450	209
4		First St	Second St	19180	83	17	12	16	35	459	213
5		Second St	Third St	18660	83	17	12	16	35	450	209
6		Third St	Fourth St	19270	83	17	12	16	35	460	214
7		Fourth St	Main St	18030	83	17	12	16	35	440	204
8		South of Main St		16200	83	17	12	16	35	410	190
9	Evergreen St	West of SR 65		640	83	17	2	2	35	19	9
10	Mc Devitt Dr	West of SR 65		1770	83	17	2	2	35	38	18
11	First St	West of SR 65		1680	83	17	2	2	35	37	17
12		East of SR 65		400	83	17	2	2	35	14	7
13	Second St	West of SR 65		140	83	17	2	2	35	7	3
14		East of SR 65		980	83	17	2	2	35	26	12
15	Third St	West of SR 65		450	83	17	2	2	35	15	7
16		East of SR 65		340	83	17	2	2	35	13	6
17	Fourth St	West of SR 65		500	83	17	2	2	35	16	8
18		East of SR 65		1980	83	17	2	2	35	41	19
19	Main St	West of SR 65		3710	83	17	2	2	35	63	29
20		SR 65	Front St	4030	83	17	2	2	35	66	31
21		Front St	Olive St	4340	83	17	2	2	35	69	32
22		West of Olive St		1020	83	17	2	2	35	26	12

Table 4.11-4
Railroad Noise Exposure as a Function of the Number of Daily Trains

		Distance to Ldn Noise Contours	
Number of daily Trains	**Ldn at 100 feet, dB**	**60 dB**	**65 dB**
20	73	683	317
25	73	793	368
30	74	896	416
35	75	992	461
40	76	1085	504

Note: The predicted distances to the Ldn contours assume a mean railroad sound exposure level of 103 dB (with horn usage) at a reference distance of 100 feet from the tracks and that train operations are uniformly distributed across day and nighttime hours.

Aircraft Noise

According to the Comprehensive Land Use Plan (CLUP) for Beale Air Force Base (adopted 1987, amended 1992), the 65 dB CNEL noise exposure contours extend into a portion of the Wheatland General Plan study area. Due to changing operations at Beale since the CLUP Noise Contours were developed, the extent by which the noise contours shown on Figure 4.11-1 reflect the current aircraft noise environment in the Wheatland study area is unknown. Nonetheless, the CLUP noise contours are incorporated into this background document for reference.

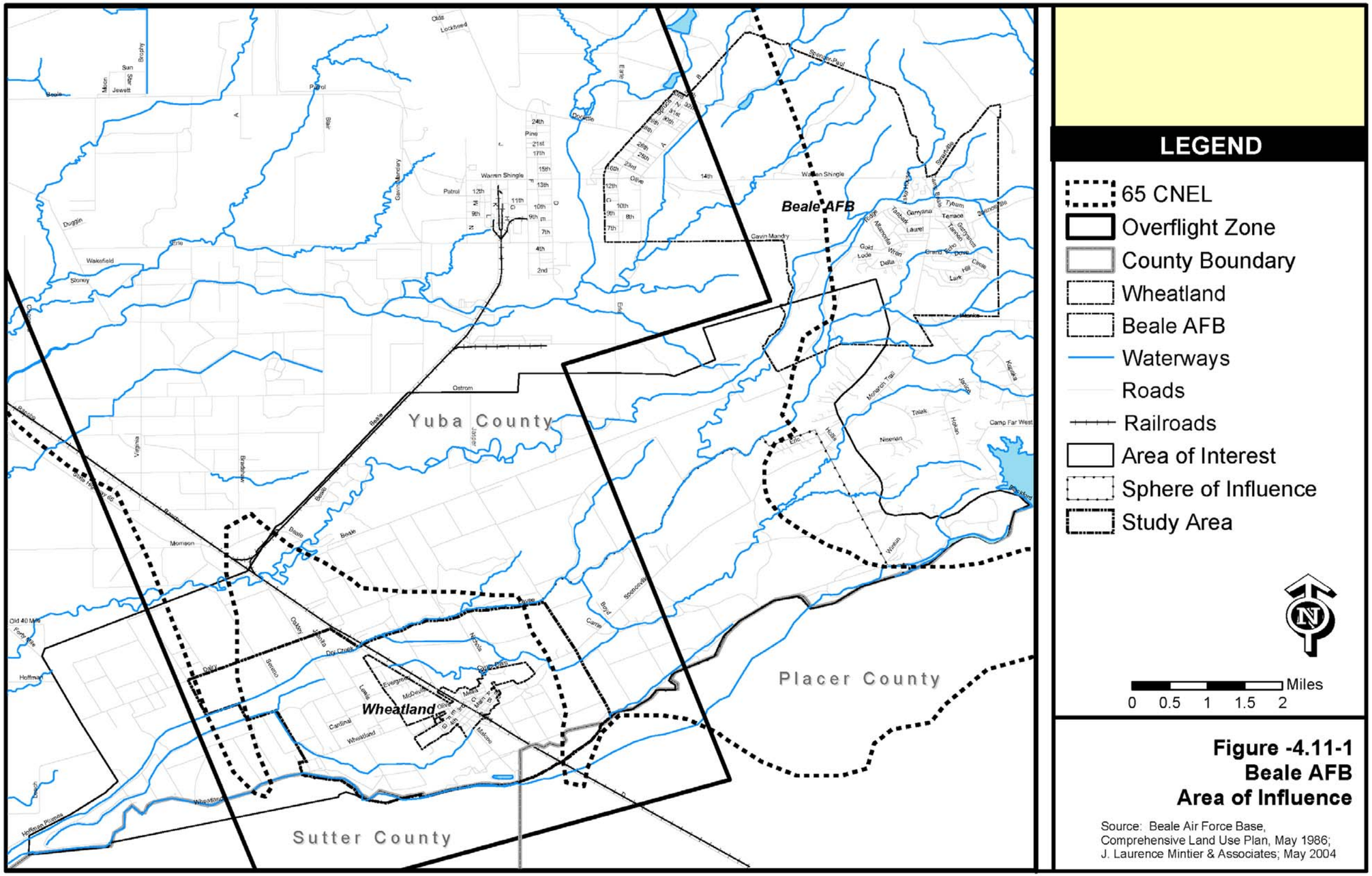


Figure -4.11-1
Beale AFB
Area of Influence

Source: Beale Air Force Base, Comprehensive Land Use Plan, May 1986; J. Laurence Mintier & Associates; May 2004

Noise Related Land Use Policies

Significant issues related to the noise produced by aircraft at Beale AFB exist. As a result of annoyances that occur due to air traffic noise, the base has adopted airport noise contours for various decibel (dB) ranges and appropriate measure to lessen the effects of noise. The main policy goal is to reduce the number of people exposed to noise from aircraft operating from the airport to the lowest level possible. The plan states that if development is proposed in areas between the 60dB and 65dB Community Noise Equivalency Level (CNEL) noise contours, affected cities and counties should evaluate the impact of aircraft noise on proposed development and consider requiring noise reduction measures, aviation noise easements, and buyer-renter notification. As a result, the plan provides a detailed analysis of compatible land uses within 60-65dB, 65-70dB, 70-75dB, 75-80dB, and 80-85dB ranges.

Non-Transportation Noise Sources

The production of noise is a result of many processes and activities, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by Federal and State employee health and safety regulations (OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise, which affects adjacent sensitive land uses.

From a land use planning perspective, fixed-source noise control issues focus upon two goals: to prevent the introduction of new noise-producing uses in noise-sensitive areas, and to prevent encroachment of noise-sensitive uses upon existing noise-producing facilities. The first goal can be achieved by applying noise performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in proximity to noise-producing facilities include mitigation measures to ensure compliance with those noise performance standards.

Descriptions of existing fixed noise sources in Wheatland are provided below. These uses are intended to be representative of the relative noise generation of such uses, and are intended to identify specific noise sources, which should be considered in the review of development proposals. Site-specific noise analyses should be performed where noise sensitive land uses are proposed in proximity to these (or similar) noise sources, or where similar sources are proposed to be located near noise-sensitive land uses.

The Jones Company

The Jones Company, the only existing industrial land use within the City, is located between 2nd and 3rd Street, west of the UPRR Tracks. Operations at the Jones Company consist of warehousing and distribution of HVAC units. According to a Jones Company representative, their operations generate an average of two truck operations per day, and they have no current plans for expansion. Other than mechanical equipment associated with the office air conditioning systems, no appreciable sound was being generated by

this facility during various site inspections. The site is located immediately adjacent to existing residential uses, but no noise complaints have reportedly been filed due to this operation. Although this facility was not observed to be a significant noise source, it is included within this section due to the industrial appearance of the Jones Company facilities.

General Service Commercial and Light Industrial Uses

Noise sources associated with service commercial uses such as automotive repair facilities, car washes, loading docks, retail stores, are found at various locations within Wheatland. The noise emissions of these types of uses are dependant on many factors, and are therefore, difficult to quantify precisely. Nonetheless, noise generated by the these uses contributes to the ambient noise environment in the immediate vicinity of these uses, and should be considered where either new noise-sensitive uses are proposed nearby or where similar uses are proposed in existing residential areas.

Parks and School Play Fields

Several park and school uses exist within the study area. These uses are spread throughout the City. Noise generated by these uses depends on the age and number of people the respective facility at a given time, and the types of activities they are engaged in. School playing field activities tend to generate more noise than those of neighborhood parks, as the intensity of school playground usage tends to be much higher. At a distance of 100 feet from an elementary school playground being used by 100 students, average and maximum noise levels of 60 and 75 dB, respectively, can be expected. At organized events such as high-school football games with large crowds and public address systems, the noise generation is often significantly higher. As with service commercial uses, the noise generation of parks and school playing fields is variable.

Community Noise Survey

To quantify existing noise levels in the quieter parts of the City of Wheatland, a community noise survey was performed at 8 locations in this City, which are removed from major noise sources. Two of the eight locations were monitored over a continuous 24-hour period, while the other six locations were each monitored for two short term periods during daytime hours and one during nighttime hours. The results of the community noise survey are provided in Table 4.11-5.

Table 4.11-5
Community Noise Measurement Survey Results
Wheatland Noise Element - May 4-11, 2002

Site	Location	Dates	Time Period	Leq	Lmax	Estimated Ldn	Sources
1	Most Southern End of Oakley St.	5-6-04 5-4-04 5-11-04	Morning Afternoon Nighttime	44 41 38	52 58 47	45-50	Local Traffic Faint Distant Train Natural sounds
2	Northwest corner of study area off Dairy Rd	5-6-04 5-4-04 5-11-04	Morning Afternoon Nighttime	43 44 40	54 63 46	45-50	Local Traffic Faint Distant Train Distant Traffic
3	Park at Sullivan Wy and Hudson Wy	5-6-04 5-4-04 5-11-04	Morning Afternoon Nighttime	43 45 39	55 57 49	45-50	Local Traffic Aircraft Flyovers Traffic
4	Nichols Park	5-6-04 5-4-04 5-11-04	Morning Afternoon Nighttime	54 54 48	64 61 59	55	Local Traffic (SR 65)
5	Just South of Malone Ave and Main St.	5-6-04 5-4-04 5-11-04	Morning Afternoon Nighttime	51 52 47	59 63 62	55	Local Traffic (SR 65)
6	Park at Wheatland Park Dr. and McDevit Dr.	5-6-04 5-4-04 5-11-04	Morning Afternoon Nighttime	50 52 44	65 63 59	55	Local Traffic
A	Carpenter Ct. Residence	5-4-04	Daytime Nighttime	68 65	100 96	72	Local Traffic (SR 65) Train Passes
B	Fraser Ct. Residence	5-4-04	Daytime Nighttime	56	64	64	Local Traffic
C	Nichols St. Residence	5-4/5-5	Daytime Nighttime	52 48	77 76	55	Local Traffic Train Passes

Source: Bollard & Brennan, Inc., 2004.

REGULATORY CONTEXT

Existing policies, laws and regulations that would apply to the proposed project are summarized below.

State Building Code, Title 24

Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than detached single-family units from the effects of excessive noise, including, but limited to,

hearing loss or impairment and interference with speech and sleep. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise measurement should be either the day/night average sound (Ldn) or the Community Noise Equivalent (CNEL). Title 24 requires that "worst case" noise levels, either existing or future, are to be used as the basis for determining compliance. Future noise levels must be predicted for a minimum period of ten years from time of the building permit application.

Title 24 mandates that for structures containing noise-sensitive uses to be located where the Ldn or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structures must also specify a ventilation or air-conditioning system to provide a habitable interior environment.

Wheatland General Plan Update

The project involves establishment of goals and policies aimed at protecting Wheatland residents, businesses, and visitors from the harmful noise effects. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Determination of a Significant Increase in Noise Criteria

Another means of determining a potential noise impact is the assessment of a person's reaction to changes in noise levels due to a project. The effects of increased traffic noise resulting from a new project at existing noise-sensitive land uses are often evaluated using standards developed by the Federal Interagency Committee on Noise (FICON). The FICON standards provide thresholds for likely noise impacts based on the anticipated project-related noise-level increase and the pre-project ambient noise conditions.

The FICON standards are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, they have commonly been applied to most transportation noise sources such as traffic noise, aircraft noise and to a lesser extent railroad noise, which are generally described in terms of cumulative noise exposure metrics such as Ldn and CNEL. The FICON standards are shown in Table 4.11-6.

Table 4.11-6 Significance of Changes In Cumulative Noise Exposure	
Noise Level Without Project (Ldn or CNEL)	**Significant Impact**
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more
Data Source: *Federal Interagency Committee on Noise (FICON)*	

IMPACTS AND MITIGATION MEASURES

Standards of Significance

CEQA guidelines state that implementation of a project would result in significant noise impacts if the project would result in any of the following:

- Exposure of persons to, or generation of, traffic noise levels in excess of standards established in the local plans or ordinances (See Table 4.11-7).

Table 4.11-7
Maximum Allowable Noise Exposure Transportation Noise Sources

Land Use	Outdoor Activity Areas[1] L_{eq} /CNEL dB	Interior Spaces	
		L_{eq} / CNEL, dB	L_{eq}, dB[2]
Residential	60[3]	45	--
Transient Lodging	60[3]	45	--
Hospitals, Nursing Homes	60[3]	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	60[3]	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. For residential uses with front yards facing the identified noise source, an exterior noise level criterion of 65 dB L_{dn} shall be applied at the building facade, in addition to a 60 dB L_{dn} criterion at the outdoor activity area.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/ CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

- Exposure of persons to, or generation of, non-traffic noise levels in excess of standards established in the local plans or ordinances (See Table 4.11-8).

Table 4.11-8
NOISE LEVEL PERFORMANCE STANDARDS
New Projects Affected by or Including Non-transportation Sources*

Noise Level Descriptor	Daytime (7am-10pm)	Nighttime (10pm to 7am)
Hourly L_{eq}, dB	50	45
Maximum Level, dB	70	65

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

*For the purposes of compliance with the provisions of this section, the City defines transportation noise sources as traffic on public roadways, railroad line operations, and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Other noise sources are presumed to be subject to local regulations. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, and loading docks.

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- A substantial permanent increase in ambient noise levels in the project vicinity above levels without the project.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, where the project would expose people residing or working in the area to excessive noise levels.
- For a project within the vicinity of a private airstrip, where the project would expose people residing or working in the project area to excessive noise levels.

Method of Analysis

Expected impacts due to the project as they affect existing noise-sensitive land uses are expected to be limited to increased traffic noise levels due to the project and construction noise impacts.

Noise Reduction Methodology

Any noise problem may be considered as being composed of three basic elements: the noise source, a transmission path, and a receiver. The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. The problem should be defined in terms of appropriate criteria (Ldn, Leq, or Lmax), the location of the sensitive receiver (inside or outside), and when the problem occurs (daytime or nighttime). Noise control techniques should then be selected to provide an acceptable noise environment for the receiving property while remaining

consistent with local aesthetic standards and practical structural and economic limits. Fundamental noise control techniques include the following:

Use of Setbacks

Noise exposure may be reduced by increasing the distance between the noise sources and receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, etc. The available noise attenuation from this technique is limited by the characteristics of the noise source, but is generally about 4 to 6 dB per doubling of distance from the source.

Use of Barriers

Shielding by barriers can be obtained by placing walls, berms or other structures, such as buildings, between the noise source and the receiver. The effectiveness of a barrier depends upon blocking line-of-sight between the source and receiver, and is improved with increasing the distance the sound must travel to pass over the barrier as compared to a straight line from source to receiver. The difference between the distance over a barrier and a straight line between source and receiver is called the "path length difference," and is the basis for calculating barrier noise reduction.

Barrier effectiveness depends upon the relative heights of the noise source, barrier and receiver. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location yields a smaller path-length-difference for a given increase in barrier height than does a location closer to either source or receiver.

For maximum effectiveness, barriers must be continuous and relatively airtight along their length and height. To ensure that sound transmission through the barrier is insignificant, barrier mass should be about 4 lbs. per square foot, although a lesser mass may be acceptable if the barrier material provides sufficient transmission loss. Satisfaction of the above criteria requires substantial and well-fitted barrier materials, placed to intercept line of sight to all significant noise sources. Earth, in the form of berms or the face of a depressed area, is also an effective barrier material.

The attenuation provided by a barrier depends upon the frequency content of the source. Generally, higher frequencies are attenuated (reduced) more readily than lower frequencies. This results because a given barrier height is relatively large compared to the shorter wavelengths of high frequency sounds, while relatively small compared to the longer wavelengths of the frequency sounds. The effective center frequency for traffic noise is usually considered to be 550 Hz. Railroad engines, cars and horns emit noise with differing frequency content, so the effectiveness of a barrier will vary for each of these sources. Frequency analyses are necessary to properly calculate barrier effectiveness for noise from sources other than highway traffic.

The noise reduction provided by barriers has practical limits. For highway traffic noise, a 5 to 10 dB noise reduction may often be reasonably attained. A 15 dB noise reduction is

sometimes possible, but a 20 dB noise reduction is extremely difficult to achieve. Barriers usually are provided in the form of walls, berms, or berm/wall combinations. The use of an earth berm in lieu of a solid wall may provide up to 3 dB additional attenuation over that attained by a solid wall alone, due to the absorption provided by the earth. Berm/wall combinations offer slightly better acoustical performance than solid walls, and are often preferred for aesthetic reasons.

Site Design

Buildings can be placed on a project site to shield other structures or areas, to remove them from noise-impacted areas, and to prevent an increase in noise level caused by reflections. The use of one building to shield another can significantly reduce overall project noise control costs, particularly if the shielding structure is insensitive to noise. As an example, carports or garages can be used to form or complement a barrier shielding adjacent dwellings or an outdoor activity area. Similarly, one residential unit can be placed to shield another so that noise reduction measures are needed for only the building closest to the noise source. Placement of outdoor activity areas within the shielded portion of a building complex, such as a central courtyard, can be an effective method of providing a quiet retreat in an otherwise noisy environment. Patios or balconies should be placed on the side of a building opposite the noise source, and "wing walls" can be added to buildings or patios to help shield sensitive uses.

Another option in site design is the placement of relatively insensitive land uses, such as commercial or storage areas, between the noise source and a more sensitive portion of the project. Examples include development of a commercial strip along a busy arterial to block noise affecting a residential area, or providing recreational vehicle storage or travel trailer parking along the noise-impacted edge of a mobile home park. If existing topography or development adjacent to the project site provides some shielding, as in the case of an existing berm, knoll or building, sensitive structures or activity areas may be placed behind those features to reduce noise control costs.

Site design should also guard against the creation of reflecting surfaces which may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dB. The open end of "U"-shaped buildings should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise back to a noise-sensitive area unless carefully located. Avoidance of these problems while attaining an aesthetic site design requires close coordination between local agencies, the project engineer and architect, and the noise consultant.

Building Design

When structures have been located to provide maximum noise reduction by barriers or site design, noise reduction measures may still be required to achieve an acceptable interior noise environment. The cost of such measures may be reduced by placement of interior dwelling unit features. For example, bedrooms, living rooms, family rooms and

other noise-sensitive portions of a dwelling can be located on the side of the unit farthest from the noise source.

Bathrooms, closets, stairwells and food preparation areas are relatively insensitive to exterior noise sources, and can be placed on the noisy side of a unit. When such techniques are employed, noise reduction requirements for the building facade can be significantly reduced, although the architect must take care to isolate the noise impacted areas by the use of partitions or doors.

In some cases, external building facades can influence reflected noise levels affecting adjacent buildings. This is primarily a problem where high-rise buildings are proposed, and the effect is most evident in urban areas, where an "urban canyon" may be created. Bell-shaped or irregular building facades and attention to the orientation of the building can reduce this effect.

Noise Reduction by Building Facades

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building facades. Standard residential construction practices provide 10-15 dB noise reduction for building facades with open windows, and approximately 25 dB noise reduction when windows are closed. Thus a 25 dB exterior-to-interior noise reduction can be obtained by the requirement that building design include adequate ventilation systems, allowing windows on a noise-impacted facade to remain closed under any weather condition.

Where greater noise reduction is required, acoustical treatment of the building facade is necessary. Reduction of relative window area is the most effective control technique, followed by providing acoustical glazing (thicker glass or increased air space between panes) in low air infiltration rate frames, use of fixed (non-movable) acoustical glazing or the elimination of windows. Noise transmitted through walls can be reduced by increasing wall mass (using stucco or brick in lieu of wood siding), isolating wall members by the use of double- or staggered- stud walls, or mounting interior walls on resilient channels. Noise control for exterior doorways is provided by reducing door area, using solid-core doors, and by acoustically sealing door perimeters with suitable gaskets. Roof treatments may include the use of plywood sheathing under roofing materials.

Whichever noise control techniques are employed, it is essential that attention be given to installation of weather stripping and caulking of joints. Openings for attic or subfloor ventilation may also require acoustical treatment; tight-fitting fireplace dampers and glass doors may be needed in aircraft noise-impacted areas.

Design of acoustical treatment for building facades should be based upon analysis of the level and frequency content of the noise source. The transmission loss of each building component should be defined, and the composite noise reduction for the complete facade

calculated, accounting for absorption in the receiving room. A one-third octave band analysis is a definitive method of calculating the A-weighted noise reduction of a facade.

A common measure of transmission loss is the Sound Transmission Class (STC). STC ratings are not directly comparable to A-weighted noise reduction, and must be corrected for the spectral content of the noise source. Requirements for transmission loss analyses are outlined by Title 24 of the California Code of Regulations.

Use of Vegetation

Trees and other vegetation are often thought to provide significant noise attenuation. However, approximately 100 feet of dense foliage (so that no visual path extends through the foliage) is required to achieve a 5 dB attenuation of traffic noise. Thus the use of vegetation as a noise barrier should not be considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used to acoustically "soften" intervening ground between a noise source and receiver, increasing ground absorption of sound and thus increasing the attenuation of sound with distance. Planting of trees and shrubs is also of aesthetic and psychological value, and may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels will be largely unaffected. It should be noted, however, that trees planted on the top of a noise control berm can actually slightly degrade the acoustical performance of the barrier. This effect can occur when high frequency sounds are diffracted (bent) by foliage and directed downward over a barrier.

In summary, the effects of vegetation upon noise transmission are minor, and are primarily limited to increased absorption of high frequency sounds and to reducing adverse public reaction to the noise by providing aesthetic benefits.

Project-Specific Impacts and Mitigation Measures

Development of Noise Sensitive Land Uses within Existing Noise-impacted Areas

4.11-1 Development of noise-sensitive land uses within existing noise-impacted areas.

Implementation of the proposed General Plan could result in the creation of new noise-sensitive land uses within areas impacted by existing or future noise sources, or new noise-producing land uses within noise-sensitive areas. Sensitive land uses may be affected by noise generated from stationary noise sources, such as industrial and manufacturing activities. The proposed Land Use Map designates residential land uses adjacent to areas designated for industrial and manufacturing uses. As these land uses become occupied, machinery necessary for specific industrial and manufacturing uses may create noise levels that are incompatible with adjacent residences.

In addition, depending on project phasing, the Land Use Map proposes residential uses to agricultural lands. The operation of farming machinery may result in noise complaints.

The General Plan Update includes the following goals and policies related to the development of noise-sensitive land uses within noise-impacted areas, and noise-producing land uses within noise sensitive areas.

Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise.

Policy 9.G.1 The City shall prohibit development of new noise-sensitive land uses where the noise level due to non-transportation noise sources will exceed the noise level standards of Table 9-1 as measured immediately within the property line of the new development, unless effective noise mitigation measures have been incorporated into the development design to achieve the standards set out in Table 4.11-8.

Policy 9.G.2. The City shall require that noise created by new non-transportation sources be mitigated so as not to exceed the noise level standards of Table 4.11-8 as measured immediately within the property line of lands designated for noise-sensitive uses.

Policy 9.G.3 Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 9-1 at existing or planned noise-sensitive uses, the City shall require an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. The acoustical analysis shall meet the following requirements:

a) It shall be the financial responsibility of the applicant.

b) It shall be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.

c) It shall include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.

d) It shall include estimates of existing and projected cumulative (20 years) noise levels in terms of Ldn or CNEL and/or the standards of Table 4.11-7, and compare

those levels to the policies and standards of this section of the General Plan.

e) It shall recommend appropriate mitigation to achieve compliance with the policies and standards of this section of the General Plan, giving preference to proper site planning and design over mitigation measures which require the construction of noise barriers or structural modifications to buildings which contain noise-sensitive land uses. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.

f) It shall include estimates of noise exposure after the prescribed mitigation measures have been implemented.

g) It shall describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures.

Policy 9.G.4. The City shall prohibit new development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels set out in Table 4.11-7, unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels set out in Table 4.11-7.

Goal 9.H To protect the economic base of the City by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses.

Policy 9.H.1. Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels set out in Table 4.11-7 or the performance standards of Table 4.11-7, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

Policy 9.H.2. Where noise mitigation measures are required to achieve the standards of Tables 4.11-7 and 4.11-8, the emphasis in such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

Policy 9.H.3. The City shall support the Right-to-Farm Ordinance, especially as it relates to noise emanating from the agricultural operations adjacent to urban uses.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required

4.11-2 Construction of new roadways or improvements to existing roadways, and various projects pursuant to the General Plan Update in Noise-Sensitive Areas.

Development of the land uses and circulation improvements in accordance with the General Plan Update would result in temporary elevated noise levels due to the use of construction machinery. Noise impacts may create adverse impacts if construction is phased so that a site is actively under construction next to dwellings or other sensitive uses that are already occupied.

Construction activities would be carried out in various phases, and each development would create its own noise characteristics. Noise levels surrounding a construction site would therefore vary as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and pattern of operation allow noise impacts to be categorized by work phase.

Activities involved in construction would generate maximum noise levels, as indicated in Table 4.11-9, ranging from 85 to 90 dB at a distance of 50 feet. Pile driving activities would generate even higher noise levels. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 4.11-9
Construction Equipment Noise Levels

Type of Equipment	L_{max}, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Source: Environmental Noise Pollution, Patrick R. Cunniff, 1977.

The noisiest construction machinery is typically earthmoving equipment, which includes bulldozers, scrapers, and loaders. This equipment is used in site preparation and road building. Typical operating cycles involve one or two

minutes of operation at full power followed by three to four minutes at lower power settings. Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would likely occur primarily during daytime hours.

Though construction activities would be short-term and would likely occur during normal daytime working hours, the activities would exceed acceptable noise levels, which could interfere with existing noise-sensitive land uses in the vicinity of the construction.

The General Plan Update includes the following goals and policies related to construction-related activities.

Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise.

Policy 9.G.5. The noise created by new transportation noise sources shall be mitigated so as not to exceed the levels specified in Table 4.11-8 at outdoor activity areas or interior spaces of existing noise-sensitive land uses.

Policy 9.G.6. New roadway improvement projects will be needed to accommodate development permitted according to the Land Use Diagram. Where existing noise-sensitive uses may be exposed to increased noise levels due to increased roadway capacity and increases in travel speeds associated with roadway improvements, the City will apply the following criteria to determine the significance of increases in noise related to roadway improvement projects:

a) Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant; and

b) Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant; and

c) Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant.

Policy 9.G.7. An increase of 3 dB Ldn or greater due to additional traffic volumes is considered a potentially significant impact.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required

4.11-3 Compatibility between Beale Air Force Base and noise-sensitive uses developed within the General Plan Update study area.

According to the Comprehensive Land Use Plan (CLUP) for Beale Air Force Base (adopted 1987, amended 1992), the 65 dB CNEL noise exposure contours extend into a portion of the Wheatland General Plan study area. Therefore, implementation of the General Plan Update could create new noise-sensitive areas near areas identified as being noise-impacted within the Beale AFB CLUP.

Due to changing operations at Beale since the CLUP Noise Contours were developed, the noise contours shown on Table 4.11-1 may not reflect the current aircraft noise environment in the Wheatland study area. However, significant issues related to the noise produced by aircraft at Beale AFB do exist. As a result of annoyances that occur due to air traffic noise, the base has adopted airport noise contours for various decibel (dB) ranges and appropriate measures to lessen the effects of noise. The main purpose for creating noise contours is to reduce the number of people exposed to noise from aircraft operating from the airport to the lowest level possible. The CLUP states that if development is proposed in areas between the 60 dB and 65 dB Community Noise Equivalency Level (CNEL) noise contours, affected cities and counties should evaluate the impact of aircraft noise on proposed development and consider requiring noise reduction measures, aviation noise easements, and buyer-renter notification. As a result, the CLUP provides a detailed analysis of compatible land uses within 60-65dB, 65-70dB, 70-75dB, 75-80dB, and 80-85dB ranges.

In addition, the requirements of the California Building Code would protect future potential individual residential, commercial, lodging, and school projects exposed to noise due to aircraft flyovers to ensure that all proposed new noise-sensitive land uses would be compatible with both California Noise Insulation Standards (title 24) and the City's local noise standards.

The General Plan Update includes the following goals and policies related to the development of noise-sensitive land uses near the critical Beale AFB noise contours.

Goal 9.H To protect the economic base of the City by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses.

Policy 9.H.4. The City shall work with the Sacramento Area Council of Governments (SACOG) to ensure that City's noise policies and contours are consistent with the Beale Air Force Base Land Use Plan.

Implementation of the goals and policies above would reduce the impact; however, the impact would remain ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.11-3 *The City shall review all development applications on a case-by-case basis for conflicts with the Beale Air Force Base Comprehensive Land Use Plan. If appropriate, adequate measures shall be incorporated into projects in order to prevent exposure to adverse noise levels.*

4.11-4 Compatibility between railroad noise and noise-sensitive uses developed within the General Plan Update Study Area.

In order to quantify noise levels generated by the UPRR tracks at the project site, Bollard Acoustical Consultants utilized railroad noise level data collected as part of the Wheatland General Plan Update.

According to noise level measurements and field observations conducted by Bollard Acoustical Consultants, Inc., this line was observed to support approximately 30 train operations in a 24-hour period. Given this level of railroad activity, a measured average railroad Sound Exposure Level (SEL) of 98 dB at the measurement distance of 200 feet, and a random distribution of railroad activity throughout the day and nighttime periods, the Ldn computed for the railroad tracks in Wheatland was 70 dB at a distance of 200 feet from the tracks. Table 4.11-4 shows the distances from the railroad tracks to the 60 and 65 dB Ldn railroad noise contours based on 30 operations per day, and likely variations from that observed number of daily operations.

The General Plan Update includes the relocation of UPRR to the eastern border of the City, where if relocated, appropriate noise reduction design standards would be applied to decrease noise levels near sensitive receptors. Although the General Plan Update does not include recommendations to change railroad location and operations, the proposed Land Use Map and growth management policies, which encourage compact development, increase the likelihood of residential

development being located in areas adjacent to the railroad right-of-way. As such, residential land uses may be exposed to greater railroad noise.

The General Plan Update includes the following goals and policies related to the development of noise-sensitive land uses near the UPRR noise contours.

Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise.

Policy 9.G.3 Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 4.11-7 at existing or planned noise-sensitive uses, the City shall require an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. The acoustical analysis shall meet the following requirements:

a) It shall be the financial responsibility of the applicant.

b) It shall be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.

c) It shall include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.

d) It shall include estimates of existing and projected cumulative (20 years) noise levels in terms of Ldn or CNEL and/or the standards of Table 4.11-7, and compare those levels to the policies and standards of this section of the General Plan.

e) It shall recommend appropriate mitigation to achieve compliance with the policies and standards of this section of the General Plan, giving preference to proper site planning and design over mitigation measures which require the construction of noise barriers or structural modifications to buildings which contain noise-sensitive land uses. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.

f) It shall include estimates of noise exposure after the prescribed mitigation measures have been implemented.

g) It shall describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures.

Policy 9.G.4. The City shall prohibit new development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels set out in Table 4.11-8, unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels set out in Table 4.11-8.

Implementation of the goals and policies above would reduce the impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required

4.11-5 Noise impacts associated with increased traffic on City streets resulting from buildout of the General Plan Update Study Area.

Following cumulative buildout of the General Plan Update, traffic noise levels are predicted to be significantly higher than existing traffic noise levels on several roadways with the General Plan Update study area. The buildout of the General Plan Update study area will result in changes in land uses within the City of Wheatland. Those changes will invariably affect the future (cumulative) ambient noise environment within the City. While it is difficult to project exactly how the ambient noise conditions within the City will change following buildout of the General Plan Update study area, it is known that traffic noise levels will increase on a city-wide basis due to the additional traffic generated by buildout of various land use designations which have yet to be developed. Specifically, Table 4.11-10 shows the projected traffic noise levels at a reference distance of 100 feet from the various roadway centerlines for the cumulative buildout of the City with the proposed General Plan Update land use designations. The presence of sound walls or other shielding reduces absolute traffic noise levels at the shielded areas of noise-sensitive uses, so the Cumulative Traffic Noise levels shown in Table 4.11-10 should be considered conservative.

Table 4.11-10
FHWA-RD-77-108 Highway Traffic Noise Prediction Model Data Inputs, Ldn at 100 feet, and Distances to 60 and 65 dB Ldn Contours – Preferred Plan (2025) Conditions

Segment	Roadway Name	Segment Description	ADT	Ldn at 100 feet from centerline	Distance to Ldn Contours in feet	
					60 dB Ldn	65 dB Ldn
1	Old SR 65	South of Wheatland to Malone Ext.	14500	62	140	65
2		Malone Ext. to South Ring Rd.	12800	62	129	60
3		South Ring Rd. to Main St.	9000	60	102	47
4		Main St. to Olive	15500	63	147	68
5		Olive to McDevitt Dr.	14200	62	139	64
6		McDevitt Dr. to North Ring Rd.	12300	61	126	58
7		Wheatland Park Dr. to Dairy	21900	64	185	86
8		North of Dairy (in County)	27500	65	215	100
9	Oakley Lane	Dairy to Ring Rd.	10200	61	111	52
10		Ring Rd. to New Road 1	8000	60	95	44
11		New Road 1 to McDevitt Dr.	7800	60	93	43
12		McDevitt Dr. to Wheatland Rd.	10200	61	111	52
13		Wheatland Rd. to South Ring Rd.	7300	59	89	41
14	Southern Ring Rd.	Oakley Ln. to Wheatland Park Dr.	12000	61	124	57
15		Wheatland Park Dr. to Malone Ext.	12500	62	127	59
16		Malone Ext. to SR 65 Loop Ramps	14000	62	137	64
17		SR 65 Loop Ramps to B St. Ext.	15300	62	146	68
18		B St. Ext. to New Road 4	14800	62	142	66
19		New Road 4 to Spenceville Rd.	19700	64	172	80
20	Northern Ring Rd.	New Road 4 to Oakley Ln.	7500	59	91	42
21		Oakley Ln. to Wheatland Park Dr.	6400	59	81	38
22		Wheatland Park Dr. to SR 65	11700	61	122	57
23		SR 65 to C St. Ext.	18500	63	165	77
24		C St. Ext. to B St. Ext.	16000	63	150	70
25		B St. Ext. to Nichols Rd. Ext.	15,500	63	147	68
26		Nichols Rd. Ext. to Spenceville Rd.	19,200	63	169	79
27	Loops at Southern Crossing	North of South Ring Rd.	1100	51	25	12
28		South of South Ring Rd.	8300	60	97	45
29	First St.	G St. to Wheatland Park Dr.	3300	56	52	24
30		G St. to E St.	3600	56	55	26
31		E St. to SR 65	3600	56	55	26
32	Wheatland Rd.	West of New Road 2	6700	59	84	39
33		New Road 2 to Oakley Ln.	2800	55	47	22
34		Oakley Ln. to Lewis	2900	55	48	22
35		Lewis to Wheatland Park Dr.	1500	52	31	14
36	New Road 1	New Road 2 to Oakley Ln.	4100	57	61	28
37		Oakley Ln. to Wheatland Park Dr.	3800	56	58	27
38		Wheatland Park Dr. to SR 65	3600	56	55	26
39	Main St.	Wheatland Park Dr. to E St.	1600	53	32	15
40		E St. to Malone	1500	52	31	14
41	Main St. Con'td	Malone to SR 65	4700	57	66	31
42		SR 65 to B St. Ext.	4500	57	64	30
43		B St. Ext. to Spenceville Rd.	2900	55	48	22
44	Malone	Main St. to South Ring Rd.	4100	57	61	28

Table 4.11-10
FHWA-RD-77-108 Highway Traffic Noise Prediction Model Data Inputs, Ldn at 100 feet, and Distances to 60 and 65 dB Ldn Contours – Preferred Plan (2025) Conditions

Segment	Roadway Name	Segment Description	ADT	Ldn at 100 feet from centerline	Distance to Ldn Contours in feet	
					60 dB Ldn	65 dB Ldn
45		South Ring Rd. to SR 65	5400	58	73	34
46	Spencville Rd.	Main St. to New Road 4	7300	59	89	41
47		New Road 4 to Ring Rd.	8900	60	101	47
48		Ring Rd. to SR 65 Bypass	27900	65	217	101
49		SR 65 Bypass Overcrossing	12900	62	130	60
50		SR 65 Bypass to Jasper	7100	59	87	41
51		East of Jasper	2,800	55	47	22
52	McDevitt Dr.	New Road 2 to Oakley Ln.	3200	56	51	24
53		Oakley Ln. to Wheatland Park Dr.	3100	56	50	23
54		Wheatland Park Dr. to SR 65	6300	59	81	37
55		SR 65 to C St. Ext.	9500	60	106	49
56		C St. Ext. to B St. Ext.	4300	57	62	29
57		B St. Ext. to Nichols Ext.	2500	55	44	20
58	Nichols	North Ring Rd. to McDevitt	2400	54	42	20
59		McDevitt to Olive	2900	55	48	22
60	B St.	North Ring Rd. to McDevitt Ext.	2000	54	38	17
61		McDevitt Ext. to Olive	1100	51	25	12
62		Olive to Main	2100	54	39	18
63		Main to South Ring Rd.	2400	54	42	20
64	C St.	North Ring Rd. to McDevitt	4200	57	61	29
65		McDevitt to Olive	4900	58	68	32
66	New Road 2	North Ring Rd. to New Road 1	1900	53	36	17
67		New Road 1 to McDevitt	900	50	22	10
68		McDevitt to Wheatland Rd.	1000	51	24	11
69		Wheatland Rd. to Oakley Ln.	3000	55	49	23
70	New Road 4	Spenceville to South Ring Rd.	3300	56	52	24
71		South Ring Rd. to SR 65 Bypass	2200	54	40	19
72	Wheatland Park Dr.	North Ring Rd. to New Road 1	5700	58	75	35
73		New Road 1 to McDevitt	3000	55	49	23
74		McDevitt to Wheatland Rd.	2500	55	44	20
75		Wheatland Rd. to First St.	3100	56	50	23
76		First St. to Main St. Ext.	3,000	55	49	23
77		Main St. Ext. to Ring Rd.	2,000	54	38	17
78	Eastern Wheatland Bypass	South Beale Rd. to Dairy Rd.	37100	73	754	350
79		Dairy Rd. to Spenceville Rd.	37500	73	760	353
80		South of Spenceville Rd.	48100	74	897	416

Source: *Annual Average Daily Truck Traffic on the California State Highway System*, Caltrans, 2002, Bollard & Brennan, Inc. and kdANDERSAON Transportation Consultants.

The General Plan Update includes the following goals and policies related to Noise impacts associated with increased traffic on City streets resulting from buildout of the General Plan Update study area:

Goal 9.G To protect Wheatland residents from the harmful and annoying effects of exposure to excessive noise.

Policy 9.G.6. New roadway improvement projects will be needed to accommodate development permitted according to the Land Use Diagram. Where existing noise-sensitive uses may be exposed to increased noise levels due to increased roadway capacity and increases in travel speeds associated with roadway improvements, the City will apply the following criteria to determine the significance of increases in noise related to roadway improvement projects:

a. Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant; and

b. Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant; and

c. Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

Policy 9.G.7. An increase of 3 dB L_{dn} or greater due to additional traffic volumes is considered a potentially significant impact.

The City of Wheatland General Plan Policy 9.G.6 pertains to increased traffic noise levels, which result from capacity enhancing roadway improvement projects. This policy does not appear to be applicable to the general citywide increase in traffic noise levels, which would result from buildout of the City. As a result, dwellings at which the traffic noise levels will exceed the City's noise standards may exist, which are not subject to City review with respect to the satisfaction of the standards of the Noise Element. The implementation of the goals and policies above would minimize the impacts; however not to a *less-than-significant* level. The resultant impact would remain a ***significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the impacts, however, not to a *less-than-significant* level. Therefore, a *significant and unavoidable* impact would occur.

4.11-5 *The City shall work to develop a citywide traffic noise abatement program for the express purpose of reducing traffic noise exposure at existing residential uses, which are affected by traffic noise levels in excess of the City's noise level standards. The program should include the following specific aspects for noise abatement consideration where reasonable and feasible:*

1. *Noise barrier retrofits.*
2. *Truck usage restrictions.*
3. *Reduction of speed limits.*
4. *Use of quieter paving materials.*
5. *Building façade sound insulation.*
6. *Traffic calming.*
7. *Additional enforcement of speed limits and exhaust noise laws.*
8. *Signal timing.*

The above measure, whether used individually or collectively, can result in a reduction of traffic noise levels at affected sensitive receptor locations. Nonetheless, despite the implementation of such a noise abatement program, it will be infeasible to ensure that some existing residential uses will not be exposed to future traffic noise levels in excess of the City's noise standards. As a result, this impact is considered *significant and unavoidable* despite the implementation of a Citywide Traffic Noise Abatement Program.

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.
[2] Bollard Acoustical Consultants, Inc., Noise Study, December 2005.

4.12 POPULATION, EMPLOYMENT, AND HOUSING

INTRODUCTION

The Population and Housing Chapter analyzes existing and projected population, housing, and employment conditions for the City of Wheatland. Primary documents and information sources referenced to prepare this section include the *Wheatland General Plan Update Background Report*[1] *(2004).*

ENVIRONMENTAL SETTING

Population

Despite the pressures of continued growth, the City of Wheatland's desire to maintain a rural atmosphere and provide for quality development has remained intact. Beginning roughly in the late 1970s, and escalating in the 1980's the community began to experience growth due to growth pressures from the San Francisco Bay Area region. The majority of development within the urbanized area of the City has been residential with moderate retail/service uses and limited business park or industrial uses.

Current Population

Since 2000, the population of Wheatland has grown at a steady rate. According to the California Department of Finance, the estimated population of the City of Wheatland as of January 1, 2005 was 3,432 (www.dof.ca.gov; August 2004). As can be seen in Table 4.12-1 below, the population of the City of Wheatland has increased by 1,157 residents in the past five years. As of January 1, 2005, Wheatland's population is ranked 440th out of 478 total California cities (www.dof.ca.gov; August 2005). Table 4.12-1 displays data for various years, beginning in 2000, for the City of Wheatland.

Table 4.12-1
Wheatland Population From 2000-2005

As of January 1, 2005	Estimated Population
2005	3,432
2004	3,178
2003	2,690
2002	2,370
2001	2,290
2000	2,275

Source: U.S. Census Bureau and California Department of Finance, accessed at www.dof.ca.gov; August 30, 2004.

Future Projections

Projections have been calculated out to the year 2025 for the Wheatland study area and represent a strong increase in numbers. The increase in population is in direct correlation with the implementation of the Land Use Plan. When buildout occurs, Wheatland is projected to be the fastest growing city in the Yuba County. Table 4.12-2 shows projections for 2003 to 2025.

Table 4.12-2
Wheatland Population From 2003-2025

As of January 1, 2003	Estimated Population
January, 2003	2,700
Projected 2003 to 2025	27,400
Total Population at 2025	30,100
Projected Annual Absorption	*1,200*

Source: EPS.

Employment

Because Wheatland is most immediately impacted by the economic trends of Yuba County, employment by sector was analyzed for Yuba County only, as shown in Table 4.12-3.

Historical Employment Trends—Yuba County

- **Overall job growth in the County has been modest**. During the last 10 years, Yuba County grew by approximately 2,800 non-farm jobs, a decrease of 300 farm jobs and a net growth of 2,500 total jobs. This represents a growth rate of approximately 1 percent annually (see Table 4.12-3).

- **Government continues to be the dominant sector**. Measured in terms of concentration of employees, Yuba County continues to be dominated by government jobs. In 2003, government employees comprised close to 40 percent of all jobs in the County, up from 35 percent in 1993. The large concentration of government jobs in Yuba County is largely the result of Beale Air Force Base, which employees approximately 4,600 people.

- **Farming employment declined.** During the last 10 years, Yuba County realized a decline in farm employment by about 300 jobs (see Table 4.12-3). This is a trend facing many Central Valley communities as continued urbanization and increased agricultural mechanization reduce the labor force required for farming.

- **Manufacturing and service sectors grew**. The manufacturing sector grew substantially in terms of an average annual growth rate of 4.5 percent, which yielded approximately 600 new jobs. The service sector grew by close to 1,000 jobs adding to an already large employment base.

Table 4.12-3
Historical and Projected Employment – Yuba County

	Historical Jobs		Projected Jobs	Historical Change 1993 to 2003		Projected Change 2003 to 2025	
Employment Sector	**1993**	**2003**	**2025**	**Absolute**	**Avg. Annual**	**Absolute**	**Avg. Annual**
Non-Farm Employment					**%**		**%**
Agricultural Services	888	1,192	2,055	304	3.0	863	2.5
Mining	61	74	81	13	2.0	7	0.4
Construction	964	1,247	1,560	283	2.6	313	1.0
Manufacturing	1,077	1,680	2,044	603	4.5	364	0.9
T.C.P.U	1,150	950	1,002	-200	-1.9	52	0.2
Wholesale Trade	425	233	278	-192	-5.8	45	0.8
Retail Trade	3,314	2,957	3,099	-357	-1.1	142	0.2
F.I.R.E.	974	863	1,014	-111	-1.2	151	0.7
Services	4,489	5,397	7,528	-908	1.9	2,131	1.5
Government	8,808	10,314	12,163	1,506	1.6	1,849	0.8
Subtotal Non-Farm Employment	**22,150**	**24,907**	**30,824**	**2,757**	**1.2**	**5,917**	**1.0**
Farm Employment	2,327	2,027	2,090	-300	-1.4	63	0.1
Total Employment	**24,477**	**26,934**	**32,914**	**2,457**	**1. 0%**	**5,980**	**0. 9%**

Source: Woods and Poole Economics (Wheatland General Plan Background report)

Projected Employment Changes—Yuba County

Employment projections for Yuba County by published sources are likely to be conservative given the historically modest growth in jobs the County has experienced. This is the case for projections developed by Woods & Poole. However, the City should consider planning for employment growth beyond what published sources project in order to ensure adequate land availability as the market for nonresidential development matures.

Similar to residential development trends, Yuba County will likely exceed Woods & Poole's projected rate of employment growth in future years as development moves north and east. However, unlike residential development, the amount and pace of employment growth is less predictable. Job growth in Sacramento and Placer Counties combined with a lack of adequate housing in these Counties will likely push residential development to Yuba County. However, employment growth in Yuba County will likely be slower than that of residential development given available capacity for jobs in the more central areas of Sacramento. Even if the pace of job growth is slower than residential development, local communities should plan for job growth so that land is available when nonresidential development occurs.

Table 4.12-3 shows the projected employment growth for Yuba County by 2025. In total, approximately 6,000 jobs are projected countywide. The projections shown later in this chapter indicates that Wheatland should plan for 10,600 new jobs, which is more than Woods & Poole projects for Yuba County. The 10,600 jobs projection for

Wheatland was to identify the appropriate job base to plan for by 2025. Planning for and identifying land for retail, office, and industrial development, will be critical to ensuring adequate land for economic opportunities as the market matures.

The Presence of Beale Air Force Base

Beale Air Force Base is located in Yuba County approximately 13 miles east of Marysville/Yuba City, five miles northeast of Wheatland, and approximately 15 miles northeast of Lincoln. Beale is accessible via five access roads, two of which lead to Marysville, another two lead to Wheatland, and one road leads to Grass Valley. Beale Air Force Base includes 23,000 acres of land generally considered free from encroachment, resulting in adequate land to carry out military operations.

Beale employed approximately 4,600 persons as of 2003, with average annual pay at approximately $28,000. Beale currently has a large economic impact on approximately eight Northern California counties as a result of supplier relationships and services required. Direct economic impacts in Yuba and Sutter Counties are the result of housing civilian employees who work at Beale. On-base military families attend Bear River Middle School and Wheatland High School. Both civilian and armed services personnel from Beale reside in Wheatland.

Beale's Future

Recent decisions by the Department of Defense (DOD) to locate the Global Hawk aircraft at Beale have indicated a preference for Beale's competitive position for military operations. As national military leaders continue to revise goals, strategies, and operating procedures, decisions related to base closures will continue to be uncertain.

Two economic opportunities are likely to impact Wheatland over time assuming Beale's continued operation and expansion include:

- **The Global Hawk.** The United States Air Force chose Beale Air Force Base as the location of the Global Hawk aircraft, which will be maintained at and deployed from Beale. The Global Hawk is a military plane operated autonomously to conduct reconnaissance military operations. Over 100 contractors are responsible for maintaining the Global Hawk, and there is the potential for locating some of these contractors at or near Beale. The location of autonomous technology at Beale Air Force Base has the potential to increase the demand for office and industrial space in and around the Base, potentially offering economic opportunities to Wheatland in the future.
- **Beale Purchasing Power.** Beale operates numerous business programs that offer local businesses opportunities to sell goods and services to Beale. Local communities, such as Wheatland, have the opportunity to grow small businesses that can be supported by demand from Beale.

Employment Growth in Wheatland

Where residential development is the primary land use intensity in the study area, office and industrial development is the secondary usage proposed for buildout in Wheatland. As the General Plan Update progresses, the City has plans for adequate employment opportunities to create an appropriate job to housing balance. This gives the City the opportunity to capture employment opportunities as they become available, and have the opportunity to increase its employment base as the market matures.

Appropriate Jobs to Housing Balance

Throughout the six-county Sacramento region, the average jobs-to-housing ratio for the year 2000 was 1 job to 1.4 housing units. This is shown in Table A-2 in Appendix A of the GPU Background Report. Communities such as West Sacramento and the City of Sacramento have a higher jobs housing ratio because of the extensive job base within their boundaries. Conversely, communities such as Citrus Heights, Elk Grove, and Rocklin have lower jobs-to-housing ratios when compared to the region. As of 2003, Wheatland's jobs-to-housing ratio was 0.53, as shown in Table 4.12-4.

Table 4.12-4
Projected Job to Housing Ratio

Year	Jobs	Housing Units	Jobs to Housing Ratio	Note
2003 Existing	500	950	0.53	Based on existing data from DOF
2025 Projected	11,100	12,350	0.9	Projected assuming Lincoln's 200 job to housing ratio
2003 to 2025 New	10,600	11,400	N/A	

Source: SACOG and EPS

For planning purposes this chapter assumes Wheatland's jobs-to-housing ratio in 2025 will be equivalent to Lincoln's jobs-to-housing ratio as of 2000 (0.9 jobs to 1 housing unit). Wheatland will unlikely be able to generate demand for employment uses resulting in a jobs-to-housing factor above one. Additionally, Wheatland may not be able to attract industrial uses at the same rate Lincoln has given Lincoln's airport and surrounding industrial land. Wheatland's proximity to Beale Air Force Base and the potential economic opportunities that could result from new technology at the base, however, could increase the economic potential of Wheatland as a job center. As a result, it is reasonable to assume a jobs-to-housing ratio of 0.9 for Wheatland by 2025. The following estimates the number of jobs to plan for assuming a 0.9-jobs-to-housing ratio at 2025 for Wheatland.

Housing

Current Housing

The Wheatland Planning Area currently contains an estimated 1,094 housing units, of which 845 are single-family units, 247 are multi-family units, and 39 are mobile home units. Table 4.12-5 summarizes the number of housing units per housing type within the City of Wheatland as of January 1, 2004.

Table 4.12-5
Wheatland Housing Units (as of January 1, 2004)

Unit Type	Number of Units
Single Family	845
Multiple Family	247
Mobile Homes	39
Total	**1,094**

Source: California Department of Finance, E-5 City/County Population and Housing Estimates, 2001-2004; accessed on www.dof.ca.gov; May 2004.

The overall condition of housing in Wheatland is good. However, rehabilitation and replacement of structures is necessary within the City limits. Mintier & Associates conducted a housing condition survey for the entire City on May 27th, 2004 to identify housing in need of major rehabilitation or replacement. The results of the survey showed that Wheatland has a good stock overall. Ninety-four percent of all housing units are in sound condition. The remaining six percent of the housing stock needs are in minor to substantial repair, and are located in the downtown area near the railroad tracks and State Route 65. Two of the properties that are dilapidated, need to be either completely torn down or have major rehabilitation.

Future Housing Needs & Capacity

The Sacramento region's location as an attractive site for additional employment and population growth is not expected to change in future years. As a result, by 2025, the regional population is projected to grow to 3.0 million people creating a demand for 391,000 new houses, as shown in Table 4.12-6. Table 4.12-6 estimates housing demand, assuming Department of Finance (DOF) projections, which are based on historical trends in migration and birth/death rates resulting in population growth. The DOF projection does not take into account the supply of land and, subsequently, housing.

During the next 20 years, housing demand is expected to be strongest in Sacramento County primarily because of this area's proximity to employment opportunities. Placer and El Dorado Counties are expected to realize the second and third highest housing demand levels given their reputation for quality of life and proximity to jobs along the I-80 and in previous years, demand for housing in Sutter and Yuba Counties will likely be less strong than in other more central locations in the region. However, once land supply is factored in, these two counties are likely to realize increased housing demand given their land availability as compared with more central areas.

Table 4.12-6
Projected Population and Housing Demand by County

	Population – 2003-2025					Units
County	**Jan. 1, 2003**	**2025 Projected**	**Change in #**	**Avg. Annual % Change**	**Assumed People Per Residence**	**Projected New Housing Need 2003 to 2005**
El Dorado	166,000	274,600	108,600	2.3	2.40	45,300
Placer	275,600	443,400	167,800	2.2	2.40	69,900
Sacramento	1,309,600	1,832,600	523,000	1.5	2.40	217,900
Sutter	83,400	124,700	41,300	1.8	2.40	17,200
Yolo	181,300	254,600	73,300	1.6	2.40	30,500
Yuba	62,900	87,900	25,000	1.5	2.40	10,400
Regional Total	**2,078,800**	**3,017,800**	**939,000**	**1.7%**	**2.40**	**391,200**

Source: DOF, CCSCE, and EPS

The inventory of vacant land includes potential development sites that were in the discussion or approval stages at the time of the General Plan Update. Additionally, the capacity for second units on existing or new single-family lots were not calculated during this time. A summary of residential holding capacity in Wheatland compared to Wheatland's assigned housing need is shown in Table 4.12-7. The total residential capacity of units in Wheatland is 1,796, which exceeds the net allocation of 702 units.

Table 4.12-7
City of Wheatland Residential Holding Capacity Analysis

	Very Low	**Low**	**Low-and Very Low**	**Moderate**	**Above Moderate**	**Total**
Total RHNP Allocation (1)	164	133	297	139	266	702
Building Permits: 2000 through 4/30/2004 (1)	0	0	0	0	348	348
Net Allocation to be Met: January 2000-June 2007 (1)	164	133	297	139	-	436
Holding Capacity – Incorporated Land (2)	-	-	64	-	346	410
Holding Capacity – Unincorporated Land to be Annexed (3)	-	-	163	136	1,082	1,381
Remaining Need (4)	-	-	70	3	0	73

Notes:
(1) See Table 20 Background Report.
(2) See Table 25 Background Report.
(3) See Table 26 of the Background Report.
(4) Total need shown in table is sum of very low-, low-, and moderate-income need. There is a surplus holding capacity of 1,473 total units (702 unit need minus 384 building permits issued, minus 410-unit holding capacity on incorporated land, minus 1,381-unit holding capacity on unincorporated land) when income levels are not taken into account.

Wheatland has a net allocation to be met of 436 moderate-income and below units. Wheatland has a capacity for 368 moderate-income and below units, for a deficit in capacity of 68 units, including 65 very low- and low-income units and 3 moderate-income units. The 368 unit capacity for moderate-income and below units could be increased, with application of the maximum 25 percent density bonus, to 460 units; however, density bonuses are not reflected in the table.

Because of the 68-unit deficit in capacity for moderate-income and below units, Wheatland needs to identify additional site(s) or increase densities on currently identified sites to meet the remaining identified need for affordable units. In order to provide the potential for the 68 net remaining housing unit allocation for very low-, low-, and moderate-income units, 3.78 additional acres of vacant High Density Residential-designated land, would have to be made available (assuming development densities at 18 units per acre).

The City has 4.1 acres of land available for re-zoning for multifamily use at 18 units per acre in order to accommodate at least an additional 73 multifamily units needed to provide adequate sites for affordable housing. The redesignated and re-zoned land shall be suitable for multifamily development and shall be available for development during the housing element planning period.

Redesignation of land in Almond Estates and/or the unincorporated “island” between the new junior high & senior high schools is also available to meet remaining RHND for the Housing Element planning period.

Table 4.12-8
Vacant Residential Sites Within Wheatland city limits

APN#/ Location (1)	Acres	General Plan/ Zoning	Maximum Density in Units/Acre (2)	Assumed Affordability	Maximum Development Potential (3)	Inventoried Development Potential (4)
Wheatland Park Place (5) (Site #13)	52.46	LDR/R-1	5.00	above moderate	108	87
Almond Estates (6) (Site #2)	47.00	LDR/R-1	5.00	above moderate	235	205
Between SR 65 and C St. at north boundary of City (7) (Site #10)	2.2	HDR/R-3	18.00	very low and low	36	35
B Street (8) Site #11	12.00	LDR/R-1	5.00	above moderate	60	54
Between SR65 and Malone St. at south boundary of city (9)	1.85	HDR/R-3	18.00	very low and low	33	29
Total units					**472**	**410**

Sources: City of Wheatland Zoning Ordinance, 1991; and Mintier & Associates Land Use Database, 2004.
Notes:
(1) Site # refers to parcel location in 1995 Specific Plan Boundary Map (Figure A-2).
(2) Without 25% density bonus.
(3) Maximum development potential is based on acres multiplied by maximum density (without density bonus), and then rounded down. In the case of Wheatland Park Place, existing units and issued building permits have been accounted. See note #5for this site for further explanation.
(4) See individual notes for each site for explanation.
(5) The site is projected to be built out by the end of 2004 at 210 total single family units (87 units potential remaining – 105 building permits issued in 2003 and 18 building permits issued to-date (see Table 20)). This is equivalent to a total site density of 4.0 units/acre, or 80% of maximum density. Based on 123 issued building permits at an average of 4 units/acre, there is an estimated 21.71 vacant acres remaining. At a density of 5 units/acre, this is equivalent to maximum remaining development potential of 108 units.
(6) Constrained by drainage and access. Possible start in 2007; total of 205 single family lots. This is equivalent to a total site density of 4.36 units/acre, or 87% of maximum density.
(7) Constrained by need for off-site sewer. Unknown start date. Inventoried development potential is based on an assumed density of 16 units/acre. This site is within an existing street and utility infrastructure network.
(8) Constrained by need for off-site sewer. Unknown start date; total of 54 single family lots. This is equivalent to a total site density of 4.5 units/acre, or 90% of maximum density.
(9) Inventoried development potential is based on an assumed density of 16 units/acre. This site is within an existing street and utility infrastructure network.

As shown in Table 4.12-8, Almond Estates is a 47 acre site with a LDR land use designation and R-1 zoning. The site is currently planned for a total of 205 single-family units, which is equivalent to a total site density of 4.36 units per acre. As stated in the table, the site is constrained somewhat by drainage and access, but the constraints do not rule out development within the Housing Element planning period.

Table 4.12-9
Residential Sites Outside Wheatland city limits

	Very Low	Low	Combined Low- and Very Low-	Moderate	Above Moderate	Total
Heritage Oaks Estates	**-**	**-**	**108**	**80**	**590**	**778**
multifamily units (1)	-	-	108	-	-	108
duplex units (2)	-	-	-	80	-	80
single family lots (3)	-	-	-	-	590	590
Jones Ranch	**-**	**-**	**55**	**56**	**442**	**553**
multifamily units (4)	-	-	55	-	-	55
duplex units (5)	-	-	-	56	-	56
single family lots (6)	-	-	-	-	442	442
"Island" between new junior high & senior high schools) (7)	**-**	**-**	**-**	**-**	**50**	**50**
TOTAL	**-**	**-**	**163**	**136**	**1,082**	**1,381**

Sources: City of Wheatland, Carstens Consulting, Inc., Mintier & Associates
Notes:
(1) 6 acres with High Density Residential (HDR) designation and R-3 pre-zoning; 108 unit potential at 18 units/acre.
(2) 7 acres with 40 planned structures (80 units); planned density of 11.4 units/acre.
(3) 181 acres with 590 planned units; planned density of 3.3 units/acre.
(4) 5 acres with High Density Residential (HDR) designation and R-3 pre-zoning; 90 unit potential at 18 units/acre
(5) 9 acres with 28 planned structures (56 units); planned density of 6.2 units/acre.
(6) 140 acres with 442 units; planned density of 3.2 units/acre.
(7) 8 existing single family units; planned for an additional 50 single family units on 31 acres.

As shown in Table 4.12-9, the "Island" has a total site area of 31 acres and is currently projected to have a capacity of 50 single-family units in addition to the 8 existing units. Just as the other unincorporated land that is planned to be annexed, developers of this property will be required to extend infrastructure or fund service and facility expansion (in particular, the wastewater treatment plant does not have the capacity for a large amount of development beyond build-out of the existing City limits).

Household Income

Table 4.12-10 shows the distribution of household incomes for Wheatland and California for 2000, based on income data from 1999. The median household income in 1999 in Wheatland was $34,861, where the median incomes in California were higher at $47,493 for the median household income.

Table 4.12-10
Wheatland and California Household Incomes (1999)

Households	Wheatland		California	
	Total	*%*		*%*
Less than $10,000	96	12.0	967,089	8.4
$10,000 to $14,999	65	8.2	648,780	5.6
$15,000 to $24,999	161	20.2	1,318,246	11.5
$25,000 to $34,999	78	9.8	1,315,085	11.4
$35,000 to $49,999	140	17.6	1,745,961	15.2
$50,000 to $74,999	153	19.2	2,202,873	19.1
$75,000 to $99,999	58	7.3	1,326,569	11.5
$100,000 to $149,999	36	4.5	1,192,618	10.4
$150,000 to $199,999	2	0.3	385,248	3.3
$200,000 or more	9	1.1	409,551	3.6
Total Households	**797**	**100%**	**11,512,020**	**100%**
Median Household Income (dollars)	**$34,861**		**$47,493**	

Source: U.S. Census(Summary File 3).

While Wheatland and California have similar figures for income levels between $35,000 and $75,000, Wheatland's $15,000 to $24,999 income range accounts for 20.2 percent of its total household incomes, while only accounting for 11.5 percent of the State's total.

The median household income in Wheatland increased from $26,591 in 1989 to $34, 861 in 1999, which was an increase of 24 percent (adjusted for inflation). In comparison, California's median income was higher than Wheatland's ($47,493) in 1999 and the rate of increase during the same period (1989-1999) was slightly higher at 33 percent. These income differences reflect the employment opportunities and pay scales in Wheatland. In addition, becasue the cost of living is lower, the households on fixed incomes, such as retirees and other persons with limited incomes, can afford to live in Wheatland.

REGULATORY CONTEXT

Wheatland General Plan Update

The project involves establishment of goals and policies aimed at supporting population growth within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts

IMPACTS AND MITIGATION MEASURES

Standards of Significance

This section uses the following criteria for determining the level of significance of an environmental impact:

- Induce a substantial population increase in an area, either directly or indirectly, which would be incompatible with existing and proposed facilities, services, and infrastructure;

- Displace substantial numbers of existing housing or people necessitating the construction of replacement housing elsewhere;

- Worsen the job/housing imbalance.

Methods of Analysis

Determinations of impacts to population and housing were based on information from the City of Wheatland *General Plan: Housing Element Update Background Report*[2].

Project Impacts and Mitigation Measures

4.12-1 Impacts related to the substantial increase in population.

The proposed General Plan Update (GPU) would result in a substantial increase in the total population in the Wheatland study area at buildout. A total of 27,400 new residents are anticipated to reside in the Wheatland study area compared to existing conditions by 2025. The GPU would induce direct population growth through the construction of new housing units and the attraction of additional commercial enterprises. The GPU also incorporates construction of additional infrastructure, including roads, utilities, and government services that would indirectly contribute to growth.

The population growth associated with the GPU would be substantial, at a 10 times greater than existing population. This expansion would trigger a commensurate demand for infrastructure, change the physical and social character of the community, and enlarge the physical dimensions of Wheatland. Consequently, even though there would be considerably more people, the concentration or density of the population would generally remain the same. Moreover, necessary infrastructure has already been implemented, or is in the process of implementation to meet the present and near future development activities.

<u>Interior City Scope</u>

City facilities, services, and infrastructure are presently adequate to accommodate development of vacant residential sites within the existing City limits. The roads serving the sites are in adequate condition, although there is significant traffic congestion on SR65, which bisects the City. According to the General Plan Housing Element Update (page 42), the existing police, fire, and parks services are adequate as well. The City water system has been completely reconstructed

and adequate water supply for the foreseeable future exists, including well beyond the Housing Element planning period. The wastewater system is generally adequate, although new State water quality permitting requirements are likely to require significant upgrades to the existing treatment and disposal system. However, these upgrades will be required before 2008. The City has completed a flood analysis that indicates the City is not within the 100-year floodplain, and has submitted a Letter of Map Amendment (LOMA) to the Federal Emergency Management Agency (FEMA). The existing drainage system is sufficient to meet the needs of the sites.

Exterior City Scope

The existing City facilities, services, and infrastructure (especially wastewater treatment) are not, however, adequate to accommodate new housing on sites currently outside the City limits. While there are significant constraints on the development of the unincorporated areas that are needed to meet Wheatland's housing needs allocation, there are no alternatives to these sites for providing affordable housing for the study area planning period.

The developers of Heritage Oaks Estates and Jones Ranch will be required to extend infrastructure or fund service and facility expansion to accommodate new housing. The same is true for the "island" property. In particular, the wastewater treatment plant has capacity only for buildout of the existing City limits. The plant must be expanded, and possibly relocated, in order to accommodate new housing outside the existing City limits.

Though the City of Wheatland generally has adequate public facilities, services, and infrastructure to accommodate planned residential growth between January 2001 and July 2008 within the City limits; the anticipated growth of Wheatland outside of City limits in the near future shall require substantial upgrading and expansion of existing public facilities and services. Although additional public facilities, services, and infrastructure are necessary to support future buildout of the study area, the development of such facilities, services, and infrastructure are within the scope of the buildout, and would be implemented throughout the development to support the growth in population.

The General Plan Update includes the following goals and policies applicable to population, and housing issues:

Goal 5.A To ensure the timely development of public facilities and services, and the maintenance of specified service levels for public facilities.

Policy 5.A.1. The City shall ensure through the development review process that adequate public facilities and services are available to serve new development. The City shall not approve new development where

existing facilities are inadequate unless the following conditions are met:

a. The applicant can demonstrate that all necessary public facilities will be installed or adequately financed (through fees or other means); and

b. The facility improvements are consistent with applicable master or facility plans adopted by the City.

Policy 5.A.2. The City shall require development proposals to include plans for development and financing of public facilities and services.

Policy 5.A.3. The City shall prepare and annually review facility master plans, and every five years update the plans to ensure compliance with appropriate state and federal laws, use of modern and cost-effective technologies, and compatibility with current land use policy.

Policy 5.A.4. Through fiscal revenues generated by new development, the City shall expand, as needed, general government services (e.g., City administrative services) in connection with new development.

Policy 5.A.5. The City shall prepare and annually review the Infrastructure Financing Plan (IFP) and every five years update the IFP to ensure the implementation and adequacy of the Plan.

Policy 5.A.8. The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.

Policy 5.A.9. The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing. For facilities subject to incremental sizing, the initial design shall include adequate land area and any other elements not easily expanded in the future.

Implementation of the goals and policies above would reduce impacts to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.12-2 Impacts related to the displacement of existing housing or people necessitating the construction of replacement housing elsewhere.

The General Plan Update at buildout would result in a substantial increase of housing units in the Wheatland study area. The majority of the study area is agricultural land, which has been designated for urban intensities. As the area is primarily agriculture; the displacement of existing housing is not a significant issue.

Within the general population there are several groups of people who have special housing needs. These needs can make it difficult for members of these groups to secure suitable housing, and are the most susceptible to displacement. To protect special groups, the GPU includes goals and policies, which provide adequate housing opportunities for all members of the population. In addition, the GPU Land Use Map has areas designated for such uses.

The General Plan Update includes the following goals and policies applicable to population and housing issues:

Goal 4.A Provide for the City's regional share of new housing for all income groups.

Policy 4.A.1. The City shall continue to monitor residential land use designations and zoning annually to ensure that sufficient land is designated and zoned at various densities to meet the City's regional share of housing.

Policy 4.A.2. The City shall designate and zone areas for higher density residential development that are within or adjacent to existing developed areas in which public facilities and services can be extended, or within large, master planned developments which have the financial capability of providing needed public facilities and services for higher density development.

Policy 4.A.3. The City shall ensure that developers and residents are made aware of key housing programs and development opportunities.

Policy 4.A.5. The City shall work with other public agencies and private organizations to build affordable housing.

Goal 4.B Improve/conserve the supply of existing housing.

Policy 4.B.1. The City shall encourage the preservation of existing neighborhoods and the provision of safe and sanitary housing for all residents.

Policy 4.B.2. The City shall encourage the preservation and rehabilitation of the existing affordable housing stock.

Policy 4.B.3. The City shall support efforts to prevent substandard homes from becoming dilapidated structures.

Policy 4.B.4. The City shall inspect and identify code violations in residential buildings.

Policy 4.B.5. The City shall require the abatement or demolition of substandard housing that is not economically feasible to repair.

Policy 4.B.6. The City shall periodically survey housing conditions to maintain a current database on housing conditions.

Policy 4.B.7. The City shall ensure that potential developers, landlords, and income-eligible homeowners are aware of available affordable rehabilitation programs provided by Yuba County.

Goal 4.C Meet the special housing needs of homeless persons, seniors, large families, disabled persons and farm-workers.

Policy 4.C.1. The City shall provide referrals for housing and services to homeless persons.

Policy 4.C.2. The City shall promote increased housing opportunities for seniors, large families, and disabled persons.

Policy 4.C.3. The City shall encourage developers of rental units to build units for large families.

Policy 4.C.4. The City shall encourage the incorporation of childcare in residential areas and employment-based land uses to help households with young children.

Policy 4.C.5. The City shall provide reasonable accommodation for individuals with disabilities to ensure equal access to housing.

Implementation of the goals and policies above would reduce impacts to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.12-3 Impacts related to the housing/ jobs ratio in the City of Wheatland study area.

The General Plan Update at buildout would result in approximately 11,400 total housing units in Wheatland. The buildout would induce direct population growth through the concentration of new units and the attraction of commercial enterprises. The projected residential development is primarily new housing construction, as opposed to redevelopment of existing housing stock. Overall, the GPU results in a significant net gain of housing units, thereby increasing the available work force.

Despite the increase in population, Wheatland will unlikely be able to generate demand for employment uses resulting in a jobs-to-housing factor above one. Additionally, Wheatland may not be able to attract industrial uses due to limited industrial land. Wheatland's proximity to Beale Air Force Base and the potential economic opportunities that could result from new technology at the base, however, could increase the economic potential of Wheatland as a job center.

A Goal of the GPU is to retain existing employment and to provide balanced economic growth across a broad spectrum that includes service businesses, agricultural, and other production oriented industries in order to achieve sustained growth with a jobs/housing balance. The GPU would result in 11,100 jobs in the City of Wheatland study area. This is an increase of approximately 10,600 jobs over the year 2003 local employment estimate. The year 2003 housing unit estimates 950 housing units and local jobs estimate of 500 yields a job/housing ration of 0.53. The GPU projects a total of 12,350 housing units and 11,100 jobs, resulting in a job/housing ratio of 0.9. Although a jobs/housing ratio less than one (1) generally suggests that residents must travel outside the local area to reach a place of employment, the General Plan Update Land Use designations for employment and housing were determined to achieve a balanced job/housing ratio within the Wheatland study area. In addition, the designated employment areas would provide a more balanced ratio then currently available, thus representing a beneficial impact for the Wheatland area.

The General Plan Update includes the following goals and policies applicable to population and housing issues:

Goal 1.A To grow in an orderly pattern consistent with economic, social and environmental needs, while preserving Wheatland's small town character, and historic significance.

Policy1.A.11. The City shall require future large planning efforts, including specific plans, to provide an appropriate jobs-housing balance to ensure an adequate mix of economic and residential opportunities.

Goal 1.G To support development of employment uses to meet the present and future needs of Wheatland residents for jobs and to maintain Wheatland's economic vitality.

Policy 1.G.1. The City shall designate specific areas suitable for employment development and reserve such lands in a range of parcel sizes to accommodate a variety of employment uses.

Implementation of the goals and policies above would reduce impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

4.13 PUBLIC SERVICES

Introduction

The public services chapter analyzes the anticipated fire, police, and school facilities of the Wheatland General Plan Update study area as well as other public facilities. Information for this analysis is drawn from the *Wheatland General Plan Update Background Report*[1] *(2004).*

Environmental Setting

The setting section describes the law enforcement, fire protection, and schools facilities related to the General Plan Update study area. In addition, gas and electric facilities as well as telecommunication infrastructure are addressed.

Law Enforcement

City of Wheatland Police Department

Wheatland Police Department was established with the City's incorporation in 1874. Crime in the City is minimal by population standards according to the 2003 Uniform Crime Report (UCR) provided by the California State Department of Justice's Division of Criminal Justice Information Services. Reported felony crimes (murder, rape, robbery, assault, burglary, motor vehicle theft and grand theft) have risen from 18 in 2001 to 31 in 2003, a 72 percent increase in three years. The majority of these 2003 crimes (19) were grand thefts (i.e., a theft of over $400). Juvenile and misdemeanor crimes are average for the demographics of this rural community.

Calls for police service also have increased in the past three years: 1,240 calls in 2001; 1,607 calls in 2002; and 1,839 calls in 2003. Traffic congestion and accidents are a significant concern to the Police Department, and responding to them requires a substantial commitment of police resources. The Department has been modernized and expanded over the years by the City, which has provided it with the latest equipment and additional officers.

Current Level of Service and Staffing

Wheatland currently receives police service twenty-four hours a day, seven days a week ("24/7"). The Police Department is staffed by five patrol officers, one sergeant and the Chief. Supplemental police services are provided by three on-call, level-one reserve officers who are paid an hourly wage and are not considered part-time employees. They are used to replace full-time officers due to illness, time off, or unplanned leaves.

Regarding response times, the City area is small enough to allow an officer can get anywhere in the City in two minutes. This is an exceptional response time; however it can be affected by traffic congestion on SR65 and trains traveling through the City. The traffic congestion may slow responses, but slow or stopped freight trains will halt the responses until the train passes. Train-caused response delays are not common, but they have occurred in the past and remain a potential problem.

Departmental Staffing and Work Load

According to the Department, the minimum recommended ratio of police officers to population is 1.5 per 1,000 persons. This ratio is currently considered to be an acceptable staffing level, but due to a variety of local conditions many police departments operate at a lesser ratio while others operate with a higher ratio. The optimum ratio depends on the incident activity levels, response times, and officer safety factors. Such ratios also are dictated by what the community determines to be an acceptable level of service.

Based on the current number of patrol officers (5) and a sergeant (1), the ratio of officers per thousand residents is 2 (assuming an estimated current resident population of 3,422). This ratio currently is necessary to maintain 24/7 coverage and to allow for some overlap. The ratio of officers per thousand residents is a measurement often used to compare the staffing levels of different police departments.

Wheatland's officers currently are assigned to work 12 hours shifts, which allows the City maximum coverage and often permits two officers to be on duty at the same time. It takes a minimum of four officers working 12 hour shifts to provide full coverage. Currently the City's one beat is staffed by one to two officers. This staffing level does not allow for absences due to vacation, injury/illness, or training. Overtime is used to offset these types of scheduled events, and part-time police reserves are used to fill-in for unscheduled absences.

The Police Chief advocates high patrol visibility. This is achieved in Wheatland by having the patrol officers located in the busiest areas where they will be seen by the most people, thus giving the impression that there are many police officers on duty.

Patrol officers spend approximately 70-80 percent of their time involved with traffic matters. These include accident investigations, traffic code enforcement and complaints, removal of abandoned vehicles, parking violations, and controlling congestion related to SR65. Commuter traffic in the morning and evenings keep the officers busy during the workweek, and in the summer months, concerts at the nearby Sleep Train Amphitheater (north of Wheatland) add to traffic on SR65 on the weekends and evenings. Traffic signals do not exist in Wheatland; thus, cross traffic has a difficult time getting from one side of town to the other during heavy traffic flows on SR65.

Wheatland's Police Chief believes that two patrol beats, each staffed by two officers, would be the optimum staffing level. The necessity for two officers to be on duty is

especially important on the weekends and during evenings when law enforcement incident activity increases. If one officer makes an arrest, the other officer can cover the City while the arresting officer deals with the prisoner(s). Arrested subjects must be transported to and processed into the Yuba County Sheriff's jail in Marysville. This is a minimum one-hour trip, if the jail is not busy and can accept the prisoner immediately upon arrival. However, jails often are busy and the trip could take considerably longer.

The police station is staffed only when the Chief or an on-duty officer in present. If no one is present at the station, the on-duty patrol officer must come to the station to assist the public. In 2003 the clerk who doubled as a dispatcher was laid off. The dispatch of calls is accomplished now by the Chief when he is present at the station. After hours and on weekends the on-duty patrol officer carries a cell phone and receives the calls for service directly from the public.

Related Information

Wheatland police officers occasionally have had to call for additional external assistance. If no other Wheatland officers are on-duty or available, the call goes out to the California Highway Patrol or Yuba County Sheriff's Department. Response times for those agencies vary due to the responding units' availability and distance from Wheatland. A good mutual working relationship exists amongst the officers in the area when any request assistance.

Wheatland's officers occasionally are called on to leave the City to respond to incidents elsewhere in the County. Usually this is due to circumstances requiring immediate attention and when response from the normally responsible law enforcement agency is delayed. For example, Wheatland's officers have responded to incidents at Camp Far West in the summer months due to requests from the Sheriff's Department, and off-duty Wheatland officers also provide security and traffic control for events at the Sleep Train Amphitheater. The Amphitheater can accommodate up to 18,500 people, and occasionally, on-duty Wheatland officers have been requested to respond to the amphitheater to help with crowd control.

The Police Department has no ongoing community programs with schools or businesses. The Department was pursuing a grant in cooperation with the Wheatland School District to hire a school resource officer. However, given current and pending (FY 2004 and 2005) budget constraints and decisions, patrol officers may be laid off and the Chief's position reduced to part time. Thus, the Department indicated that it couldn't continue to support the proposal if it means having to layoff any of the patrol officers.

Police officers also provide animal control services. They are dispatched to answer calls involving injured or stray animals. Frequently, the officers have to catch the animal and then place the animal in the back seat of their patrol vehicles. Wheatland has a contract with Yuba County Animal Services in Marysville to care for the animals. The distance is a 28 mile round trip to Marysville to deposit the animal.

Fire Protection

The Wheatland Fire Department functions from one fire station located at 313 Main Street. The fire station has three apparatus bays that house four vehicles. The Department provides emergency response to all emergencies within the City. The City of Wheatland's Fire Department has an Insurance Services Office (ISO) rating of 6, which is used to set fire insurance premiums.

The City provides additional response to the Plumas Brophy Fire Protection District for single incidents that require multiple fire engines or for multiple emergencies requiring multi-agency responses. The Fire Department's performance has not met with significant public dissatisfaction, and the Department appears to enjoy a good reputation.

The Plumas Brophy Fire Protection District is staffed and equipped in a similar manner to Wheatland's, and its headquarters fire station is located on Dairy Road (off SR65 and approximately two miles north of Main Street in Wheatland). The District responds to City emergencies in the same manner as Wheatland does for the District.

The Wheatland and Plumas Brophy departments generally operate as one under joint policies and procedures governing training and operations. The departments share one paid full-time Fire Captain (see below). Both departments have stated that they rely on each other to operate, and that if one was disbanded, the other would have great difficulty functioning effectively. Therefore, for master planning purposes, where the area's total resources must be considered, relevant comments about the District are included.

Effective January 1, 2006, Plumas-Brophy Fire District and the City of Wheatland Fire Department will have merged operations under a joint powers agreement. The agreement establishes a joint powers authority called the Wheatland Fire Authority, which will operate as a regional fire protection agency.

The City's Building Inspector conducts construction review and compliance with codes and ordinances. The Fire Chief conducts some inspections at new construction sites with the Building Inspector, and he consults as needed with contractors and builders. The Wheatland Fire Department has not adopted the Uniform Fire Code or proposed fire protection amendments to the Uniform Building Code for adoption by the City.

<u>Chain of Command</u>

Volunteer Fire Chiefs and Assistant Fire Chiefs lead both departments. In addition, and with the exception of the shared Fire Captain, each department has Fire Captains, Engineer/Firefighters, and Firefighters, all of whom are volunteers. The on-scene incident commander at emergencies is the senior officer or firefighter. Legal actions have not occurred against the Department for services provided during the past three years.

Departmental Strength and Incident Response Staffing

Both fire departments recruit, train, and depend on volunteer staff from the same area of Yuba County. As is common with many other areas, volunteers can only give limited amounts of their time and the shallow pool of potential volunteers appears also to be a limiting factor to increasing the number of volunteers in each department. The increasing number of residents who commute out of the immediate response area during most daytime work hours further limits the agencies' capabilities.

In 2004, the Wheatland Fire Department has 17 volunteer personnel distributed by rank as follows:

- 1 Fire Chief
- 1 Assistant Fire Chief
- 3 Fire Captains
- 9 Engineer/Firefighters
- 3 Probationary Firefighters

The two departments share a paid full-time Fire Captain who maintains the equipment, performs administrative tasks, and organizes the training. The department will need full-time leadership in the near future. As development and growth occur, the daily demands for greater amounts of leadership, management and administrative activity will require a full time effort. Fire protection issues will need to be addressed more rapidly, particularly the preservation of the volunteer system and its effectiveness as well as growth demands requiring full time employees.

Incident Response Staffing

Incident response staffing policies are that each responding unit must contain a minimum of two firefighters, with the maximum number determined by the number of seatbelts on the vehicle. All responding units must have an appointed crew leader. The Department uses a system to track the commitment of its personnel at emergency sites.

Department policy specifies that each responding fire engine must contain a minimum of two qualified firefighters with an allowable maximum determined by the number of seat belts on the engine. In addition, when the Wheatland Fire Department dispatches an engine outside of the City's limits, the Department must maintain another fire engine on stand-by that is staffed with one officer and one firefighter.

Vehicles and Equipment

The Wheatland and Plumas-Brophy fire departments use the National Fire Protection Association (NFPA) standards as a guide for equipping their departments to respond to structural and open space emergencies. Specialized rescue equipment is divided between each department.

The Department's maintain three fire engines as follows:

- Engine 411: a 2002 Type 2 Engine with a 1,000 gpm* pump and 500 gallon water tank
- Engine 412: a 1976 Type 2 Engine with a 1,000 gpm pump and 500 gallon water tank
- Engine 413: a 1982 Type 2 Engine with a 1,500 gpm pump and 500 gallon water tank
  *gpm: gallons per minute

These engines are equipped with a variety of standard safety equipment that include hand, electric, air, and hydraulic tools. The fire engines are equipped with 1 inch, 1 ¾ inch and 2 ½ inch hose to distribute water and a 5 inch hose to supply water from the hydrant to the engine's fire pump. The fire engines also carry foam and foam applicators for specialized use on chemical and flammable liquid fires.

The departments maintain their vehicles and equipment with weekly checks that are documented, and they operate the vehicle-mounted fire pumps bi-weekly. Broken parts or equipment are replaced immediately. The departments commenced keeping mechanical records in September 2003, and Wheatland has experienced only one recent breakdown, which was the auxiliary motor on Engine 413.

Private contractors maintain breathing apparatuses and hydraulic equipment (i.e., Hurst Rescue Tool). The fire departments maintain other electric and air-powered tools.

Personnel Training and Safety

The level of service provided by the two fire departments to the City of Wheatland has been effective during past years, and both are aware of the challenges presented by future growth, including traffic.

The Department has 26 scheduled training sessions for 2004. The Department trains jointly with the Plumas Brophy using NFPA recommended safety and operational standards or those required by the Occupational Health and Safety Administration (OSHA). Attendance at training sessions ranges from 50 to 99 percent of the current volunteer staff.

Both departments have added contemporary fire protection subjects to their training schedules. For example, these include Emergency Medical Technician (EMT) I; Automatic Defibulation; Esophageal Tracheal Airway Insertion; Harassment; Volunteer Firefighter I Certification; Breathing Apparatus Fit Testing; and live firefighting training. The departments maintain a basic but solid set of operational and safety policies. The Department maintains an agreement with the Sierra Sacramento Valley Emergency Medical Services Agency to provide EMT-I, Esophageal Tracheal Airway, and Automated External Defibrillator training and certifications.

Personnel are provided with safety equipment and clothing for structural and open space firefighting and for medical emergencies. The firefighters are trained in the proper use and care of the safety equipment, including the proper maintenance, handling, and fit-testing of breathing apparatus.

Personnel are trained in proper protocols to participate on the State of California's Master Mutual Aid Strike Teams and to place orders for air ambulance services.

The Department did not file any workers compensation claims during 2003. Management direction is provided to assure compliance with the OSHA's procedures for establishing Rapid Intervention Crews (RIC). However, the Fire Department does not have a Safety Committee or maintain an OSHA-specified safety manual.

Mutual and Automatic Aid Agreements

The Department is a signatory to several agreements that augment its capabilities in turn for committing itself to assisting others. They are the:

1. Joint Powers Agreement between the Wheatland Fire Department and Plumas-Brophy Fire District (Under this agreement the Wheatland and Plumas-Brophy fire departments essentially operate functionally as one fire department),
2. Mutual aid Agreement between the Wheatland Fire Department and the Yuba City Fire Department,
3. Mutual Aid Agreement between the Wheatland Fire Department and the Sutter County Fire Department,
4. Mutual Aid Agreement between the Wheatland Fire Department and the Linda Fire Department, and the
5. Mutual Aid Agreement between the Wheatland Fire Department and the Marysville Fire Department.

Emergency Response Data

The Department responds to emergencies ranging from fires, rescues, hazardous materials incidents, and vehicle and other accidents to medical emergencies. The current number of responses within the City of Wheatland is approximately .69 emergencies per day or 1.4 emergencies every other day. The call rate represents approximately 11 emergencies per 100 population or 110 emergencies per 1000 population. The Department reported that the number of overlapping emergencies to which both agencies must respond is approximately 10 per year.

The primary method of transport for medical emergencies is the Bi-County Ambulance Co. Secondary response would be by the closest ambulance to the emergency. In addition, medical emergency air transport is available by Calstar, Reach, and H20 air ambulance companies.

Table 4.13-1
Summary of Emergency Responses

Response Type	2001	2002	2003
Medical Aid	131	157	172
Vehicle Accident	21	19	27
Grass Fires	7	6	3
Unknown Response	2	6	10
Public Assist	7	18	25
Structure Fires or Alarms	5	10	5
Vehicle Fires	1	6	2
Utility Emergencies	2	4	1
Other	7	4	5
Mutual & Automatic Aid	169	292	220
Total Responses	352	522	470
(City & mutual aid responses)			
Total Responses within the City	**183**	**230**	**250**

Source: Robert Olson Associates, Inc., 2004.

Response Protocols and Communications

The Wheatland and the Plumas-Brophy Fire Departments share joint response dispatch protocols that further indicate the depth of their close interdependence. The major integrated protocols include:

- First Alarm assignment: two fire engines, one heavy rescue vehicle, one squad and one Chief Officer,
- Second Alarm assignment: two additional fire engines, and for
- Larger incidents: use of Master Mutual Aid Strike Teams.

Volunteer personnel are dispatched through pagers by the Yuba County Sheriff Department's Communications Office. Backup dispatch is provided by the Linda Fire Department. Additional communication is provided through landline and/or cellular telephone service to the Fire Chief and the Assistant Fire Chief. In addition, the Bi-County Ambulance Company's vehicles are dispatched for all medical emergencies from Marysville by the Sheriff Department's Public Safety Answering Point (PSAP). The response time for this ambulance ranges from 13 to 16 minutes.

Response Times

The Wheatland and Plumas-Brophy fire departments use driving time when calculating their response times from a fire station. The Department's driving time ranges from approximately one to four minutes within the City's limits. The time needed to mobilize volunteers (i.e., "reflex time") so they arrive at the fire station or at the scenes of emergencies ranges from one to more than seven minutes. The average response for

volunteers to arrive at the Wheatland Fire Station is four minutes. However, during 2003 volunteer response was reported to range from zero to seven minutes between 8:00 a.m. and 6:00 p.m. and zero to twelve minutes between 6:00 p.m. and 8:00 a.m.

Fire Loss Data

The Department does not maintain fire loss records. These records would provide estimates of the losses calculated after a fire has been suppressed (i.e., "mitigation"). Fire loss data should be collected because it is one measure of the effectiveness of emergency response along with the adoption and effective enforcement of building codes and standards and other loss prevention ordinances and programs.

Emergency Response Planning

Both fire departments maintain emergency plans of their own design. They contain basic information, such as command structure, important telephone numbers, locations of staging areas, and traffic, crowd control, and evacuation information. These agencies are part of the Yuba County Operational Area (OA). Emergency response plans should be consistent with federal guidance or the State of California's Standardized Emergency Management System (SEMS).

The Department provides fire prevention and CPR education at elementary and day schools. Annual fire inspections are conducted at business sites and at residences upon request. The Department also provides standby general safety and emergency medical services at local high school football games.

Schools

Four school districts serve the Wheatland General Plan Update study area. The Wheatland School District and the Wheatland Union High School District serve the majority of the study area. Approximately 75 acres of the proposed Heritage Oaks Estates is in the Browns Elementary School District and East Nicolaus High School District. The boundary of these two districts is coterminous with, and on its east side, partially follows, the Yuba/Placer County line.

Most of the school facilities within the City of Wheatland and in the surrounding area are currently operating below capacity. Table 4.13-2 shows the enrollment numbers for the Wheatland School District schools and Wheatland High School, while Figure 4.13-1 shows the locations of the schools within the city limits. Following are brief descriptions of the schools operated by the two school districts serving Wheatland.

Table 4.13-2
School Enrollment and Capacity
Wheatland School District and Wheatland Union High School

School	Enrollment	Capacity[1]	Percent of Capacity
Wheatland Elementary	428	330	130%
Bear River Middle School	490	627	78.1%
Far West Elementary (Beale AFB)	302	405	74.5%
Lone Tree Elementary (Beale AFB)	485	1,134	56.7%[2]
Wheatland Charter Academy	86		
Pre-school	72		
Wheatland High School	704	994	76.9%[3]
Academy for Career Education	60		
TOTAL	**2,627**	**3,490**	

[1]These figures are not accurate; updated figures have been requested from the school districts.
[2]Includes Wheatland Charter Academy and Pre-school enrollment.
[3]Includes Academy for Career Education enrollment.
Source: Wheatland Elementary School District and Wheatland Union High School District, November 2005

Wheatland School District

The Wheatland School District (WSD) operates four schools, two within the City and two at Beale Air Force Base. In addition, the WSD has recently finished construction of a new middle school in Wheatland.

As of November 2005, total WSD enrollment was 1,580 and total capacity was approximately 2,300. However, both schools within the City (Wheatland Elementary School, grades K-3 and Bear River School, grades 4-8) are near capacity, with portable classrooms being used. The two schools on Beale Air Force Base (Lone Tree School, grades K-3; and Far West School, grades 4-6) are operating well below capacity, presumably because of reductions in military staff in recent years. (Lone Tree School includes the Wheatland Charter Academy and a pre-school.) Thus, while it appears that there is considerable excess capacity district-wide, most of that excess is at Beale and is therefore not available to the general public.

Wheatland School District estimates the current "yield rate" for grades K-8 at 0.553 students per single-family dwelling. The District's Master Plan establishes the optimal capacity of K-5 elementary schools at 600 students and 6-8 middle schools at 800 students. Among the District's concerns are that planning for the new subdivisions consider the size of schools planned, the District's yield rate, and State Department of Education school siting criteria. Similarly, new development planning should provide for foot paths, bicycle trails, and safe bus routing needs to ensure safe transport for students to and from school. The District would welcome the opportunity to purchase school sites in new developments that meet State Board of Education criteria.

Figure 4.13-1
Wheatland School District Sites

Wheatland Union High School District

Wheatland Union High School District operates Wheatland High School, which is located on Wheatland Road at the western edge of the City. The High School District also operates the Academy for Career Excellence, a charter school providing alternate education options to high school-age students. The curriculum includes Core Academics, Career Preparation, and Technology Training.

As of November 2005, the District's enrollment was approximately 704, up from 575 in April 1994. Total capacity is estimated at approximately 1,000 students. The capacity was designed to accommodate students from Beale Air Force Base, but enrollment has fluctuated with changes in Base operations. Currently, overcrowding is not a problem, and the campus has capacity to accommodate enrollment increases. However, the High School District will soon be accommodating new students from both the Heritage Oaks Estates and Jones Ranch housing developments in Wheatland, as well as from three subdivisions in the Plumas Elementary School District, which does not currently have its own high school. The Wheatland High School superintendent has indicated the school has the capacity to accommodate students from these planned developments.

The Wheatland Union High School District projects an average of 0.18 high school students (grades 9-12) per new household. The District expects that new high schools eventually will be needed as a result of growth and development. Each new high school would serve about 1,300 to 1,400 students and would require between 40 and 45 usable acres. Such suitable sites that meet the State Board of Education's criteria and are acceptable to local residents are difficult to find. Therefore, sites should be identified early in the planning stage for new developments.

Other Public Utilities

Electrical and Natural Gas Service

Pacific Gas and Electric Company (PG&E) is the primary service provider in Yuba County for natural gas and electricity. The Colgate Power House and the Narrows Powerhouses I and II produce some electric power locally. Electricity is also generated by a biomass cogeneration plant near Olivehurst in Yuba County.

Telephone Service

SBC (formerly Pacific Bell) is the primary local telephone service provider for Yuba County, including the City of Wheatland. SBC also provides long distance access for a limited portion of the County; AT&T, Sprint, and MCI also provide long distance service in accordance with the rules of the Federal Communications Commission (FCC). SBC has installed modern telephone facilities in Yuba County that include digital transmission of voice and data communications.

SBC serves approximately 22,000 residences and 4,000 businesses, and has 5,000 other lines in Yuba County for SBC internal communications, government, and special services (such as the California Lottery). The company is confident that it has the capabilities to expand its facilities and service capacity to meet future County needs.

Other Services

Comcast Corporation provides television and internet services in the Wheatland area, including state-of-the-art services such as digital cable and high-speed internet access.

REGULATORY CONTEXT

Existing policies, laws and regulations that would apply to the proposed project are summarized below.

City of Wheatland General Plan Update

The Wheatland General Plan Update contains goals, policies, and implementation programs that establish the framework for the provision of public facilities and services to meet the demand generated by existing and future development in Wheatland.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

A public services impact would be considered significant if implementation of the proposed project would:

- increase the demand for additional fire or police services beyond the ability of the existing departments to provide adequate service;
- increase the demand for additional educational facilities beyond the capacity of the local school district, or the ability of the existing facilities to provide adequate service;
- result in the need for a new system or substantial alteration to power or natural gas utilities; or
- result in the increased need of substantial telecommunications services.

Method of Analysis

Determination of public services impacts was based on information from the City of Wheatland General Plan Update, and the Wheatland Policy Document.

Project-Specific Impacts and Mitigation Measures

4.13-1 Development associated with the proposed General Plan Update would increase the demand for law enforcement.

Public safety is one of the most important aspects of small town quality and enjoyment of a community. In recognition of this importance, law enforcement expenditures represent a significant percentage of the City's General Fund expenditures each year.

Buildout of the proposed land Use Plan would increase the population of the City of Wheatland to 30,100 people by 2025, which would increase the demand on the Wheatland Police Department (WPD) due to the expected increase of crime and traffic. Additional sworn officers would be required in order to maintain the desired officer/population ratio of 1.5 officers per 1,000 population.

At the proposed General Plan Update buildout, the number of sworn personnel at the WPD would have to be expanded by 5 officers to 30 officers, in order to maintain a ratio of 1.5 officers per 1,000 population. In addition, the number of non-sworn officers would have to be expanded to maintain the 0.5 officers per 1,000 population. Police facility square footage would have to expand as well. Additional non-sworn personnel would also be required to support this expansion. New vehicles would be required to provide specialized follow-up services such as investigations, narcotics control, and crime prevention. The Wheatland Policy Document provides policies, which address public safety by setting standards for police service, thereby reducing demands to the WPD.

The General Plan Update includes the following goals and policies regarding law enforcement issues:

Goal 5.G To deter crime and to meet the growing demand for police services associated with increasing population and commercial/employment development in the city.

Policy 5.G.1. Within the City's overall budgetary constraints, the City shall strive to maintain a staffing ratio of 2.0 personnel per 1,000 residents (0.5 non-sworn and 1.5 sworn).

Policy 5.G.2. Within the City's overall budgetary constraints, the City shall provide police support (including patrol and other vehicles, necessary equipment, and support personnel) sufficient to maintain its service standards.

Policy 5.G.3. The City shall require new development to develop or fund police facilities and equipment that, at a minimum, financially support standards identified in Policy 5.H.1.

Policy 5.G.4. The City shall require new development, as demonstrated through positive fiscal impacts or through specific funding mechanisms in the event of fiscal deficits, to fund police personnel and operations and maintenance that, at a minimum, maintain the above standards.

Policy 5.G.5. The City shall include facilities for the Police Department in the new Civic Center.

Policy 5.G.6. The City shall promote, and work with Yuba County to support, public safety programs, including neighborhood watch, child identification and fingerprinting, substance abuse prevention, violence prevention, conflict resolution, and other public education and crime prevention efforts.

Policy 5.G.7. The City shall work with Yuba County to promote services for children at risk of abuse, neglect, youth violence and exploitation.

Policy 5.G.8. The City shall consider public safety issues in all aspects of public facility, commercial, and residential project design, including crime prevention through environmental design.

Policy 5.G.9. The City shall increase levels of traffic enforcement, particularly along State Route 65.

Implementation of the goals and policies above would minimize impacts related to law enforcement; however not to a *less-than-significant* level. The resultant impact would therefore remain ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the potential impacts to a *less-than-significant* level.

4.13-1 *Prior to the issuance of any building permits, the project proponent shall pay the applicable police development fees in accordance with applicable City AB1600 fees and local policies.*

4.13-2 Development associated with the proposed General Plan Update would increase the demand for fire protection.

Fire protection is a critical component of public safety. The Wheatland Fire Authority currently has a volunteer fire department that provides fire protection to the City, and the region surrounding Wheatland. Fire protection depends on several factors: personnel and equipment, available water supply and pressure, response time, and reducing potential fire hazards. Under buildout of the General Plan study area, there would be an increase of approximately 24,000 residents in Wheatland, over the existing population. The increased population would place additional demands on the Wheatland Fire Authority.

The proposed General Plan Update recommends that fire services shall be provided in a manner that ensures adequate response times during emergencies. The General Plan Policy Document includes policies, which minimize fire hazards in the study area, and maintain Wheatland safe from risks associated with hazardous materials.

The General Plan Update includes the following goals and policies regarding fire protection issues:

Goal 5.H To protect residents, employees, and visitors in Wheatland from injury and loss of life and to protect property from fires.

Policy 5.H.1. The City shall establish a full-time fire department.

Policy 5.H.2. The City shall, through adequate staffing and patrol arrangements, endeavor to maintain the minimum feasible response times for fire and emergency medical service (EMS) calls. To this end, the City shall attempt to maintain the following fire flow and response time standards shown in Table 4.13-3:

Table 4.13-3
Fire Flow & Response Time Goals

Type of Development	Fire Flow Standard	Response Standard
Commercial and Employment	3,500 gallons per minute (GPM)	First response within 4 minutes
Multi-Family	2,500 GPM	First response within 4 minutes
Single-Family	1,500 GPM	First response within 4 minutes

Policy 5.H.3. The City shall comply with the provisions of the Uniform Fire Code.

Policy 5.H.4. The City shall require new development to develop or fund fire protection facilities that, at a minimum, maintain the above service level standards.

Policy 5.H.5. The City shall require new development, as demonstrated through positive fiscal impacts or through specific funding mechanisms in the event of fiscal deficits, to fund fire protection personnel and operations and maintenance that, at a minimum, maintain the above standards.

Policy 5.H.6. The City shall assure consistent and full fire protection on both sides of Highway 65.

Policy 5.H.7. The City Fire Department shall attempt to maintain response time of four minutes for emergency medical service (EMS) calls.

Policy 5.H.8. The City shall include a fire station in the new Civic Center.

Implementation of the goals and policies above would minimize impacts related to fire protection; however not to a *less-than-significant* level. The resultant impact would therefore remain ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the potential impacts to a *less-than-significant* level.

4.13-2 *Prior to the issuance of any building permits, the project proponent shall pay the applicable fire development fees in accordance with applicable City AB1600 fees and local policies.*

4.13-3 Development associated with the proposed General Plan Update would increase the demand for school facilities.

The availability and quality of education in Wheatland is an important factor in quality of life, and is also important in terms of the attractiveness of Wheatland for economic development. Wheatland School District (WSD) and the Wheatland Union High School District (WUHSD) are the providers of primary and secondary education. Growth in Wheatland will necessitate the development of additional public, private, and parochial schools. Funding for new public schools has become a complicated matter, with scarce state funding. Policies of the GPU seek to promote high quality education facilities in Wheatland and assist the Wheatland School District and Wheatland Union High School District in planning for and funding the development of needed new school facilities.

The specific sites of new schools will depend upon decisions by the School Board's of the two districts, and the availability of appropriate land. The *Land Use Diagram* indicates general locations for new public school facilities.

As shown in Table 4.13-2, most of the school facilities within the City of Wheatland and in the surrounding area are currently operating near capacity. At buildout, the study area would add 12,350 new households to the City. Using the Wheatland School District and Wheatland Union High School District student-to-household ratios, the proposed project would produce approximately 7,286 elementary school and middle school students, and 2,223 high school students.

The demand on school districts serving the Wheatland study area would increase as the proposed Land Use Plan is built out, and as development in other portions of the districts' service area occurs. The General Plan Update Land Use Diagram includes 200 acres designated for school facilities. If appropriate funding is available, and the City and County coordinate growth with the school district, school impacts should be *less than significant*. However, there is no assurance that funding shall be sufficient, and that the siting, construction, and operation of new schools would not result in impacts.

The General Plan Update includes the following goals and policies regarding school facilities demand issues:

Goal 6.D To provide for the educational needs of all Wheatland residents.

Policy 6.D.1. The City shall work with the Wheatland School District and Wheatland Union High School District in providing quality education facilities that will accommodate projected student growth by requiring that impacts created by developments are mitigated in a manner acceptable to the School District, to the extent legally feasible.

Policy 6.D.2. The City shall encourage the provision of social, recreational, and educational services that complement and enrich those provided by public, private, and parochial educational facilities.

Policy 6.D.3. The City shall encourage the use of schools as community and neighborhood centers to provide a range of services.

Policy 6.D.4. The City shall support the development of appropriately-located private school facilities to provide additional educational facilities in Wheatland.

Policy 6.D.5. The City shall work with Yuba College and other institutions to provide post secondary education and to ensure that higher

education programs and facilities are available to residents of Wheatland.

Policy 6.D.6. The City shall seek to locate a higher education facility within the city limits to serve the needs of Wheatland residents and to support future economic growth.

Policy 6.D.7. The City shall encourage educational facilities to offer job-training and retraining programs to assist Wheatland residents.

Policy 6.D.8. The City, Wheatland School District, and Wheatland Union High School District shall explore the potential for joint financing and use of services and facilities for the community to meet mutual needs.

Goal 6.E To ensure that adequate school facilities are available and appropriately located to meet the needs of Wheatland residents.

Policy 6.E.1. The City shall work cooperatively with the Wheatland School District and Wheatland Union High School District in monitoring housing, population, and school enrollment trends and in planning for future school facility needs, and shall assist the District in locating appropriate sites for new schools.

Policy 6.E.2. The City's land use planning shall be coordinated with the planning of school facilities and shall involve the Wheatland School District and Wheatland Union High School District, in the early stages of the land use planning process.

Policy 6.E.3. The City shall plan and approve residential uses that are accessible to school sites in order to enhance neighborhoods, minimize transportation requirements and costs, and minimize safety problems.

Policy 6.E.4. The City shall encourage school facility siting that establishes schools as focal points within the neighborhood and community.

Policy 6.E.5. The City shall encourage the location of schools in areas with safe pedestrian and bicycle access.

Policy 6.E.6. The City shall encourage the design and improvement of school facilities to provide adequate off-street parking and areas for student pick-up and drop-off to minimize safety problems and neighborhood impacts.

Policy 6.E.7. The City shall work with the Wheatland School District and Wheatland Union High School District to obtain "Safe Routes to Schools" grants. These grants will provide safe bike routes to schools, crossing guards at intersections, designated vehicle drop off routes, and child drop off zones.

Policy 6.E.8. The City shall work closely with the Wheatland School District and Wheatland Union High School District to secure adequate funding for new school facilities and, where legally feasible, the City shall provide a mechanism which, along with state and local resources, requires development projects to satisfy the district's financing program based upon their impaction. The funding should equate to the needs described in the District's School Facilities Master Plan by residential, commercial, and industrial land uses.

Policy 6.E.9. The City and residential developers should coordinate with the Wheatland School District and Wheatland Union High School District to ensure that needed school facilities are available for use in a timely manner.

Implementation of the goals and policies above would minimize impacts related to school facilities; however not to a *less-than-significant* level. The resultant impact would therefore remain ***potentially significant***.

Mitigation Measure(s)

Consistent with State law, implementation of the following mitigation measure would reduce the potential impacts to a *less-than-significant* level.

4.13-3 *Prior to issuance of any building permits, the project proponent shall pay the applicable school impact fees to the Wheatland School District and the Wheatland Union High School District.*

4.13-4 Development associated with the proposed General Plan Update would increase the demand for educational facilities.

Wheatland currently (2005) does not have a public library. The General Plan Update seeks to provide information that remains free and accessible to everyone, including books, magazines, reference materials, multilingual materials, and Internet access. The policies within this chapter seek to promote and help establish the library's vital role in the community and provide for its development as growth increases the demand for library services. Although current educational facilities are inadequate to support the projected population growth, additional sites will be consistently developed to meet the needs of the growing community.

The General Plan Update includes the following goals and policies regarding educational facilities demand issues:

Goal 6.G To ensure that library facilities are available to all current and future Wheatland residents, in order to carry out the library's mission, which is "to inform, to enhance the quality of life, and to foster lifelong learning."

Policy 6.G.1. The City shall develop library facilities as part of the new Civic Center.

Policy 6.G.2. The City shall require new development to fund its fair share of new library facilities.

Policy 6.G.3. The City shall strive to maintain library standards.

Policy 6.G.4. The City shall work with the Wheatland School District, Wheatland Union High School District, Yuba County Library System, and Yuba College to provide library services to the community.

Implementation of the goals and policies above would reduce impacts to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.13-5 Impacts related to gas and electrical facilities.

New development consistent with the General Plan Update Land Use Map would require the extension of gas and electrical lines to serve these developments. Standard application processing procedure for the City involves routing project applications to utility providers for review and comment. Applicants will be required to fund the construction of the necessary infrastructure to connect to existing utility lines maintained by the service provider, and incorporate any recommendations made by the utility providers into the project design. Upon connection to existing facilities, gas and electric service would be able to be provided.

The General Plan Update includes the following goals and policies applicable to gas and electric issues:

Goal 5.J To promote adequate levels of utility services provided by private companies and to ensure that these are constructed in a fashion that minimize their negative effects on surrounding development.

Policy 5.J.1. The City shall communicate its major development plans with utility companies and coordinate planning of facility extensions.

Policy 5.J.2. The City shall require underground electrical distribution utility lines in new developments and areas that are redeveloped, except where infeasible for operational reasons.

Policy 5.J.3. The City shall promote technological improvements and upgrading of utility services in Wheatland.

Policy 5.J.4. The City shall coordinate with gas and electricity service providers to locate and design gas and electric systems to minimize environmental and other impacts to existing and future residents.

Implementation of the goals and policies above would minimize impacts to gas and electric facilities to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.13-6 Impacts related to telecommunications and information technology infrastructure.

In order to provide for services consistent with new technological advances, the City has identified policies related to the provision of telecommunication infrastructure. New development consistent with the General Plan Update Land Use Map would require the installation of wiring for modern information technologies (IT). In addition to developers constructing IT ready developments, the City has identified goals regarding its contribution towards the provision of these services.

The General Plan Update includes the following goals and policies applicable to telecommunications issues:

Goal 5.K To expand the use of information technology as a communication tool in order to improve personal convenience, to reduce dependency on nonrenewable resources, to take advantage of the ecological and financial efficiencies of new technologies, and to develop a better-informed citizenry.

Policy 5.K.1. The City shall facilitate and support development of the infrastructure necessary for all residents to use and benefit from new communication technologies.

Policy 5.K.2. The City shall formally monitor information technology development and city infrastructure issues (both planning and enforcement).

Policy 5.K.3. The City shall work with Yuba County and other agencies to coordinate telecommunication infrastructure planning on a regional basis, both telephone and data.

Policy 5.K.4. The City shall strive to make essential City documents available for immediate retrieval by electronic transfer technologies.

Policy 5.K.5. The City shall incorporate a telecommunications center at the proposed Civic Center, which will allow video conferencing, telecommuting, and will provide an access point for electronic resources and general computer training to the public.

Policy 5.K.6. The City shall require that all new residential, commercial, and employment areas be wired for modern information technologies.

Policy 5.K.7. The City shall establish a website that will contain information about the City government, City services, and City produced documents in a downloadable format.

Policy 5.K.8. To minimize the visual impact of wireless communication facilities (e.g., cell towers), the City shall encourage that they meet the following conditions:

a. Are located away from residential and open space areas;
b. Are not visibly intrusive to residential neighborhoods or public right-of-way;
c. When possible, are co-located with other wireless facilities on existing buildings, towers, poles, or other existing support structures; and,
d. Are painted, camouflaged, or textured in a manner as to reduce their visual impacts.

Implementation of the goals and policies above would minimize impacts to telecommunications facilities to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

4.14 RECREATION

INTRODUCTION

The recreation impact chapter analyzes the Wheatland General Plan Update Study area. This chapter contains goals, and policies that establish the framework for the provision of recreational services for Wheatland residents and visitors. The General Plan Update sets the framework for an expanded park system with physical recreational facilities to provide the opportunity for a variety of recreational activities. City decisions concerning growth and development affect schools, childcare, and senior citizen facilities. Even when the City is not directly responsible for their development and operation, the City plays an important role in the siting and planning of these facilities. The General Plan Update also promotes the creation/expansion of a Civic Center, library services and arts and cultural activities. The following impact assessment is based on information provided by the *Wheatland General Plan Update Background Report*[i] *(2004)*.

ENVIRONMENTAL SETTING

The setting section describes the existing open space and recreation opportunities related to the General Plan Update Study area.

The City provides and maintains public park facilities and services for all age and income groups. The General Plan sets the framework for an expanded park system with physical recreational facilities to provide the opportunity for a variety of recreational activities. Even when the City is not directly responsible for their development and operation, the City plays an important role in the siting and planning of these facilities.

Parks and Recreational Facilities

Parks and recreation activities foster community interaction and a sense of community involvement. Wheatland seeks to provide an opportunity for residents to enjoy active and passive recreation facilities. City standards for the development of City-owned park facilities are shown in Table 4.14-1:

Table 4.14-1
City-Owned Park Development Standards

Facility Type	Size	Standard
Neighborhood Park	5 to 10 acres	2 acres / 1,000 population
Community Park	20 to 30 acres	1 acre / 1,000 population

Wheatland currently has two distinct types of City parks: neighborhood, and community.

Neighborhood City Parks

These parks are designated to serve from 3,000 to 5,000 people located within a quarter to half-mile radius of the park. Park sites typically range in size from 5 to 10 acres. Neighborhood park sites are generally located within short walking distance of residents. Current parks meeting these criteria are:

- *Park Place subdivision*, which contains a landscaped park occupying approximately two acres, as well as open space totaling approximately 4.2 acres. A drainage channel takes up most of this open space.

- *Wheatland Ranch subdivision*, which contains approximately 1.1 acres of landscaped parkland, and 3.8 acres of open space/turf area. Approximately 2.3 acres of the open space/turf area consists of a joint use detention basin/athletic field.

Community City Parks

Community city parks are designated to be centrally located to a larger population, and should serve 20,000 to 30,000 people located within five-mile radius. They are generally 20 to 30 acres in size. Facilities located in community parks should include lawn areas, playing fields, multipurpose equipment, and picnic areas.

Current community facilities are designated as community parks even though they only encompass 0.25 to 3.8 acres. As they are major focal points in the community, they have community park status.

- *City Park*, which is the largest park, occupying 3.8 acres on the east side of State Route 65, between C Street and the Union Pacific tracks. Most of City Park is occupied by a little league baseball diamond (Tom Abe Field).

- *Tomita Park*, which occupies a quarter-acre site in downtown, and is located along the Union Pacific tracks on the west side of Front Street, the location of the City's original train depot. Tomita Park is landscaped with turf and large trees, and includes benches, a gazebo, and a plaque commemorating the Johnson's Rancho historical landmark.

Numerous planned community facilities have also been designated which meet the preferred park acreage and recreational components; although the acreage to population ratio is different from those parks constructed and managed by the City. New development is required to provide a minimum of 5 acres of parkland for every 1,000 new residents. The planned communities include:

- *Jones Ranch*: The recently approved Tentative Map identifies 4.7 gross acres as Neighborhood Park, 24.8 acres of Open Space/Drainage Corridor, and 1.2 acres of Pedestrian Paseo/Tot Lot, for a total of 30.7 park and/or open space acres, well above the required amount of parkland dedication.

- *Heritage Oaks Estates West*: The recently submitted Tentative Map identifies 8.09 net acres as park.

- *Heritage Oaks Estates East*: The recently submitted Tentative Map identifies 23.07 acres for park space, including tot lots, parkways, and community and neighborhood parks.

Sports Parks

As noted, the City is anticipating the incorporation of parks to meet the needs of an expanded population. The greater population will allow for the creation of park facilities not currently supported by a city the size of Wheatland. In the future, it will be possible to create sports park facilities encompassing 25 to 75 acres. Such facilities will be designed to serve 5,000 to 15,000 people and will allow for regional events such as fairs, statewide athletic tournaments, and revenue generating exhibitions. The City shall strive to achieve the standards shown in Table 4.14-2 for existing or new sports and recreational facilities.

Table 4.14-2
Sports and Recreational Facility Standards

Facility Type	Standard (Facilities per unit of pop.)	Minimum size
Facilities to be located at Parks		
Tennis Courts	1 to 2,000	7,500 sq. ft. court
Volleyball Courts	1 to 5,000	4,000 sq. ft. court
Multipurpose Courts	1 to 10,000	10,000 sq. ft. court
Basketball Courts	1 to 5,000	7,300 sq. ft. court
Play Apparatus	1 to 3,000	2,500 sq. ft.
Picnic Unit	1 to 10,000	2,500 sq. ft.
Ball Fields, Skate Park, Pool, Gym (See Policy 6.A.5)		
Baseball Fields	1 to 8,000	7 acres
Softball Fields	1 to 10,000	7 acres
Soccer Fields	1 to 15,000	5 acres
Multipurpose Fields	1 to 5,000	5 acres
Skate Park	1 to 30,000	5 acres
Gyms	1 to 30,000	3 acre site (250 person capacity)
Other Facilities		
Civic Center (outdoor auditorium)	1 / 30,000	10 acre site (500 person capacity)
Youth Center	1 / 30,000	5 acre site (250 person capacity)
Senior Center	1 / 30,000	3 acre site (8,000 sf)
Park / Recreation Office	1 / 30,000	2 acre site (8,000 sf)

These standards may be satisfied through any combination or joint development of public facilities, private recreational facilities, and school facilities. In addition to these standards and minimum sizes, sports facilities shall be developed according to adopted sports facilities master plans.

Wheatland Pedestrian, and Bicycle Trails

Recognizing ongoing development pressures and the valuable waterway resources within the City's Study area, the City of Wheatland has considered many potential uses of local waterways and proposes to enhance these community resources. The goals of the General Plan are to encourage and improve public access to creek and river channels, establish riparian and scenic values, and promote the continued support and maintenance of the creeks and trail systems by local residents. While the emphasis of the Land Use Diagram is to improve access and vegetation, it is noted that the primary function of these waterways is flood protection. Accepting this priority, it is still possible to maintain and enhance public access and vegetation and habitat values of the waterways.

The one main waterway within the City's study area is detailed in the Land Use Diagram: Grasshopper Slough. As development occurs within the waterway area, the diagram has supported designs that improve access and enhance vegetation through integrated bike and pedestrian trails. The diagram does not offer detailed designs for individual sections of trail. Specific designs are considered along with development plans for specific land parcels. Jones Ranch, located along Grasshopper Slough, will not include the partial construction of the trail; however, space is reserved along the waterway to serve as future trails.

While the Land Use Diagram identifies additional linkages along existing irrigation canals and proposed roadways within the Study area, further trail development will also serve additional functions, such as open space and alternative transportation routes. As Wheatland does not have any existing bike trails, a comprehensive bicycle system would provide a safe and effective method of travel between neighborhoods and to local recreation and retail uses.

Existing Unmet Recreational Needs

The Yuba County General Plan establishes an overall community standard of five acres of total (neighborhood and community) park space per 1,000 residents. Based on the current population of approximately 3,178, and using the above standard, the City should contain 15.75 acres of park space. Existing parks within the City total approximately 15.45 acres. Using the above service standard, the City requires and additional 0.30 acres of park space to meet the needs of the current population.

Regulatory context

Wheatland General Plan Update

The project involves establishment of goals and policies aimed at supporting population growth within the City of Wheatland. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts

Impacts and Mitigation Measures

Standards of Significance

The recreation and open space impact analysis considers the Study area's consistency with several standards, including the existing land uses, the general plan, and the zoning ordinance. Impacts related to recreational uses and open space may also be considered significant if any of the following conditions, or potential thereof, would result if the proposed project's implementation would

- result in inadequate park and recreational facilities, or;
- result in the lack preservation and enhancement of open space lands.

Method of Analysis

Determinations of impacts to public services were based on information from the *City of Wheatland General Plan Background Report*, the *General Plan Update Land Use Map*, and the General Plan Update goals and policies.

Project-Specific Impacts and Mitigation Measures

4.14-1 Impacts related to neighborhood and regional parks or other recreational facilities.

The General Plan Update includes standards, which seeks to provide for the development of new parks and recreation facilities, including a new community park, a Civic center, a senior center, a youth center, a sports and ball field east of Downtown, and new neighborhood parks. Though the current park acreage is sufficient for the current population, additional parks will need to be constructed to meet the needs of the projected population.

As recreational facilities are minimal in Wheatland, additional facilities would need to be implemented to maintain the present facilities. Wheatland's existing City Hall and community service facility are inadequate to accommodate the growth of the City. The General Plan Update calls for the creation of a Civic Center close to the Downtown to house these functions.

The City's Land Use Diagram has designated 200 acres for park space that it hopes to bring into service over the next 20 years. This allotment will be implemented as additional residential development sites are set for construction. Assuming the 200 acres is added, the projected population of 30,100 for 2025 will be fully met. The precise location of future park sites will be determined by the City in conjunction with new development and based upon available and appropriately located land.

Community involvement and activity is an important component of the quality of life and small-town character of Wheatland. Policies of the plan seek to provide for facilities where groups can gather for functions and activities. Though the current facilities are inadequate to support the projected population growth, additional sites will be consistently developed to meet the needs of the growing community.

The General Plan Update includes the following goals and policies applicable to recreational issues:

Goal 6.A To establish and maintain a public park system, recreational, and civic facilities suited to the needs of Wheatland residents, employees, and visitors.

Policy 6.A.1. The City shall initiate the financing, design, and development of a City-owned community park adjacent to the new Civic Center site, in accordance with the Land Use Diagram.

Policy 6.A.2. The City shall develop and promote the use of its park system to include a balance of passive and active recreation opportunities.

Policy 6.A.3. The City shall strive to achieve the following standards for the development of City-owned park facilities, shown in Table 4.14-1.

Policy 6.A.4. The City shall require new development to provide a minimum of 5 acres of parkland for every 1,000 new residents.

Policy 6.A.5. The City shall strive to achieve the standards shown in Table 4.14-2 for existing or new sports and recreational facilities. These standards may be satisfied through any combination or joint development of public facilities, private recreational facilities, and school facilities.

Policy 6.A.6. The City shall recognize that standards for neighborhood park acreage are distinct from standards for sports fields and facilities acreage for baseball, softball, and soccer fields, skate parks, pools, gyms, and youth, senior, or civic centers.

Policy 6.A.7. The City shall seek to establish and maintain a linear park system of greenbelts, bicycle paths, and pedestrian walkways that link city park facilities and other key destinations. This linear park system should not be counted towards meeting acreage standards for neighborhood or community parks and recreation facilities.

Policy 6.A.8. The City shall ensure that appropriate funding mechanisms are identified to adequately fund the development of new parks and recreational facilities and the redevelopment of existing parks and recreational facilities.

Policy 6.A.9. The City shall ensure that appropriate funding mechanisms are identified to cover the cost of maintaining parks and recreational facilities on an ongoing basis.

Policy 6.A.10. The City shall consider the following factors in the design of new parks:

a. Safety
b. Security
c. Maintenance
d. Accessibility
e. Landscaping complimentary to the surrounding environment
f. Travel distance of users
g. Passive vs. active use areas
h. Restroom facilities
i. Citizen input
j. Adequacy of off-street parking
k. Flexibility for programming activities

Policy 6.A.11. The City shall investigate the potential for joint use agreements with the school districts for the use of shared-use park and school facilities.

Policy 6.A.12. The City shall encourage local service clubs and non-profit organizations to participate in the development and improvement of City parks and recreation facilities.

Policy 6.A.13. The City shall encourage the establishment or joint development of commercial or private recreation facilities within the Wheatland area.

Policy 6.A.14. The City shall ensure that recreation facilities are sited to minimize negative impacts (i.e., parking, night lighting, excessive noise) on surrounding neighborhoods.

Policy 6.A.15. The City shall prepare and implement a Parks Master Plan.

Policy 6.A.16. The City shall provide supervision of park areas to protect the rights of the users of the parks and reduce vandalism, and shall work with law enforcement agencies to eliminate crime at parks and recreation facilities.

Goal 6.B To develop a permanent, centralized home for City departments, while providing valuable public services and facilities within the Downtown area of Wheatland.

Policy 6.B.1. The City shall develop a site plan for a Civic Center.

Policy 6.B.2. The City shall develop the Civic Center, which will serve as the community gathering place and center for community events and recreation. The Civic Center shall reflect community history and help to establish the Downtown as a vibrant community center.

Policy 6.B.3. The City shall develop the Civic Center to accommodate the Police Department, Fire Department, City Library and City Hall, and for possible expansion of Public Works and other City Departments as needed.

Policy 6.B.4. The City shall locate the Civic Center west of the proposed Community Park along Spenceville Road (see the Land Use Diagram).

Policy 6.B.5. The City shall actively seek funding for, and involve youth in the planning of, a citywide youth recreation center to be located on the Civic Center site, which will include gymnasium, game rooms, meeting rooms, offices, and a patio area.

Goal 6.C To provide facilities which bring citizens together to meet their social, cultural, recreational, and educational needs.

Policy 6.C.1. The City shall actively seek funding for, and involve senior citizens in the planning of, either the expansion of the current Senior Center or establishment of a new larger Senior Center. The

Senior Center should include meeting rooms, offices, game rooms, dining areas/kitchens, and a patio area.

Policy 6.C.2. The City shall site the Senior Center so that it is easily accessible to transit, the library and Civic Center, medical facilities, and other key destinations within the City.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.14-2 Impacts related to preservation and enhancement of open space lands.

Part of the enjoyment of Wheatland is its open space resources, both manmade and natural. Wheatland's open space resources include parks, mature trees in the neighborhoods and along roadways, and the agricultural lands surrounding Wheatland.

The General Pan Update includes guidelines to protect natural resources, while meeting Wheatland's future parks and recreation needs. The Land Use designation provides for outdoor recreational uses, equestrian uses, habitat protection, irrigation canals, reservoirs, watershed management, public and quasi-public uses, and areas typically limited for human occupation due to public health and safety hazards such as floodways, unstable soils, or areas containing wildlife habitat and other environmentally-sensitive features.

As discussed previously in this chapter, the City of Wheatland recognizes ongoing development pressures and the valuable environmental resources within the City's Study area. The City of Wheatland has included goals of the General Plan to encourage and improve public access to creek and river channels, establish riparian and scenic values, and promote the continued support and maintenance of the creeks and trail systems by local residents. In addition, the GPU includes goals and policies to protect natural resources, thus assisting in the preservation and enhancement of open space lands.

The General Plan Update includes the following goals and policies applicable to recreational issues:

Goal 6.A To establish and maintain a public park system, recreational, and civic facilities suited to the needs of Wheatland residents, employees, and visitors.

Policy 6.A.7. The City shall seek to establish and maintain a linear park system of greenbelts, bicycle paths, and pedestrian walkways that link

City park facilities and other key destinations. This linear park system should not be counted towards meeting acreage standards for neighborhood or community parks and recreation facilities.

Policy 6.A.14. The City shall ensure that recreation facilities are sited to minimize negative impacts (i.e., parking, night lighting, excessive noise) on surrounding neighborhoods.

Goal 8.D To preserve and enhance open space lands to maintain the natural resources of the Wheatland area.

Policy 8.D.1. The City shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible.

Policy 8.D.2. The City shall, where appropriate, permanently protect as open space areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains.

Policy 8.D.3. The City shall require that new development be designed and constructed to preserve significant stands of vegetation and any areas of special ecological significance as open space to the maximum extent feasible.

Policy 8.D.4. The City shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems.

Policy 8.D.5. The City shall encourage the development of natural open space areas in regional, community, and neighborhood parks.

Policy 8.D.6. The City shall serve as the steward of public open space and ensure that the use and maintenance of the open space is carried out in an environmentally-responsible manner.

Policy 8.D.7. The City shall plan and establish natural open space parkland as a part of the overall City park system.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

Endnotes

[i] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

4.15 TRANSPORTATION AND CIRCULATION

Introduction

A city is both defined and constrained by the network of highways, roads, and railroad that move its residents and goods through and in and out of the city. While Wheatland is not a large city, mobility through the City is hindered by congestion on State Route 65 and the Union Pacific railroad tracks. The General Plan Update provides for the development of new roads, overpasses, and the widening and improvement of existing roadways to serve new development. The General Plan Update also promotes alternative forms of transportation to reduce air pollution, reduce the need for costly roadway improvements, and facilitate the travel of those who cannot or do not wish to use automobiles for all their trips.

The General Plan Update Transportation and Circulation chapter addresses various transportation issues, including automobile travel and parking, transit, non-motorized transportation (e.g., bicycle and pedestrian travel), and freight movement (truck and rail). In addition, this chapter of the EIR analyzes transportation impacts that would result from the implementation of the General Plan Update study area. The information used in the following assessment is based on the *Wheatland General Plan Update Background Report*[1] *(2004)* with traffic movement counts, traffic projections, and technical analyses conducted for this EIR by kdANDERSON Transportation Engineers[2].

Environmental Setting

The environmental setting provides a description of the existing conditions related to the existing roadway system within the City of Wheatland General Plan Update area, the existing traffic volumes, and the existing levels of service. In addition a discussion of the regulatory setting is provided to indicate agencies and regulations responsible for transportation and circulation.

Existing Roadway System

The City of Wheatland Public Works Department maintains the City's street system. The street system consists of approximately 12.5 miles of roads. The City streets are primarily local roads except for Spenceville Road, Main Street, and First Street which are classified as classed as collector or arterials in the City's 1980 General Plan. As indicated in the road descriptions, Spenceville Road and Main Street are arterials and First Street is a collector. Except for about 2.5 miles of recently constructed Wheatland Ranch, Park Place, and Ryantown subdivision streets, most of the City's road system has not had any overlay or reconstruction since at least 1960. The Wheatland street system exists in a general grid formation with streets running both parallel and perpendicular to State Route

65 and the Union Pacific Rail Road (UPRR) tracks. Streets and intersections serving the study area are listed below:

Highways

Roadways that are acquired, laid out, constructed, improved or maintained by a state agency via constitutional or legislative authorization are considered State Highways.

State Route 65 (SR 65)

SR 65 is a north-south highway traversing Placer and Yuba Counties. Beginning at Interstate 80 in Roseville, SR 65 travels through south Placer County's communities of Lincoln and Sheridan, across the Bear River through Wheatland, west of Beale AFB then connects with State Route 70 south of Marysville. SR 65 becomes a four-lane controlled access freeway from I-80 to the signalized Sunset Blvd intersection in Rocklin. From that point northerly, the facility becomes a four-lane expressway with at-grade intersections except for the Twelve Bridges Drive interchange in Lincoln. The highway narrows to a two-lane section through Lincoln and remains a two-lane roadway through Sheridan and Wheatland. In Wheatland, the highway has been widened through the Main Street and Fourth Street intersections to provide dedicated left turn lanes, but turn lanes do not currently exist at the more northerly downtown intersections. North of Wheatland, SR 65 becomes a four-lane controlled access freeway around Beale Air Force Base. In Marysville, SR 65 becomes a two and four lane road with at grade signalized and un-signalized intersections.

Arterials

Roadways that run at high capacity (though below the level of service of a highway) are considered arterial. Arterials carry large volumes of traffic between neighborhoods and often intersect residential streets.

Main Street

Main Street is the most southerly east-west arterial linking SR 65 with downtown Wheatland. Main Street is designated as an arterial in the current Wheatland General Plan. Main Street is one of four at-grade Union Pacific Railroad (UPRR) crossings, and Main Street is the widest of the streets intersecting SR 65 with the width available to accommodate separate right turns.

Spenceville Road

Spenceville Road is a two-lane arterial linking Smartville Road and Camp Far West Road south of the Beale Air Force Base into the City of Wheatland and SR 65. Approaching SR 65, Spenceville Road becomes Main Street through Wheatland.

Collectors

Roads providing direct access to residential and commercial sites are considered collectors.

McDevitt Drive
Originating at SR 65, McDevitt Drive is an east-west collector that extends to the west providing access to residential and commercial development. At the City limits, McDevitt Drive turns to the south and extends to Wheatland Road.

Evergreen Drive
Evergreen Drive is an east-west collector roadway that provides access for area residents. Originating at SR 65, Evergreen Drive extends to the west before terminating at the City limits.

Nichols Road
Nichols Road is a local collector roadway that provides north-south access for area residents. Nichols Road extends between Olive Street in the south and Cyrus Dam Drive in the north.

Local

Fourth Street, Third Street, and Second Street
These facilities are local east-west streets that link downtown Wheatland with SR 65. Each street crosses the UPRR and continues into eastern Wheatland.

First Street and Wheatland Road
First Street/Wheatland Road is a collector street that links SR 65 with western Wheatland and continues westerly to Forty Mile Road, a north/south arterial that also crosses the Bear River. First Street is the primary access to Wheatland High School. However, First Street does not cross the UPRR and therefore does not serve eastern Wheatland.

B Street, C Street, and Front Street
These facilities are local north-south streets that parallel the east side of SR 65 in the downtown area.

State Street
State Street is a local north south street. Originating just south of Wheatland at SR 65, State Street extends to the north paralleling the west side of the Union Pacific Railroad Tracks. State Street terminates at Main Street as it is a county roadway.

Jasper Lane
Jasper Lane is a north south roadway. Originating at Spenceville Road, Jasper Lane extends to the north before terminating at Ostrom Road.

Oakley Lane and Lewis Road
These roadways are rural Yuba County roads that run generally parallel to SR 65 in the area north of Wheatland. Oakley Lane connects western Wheatland with SR 65 north of the community via an intersection at Dairy Road.

The City funds the operation and maintenance of the street system through gas tax and general fund revenue. New developments are required to provide for street facilities and/or pay an impact fee based on their demand and use of existing system facilities. New development is required to construct all internal street system improvements associated with their projects.

Existing system deficiencies include: failed road structural section (asphalt and base material); lack of and/or damaged curb, gutter and sidewalk; and lack of adequate funding to maintain and keep up the street system. In addition to these physical needs, the City's Public Works Improvement Standards relative to street systems were last updated in 1992 and are in need of revision to make them more current with present-day materials and construction standards.

Levels of Service

To assess the quality of existing traffic conditions and to provide a basis for evaluating project impacts, Levels of Service (LOS) were calculated at study area intersections and for individual roadway segments. A "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment. Table 4.15-1 presents general characteristics associated with each LOS grade and LOS methodology.

As the operation of major intersections primarily govern the quality of traffic flow conditions in urban areas, intersection Level of Service analysis has been used for this study to determine the significance of resulting traffic conditions with development of the General Plan Update study area. Procedures used for calculating Levels of Service are presented in the Highway Capacity Manual, 2000 edition (HCM). In addition to traffic volume, at signalized intersections these procedures make use of geometric information and traffic signal timing data.

At un-signalized intersections, vehicle acceleration and gap acceptance are the basis for estimates of delay used for Level of Service analysis. The procedures used for un-signalized intersections are also presented in the 2000 HCM. At un-signalized intersections that are controlled by side street stop signs, Levels of Service are calculated for the individual turning movements that must yield right of way. However, a "weighted average" Level of Service can also be determined for all these movements.

Un-signalized Levels of Service analysis is usually supplemented by consideration of traffic signal warrants in order to confirm the significance of calculated delays. While the un-signalized Level of Service may indicate long delays (i.e., LOS "E"), traffic conditions are generally not assumed to be unacceptable unless signal warrants are satisfied. Meeting signal warrants signifies that intersection improvements may be justified but does not necessarily indicate that a signal is the only way to mitigate poor conditions. Operations can be improved by using additional lanes or improved geometrics to reduce delays.

A more subjective view of traffic conditions is also applicable based on consideration of issues such as pedestrian safety, impacts to residential access, noise, etc. Many communities have identified planning level traffic volumes that are applicable to streets with residential frontage and/or schools. These thresholds are below the actual capacity of the road itself and are typically in the range of 2,500 to 4,000 ADT. The City considers 4,000 ADT as the threshold for residential streets and schools that front the street, such as First Street near Wheatland's schools. Currently, First Street carries a maximum daily volume of 3,213 ADT just east of G Street.

Table 4.15-1
Level of Service (LOS) Definitions

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow. Presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach (es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At-or-near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Data Source: *2000 Highway Capacity Manual*

The City of Wheatland's uses LOS "C" as the minimum standard for acceptable traffic operations at any intersection, which is a typical standard used in California. Table 4.15-2 shows the daily traffic volume level of service threshold for urban roadway segments.

Table 4.15-2
Daily Traffic Volume Level of Service Thresholds

Facility Type	LOS "C"		LOS "D"		LOS "E"	
Urban Street	**v/c 0.71 ≤ 0.80**		**v/c 0.81 ≤ 0.90**		**v/c 0.91 ≤ 1.00**	
2 lanes	10,700	12.000	12,000	13,500	13,500	15,000
3 lanes	14,200	15,950	15,950	17,950	17,750	19,950
4 lanes	21,300	24,000	24,000	27,000	27,000	30,000
5 lanes	28,300	31,900	31,900	35,900	35,900	39,900
Rural Roads						
2 lane - Level						
Typical Existing	3,675	6,000	6,000	10,500	10,500	17,500

Daily traffic counts and p.m. peak hour intersection turning movements have been used in the analysis of existing traffic conditions. kdANDERSON Transportation Engineers' technicians conducted new daily and p.m. peak hour traffic volume counts during May 2004.

Existing Traffic Volumes and Levels of Service

Current traffic conditions were evaluated based on daily traffic volumes and p.m. peak hour levels of service. The twenty-five (25) street segments were evaluated and are listed below.

1. SR 65 south of Bear River
2. SR 65 south of State Street
3. SR 65 City limits to Main St
4. SR 65 Main St to First St
5. SR 65 north of First Street
6. First Street west of SR 65
7. First Street east of G Street
8. First Street south of Wheatland Road
9. Second Street west of SR 65
10. Third Street west of SR 65
11. Fourth Street west of SR 65
12. Main Street west of SR 65
13. McDevitt Drive west of SR 65
14. McDevitt Drive north of Wheatland Road
15. Evergreen Drive west of SR 65
16. Wheatland Road west of Sorano Lane
17. State Street south of Sixth Street
18. Front Street north of Main Street
19. C Street north of Main Street
20. D Street north of Main Street
21. Nichols Drive north of Olive Street
22. Oakley Lane west of Wheatland Road
23. Spenceville Road east of Main Street
24. Spenceville Rd west of Cyrus Dam Road
25. Jasper Lane north of Spenceville Road

The ten (10) study intersections that were also evaluated include:

1. SR 65 / Evergreen Drive
2. SR 65 / McDevitt Drive
3. SR 65 / First Street
4. SR 65 / Second Street
5. SR 65 / Third Street
6. SR 65 / Fourth Street
7. SR 65 / Main Street
8. Fourth Street / Front Street
9. Main Street / Front Street
10. Main Street / Olive Street

As shown in Table 4.15-3, SR 65 is currently operating at LOS "F". As LOS "C" is the City of Wheatland standard, operations on SR 65 are currently below standard. Widening SR 65 to provide four (4) travel lanes would be needed to improve operations to LOS "A". However, no plans exist to widen SR 65 to four lanes and adequate right-of-way does not exist. Alternatively, construction of the Wheatland Bypass would also decrease the daily traffic volumes on SR 65. However, the Wheatland Bypass is not funded or included in the SACOG Regional Transportation Plan and is not anticipated to be completed for at least 15 years.

Table 4.15-3
Existing Traffic Volumes And Levels Of Service

Street	Location	LOS "C" Threshold*	Current Daily Volume	LOS
SR 65	South of Bear River	12,000	15,000**	F
SR 65	South of State Street	12,000	15,000**	F
SR 65	City limits to Main St.	12,000	15,000**	F
SR 65	Main St. to First St.	12,000	15,000**	F
SR 65	North of First Street	12,000	15,000**	F
First Street	West of SR 65	12,000	2,713	A
First Street	East of G Street	12,000	3,213	A
First Street	South of Wheatland Road	12,000	2,523	A
Second Street	West of SR 65	12,000	216	A
Third Street	West of SR 65	12,000	550	A
Fourth Street	West of SR 65	12,000	378	A
Main Street	West of SR 65	12,000	376	A
McDevitt Drive	West of SR 65	12,000	1,439	A
McDevitt Drive	North of Wheatland Road	12,000	2,532	A
Evergreen Drive	West of SR 65	12,000	987	A
Wheatland Road	West of Sorano Lane	6,000	1,606	A
State Street	South of Sixth Street	12,000	723	A
Front Street	North of Main Street	12,000	873	A
C Street	North of Main Street	12,000	645	A
D Street	North of Main Street	12,000	266	A
Nichols Drive	North of Olive Street	12,000	685	A
Oakley Lane	North of Wheatland Road	12,000	714	A
Spenceville Road	East of Main Street	12,000	3,301	A
Spenceville Road	West of Cyrus Dam Road	6,000	3,091	B
Jasper Lane	North of Spenceville Road	6,000	480	A

LOS: Level of Service
* Source: Yuba County General Plan
** Caltrans 2002 Counts

Table 4.15-4 summarizes the results of existing level of service calculations at each of the study intersections. As shown in Table 4.15-4, only the SR 65 intersections with Second Street, Third Street, and Fourth Street operate at LOS "C" during the p.m. peak hours. Most motorists waiting to turn onto SR 65 during peak hours often experience relatively

long delays. As shown in Table 4.15-3, the weighted average delay for all movements yielding the right of way along the SR 65 corridor range from LOS "C" to LOS "F".

Table 4.15-4
Existing Level of Service

Intersection	Control	Average Delay	LOS	Signal Warranted?
1. SR 65 / Evergreen (Overall) NB left EB approach	EB Stop	(58.9 sec) 10.0 sec 84.1 sec	(F)	No
2. SR 65 / McDevitt (Overall) NB left EB approach	EB Stop	(26.3 sec) 10.4 sec 40.5 sec	(D)	No
3. SR 65 / First Street (Overall) NB left SB left EB approach WB approach	EB –WB Stop	(28.3 sec) 9.7 sec 10.6 sec 38.1 sec 26.3 sec	(D)	No
4. SR 65 / Second Street (Overall) NB left SB left EB approach WB approach	EB –WB Stop	(21.3 sec) 9.5 sec 11.0 sec 32.7 sec 30.1 sec	(C)	No
5. SR 65 / Third Street (Overall) NB left SB left EB approach WB approach	EB –WB Stop	(21.6 sec) 9.5 sec 10.5 sec 31.9 sec 24.4 sec	(C)	No
6. SR 65 / Fourth Street (Overall) NB left SB left EB approach WB approach	EB –WB Stop	(22.1 sec) 9.5 sec 11.1 sec 30.7 sec 34.3 sec	(C)	No
7. SR 65 / Main Street (Overall) NB left SB left EB approach WB approach	EB –WB Stop	(134.2 sec) 9.0 sec 11.7 sec 61.8 sec 128.9 sec	(F)	No
8. Fourth Street / Front Street (Overall) EB left WB left NB approach SB approach	NB-SB Stop	(9.1 sec) 7.4 sec 7.4 sec 9.8 sec 10.6 sec	(A)	No
9. Main Street / Front Street (Overall) EB left WB left NB approach SB approach	NB-SB Stop	(10.8 sec) 7.6 sec 7.7 sec 12.3 sec 11.8 sec	(B)	No
8. Main Street / Olive Street (Overall) WB left NB left EB approach	EB Stop	(10.7 sec) 11.6 sec 0 sec 9.7 sec	(B)	No

The extent to which current traffic conditions warrant installation of traffic signals has been considered. This issue was evaluated in depth as part of another recent report.[3] Currently, there are no locations that carry traffic volumes satisfying Caltrans signalization warrants based on observations. Therefore, overall operations are considered generally acceptable, as warrants for signalization are not met.

While the City of Wheatland is currently pursuing signalization of key intersections on SR 65, analysis of current traffic volumes suggests that traffic signals are not yet warranted on a regular basis. However, the number of pedestrians crossing at the SR 65 / First Street intersection is approaching the 100 pedestrian per hour minimum established by Warrants 3-4 and a traffic signal may be justified based on this criteria.

Currently, study intersections in the downtown area that are not along the SR 65 corridor operate acceptably at LOS " B" or better during the p.m. peak hour. In addition, these intersections do not meet peak hour warrants for signalization and therefore, improvements are not currently needed.

Alternative Transportation Modes

Pedestrian Facilities

As several schools are located in the area of the SR 65 / First Street intersection, many school age pedestrians walk to school in the morning and afternoon. An adult crossing guard regularly stops traffic on SR 65 in order to allow students to pass. Pedestrian counts made by the crossing guard and reported in a previous traffic study indicated that 60 to 80 pedestrians typically cross in the morning and the afternoon, with another 40 to 60 students crossing at other uncontrolled locations.

Sidewalks exist intermittently through out the community. In downtown Wheatland, sidewalks, concrete or asphalt, exist along the west side of SR 65 but not on the east side, although some asphalt sidewalks lack a raised curb. Sidewalks exist along many of the streets in the residential areas west of SR 65. Sidewalks also exist along the south side of First Street and Wheatland Road as far as the western boundary of Wheatland High School.

The "Safe Route to Schools – 2nd Cycle" program aimed at improving pedestrian safety includes signalization of the SR 65/First Street intersection, and construction of curb, gutter and sidewalks on various city streets.

Bicycle Facilities

Designated bicycle facilities do not currently within Wheatland.

Public Transit/Rail Operations

Yuba-Sutter Transit offers round trip service to Wheatland. The Wheatland Route provides roundtrip service to Wheatland once each Tuesday from Linda and Marysville. The bus will pick up and drop off at any address in Wheatland. Currently, the basic one-way fare is $2.00. Reduced senior and youth fares are also available.

Amtrak and Greyhound service is not available in Wheatland. The nearest Amtrak and Greyhound service is available in Marysville.

The Union Pacific Railroad (UPRR) tracks bisect Wheatland and generally parallel the east side of SR 65. A total of four crossings of the UPRR currently exist within Wheatland.

Opportunities and Constraints

Based on current traffic volumes and movements, it is possible to identify the circulation issues that will guide development of this area. Key information in the 1986 Transportation and Circulation Element, and Traffic Impact Analysis Reports for Heritage Oaks Estates and Jones Ranch have been addressed.

Land Use

Build out of the 1980 Wheatland General Plan, as amended will likely consist of a considerable amount of growth. As such, the Wheatland City Council has determined that the City's General Plan should be updated in order to facilitate future growth over the next 20 years. Many new developments have already been proposed, approved, or constructed since 2001. New constructed project include Wheatland Ranch (188 single family homes), Ryan Town II (49 single family homes) Wheatland Park Place (210 single family homes), Bear River Middle School. Two separate tentative map applications are now currently being processed for the Heritage Oaks (a 234 acre mixed use development). A tentative map was approved for the Jones Ranch project (a 190 acre project) on December 13, 2005. A new proposal the Nichols Ranch project was recently submitted for review. In addition to these specific development proposals, other significant development is anticipated over the next 20 years.

In order to guide development of future development, the following text outlines many of the issues that will need to be addressed as development occurs.

State Route 65

Currently SR 65 already operates at level of service "F" on a daily basis. Additional area development will result in increased traffic volumes. While widening SR 65 to provide four (4) travel lanes is currently needed to improve operations to LOS "A", no plans currently exist to widen SR 65 to four lanes. Alternatively, construction of a bypass around downtown Wheatland would also decrease the daily traffic volumes on SR 65.

Regional State Route 65 Bypass

By the year 2010, previous studies have projected that SR 65 would carry daily traffic volumes ranging from 26,200 to 29,000 through the downtown area. As traffic volumes in the downtown area are anticipated to increase past the theoretical roadway capacity, installation of a bypass around the community will be needed. While traffic volumes indicate the need for the bypass by 2010, the Wheatland Bypass in not anticipated to be completed for at least 15 years.

Caltrans prepared five possible alignments of the Wheatland Bypass, which were identified in the 2000 Project Study Report. These five bypass alternatives are illustrated in the Appendix to this section. As shown, the feasibility of Alternatives B, C, and D is significantly reduced with approval of Jones Ranch and the Heritage Oaks Estates. Presently, selection of a bypass alternative is not proceeding, as no funding for the EIR or construction is available.

By 2020, the Wheatland Bypass may be constructed. Even with a future bypass, daily traffic volumes through the downtown area will likely be in the range of 15,000 to 20,000 ADT. Previous studies have indicated that selection of the Eastern Bypass would result in higher traffic volumes [LOS "F"] on the north end of "old" SR 65 and lower volumes on the south end of the street than selection of the Western Bypass. In addition, Main Street would carry a greater traffic volume east of "old" SR 65 if an eastern Bypass is implemented, but fewer vehicles would use this road to the west. An eastern Bypass would reduce the volume of traffic on First Street accessing Wheatland schools.

Local State Route 65 Bypass

Until the Wheatland Bypass is constructed, a local bypass around downtown Wheatland would help to alleviate traffic on SR 65 between Main Street and First Street. One local bypass option that has been explored utilizes Oakley Road being extended to connect with SR 65 in the vicinity of Heritage Oaks Estates. While this local bypass does result in lowering traffic through the downtown area, a significant reduction in traffic is not anticipated due to the length of this circuitous route.

Additional Bridge Crossing of the Bear River

Currently, SR 65 provides the only access into Wheatland over the Bear River. As such, all traffic is routed through Wheatland on SR 65. Without another crossing of the Bear River, traffic volumes on SR 65 through Wheatland will continue to rise and will exceed the capacity of the two-lane highway.

Intersections along State Route 65

Currently, motorists experience long delays when turning on SR 65 during the p.m. peak hour. As traffic volumes continue to increase along this corridor, motorists will find it increasingly more difficult to access SR 65. The City of Wheatland staff is currently

working with Caltrans to signalize the SR 65 intersections with First Street and Main Street. When completed, these signals will aid motorists in accessing SR 65.

Completion of the Local Circulation

As Wheatland develops, additional local roadways will be required in order to connect new development to the existing circulation system. Several local roadways that could assist in the completion of the overall circulation system and provide connectivity within the community have been identified. Improvements that were previously identified in the 1986 Wheatland General Plan Transportation and Circulation Element are noted. These facilities are listed below:

- The extension of Main Street westerly to Jones Ranch (Wheatland 1980) – 1986 Wheatland General Plan
- Construction of a two new signalized SR 65 intersections adjacent to Heritage Oaks
- Westward extension of these two new SR 65 connections to form a loop road that would intersect with McDevitt Drive and Oakley Lane
- If an overcrossing over the UPRR is constructed adjacent to Heritage Oaks, construction of a local loop roadway at the SR 65 connection to meet Caltrans spacing requirements
- In northeast Wheatland, a loop road connecting McDevitt Drive to Spenceville Road – 1986 Wheatland General Plan
- Construction of north - south connections linking this northeast Wheatland loop road to Olive Street

Railroad Crossings

As Wheatland develops, additional UPRR crossings would provide connectivity between existing and future development areas on both sides of SR 65. However, the UPRR will not allow another at-grade railroad crossing in Wheatland. Therefore, any new crossings of the UPRR will need to be constructed as either an overcrossing or an undercrossing, or existing at-grade crossing would need to be relocated.

Three possible locations for new crossing have been considered. These locations include a northern crossing that would align with McDevitt, a central crossing that would be located within the Heritage Oaks project, and a southern connection that would be located at the southern boundary of the Heritage Oaks project. In the vicinity of the central or southern overcrossing/undercrossing locations, SR 65 and the UPRR tracks have a significant grade elevation.

The central crossing is anticipated to be used more heavily then the southern most crossing due to its proximity to the downtown. Construction of an overcrossing/undercrossing is also anticipated to result in a reduction in traffic through the Main Street / Old SR 65 intersection.

Relocation of Railroad Tracks

Another consideration that was raised involved the relocation of the existing downtown railroad tracks and the effects that such relocation would have on the projected future traffic volumes in the area. The proposal involved the existing railroad tracks to be relocated east of the proposed SR 65 Bypass. Such relocation would eliminate the need for motorists to access SR 65 only at the specified railroad crossings. This would, in turn, improve circulation in the downtown by providing additional east-west circulation opportunities. However, this relocation is not expected to dramatically change the overall traffic projections in the area as motorists will continue to their ultimate destination and the addition of more east west streets in the downtown area is not anticipated to effect the overall travel patterns or projections significantly.

REGULATORY CONTEXT

Existing policies, laws and regulations that would apply to the proposed project are summarized below.

California Department of Transportation (Caltrans)

In response to the increasing traffic on SR 65 through Wheatland, Caltrans has started considering the possible expansion or relocation of SR 65. In September 2000, Caltrans prepared a "Project Study Report" (PSR) that identified five possible roadway expansions for SR 65 either through or around the City. These five routes were identified as Alternatives A through E in the PSR. A brief description of each alternative is provided below and each alternative alignment is presented in Figure 4.4-3 in relationship to Wheatland.

Alternative A would be along the most western boundary of the City's Sphere of Influence connecting to the existing SR 65 far north and far south of the existing City. Alternative B and C would generally follow the existing alignment of Lewis Avenue, which is similar to the City's General Plan Circulation Element/Major Street and Highway Plan. This alternative would connect to the existing SR 65 just north and south of the City. Alternative D would generally expand the existing two-lane SR 65 through Wheatland to four lanes. Alternative E would generally be located to the east of the City's existing limits and connect to the existing SR 65 far north and far south of Wheatland. The Caltrans PSR estimated the cost for construction of these alternatives to range from approximately $152 million to $221million.

Caltrans conducted two "Public Open House" meetings to obtain comment on the proposed alternatives. The first meeting was held on July 14, 1999 and the second

meeting held on February 24, 2000. In February 2000, the Wheatland City Council passed a Resolution in support of Alternative E.

Alternative E alignment would: direct future traffic away from the existing downtown area, promote direct access to Beale AFB's south gate, provide freeway access on the east side of the City while the west side of town would still be serviced by the existing SR 65, preserve the existing orchards on the west side of the City, eliminate potential conflicts of future freeway traffic from Alternative B and C with existing and future schools, reduce the affects on the downtown area including existing residential and commercial businesses along SR 65 as well as redirect future large through volumes of traffic away from the existing Wheatland community.

City of Wheatland General Plan Update

In addition to federal and state regulations, the Wheatland General Plan Update (September 2005) identifies goals, objectives, and policies relating to traffic and circulation within the Wheatland study area.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

A traffic impact would be significant if any of the following conditions, or potential thereof, would result from implementation of the proposed project.

- Cause an increase in traffic that is above LOS "C", except within one-quarter mile of state highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or program supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Method of Analysis

This analysis is intended to quantify the traffic impacts of the project and to address the circulation and roadway improvements needed to mitigate these impacts. The analysis summarized herein addresses traffic conditions occurring during the a.m. and p.m. peak hour, and the study area addresses most of the major intersections in the City of Wheatland. The analysis considers the project's impacts on current traffic conditions as well as conditions occurring in the future under the City of Wheatland General Plan.

Land Use

Build out of the proposed Wheatland General Plan involves a considerable amount of growth. Table 4.15-5 presents a summary of the "yield" under the preferred plan. As shown, the preferred plan is proposed to develop with approximately 9,900 residences and about 10,200 employees.

Table 4.15-5
Wheatland General Plan Land Use Summary

Residential		
Land Use	**Acres**	**Du's**
Low Density Residential (LDR)	1,483	4,449
Low Medium Density Residential (LMDR)	494	2,472
Medium Density Residential (MDR)	247	1,977
High Density Residential (HDR)	62	989
Total	**2,286**	**9,887**
Non-Residential		
Land Use	**Acres**	**Employees**
Retail	158.0	2,692
Employment Centers	298.8	7,469
Total Non-Residential	**456.8**	**10,161**
Du's = Dwelling Units		

Table 4.15-6 presents the number of trips that are anticipated to be generated by the land use in the preferred plan. The rates that are utilized in Table 4.15-6 are trip generation rates from the Tri-County model. As shown, the preferred plan is anticipated to generate a total of 184,975 new trips of which 87,637 trips are generated by the residential uses and 97,338 trips are generated by the non-residential uses.

Table 4.15-6
Wheatland General Plan Trip Generation Summary

Residential			
Land Use	**Du's**	**Daily Rate**	**Daily Trips**
Low Density Residential (LDR)	4,449	9.09/du	40,441
Low Medium Density Residential (LMDR)	2,472	9.09/du	22,470
Medium Density Residential (MDR)	1,977	9.09/du	17,971
High Density Residential (HDR)	989	6.83/du	6,755
Total	**9,887**		**87,637**
Non-Residential			
Land Use	**Employees**	**Daily Rate**	**Daily Trips**
Retail	2,692	23.59/employee	63,504
Employment Centers	7,469	4.53/employee	33,834
Total Non-Residential	**10,161**		**97,338**
TOTAL TRIPS			**184,975**

Assumed Circulation System

The draft General Plan Circulation System includes development of roads creating internal circulation for the City's major areas and widening of selected existing roads. In addition, the SR 65 eastern bypass was assumed to be constructed. The circulation system for the preferred plan is described in the text that follows.

SR 65 Bypass. The SR 65 Bypass was assumed to be constructed east of Wheatland. Right-of-way needs to be preserved along this facility. The SR 65 Bypass is envisioned to carry four travel lanes.

SR 65. Under the preferred plan, SR 65 is to provide four travel lanes between Dairy Road and Placer County, with the exception of the downtown area. Between Olive Street and Main Street, SR 65 through the downtown area is to provide two travel lanes and left turn lanes.

Currently, this facility is a state highway. However, once the bypass has been completed, Caltrans has indicated that "old 65" may be turned over to the City. As such, SR 65 is classified as an arterial and an arterial transitioning to amenity corridor with other roadway improvements under the preferred plan.

Oakley Lane. Under the preferred plan, Oakley Lane continues on its existing alignment before connecting to the Ring Road in the south. This roadway serves as the western portion of the Ring Road. This facility is also classified as an arterial and carries four travel lanes south of Dairy Road.

Lewis Road. Lewis Road extends between Wheatland Road in the south and to the northern connection of Ring Road in the north. Lewis Road is classified as a collector.

Wheatland Park Drive. Wheatland Park Drive originates in the north at the Northern Ring Road. Extending to the south, Wheatland Park Drive connects to the Northern Ring Road before extending directly south past Wheatland Road. South of Wheatland Road, Wheatland Park Drive jogs around the proposed high school expansion before terminating at the Southern Ring Road. This entire roadway is classified as a collector with the exception of the section between Wheatland Road and First Street, which is classified as an arterial.

C Street. C Street extends from its existing terminus northward to connect the northern section of the Ring Road. This roadway is classified as a collector (except in the downtown where it is classified as an arterial) and provides two travel lanes.

B Street. B Street also extends from the existing terminus to the north to connect to the northern section of the Ring Road. In the south, B Street extends from its southern terminus southward to southern section of the Ring Road. This roadway is

classified as a collector (except in the downtown where it is classified as an arterial) and provides two travel lanes.

Nichols Road. Nichols Road also extends to the north from its terminus to connect to the northern section of the Ring Road. This roadway is classified as a collector (except in the downtown where it is classified as an arterial) and provides two travel lanes.

Malone Road. Malone Road connects from its existing terminus in the south to the southern section of the Ring Road and ultimately to SR 65 in the south. Malone Road is classified as a collector north of the Ring Road and provides two travel lanes.

New Road 4. New Road 4 is a north-south connection that originates in the north at Spenceville Road east of Nichols Road. Extending to the southeast, New Road 4 parallels the B Street Extension and intersects with the Southern Ring Road before curving further toward the east to connect the land uses proposed for the east side of the SR 65 Bypass. While the uses on the east side of the highway will probably not develop under this plan and will ultimately take access via a connection east of the bypass, for this study, they were assumed to be accessed by this new roadway. This roadway is classified as a collector, provides two travel lanes, and is not proposed to connect to the SR 65 Bypass.

Northern Ring Road. The Northern Ring Road originates at Oakley Lane in the west. Extending to the east, the Northern Ring Road is proposed to intersect SR 65 and provide an at-grade railroad crossing. Extending to the east, this facility eventually curves to the south to connect to Spenceville Road west of the SR 65 Bypass. This roadway is to carry four lanes and is classified as an arterial. West of Oakley Lane, the two lane extension on this roadway provides access to the land uses on the western side of the plan area.

New Road 1. New Road 1 originates at SR 65 between Evergreen Drive and the Northern Ring Road. Extending to the west, New Road 1 terminates at New Road 2. This roadway is classified as a collector and provides two travel lanes.

McDevitt Drive. In the west, McDevitt Drive extends west past Oakley Lane to provide access to the land uses west of Oakley Lane. In the east, McDevitt Drive extends past SR 65 and terminates at Nichols Road. An at-grade railroad crossing is proposed just east of SR 65. This facility is classified as a collector and provides two travel lanes.

Second Street. With an at grade railroad crossing proposed at North Ring Road, the Second Street at grade railroad crossing was eliminated in order to maintain the same number of at grade crossings.

Third Street. With an at grade railroad crossing proposed at McDevitt Drive, the Third Street at grade railroad crossing was eliminated in order to maintain the same number of at grade crossings.

Main Street. Main Street extends west past its existing terminus to Oakley Lane. This facility is classified as an arterial in the downtown area and as a collection to the west. Main Street carries two travel lanes.

Spenceville Road. Under the preferred plan, Spenceville Road is classified as an arterial. Between the SR 65 Bypass and the Ring Road, Spenceville Road carries six travel lanes. The section of Spenceville Road just west of the Ring Road is to carry four travel lanes.

Southern Ring Road. The Southern Ring Road originates in the west as an extension of Oakley Lane before curving to the east, crossing over SR 65 and the railroad tracks, and curving to the north to intersect Spenceville Road. This facility is classified as an arterial and provides four travel lanes.

New Road 2. New Road 2 is a two-lane collector that originates at the North Ring Road west of Oakley Lane. Extending to the south, New Road 2 curves to the east just south of Wheatland Road to ultimately intersect Oakley Lane and the South Ring Road.

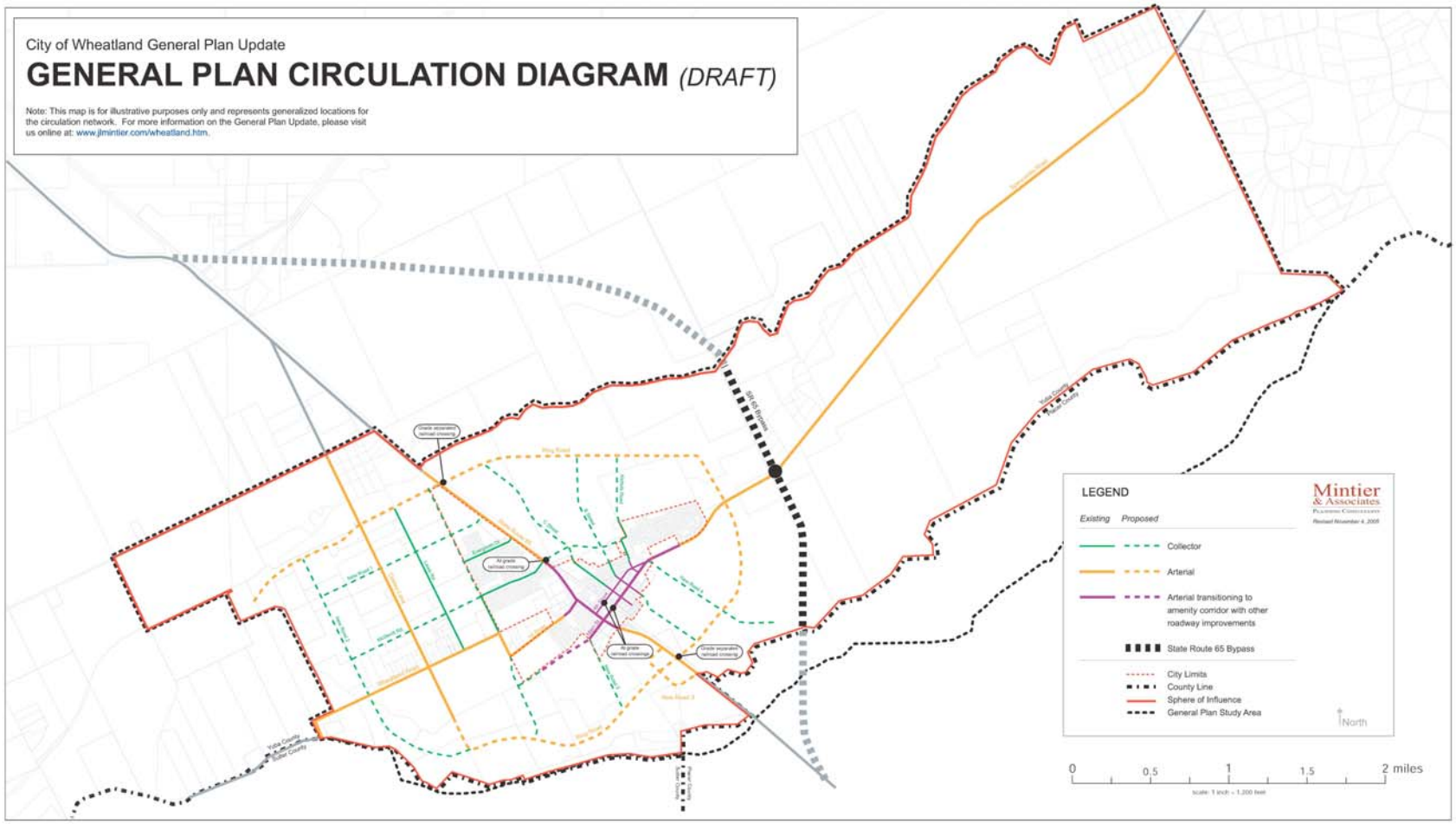
New Road 3. New Road 3 is a short loop road that connects SR 65 and the ring road to SR 65. This roadway will have full access at the southern connection to SR 65 while the northern connection will be limited to right turns in and out only. This roadway is classified as an arterial.

Project-Specific Impacts and Mitigation Measures

4.15-1 Development associated with the proposed General Plan Update would result in the increase of traffic volumes.

Located along SR 65 in the northern part of the Sacramento metropolitan area, new residential and employment uses are anticipated for development within the Wheatland study area. The General Plan Update (General Plan Update) projects population growth from approximately 3,178 in 2004 to 30,100 by 2025. During the same period, the General Plan Update projects employment to increase from 500 (2003) to 11,080 (2025) based on projected population growth. In preparation of such development, Wheatland's planned roadway network is designed to meet year 2025 development levels based on the land uses shown on the *Land Use Diagra*m. In addition, the General Plan Update seeks to maintain satisfactory traffic conditions while accommodating future growth. The City's most important policy tool for upgrading and maintaining its roadways to provide for effective and efficient traffic movement is the *Circulation Diagram* (included as Figure 4.15-1) and its associated standards.

Figure 4.15-1


City of Wheatland General Plan Update
GENERAL PLAN CIRCULATION DIAGRAM (DRAFT)
Note: This map is for illustrative purposes only and represents generalized locations for the circulation network. For more information on the General Plan Update, please visit us online at: www.jlmintier.com/wheatland.htm.
LEGEND
Existing Proposed
Collector
Arterial
Arterial transitioning to amenity corridor with other roadway improvements
State Route 65 Bypass
City Limits
County Line
Sphere of Influence
General Plan Study Area
Mintier & Associates
North
0 0.5 1 1.5 2 miles

The *Circulation Diagram* depicts the proposed circulation system to support development under the *Land Use Diagram*. This circulation system is represented on the diagram as a set of roadway classifications that have been developed to guide Wheatland's long-range planning and programming. Roadways are systematically classified based on the linkages they provide and their function, both of which reflect their importance to the land use pattern, traveler, and general welfare.

New major roadways required to serve new development include an eastern bypass to SR 65 (see Goal 2.B), and an arterial ring-road that will encompass the existing City limits. This ring-road would include an overpass of SR 65 and the railroad tracks in the south, and an at-grade crossing in the north. New collector streets will link the northern portion of the ring-road to the southern portion, and also link the ring-road with the Downtown. In addition, several collector streets would be extended to serve new planned residential development on all sides of the City.

To maintain the City's small-town qualities and ensure smooth-flowing conditions on City roadways, the General Plan Update establishes Level of Service (LOS) C or better on all roadways, except within one-quarter mile of state highways. In these areas, the City shall strive to maintain LOS "D" or better. The General Plan Update includes provisions for the funding of new roadways that serve new developments. The impacts of developing the study area have been considered within this context of Year 2025 future traffic conditions.

Future (Year 2025) Traffic Projections

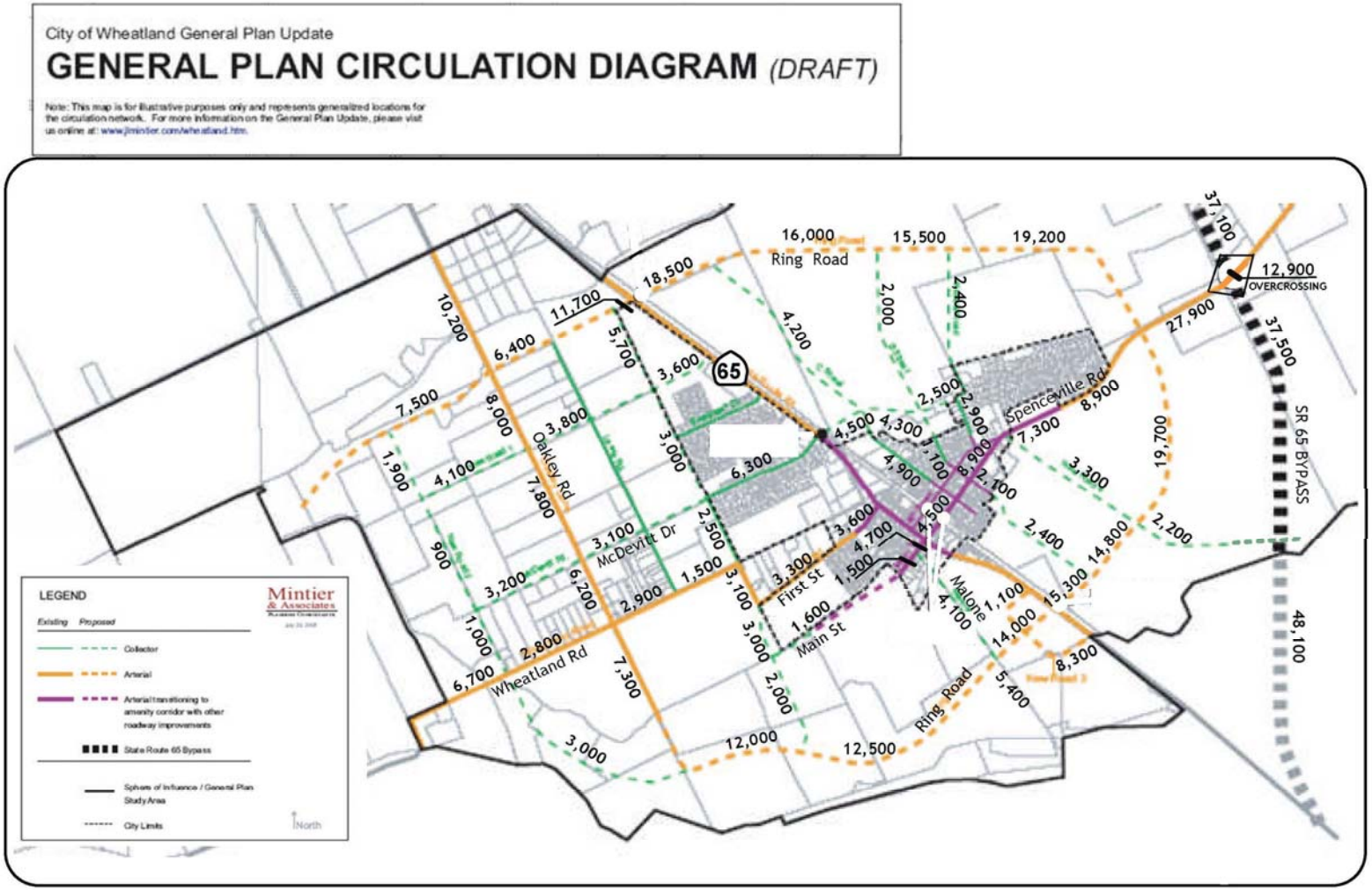
Future traffic projections were made utilizing a modified version of the Year 2025 Tri-County traffic demand model that incorporated local area development and the envisioned local and regional circulation system improvements. The Traffic Analysis Zones (TAZ's) for the Wheatland area were refined to reflect the configuration of local streets and regional infrastructure and land uses for the Preferred Plan.

With the modifications to the traffic demand model, the model was run to generate future (Year 2025) traffic projections within the study area. These projections were utilized to assess the adequacy of the proposed circulation system.

Year 2025 Daily Traffic Conditions – Levels of Service (LOS)

Future (Year 2025) daily traffic projections within the study area are illustrated in Figure 4.15-2.

Figure 4.15-2



KD Anderson
Transportation Engineers

AVERAGE DAILY TRAFFIC

4684-001 9/14/2005

figure 3

The resulting daily levels of service on area roads are presented in Table 4.15-7.

Table 4.15-7
Year 2025 Study Area - Daily Traffic Volumes

Street	Location / Limits	No. of Lanes	LOS "C" Threshold	Volume	LOS
Old SR 65	South of Wheatland to Malone Ext.	4	24,000	14,500	A
	Malone Ext. to South Ring Road	4	24,000	12,800	A
	South Ring Road to Main St	4	24,000	9,000	A
	Main St to Olive	2	12,000	**15,500**	**F**
	Olive to McDevitt	4	24,000	14,200	A
	McDevitt to North Ring Road	4	24,000	12,300	A
	Wheatland Park Dr to Dairy	4	24,000	21,900	C
	North of Dairy (in County)	4	79,200	27,500	A
Oakley Lane	Dairy to Ring Road	4	24,000	10,200	A
	Ring Rd to New Road 1	4	24,000	8,000	A
	New Road 1 to McDevitt Dr	4	24,000	7,800	A
	McDevitt Dr to Wheatland Rd	4	24,000	10,200	A
	Wheatland Rd to South Ring Road	4	24,000	7,300	A
Southern Ring Rd	Oakley Lane to Wheatland Park Dr	4	24,000	12,000	A
	Wheatland Park Dr to Malone Ext	4	24,000	12,500	A
	Malone Ext to SR 65 Loop Ramps	4	24,000	14,000	A
	SR 65 Loop Ramps to B St Ext	4	24,000	15,300	A
	B Street Ext to New Road 4	4	24,000	14,800	A
	New Road 4 to Spenceville Rd	4	24,000	19,700	B
Northern Ring Rd	New Road 4 to Oakley Lane	2	12,000	7,500	A
	Oakley Lane to Wheatland Park Dr	4	24,000	6,400	A
	Wheatland Park Dr to SR 65	4	24,000	11,700	A
	SR 65 to C St Ext	4	24,000	18,500	B
	C St Ext to B St Ext	4	24,000	16,000	A
	B St Ext to Nichols Rd Ext	4	24,000	15,500	A
	Nichols Rd Ext to Spenceville Rd	4	24,000	19,200	B
Loop Ramps at Southern Crossing	North of South Ring Road	2	12,000	1,100	A
	South of South Ring Road	2	12,000	8,300	A
First Street	G Street to Wheatland Park Dr	2	12,000	3,300	A
	G Street to E Street	2	12,000	3,600	A
	E Street to SR 65	2	12,000	3,600	A
Wheatland Road	West of New Road 2	2	12,000	6,700	A
	New Road 2 to Oakley Lane	2	12,000	2,800	A
	Oakley Lane to Lewis	2	12,000	2,900	A
	Lewis to Wheatland Park Drive	2	12,000	1,500	A
New Road 1	New Road 2 to Oakley Lane	2	12,000	4,100	A
	Oakley Lane to Wheatland Park Dr	2	12,000	3,800	A
	Wheatland Park Dr to SR 65	2	12,000	3,600	A
Main Street	Wheatland Park Dr to E St	2	12,000	1,600	A
	E Street to Malone	2	12,000	1,500	A
Main Street con'td	Malone to SR 65	2	12,000	4,700	A
	SR 65 to B Street Ext	2	12,000	4,500	A
	B St Ext to Spenceville Rd	2	12,000	2,900	A
Malone	Main St to South Ring Road	2	12,000	4,100	A

Table 4.15-7
Year 2025 Study Area - Daily Traffic Volumes

Street	Location / Limits	No. of Lanes	LOS "C" Threshold	Volume	LOS
	South Ring Road to SR 65	2	12,000	5,400	A
Spenceville Rd	Main Street to New Road 4	2	12,000	7,300	A
	New Road 4 to Ring Road	2	12,000	8,900	A
	Ring Road to SR 65 Bypass	6	24,000	27,900	B
	SR 65 Bypass Overcrossing	4	24,000	12,900	A
	SR 65 Bypass to Jasper	2	12,000	7,100	A
	East of Jasper	2	12,000	2,800	A
McDevitt Drive	New Road 2 to Oakley Lane	2	12,000	3,200	A
	Oakley to Wheatland Park Dr	2	12,000	3,100	A
	Wheatland Park Dr to SR 65	2	12,000	6,300	A
	SR 65 to C St Ext	2	12,000	9,500	B
	C St Ext to B St Ext	2	12,000	4,300	A
	B St Ext to Nichols Ext	2	12,000	2,500	A
Nichols	North Ring Road to McDevitt	2	12,000	2,400	A
	McDevitt to Olive	2	12,000	2,900	A
B Street	North Ring Road to McDevitt Ext	2	12,000	2,000	A
	McDevitt Ext to Olive	2	12,000	1,100	A
	Olive to Main	2	12,000	2,100	A
	Main to South Ring Rd	2	12,000	2,400	A
C Street	North Ring Rd to McDevitt	2	12,000	4,200	A
	McDevitt to Olive	2	12,000	4,900	A
New Road 2	North Ring Rd to New Road 1	2	12,000	1,900	A
	New Road 1 to McDevitt	2	12,000	900	A
	McDevitt to Wheatland Rd	2	12,000	1,000	A
	Wheatland Rd to Oakley Ln	2	12,000	3,000	A
New Road 4	Spenceville to South Ring Rd	2	12,000	3,300	A
	South Ring Rd to SR 65 Bypass	2	12,000	2,200	A
Wheatland Park Drive	North Ring Rd to New Road 1	2	12,000	5,700	A
	New Road 1 to McDevitt	2	12,000	3,000	A
	McDevitt to Wheatland Rd	2	12,000	2,500	A
	Wheatland Rd to First St	2	12,000	3,100	A
	First St to Main St Ext	2	12,000	3,000	A
	Main St Ext to Ring Rd	2	12,000	2,000	A
Eastern Wheatland Bypass	S. Beale Rd to Dairy Rd	4	79,200	37,100	A
	Dairy Rd to Spenceville Rd	4	79,200	37,500	A
	South of Spenceville Rd	4	79,200	48,100	A

As shown, the majority of the study roadways are projected to operate acceptably within the study area with the exception of the 2 lane section of SR 65 in the downtown area.

The two lane section of old SR 65 in the downtown area is projected to operate at LOS "F" even with the bypass constructed. It should also be noted that this two-lane section currently operates at LOS "F" and is projected to deteriorate as traffic volumes increase in the future prior to construction of the bypass. While the bypass is anticipated to alleviate much of the traffic through the downtown, and

projected traffic volumes are expected to be lower than they currently are today, further improvements will be necessary if LOS "C" operations are to be maintained.

The *Traffic Impact Analysis* suggests that widening SR 65 to provide four travel lanes through the downtown between Main Street and Olive Street would be required to improve daily traffic operations to LOS "A". While the conclusion has been made that a narrow five-lane section could physically be constructed within the existing 80-foot right of way in order to maintain the City's LOS "C" policy, such an improvement could decrease the Downtown character desired by the community.

Although the City of Wheatland's "unacceptable" conditions are presently identified as those levels of service (LOS) of where "D", "E," or "F" are experienced, policies within the General Plan Update have been amended, which allows operations on area roadways and on area streets to fall below the LOS "C" threshold. Because maintaining LOS "C" is often infeasible or the cost of implementing improvements outweigh the benefits, the General Plan Update includes policies to allow a lower level of service within ¼ mile of a state highway (General Plan Update *Policy 2.A.2*).

The *Traffic Impact Analysis* also recommends that LOS policies ultimately govern future changes in development within the study area. It is appropriate to identify what change in operations would be considered significant when operations fall below the desired LOS threshold. Because the City elected to allow LOS "D", "E" or "F" within ¼ mile of a state highway, additional policies could be written to address impacts related to the buildout of the General Plan study area, in order that the analysis of a project's impacts can be determined.

Furthermore, the *Traffic Impact Analysis* suggests that if intersections operate at unacceptable levels, new policies could be incorporated into the General Plan Update, which would identify the impacts of a project as significant when project generated traffic results in roadway operations increasing by a v/c $\geq$ 0.5 or intersection operations increase by a five second or greater delay. For example, on SR 65 between Main Street and Olive Street, daily roadway volumes could increase by about 750 volumes per day (vpd) before being considered significant.

In addition, an interim policy addressing interim conditions (pre-General Plan Update buildout) for projects proceeding prior to construction of future regional facilities (i.e. SR 65 bypass) must be addressed. As such, the City may wish to consider an upper limit of daily traffic on SR 65 that could not be exceeded due to development and through traffic.

The General Plan Update includes the following goals and policies applicable to traffic volume issues:

Goal 2.A To provide for the long-range planning and development of the City's roadway system to ensure the safe and efficient movement of people and goods.

Policy 2.A.1. The City shall plan, design, and regulate the development of the City's street system in accordance with the functional classification system described in this chapter and reflected in the Circulation Diagram and the City's Street Standards and Specifications.

Policy 2.A.2. The City shall develop and manage its roadway system to maintain LOS "C" or better on all roadways, except within one-quarter mile of state highways. In these areas, the City shall strive to maintain LOS "D" or better.

Policy 2.A.3. The City shall identify economic, design and planning solutions to improve existing levels-of-service currently below the LOS specified above. Where physical mitigation is infeasible, the City shall consider developing programs that enhance alternative access or otherwise minimize travel demand.

Policy 2.A.4. The City shall assure that new development effectively links both sides of State Route 65 and the railroad tracks at the north and south ends of town.

Policy 2.A.5. The City shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile and by promoting pedestrian, bicycle, and transit connections between employment areas and major residential and commercial areas.

Policy 2.A.6. The City shall require an analysis of the effects of traffic from proposed major development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others.

Policy 2.A.7. The City shall proactively pursue financing in a timely manner for all components of the transportation system, particularly an eastern alignment of the State Route 65 bypass, to achieve and maintain adopted level of service standards.

Policy 2.A.8. The City shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system.

Policy 2.A.9. The City shall limit private access along arterial streets wherever possible.

Policy 2.A.10. The City shall give priority to street and highway improvements that increase safety, minimize maintenance costs, and increase the efficiency of the street system.

Policy 2.A.11. The City shall ensure that highways and arterial streets within its jurisdiction provide for the efficient flow of traffic. Therefore, the following shall be undertaken:

- Minimize the number of intersections along arterials.
- Reduce curb cuts along arterials through the use of common access easements, backup lots and other design measures.
- Provide grade separations at all major railroad crossings with arterials, except for an at-grade crossing of the major arterial in the north.
- Extend arterials over waterways, railroads and through developed and undeveloped areas to provide for the continuous flow of through traffic and appropriate area access.

Implementation of the goals and policies above would minimize impacts regarding increased traffic volumes; however, not to a *less-than-significant* level. The resultant impact would therefore remain ***significant***.

Mitigation Measure(s)
The City may consider widening existing SR 65 to provide four travel lanes through the downtown between Main Street and Olive Street. According to the Traffic Impact Report prepared by kdAnderson, this widening would result in LOS "A". However, the widening of SR 65 through downtown is considered infeasible because the widening would conflict with the City's plan for the downtown area. Furthermore, upon establishment of the planned SR 65 bypass, the widened existing SR 65 would no longer be needed. Because feasible mitigation measures do not exist, impacts related to increased traffic volumes along SR 65 between Main Street and Olive Street would remain *significant and unavoidable.*

4.15-2 Increased Delays at Intersections within the Wheatland Study Area.

Development of the study area would increase the length of delays occurring at SR 65 intersections, and other intersections throughout Wheatland. Without improvements, Level of Service "F" conditions are projected at most of the study intersections.

Approach

The impacts of from buildout of the Wheatland study area have been considered within the context of long-term future traffic conditions or Year 2025 traffic forecasts. Year 2025 forecasts were developed previously as part of the work completed for the Heritage Oaks Estates EIR, Jones Ranch EIR, and the Almond Estates North EIR. Traffic volume forecasts were developed via a refined version of the Yuba County General Plan travel demand-forecasting model previously used for those EIR's. This future scenario included development of the Wheatland General Plan land uses as well as development of the Heritage Oaks Estates, Jones Ranch, Wilson's Settler's Village, and Almond Estates North subdivision projects.

While it may be technically possible to describe a future year 2025 condition without the SR 65 Bypass of Wheatland, previous analyses conducted in the area determined that daily traffic volume through Wheatland would reach LOS "F" by 2015. Thus, an evaluation of a "no bypass" condition under 2020 conditions would not assist in consideration of the traffic impacts of the Proposed GPU. As such, the eastern bypass of Wheatland was assumed to be constructed by the Year 2020 as in the previous EIRs that were completed for the area.

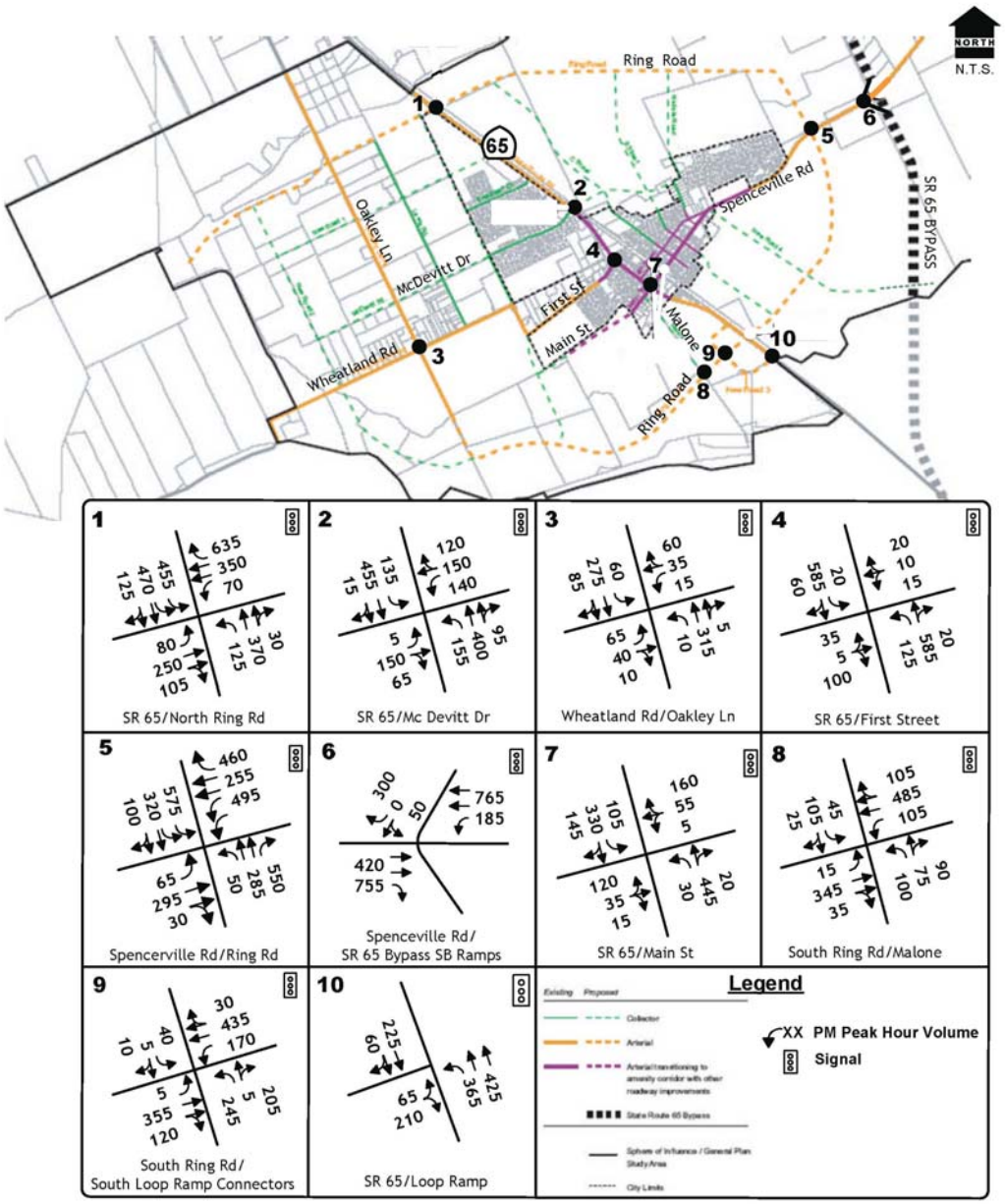
Year 2025 Peak Hour Traffic Conditions – Levels of Service

The *Traffic Impact Analysis* presents the peak hour levels of service for the ten (10) study intersections under the preferred plan for Wheatland's General Plan Update. The traffic demand model generated peak hour turning movement projections. Figure 4.15-3 presents the turning movements during the peak hour and the assumed lane geometrics for the study intersections (i.e., for a four lane by four lane roadway crossing: exclusive left turn lane, one through lane and a combination through plus right turn lane).

As shown below, standard lane geometrics were assumed with dual left turns assumed where left turning volumes exceeded 300 vehicles per hour and separate right-turn lanes assumed where traffic volumes exceeded 200 vehicles per hour. Based on inspection of traffic volumes and the assumed geometrics, all of the intersections were assumed to be signalized in the future.

Intersection levels of service were calculated for the Year 2025 Base condition. By the Year 2025, traffic on SR 65 is anticipated to decrease due to the completion of the local street system and construction of the bypass, which provides alternative routes for motorists travel through and around Wheatland. The intersections that are projected to be impacted by long delays are shown in Table 4.15-8.

Figure 4.15-3



KD Anderson
Transportation Engineers

YEAR 2025 PM PEAK HOUR TRAFFIC PROJECTIONS
AND ASSUMED GEOMETRICS

4684-001 9/14/2005 figure 4

Table 4.15-8
Year 2025 PM Peak Hour – Study Area – Intersection Levels of Service

Intersection	Control	Average Delay	LOS
1. North Ring Road/ SR 65	Signal	43.9 sec	D
2. SR 65 / McDevitt	Signal	31.8 sec	C
3. Wheatland Rd/Oakley Rd	Signal	23.8 sec	C
4. SR 65 / First Street	Signal	21.4 sec	C
5. Spenceville Rd/Ring Road	Signal	33.4 sec	C
6. Spenceville Rd/SR 65 Bypass SB Ramps	Signal	33.5 sec	C
7. SR 65/Main Street	Signal	32.6 sec	C
8. Malone/South Ring Road	Signal	25.7 sec	C
9. South Ring Rd/Loop Rd Connectors	Signal	26.2 sec	C
10. SR 65/Loop Road Connectors	Signal	22.4 sec	C

As shown, all of the study intersections are projected at LOS "C" or better with the exception of the SR 65/Ring Road intersection during the p.m. peak hour.

The SR 65/Ring Road Intersection is projected to operate at LOS "D" with the assumed standard improvements and standard policy. Due to the large volume of westbound to northbound right turning traffic, an overlap for the right turning vehicles would be needed to improve operations. This overlap would preclude westbound "U" turns from southbound SR 65 at the Ring Road. With these improvements installed, operations would improve to LOS "C".

The General Plan Update includes the following goals and policies applicable to traffic delay issues:

Goal 2.A To provide for the long-range planning and development of the City's roadway system to ensure the safe and efficient movement of people and goods.

Policy 2.A.10. The City shall give priority to street and highway improvements that increase safety, minimize maintenance costs, and increase the efficiency of the street system.

Policy 2.A.11. The City shall ensure that highways and arterial streets within its jurisdiction provide for the efficient flow of traffic. Therefore, the following shall be undertaken:

- Minimize the number of intersections along arterials.
- Reduce curb cuts along arterials through the use of common access easements, backup lots and other design measures.
- Provide grade separations at all major railroad crossings with arterials, except for an at-grade crossing of the major arterial in the north.

- Extend arterials over waterways, railroads and through developed and undeveloped areas to provide for the continuous flow of through traffic and appropriate area access.

Implementation of the goals and policies above would minimize impacts regarding increased delay at intersections; however, not to a *less-than-significant* level. The resultant impact would therefore remain ***significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce impacts to a *less-than-significant* level.

4.15-2 *Prior to initiating roadway improvements, the plans for the Ring Road shall identify an overlap for the right turning vehicles and exclusion of westbound "U" turns from southbound SR 65 at the Ring Road. The plans shall be reviewed and approved by the City Engineer.*

However, since the preparation of the traffic study, the City has been considering a separated-grade crossing for the North Ring Road / SR 65 intersection. Therefore, the above intersection improvement may not be appropriate. Furthermore, the above improvements may not be feasible due to the uncertainty as to whether the Public Utilities Commission (PUC) or the Union Pacific Railroad (UPRR) would agree to another at-grade crossing. As a result, the impact would remain *significant and unavoidable*.

4.15-3 Transit System Issues

The development of the study area would contribute to the growing need for public transit throughout and around the City of Wheatland. Currently, the City of Wheatland contracts transit services from the Yuba-Sutter Transit District, which provides the City of Wheatland with bus services once each Tuesday from Linda and Marysville. The service provides pick up and drop off at any address in Wheatland, as bus stops are currently not available. The Yuba-Sutter Transit District has indicated that they would provide more service to the City, including the almond Estates North project, if necessary facilities are constructed[1].

The availability of a good transit system provides alternatives to automobile use, and is especially important for those who cannot or do not drive. As Wheatland grows, the potential for transit use and the need for transit will increase. Because the City of Wheatland does not currently provide adequate transit services to serve the existing population, the General Plan Update includes policies that support the enhancement of the existing transit system, especially in connection with new development.

The General Plan Update includes the following goals and policies applicable to transit system issues:

Goal 2.E To promote a safe and efficient transit system to reduce congestion, improve the environment, and provide viable non-automotive means of transportation in and through Wheatland.

Policy 2.E.1. The City shall work with Yuba-Sutter Transit to implement bus transit services that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.

Policy 2.E.2. The City shall consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.

Policy 2.E.3. The City shall consider families' needs in transportation planning efforts and shall promote safe and convenient methods of transportation between school, home, retail shopping, and child care.

Policy 2.E.4. The City shall encourage the creation of rail transit to link Wheatland with Marysville/Yuba City and the Sacramento Area.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.15-4 Street Safety Issues.

Planning for urban growth and development requires consideration of a wide range of public safety issues. Many of the safety risks associated with development can be avoided through locational decisions made at the planning stages of development, while others may be lessened through the use of mitigation measures in the planning and land use regulation process.

Pedestrian and Bicycle Routes

The General Plan Update (General Plan Update) seeks to protect the quality and safety of residential neighborhoods from high-volume and high-speed traffic. General Plan Update policies encourage walking and bicycling in existing and new neighborhoods through maintenance of streets and sidewalks and by promoting the design of new neighborhoods that provide for direct

pedestrian/bike routes through grid and modified grid street patterns, and along open space corridors.

Agricultural Vehicles

Wheatland's agricultural surroundings play a central role in its history and character of the community. The continued growth of Wheatland will inevitably locate urban uses next agricultural lands. Because policies of the General Plan Update seek to maintain agricultural uses as long as possible and to protect adjacent agricultural lands from the negative effects of urban development, agricultural vehicles would continue to operate on Wheatland's roadways.

Agricultural operations occasionally require the use of local roadways, which create excessive delays, and slow the flow of traffic. Agricultural vehicles generally travel between five (5) to ten (10) miles per hour, and do not have the ability to maneuver around or away from on-coming traffic. On-coming traffic would need to be sufficiently cautioned about the use of agricultural vehicles on roadways so divers would be able to react when sharp curves, structures or vegetation block the road ahead.

The incorporation of signage that effectively cautions drivers of agricultural vehicles on roadways would provide sufficient warning, and decrease potential collisions.

Emergency Access

The General Plan Update also seeks to protect the community from injury and damage resulting from natural catastrophes and hazardous conditions by providing and regularly update emergency services plans to ensure new and existing developments have adequate emergency access, and routes.

The City's most important policy tool for upgrading and maintaining its roadways to provide for effective and efficient traffic movement is the *Circulation Diagram* and its associated standards. The *Circulation Diagram* provides adequate emergency access by providing a street system designed to accommodate future traffic volumes with acceptable levels of congestion. The General Plan Update policies ensure that emergency vehicles will have access to an efficient citywide circulation system. For access to individual parcels and new development areas, the City's Zoning Ordinance, street standards, and processes governing development project approval control the adequacy of emergency vehicle access.

Although the maintenance of streets and sidewalks provide safe routes for bicyclists and pedestrians, and the General Plan Update provides policies, which ensure appropriate emergency access and routes throughout Wheatland, additional measures are required to caution drivers of agricultural vehicles along local roadways.

The General Plan Update includes the following goals and policies applicable to street safety issues:

Goal 1.I To maintain the productivity and minimize developments affects on agricultural lands surrounding Wheatland.

Policy 1.I.3. The City shall promote good neighbor policy between residential property owners and adjacent farming operations by supporting the right of the farmers and ranchers to conduct agricultural operations in compliance with state laws.

Goal 2.A To provide for the long-range planning and development of the City's roadway system to ensure the safe and efficient movement of people and goods.

Policy 2.A.1. The City shall plan, design, and regulate the development of the City's street system in accordance with the functional classification system described in this chapter and reflected in the Circulation Diagram and the City's Street Standards and Specifications.

Goal 2.C To protect residential areas from high-volume and high-speed traffic and its effects and promote bicycling and walking on residential streets.

Policy 2.C.1. The City shall consider the effects of new development on local streets in residential areas and require new development to mitigate significant impacts on residential neighborhoods.

Policy 2.C.2. The City shall promote street, alley, and sidewalk maintenance to encourage their safe use.

Policy 2.C.3. The City shall consider future needs for street and sidewalk maintenance in approving new development.

Policy 2.C.4. The City shall require ADA compliance for existing and proposed street sidewalks.

Policy 2.C.5. The City shall promote elderly friendly roadways, including the use of bikeways for golf carts and motorized wheelchairs.

Goal 9.A To protect the community from injury and damage resulting from natural catastrophes and hazardous conditions.

Policy 9.A.1. The City shall prepare and regularly update emergency services plans.

Policy 9.A.9. The City shall coordinate disaster preparedness planning with other public agencies and organizations.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
While the impacts are *less-than-significant*, additional efforts can be made by the City of Wheatland to further improve street safety in Wheatland. The below measure would further reduce street safety impacts; maintaining a *less-than-significant* level.

4.15-4 *The City shall design and implement a farm equipment and local roadway program to reduce the conflicts of urban traffic with farming operations. This program may include:*

a. Installation and maintenance of traffic warning signs along City roads that are used by farm equipment.

b. The City shall require that all farm equipment traveling on city roads must:

i. Operate only on local roads;
ii. Operate during daylight hours, unless absolutely necessary and only when vehicle and equipment is adequately lighted for night travel;
iii. Display slow-moving-vehicle (SMV) signs if traveling slower than 25 mph;
iv. Not allow extra riders at any time for any reason;
v. Equip large trailers or equipment with separate brakes;
vi. Securely tie down all equipment to transport trailers and/or truck beds;
vii. Maintain speeds that are appropriate for the area, road conditions, and time of the year;
viii. To the extent possible, make equipment as compact and narrow for the road;
ix. Use pilot vehicles with flashing amber lights and oversized load signs to assist large machines, such as combines; and
x. Drive slow moving vehicles as far to the right as possible while remaining on the road.

4.15-5 Potential conflicts for pedestrian and bicyclists

Non-motorized transportation includes pedestrian and bicycle travel. Making it easier for Wheatland residents and workers to bike or walk not only reduces automobile trips, with benefits for air quality, but it also promotes greater community interaction, one of the small-town qualities the General Plan seeks to preserve and enhance. Non-motorized transportation also reduces the demand for street and road widening and maintenance and also reduces the demand for parking areas and related land required for development.

The Draft General Plan Policy Document, Transportation and Circulation Chapter, outlines a series of goals and policies for non-motorized transportation. Most notable, Implementation Program 2.8 identifies that the City shall prepare a Bike Master Plan. Although the General Plan Update is not yet adopted, the City would like to build upon the public participation process in place for the General Plan and begin work preparing the *City of Wheatland Bike Master Plan (BMP).*

The *Wheatland Bike Master Plan* would encourage bicycling in the City at the foundational level of creating a safe, efficient, and interconnected bike trail system throughout the City where none currently exists. In addition, the BMP would include goals related to education of the public regarding bicycle safety as well as bicycle routes throughout the City. The medium of this important education effort would include but not be limited to, the provision of literature, such as bicycle route maps, to schools and businesses.

The specific goals stated in the Guidelines for capital projects would be addressed through careful planning in the preparation of the BMP. The primary purpose of the BMP is in fact to identify capital projects consistent with the goals, included but not necessarily limited to, those contained in the application Guidelines.

The General Plan Update includes the following goals and policies applicable to bicycles and pedestrian issues:

Goal 2.F To provide a safe, comprehensive, and integrated system of facilities for non-motorized transportation for both transportation and recreation.

Policy 2.F.1. The City shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provide connections between the city's major employment and housing areas, between its existing and planned bikeways, and between schools, parks, retail shopping, and residential neighborhoods.

Policy 2.F.2. The City shall require developers to finance and install pedestrian pathways, bikeways, and multi-purpose paths in new development, as appropriate.

Policy 2.F.3. The City shall encourage the development of adequate, convenient, and secure bicycle parking at employment centers, schools, recreational facilities, transit terminals, commercial businesses, the Downtown, and in other locations where people congregate.

Policy 2.F.4. The City shall consider the needs of bicyclists when new roadways are constructed and existing roadways are upgraded.

Policy 2.F.5. The City shall consider the needs of bicyclists when determining street widths.

Policy 2.F.6. The City shall develop safe and pleasant pedestrian ways. To this end, the City shall ensure sidewalks are wide enough for pedestrian convenience.

Policy 2.F.7. The City shall cooperate with the schools in maintaining and updating the Safe Routes to School program.

Policy 2.F.8. The City shall require crosswalks and other pedestrian safety measures be designed and installed according to City of Wheatland Ordinances.

Policy 2.F.9. The City shall encourage major employment centers (50 or more total employees) to install showers, lockers, and secure parking areas for bicyclists as part of any entitlement.

Policy 2.F.10. The City shall ensure that bikeways are maintained in a manner that promotes their local and regional use.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.15-6 Parking Related Issues

The General Plan Update requires that new development provide for adequate and appropriately-located parking. Although parking requirements are implemented primarily through the City's *Zoning Ordinance*, the General Plan Update includes policies that require new development to provide a sufficient amount of

convenient, available, accessible, safe, and attractive parking to serve existing and new development throughout the City as needed.

The General Plan Update includes the following goals and policies applicable to parking related issues:

Goal 2.D To provide a sufficient amount of convenient, available, accessible, safe, and attractive parking to serve existing and new development throughout the City as needed.

Policy 2.D.1. The City shall require provision of adequate off-street parking in conjunction with new development. The adequacy and appropriateness of parking requirements in the Zoning Ordinance shall be periodically reevaluated.

Policy 2.D.2. The City shall require that parking lots be designed for maximum pedestrian safety and convenience, motorist convenience and safety, and handicapped access.

Policy 2.D.3. The City shall continue to implement Zoning Ordinance parking standards that establish minimum and maximum number of spaces for parking lots.

Policy 2.D.4. The City shall require new parking lots to be designed to minimize visual impacts on public roadways and neighboring areas.

Policy 2.D.5. The City shall allow shared parking where different adjacent uses generate peak parking demand at different times.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.15-7 Air Traffic Impacts

Wheatland is situated close to Beale Air Force Base. Proximity to this base provides benefits to the City in terms of employment and economic development. The base can also create noise and safety concerns, requiring careful planning in connection with flight operations and changes in airport activity.

The Beale AFB Comprehensive Land Use Plan (CLUP) (1992) designates three safety areas: the clear zone, the approach-departure zone, and the overflight zone (see Figure 7-1). The clear zone is near the end of the runway and is the most restrictive. The approach-departure zone is located under the takeoff and landing

slopes and is less restrictive. The overflight zone is the area under the traffic pattern and is even less restrictive.

Wheatland is located within the CLUP overflight zone. The overflight zone dimensions are determined by reviewing the flight patterns for Beale AFB and developing a zone that would include that land overflown by aircraft in a take-off or landing phase, aircraft using flight paths associated with training touch and go operations, and aircraft maneuvering near the airfield after take-off or before landing.

The Beale AFB Comprehensive Land Use Plan includes a table entitled "Beale Air Force Base Land Use Compatibility Guidelines for Safety." Although the overflight zone is the least restrictive of the zones, the table shows that certain land use is permitted in the overflight zone. Prohibited land use include: chemical and allied products manufacturing; petroleum refining; rubber and plastics manufacturing; regional shopping centers; colleges and universities; hospitals; jails and detention centers; motion picture theater complexes; professional sports developments; stadiums and arenas; auditoriums, concert halls and amphitheaters; fairgrounds and expositions; racetracks; and theme parks.

Although policies in this section encourage convenient and efficient flight operations while minimizing any negative effects on Wheatland, the General Plan Update includes various land uses, and proposed developments, which could potentially be located within an over-flight zone.

The General Plan Update includes the following goals and policies applicable to air traffic issues:

Goal 2.G To support the continued operation of Beale Air Force Base and its associated facilities while ensuring compatibility between urban development in Wheatland and aircraft operations.

Policy 2.G.1. The City shall work closely with appropriate agencies, including Beale Air Force Base and the Sacramento Area Council of Governments (SACOG), to ensure compatibility of land uses that fall within over-flight zones.

Policy 2.G.2. The City shall work with Beale Air Force Base to coordinate changes to their flight patterns with land use decisions.

Implementation of the goals and policies above would reduce the impact to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.15-8 Cumulative Traffic Impacts

Wheatland's planned roadway network is designed to meet year 2025 development levels based on the land uses shown on the *Land Use Diagram*. The General Plan seeks to maintain satisfactory traffic conditions while accommodating future growth. The City's most important policy tool for upgrading and maintaining its roadways to provide for effective and efficient traffic movement is the *Circulation Diagram* and its associated standards.

The *Circulation Diagram* (Figure 4.15-2) depicts the proposed circulation system to support development under the *Land Use Diagram*. This circulation system is represented on the diagram as a set of roadway classifications that have been developed to guide Wheatland's long-range planning and programming

Although the General Plan Update seeks to maintain satisfactory traffic conditions while accommodating future growth, Wheatland's planned roadway network is designed to meet year 2025 development levels based on the land uses shown with the *Land Use Diagram*. However, traffic projections provided by the *Traffic Impact Analysis* for this section were generated from a traffic demand model; but, the model did not assume build out of Yuba County. As such, build out of proposed developments, such as Yuba Highlands and Plumas Lakes were not included. If full development of these projects were added to the model's land use base, then the number of trips generated by the traffic demand model would increase. While not quantitatively assessed in this report, the addition of additional development in Yuba County would increase traffic volumes on area streets and intersections. As such, traffic volumes in Wheatland are anticipated to rise, which may result in degradation to the projected levels of service that are reported in this document. Therefore, a ***significant*** cumulative traffic impact could occur.

<u>Mitigation Measure(s)</u>
Mitigation measures to reduce the impact are not available or feasible; therefore, the impact would remain *significant* and *unavoidable*.

Endnotes

[1] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.

[2] kdANDERSON Transportation Engineers, Traffic Impact Analysis for the City of Wheatland General Plan Update, September, 2005.

[3] *<u>Traffic Analysis Report for Improvements to SR 65 from Main Street to Olive Street</u>*, kdANDERSON Transportation Engineers, January 2001.

4.16 UTILITIES AND SERVICE SYSTEMS

Introduction

The public services and utilities impact section analyzes the water, sewer and solid waste strategies of the Wheatland General Plan Update study area. The water system information in this chapter is based on the *Master Water Plan Technical Report* by Terrance E. Lowell & Associates, Inc.[1]. The sewer system information presented in the following assessment is based on the *Sewer Collection System Master Plan Technical Report* by Terrance E. Lowell & Associates, Inc,[2] the *Wastewater Treatment Facilities Master Plan* by CH2MHILL,[3] the *Wheatland General Plan Update Background Report*[4] *(2004)*, and the *Yuba County Water Agency Ground Water Management Plan*.[5]

Environmental Setting

The setting section describes the existing water system, wastewater collection and treatment, solid waste collection and disposal, and other public utilities related to the General Plan Update study area.

Domestic Water Supply

Domestic water service in the City was originally provided by Wheatland Water Works, a private company. The first water lines were placed in 1889 by Wheatland Water Works shortly after the City incorporated in 1874. In 1906 the company constructed a 130-foot high water tower. Shortly thereafter the City purchased the water works, forming the Wheatland City Water Department.

The City of Wheatland Public Works Department operates the City's water system today and provides water to the entire city plus approximately two residences outside the city. The City's water source is entirely from ground water. The quality of the ground water is excellent and is disinfected by adding low levels of chlorine. The existing water supply available from ground water sources is adequate to supply the existing City limits to buildout. The water system and major component locations are shown in Figure 4.16-1 and tabulated in Table 4.16-1.

Figure 4.16-1
Existing Water System

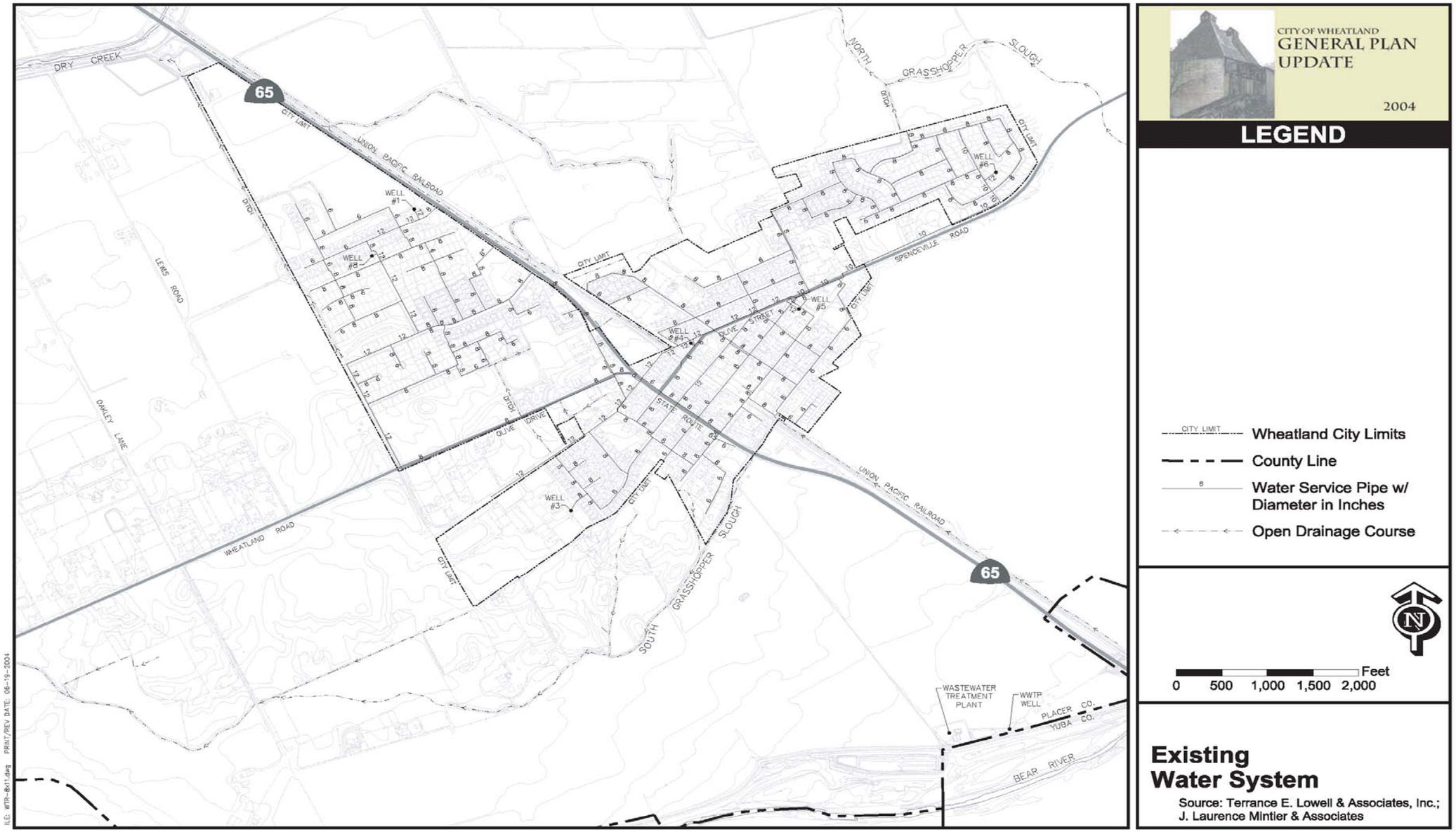


Table 4.16-1 Wheatland Water System Major Facilities Inventory, May 2004				
Water Meters				
Size, inches	**Domestic**	**Irrigation**	**City Facilities**	**Total**
¾ & 1”	1027	0	5	1,032
1 ½”	5	0	0	5
2”	10	7	1	18
3”	1	0	0	1
4”	0	0	0	0
6”	2	0	0	2
Total Meters	1,045	7	6	1,058
Water Lines				
Size, inches	**Length, feet**			
6”	39,299			
8”	56,056			
10”	3,763			
12”	11,466			
Totals	110,584			
Water Wells				
Well Number and Location		**Production, gpm**	**Standby Power & ATS**	
#3 @ Corporation Yard		740	Yes	
#4 @ Police Department		675		Has receptacle for portable generator
#5 @ Evergreen		740	Yes	
#6 @ High School		740		Has receptacle for portable generator
#7 @ Wheatland Ranch		550	Yes	
#8 @ Park Place		800	Yes	
Totals	6 wells	4,245	4	
Water Tanks				
Tank Type & Location		**Size, Gallons**		
Elevated Tank @ Corporation Yard		67,000		
Ground Level @ Corporation Yard with booster pump		667,000		
Totals	2 tanks	734,000		
Source: Terrance E. Lowell and Associates, 2004				

Existing Conditions

From 2001 to 2003 the City used USDA Rural Development loan and grant funds to upgrade the total water system including wells, water main replacements, water services, installation of water meters on all services, construction of a 667,000 gallon water tank and booster pumps, and the installation of a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system allows for the continuous monitoring and control of all well sites water tanks and pumps

from the City's corporation site control center at 4th and B Street. In the event of a problem in the water system, the SCADA system provides warning alarms and notification to the base station and after hours to an on-call Department of Public Works employee. The on-call employee has a dedicated laptop computer, which is connected to the base station and can be used to operate the system if necessary from a remote location.

The City has six municipal well sites that are all currently (2004) active. The wells have capacities ranging from 550 to 800 gallons per minute (gpm) with a total capacity of approximately 4245 gpm (Dauwalder, May 4, 2004). Four of the well sites have dedicated permanent standby power with automatic switching in case of a power outage. The other two well sites have a receptacle plug available for a portable generator. The depth to ground water is approximately 80 feet to 100 feet with the wells drawing water from depths ranging from 200 feet to 400 feet below grade.

The City has a monthly flat rate service charge by type of use. The City water system was completely metered under the recently completed USDA project. The meters are currently in the test stage of reading and have not yet been used for billings due to configuration needs by the meter manufacturers. It is anticipated that conversion from the flat rate billing schedule to a metered rate billing schedule will commence sometime between August and October 2004.

Existing Water Main and Distribution System

The water system includes one ground level 667,000-gallon storage tank with booster pump and one elevated 66,000-gallon storage tank. Both of these tanks are located at the City's B Street Corporation Yard. The existing water system, based on computer model calculations and field tests, is capable of providing at least 2,500 gpm fire flow to non-residential areas and 1,500 gpm to residential areas on a maximum day of water use while maintain a main line residual pressure of at least 20 pounds per square inch (psi) in any part of the water main system.

As of May 1, 2004 there were 1058 water service meters in the city (including single-family residential, multi-family residential, commercial and industrial, and City buildings/facilities). In 2003, the total water consumption was 261 million gallons. The 2003 average annual daily consumption was 0.715 million gallons per day (MGD). Based on a population of 2620, this equates to approximately 273 gallons per day per person and 676 gallons per day per meter location. The maximum day use in 2003 was 1.789 million gallons or 2.50 times the average daily use.

The existing system supply capacity is capable of serving all areas within the existing City limits (480+/-acres). Another well may need to be added to the system in the undeveloped northwest portion of the City (known as Almond Estates) for redundancy purposes, depending on the water main system designed for the area. The water system does not have sufficient capacity to serve areas outside the existing city limits and service area. Land annexed to the city for development would be required to develop an additional water supply and looped connection into the existing city system. For example, the two proposed annexation areas of Heritage Oaks Estates and Jones Ranch are required to provide a well(s) and storage tank in addition to a water line loop and SCADA connection.

The largest water users connected to the system are Wheatland High School and Bear River Junior High School. Water meters are not currently being used for billing purposes because of programmatic problems. It is anticipated that all meters and readings will be used for billings by the fall of 2004.

The water main line system consists of pipelines ranging in size from 4” to 12” in diameter. The entire City water system has looped mains except for short cul-de-sac streets. With the recent addition of the Wheatland Ranch and Park Place subdivision improvements and the new Junior High School water main line extension, the entire City is now provided with a looped water system.

One private irrigation water well is located in the City, at the northwest end of C Street in a senior apartment housing project. The City provides domestic water service to residences. The irrigation well is a separate system and provided with backflow devices to prevent cross connection to the City domestic water supply. A small-capacity untreated water well used for wash down and irrigation is located at the City's Wastewater Treatment Plant (WWTP). The WWTP is currently outside the City limits, but is proposed for annexation with the Heritage Oaks Estates project. Two single-family residential lots are located outside City limits that are connected to the City water system.

The operation and maintenance of the water system is funded by a monthly service charge. Included in the monthly service charge is revenue to repay the USDA loan amount and develop a loan reserve account. The terms of the loan are for 40-years, at 4.50 percent, and the end of loan period being 2040.

Demand

Water system maximum day demand rates by type of land use are shown in Table 4.16-2. These are the demands to be used in determining the total maximum day system demands for existing City users and for proposed annexation areas. The maximum day demand factor is between 2.3 to 2.5 times the average day demand and is used to determine the amount of annual water supply needed.

Table 4.16-2
Wheatland Domestic Water System Demand Rates

Use	Description	Unit of Measure	Maximum Day Demand, gpd/unit	Average Day Demand, gpd/unit	EDU/ unit c.
SF	Single Family to 4-plex	Dwelling unit	1150	500	1.00
MF	Multifamily	Dwelling unit	690	300	0.60
P	Park	Acre	9000	3570	7.83
C	Commercial	Acre	5750	2500	5.00
ES	Elementary School	ADA	23	10	0.020
MS	Middle School	ADA	35	15	0.030
HS	High School	ADA	46	20	0.040
Irr	Irrigation	Acre	9000	3570	7.83

Note: a. Average day demand per unit is based on a maximum day factor of 2.3.
b. Unit demands are for sizing and projects and may not reflect actual existing unit demands because of different persons/unit for example which can change substantially over time.
c. Base on ratio of maximum day demand to a SF use maximum day demand.

Source: Terrance E. Lowell and Associates, 2004

The Water System and Fire Suppression Delivery Capabilities

The City of Wheatland maintains a water system capable of supplying approximately 1,035,000 gallons of water per day for domestic purposes. The City estimates its current average water usage per day for non-fire flow purposes is approximately 504,000 gallons.

Water is supplied by six wells, a 97,000 gallon elevated water tower to insure adequate pressure, and a 667,000 gallon on-grade water tank, delivering approximately 600,000 gallons of usable water for fire flow. Water is obtained from wells with pump capacities ranging from approximately 550 to 800 gpm. Additional wells are in the planning stage. The City's six wells are capable of pumping 4,600 gpm. Three wells are provided with emergency power to insure fire flows and are capable of automatically going on line to pump 2,500 gpm. The well in the Public Works Corporation Yard has emergency power supplied by natural gas, and the wells at Wheatland Ranch and Park Place have emergency power supplied by diesel fuel.

Existing Water System Deficiencies

Three remaining water system deficiencies exist that need to be addressed. The most pressing of these is to empty, renovate and resurface the inside of the 66,000 gallon elevated water tank at the City's corporation yard. The other two deficiencies are the replacement of approximately 2,000-feet of asbestos cement water line with 1,400 feet located in Olive Street and 600 feet in 4th Street. While these two water lines do not represent maintenance, operation, or health problems, the City expects to replace the existing pipes with pipes that meet current standards. In addition to the physical deficiencies noted above, the City's Public Works Improvement Standards relative to water systems was last updated in 1992 and should be updated to reflect current materials and construction standards.

With the improvements noted above and additional developer requirements, the resulting water system is designed and sized to provide service to buildout within the existing city limits only and does not include capacity for additional land annexed to the City, including the proposed Heritage Oaks Estates and Jones Ranch projects.

Water System Expansion

Areas annexed into the City are required, prior to development, to provide engineered improvement plans to the City for all water system improvements needed including water system design, including supply calculations, wells, tanks, pumps, water lines, water services, water meters. The City Engineer and Director of Public Works review the plans for conformance to City and State standards and the Water Service Master Plan. The Water Service Master Plan addresses the area within the existing city limits and the proposed annexation areas of Jones Ranch and Heritage Oaks Estates.

City costs incurred for water system plan review, processing, and construction are to be borne by land developers or builders. Upon completion to the satisfaction of the City, the water system improvements are accepted as part of the city water system. In areas where a developer is required to install a system larger than required for a project, there will be a reimbursement agreement or other repayment method for oversizing.

In any new area proposed for annexation and development in the city, the amount of water supply (well and or surface water supply) and major system configuration including necessary water tanks, treatment, booster pumps and major pipe network is determined when development is proposed. For areas outside the existing city limits that are proposed for annexation, the City determines the availability of a water supply from wells and or surface water adequate to serve the areas.

Wastewater Collection and Treatment

Background

The Public Works Department operates the City's sanitary sewer collection and WWTP system. The collection system consists of gravity collection lines and main lines ranging in size from 4" to 15" in diameter, and five sewage lift stations with force mains ranging in size 4" to 12" in diameter. The sewage lift stations are needed due to the relatively flat topography of the City, the sewage must be lifted by sewer lift stations. The WWTP was upgraded and expanded in 1990. It is located outside of and south of the City limits adjacent to Bear River.

All buildings within the city limits that require wastewater disposal are connected to the City sewer system. Private septic tank/leach field systems do not serve any uses within the city limits. The major components and location of the sewer system are shown in Figure 4.16-2 and tabulated in Table 4.16-3.

Figure 4.16-2
Existing Sewer System

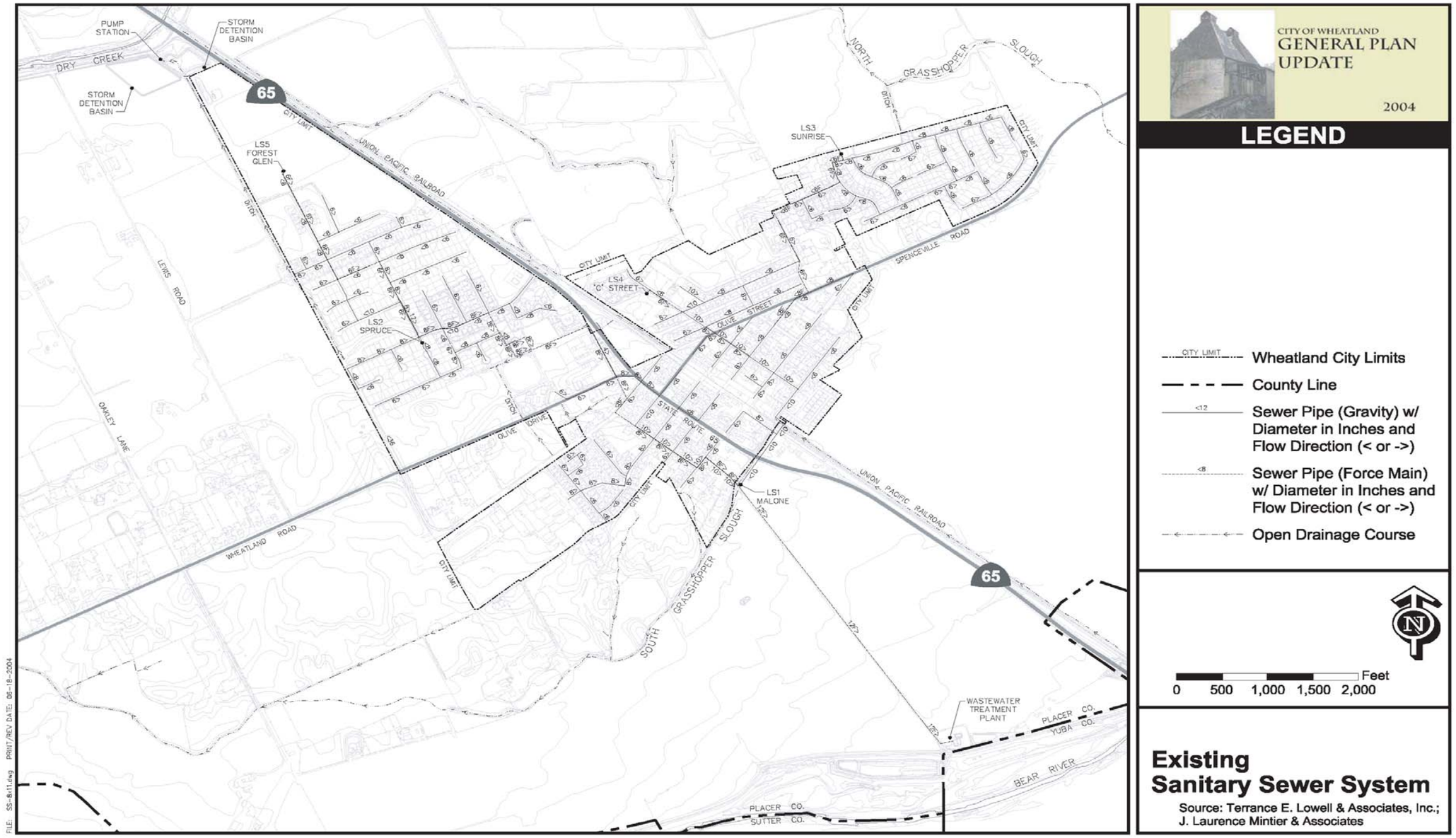


Table 4.16-3
Wheatland Sewer System Major Facilities Inventory, May 2004

Sewer Services				
Type	**Number Services**	**Number Units**		
Single family	917	917		
Multi family	79	280		
Commercial	45			
Schools	4			
City Buildings	6			
Total	1051	1197		
Sewer Lines				
Size, inches	**Length, feet**	**Miles**		
6”	16,300	18.56		
8”	13,600	20.57		
10”	5,890	11.16		
12”				
Totals	35,800	50.29		
Sewer Lift Stations				
Lift Station Number and Location		**Force Main Size**	**Standby Power & ATS**	
#1 @ Malone		12”	Yes, no ATS	
#2 @ Spruce		8”	Yes	
#3 @ Sunrise		8”	Yes, no ATS	
#4 @ “C” Street, Senior Citizens		6”	No	Has receptacle for portable generator
#5 @ Forest Glen		4”	No	Has receptacle for portable generator
Totals	5 lift stations		3	
Wastewater Treatment Plant				
No discharge, final treated effluent to percolation/evaporation ponds		0.62 mgd ADDWF		

Source: Terrance E. Lowell and Associates, 2004

Existing Gravity Sewer System

The existing gravity sewer system is adequate to fulfill the sewer service need of the existing city limits to buildout. With the exception of Jones Ranch and Heritage Oaks Estates, excess capacity does not exist to provide service to any proposed annexation areas currently outside the City.

Except for new gravity sewer lines recently installed in the Wheatland Ranch, Park Place and Ryantown Subdivisions, most of the sewer gravity lines and their services predate 1962. The oldest system sewer lines consist of primarily clay pipe with cement joints. Some of these lines have broken joints and the cement deteriorated. Several portions of older lines are asbestos

cement pipe (ACP). In one location in Hooper Street, the ACP gravity line is located under the Spruce lift station force main and was found to be soft (squishy) and in a deteriorated condition. A small portion of this line was replaced in 2003 but the remaining portion will need to be replaced in the near future. Some rear yard sewer mains exist that have maintenance problems due to sags in the line, dislocated joints, and tree roots.

The sewer system experiences some infiltration (from ground water) and inflow (storm water) entering the gravity system. Flows entering the WWTP increase significantly during periods of rain. The inflow locations and necessary corrective measures must be addressed through infiltration/inflow (I/I) studies.

In 2003, the City Engineer developed a preliminary list and estimated cost of projects and improvements to correct sewer system deficiencies including repair/replacement of sewer lines that would eliminate some of the I/I. This report was used as the background for a USDA a loan/grant application to correct these deficiencies. The USDA given the loan preliminary approval.

Existing Sewage Lift Stations and Force Main System

A total of five (5) sanitary lift stations are located in the City. Two of the lift stations (Spruce and Malone) lift the entire City's sewage to the City's wastewater treatment plant (WWTP). The Malone lift station pump and electrical panel was updated in 2003. The panel has an old standby power unit but not an automatic transfer switch in case of power outage. The 12” diameter ductile iron cement lined force main from Malone lift station to the WWTP has been recently exposed and found to be in excellent condition.

The Spruce lift station was completely rebuilt in 2003 and provided with standby power and automatic transfer switch. The portion of force main from the lift station to Hooper Street is an 8” diameter asbestos cement (ACP) force main installed in 1962. The force main is in relative good condition. The force main was extended as an 8” diameter PVC force main from Hooper to Malone in 2003 and is in excellent condition. With the 2003 improvements, the Spruce 8” force main now terminates and is connected into the 12” Malone force main which discharges directly to the WWTP.

The Sunrise lift station was completely rebuilt in 2002 (except for relining of the inside of the lift station tank). It now has a non-automatic transfer switch. The force main consists of an 8” PVC or ACP and during recent construction activities in 2001 was determined to be in good condition. The force main discharge termination manhole was replaced in 2002 with a specially lined manhole with protective coating to prevent deterioration that had occurred in the prior standard material constructed manhole.

The Forest Glen lift station was installed in 1992. The lift station is in fair condition, has a receptacle for connection to standby power, but has no standby power at the site. The 4” diameter PVC force main is in good condition and a portion of the length was recently eliminated with the construction of the Park Place Subdivision Improvements (2002/04). The 4” force main now extends from the lift station and terminates in a manhole near Redwood and

Carpenter Street. The main from the Forest Glen lift station is PVC pipe installed in 1992 and appears to be in good condition. The force main discharge termination manhole was replaced in 2002 with a specially lined manhole with protective coating to prevent deterioration that had occurred in the prior standard material constructed manhole.

The "C" Street lift station was installed in 1990. The lift station is in fair condition but has no standby power. The 4" force main is of unknown material and condition. The force main discharge termination manhole is in fair condition but needs to be replaced with a specially lined manhole with protective coating to prevent deterioration that has occurred.

Wastewater Treatment Plant

The WWTP is located south of and outside of the existing City limits adjacent to the Bear River and west of SR65. The WWTP facilities are located outside of the Bear River levee and not in the floodplain. However, the discharge percolation and evaporation ponds are located within the Bear River levee. When Heritage Oaks Estates is annexed into the City, the WWTP site and discharge ponds will also be annexed into the City.

The WWTP's last permit update by the State of California Regional Water Quality Control Board (RWQCB) was in 1991. The City's WWTP is a "no discharge" treatment plant, is well operated and is in compliance with the RWQCB requirements. The WWTP has a permitted and design capacity of 0.62 million gallons per day (MGD) average day dry weather flow (ADDWF). The ADDWF for the existing WWTP as of September 2004 was 0.29 MGD. The WWTP's last expansion occurred in 1990 when the plant was expanded from 0.21 MGD to 0.62 MGD ADDWF capacity. The expansion to 0.62 MGD ADDWF is adequate to meet the WWTP demands within the existing City limits when built out, but is not sized to provide for any substantial new proposed annexation development areas. In the past, the RWQCB reviewed treatment plant permits every 10 years. Beginning in 2000, the RWQCB began reviewing permits every five years. Thus, the City is past due for a permit review.

The plant is in need of modification and upgrade to provide for some treatment redundancy. In addition, the City has recently received a letter from the RWQCB indicating that the existing discharge percolation/evaporation ponds that are inside the Bear River levee may be required to be located outside of the levee. Discharge locations inside river levees are generally not acceptable under current State standards.

Currently, approximately 1,051 sanitary sewer services are connected to the city system, including two single-family residential units outside the existing city limits in the unincorporated island area north of the high school. The city has very limited discharge from industrial users. The majority of the sewage is domestic in nature, coming from residential and commercial users. The largest users connected to the sewer system are Wheatland High School and Bear River Junior High School. The average discharge is approximately 260 gallons per day per service location. In the calendar year 2003, the total wastewater treated was 105 million gallons which equals average daily amount treated of 0.288 million gallons. Based on an existing population of 2,620, this equates to approximately 110 gallons per day per person/day and 273 gallons per day per service location. The maximum day of wastewater entering the plant in calendar year 2003

was 0.525 million gallons or 1.83 times the average day. Septic tank/leach field uses do not occur within the city limits. Public sewage collection or treatment systems do not extend to areas outside the city limits except for the two single-family areas noted above. All of the properties outside of the existing city limits and within the Study Plan area currently rely on individual septic tank/leach field systems for sewage disposal.

The operation and maintenance of the sewer system is funded by monthly service charges, which include a surcharge for refund to Forecast Homes for deferred maintenance, the company performed. The current fee is not adequate to cover all system maintenance and operation costs. The City will be considering increasing the monthly sewer service charge in the future.

Sewer System User Demand Rates and Equivalent Dwelling Units

Sewer system average day dry weather demand (ADDWF) rates by type of land use are shown in Table 4.16-4. These rates are used to protect the system demands for existing city users and proposed annexation. The City design standards provide for a peak flow demand factor varying between 2.3 to 4.5 times the ADDWF.

Table 4.16-4
Wheatland Domestic Sewer System Demand Rates

Use	Description	Unit of Measure	ADDWF, gpd/unit	EDU/unit c.
SF	Single Family to 4-plex	Dwelling unit	350	1.000
MF	Multifamily	Dwelling unit	250	0.710
P	Park	Acre	30	0.086
C	Commercial	Acre	1750	5.000
ES	Elementary School	ADA	7	0.020
MS	Middle School	ADA	10	0.029
HS	High School	ADA	12	0.034
I	Industrial	Acre	2500	7.140

Notes: a. ADDWF = Average Day Dry Weather Flow.
b. Unit demands are for sizing and projects and may not reflect actual existing unit demands because of different persons/unit for example which can change substantially over time.
c. EDU/unit is based on the ADDWF of a use divided by the ADDWF of a single family use.
d. Peak Flow factor varies from 2.3 to 4.5 depending on total flow to portion of system being studied. The smaller the ADDWF in a system, the larger the Peak Flow factor.
Source: Terrance E. Lowell and Associates, 2004

Water System Design for Fire Protection

Water systems are designed to meet the requirements of generally accepted engineering principles for domestic water flow (non-fire flows), and they should be designed to provide fire flows above the maximum daily use. The ISO and the UFC are common references for determining fire flow requirements, which normally are calculated to provide uniform flows to specific areas and to specific buildings within the same areas.

Nevertheless, the provision of water alone does not insure safety from fire. Rather, the water system is an essential component of the community's fire protection infrastructure that also includes response capabilities, building design and construction controls, public education, access, and other preventive measures. Circumstances will always exist in which emergency

response resources can be overwhelmed regardless of the amount of available water. For instance, vegetation fires have overwhelmed firefighting resources and water supplies in urban/wildland interface areas.

The determination of water resources requires a careful analysis of risk and cost. In light of the UFC's requirements and general conditions within the City of Wheatland, the policy decision to establish the strategic needs of the water system is fairly straightforward. Design considerations need to consider many factors, but for fire protection purposes, the water system should be entirely looped with no dead-end mains and be capable of supplying the recommended fire flows with at least 20 pounds per square inch of residual pressure in addition to meeting the community's maximum daily usage of 1,000 gpm.

Automatic fire extinguishing systems (AFS) provide greater environmental protection because they use less water to extinguish a fire than application of water by fire hoses. This results is less water runoff into storm drains and less percolation into the ground that contain toxic and hazardous materials involved in the fire or form byproducts of combustion..

The model used to establish current fire hydrant flows is 750 gallons per minute (gpm) considering two concurrent fires, or 1,500 gpm and 2,500 gpm for commercial zones. It is recommended that fire flow be based upon a concurrent residential fire (1,000 gpm minimum) and commercial fire (3,500 gpm) assuming all buildings will be protected by AFS with flow alarms monitored on a 24/7 basis.

An important factor for the City to consider in planning its water system is that if the fire flow for commercial areas is not increased by 3,500 gpm in all commercial areas, particularly areas of proposed development, the type and size of buildings permitted by zoning regulations may be restricted.

Should the City control the interface between buildings and open space (especially regarding combustible vegetation), the residential areas within the City of Wheatland can be considered moderate hazard zones as defined by the Uniform Fire Code. Where combustible building interfaces are not regulated, the UFC calls for increased fire flows of 2,500 gpm or greater, as established by the local fire chief. Residential areas should have a minimum fire flow of 1,500 gpm unless buildings are protected by sprinklers, in which case the fire flow can be 1,100 gpm.

Fire Hydrant Standards

Although the City has not adopted the Uniform Fire Code, it appears that water system engineers have applied the code's basic rules applying to fire hydrants. The UFC specifies that the minimum number of fire hydrants to assure fire flows of 3,500 gpm shall be a minimum four hydrants spaced 350 feet apart; and for fire flows of 1,000 to 1,500 gpm there shall be a minimum of two hydrants spaced 450 feet apart. These hydrants are required to be within a range of 180 to 225 feet of any point on a street or road frontage and no further than 150 feet from a structure that needs to be protected.

Water Storage

Fire flow needs are calculated assuming two concurrent fires, one residential and one commercial. This fire flow calculation is in addition to the storage needed to maintain maximum daily use for non-fire uses plus a reserve capacity of approximately 20 percent.

Table 4.16-5
Wheatland Water Storage and Pump Capacity for Fire Flows

Water Storage/Use	Gallons of Water
Current Storage (2 Tanks)	600,000
Fire Flow of 3,500 gpm at 3 hrs.	630,000
Fire Flow of 1,500 gpm at 2 hrs. (120,000 gpm if AFS* required)	180,000
Reserve Storage of 20%	198,000
Amount maintained for Max. Daily use (1,000 gpm for 3 hours)	180,000
Total Minimum Storage Equivalent	**1,188,000**
Storage Deficiency	588,000
Less Emergency Pump Capacity 2,150 gpm(2,150 gpm at 3 hrs.)	387,000
Deficiency in delivering anticipated fire flow	201,000 gallons**

*AFS = automatic fire sprinklers

**This deficiency can be made up by placing additional wells on-line or by providing one or more of the existing three wells with automatic on-line pumping capabilities and emergency power. ROA encourages greater amounts of above ground storage as a dependable source of water for Fire Protection use rather than use of pump capacity.
Source: Robert Olson Associates, 2004.

Solid Waste

Yuba-Sutter Disposal, Inc., a division of NorCal Waste Systems, Inc., provides residential and commercial garbage collection, debris box service, green waste, commercial cardboard recycling, and recycling services for the incorporated and urbanized unincorporated areas of the County including residents of Beale Air Force Base, Live Oak, Marysville, Yuba City, Wheatland, and the counties of Yuba and Sutter.

The company also operates a materials recovery facility to extract recyclables from the waste stream; two transfer stations, one household hazardous waste collection facility, one buy-back center and a pilot composting facility.

Yuba-Sutter Disposal, Inc. serves more than 30,000 residential customers and 5,000 commercial customers and collects more than 100,000 tons of materials annually. Collected material is taken to the company's transfer station located at 3001 North Levee Road in Marysville. Waste is then transferred to the Ostrom Road Sanitary Landfill located at 5900 Ostrom Road near Wheatland.

The Regional Waste Management Authority administers the City and County's waste reduction/waste diversion program. Inspection and enforcement activities are handled by the Yuba County Environmental Service Department. According the 2001 Regional Waste Management Authority

Annual Report, Yuba County achieved a 27 percent reduction in Countywide wastes generated in reporting year 2001 per the recycling reduction requirements identified in AB 939. The reporting year 2000 diversion rate was 34 percent and the projected 2002 reporting year diversion rate is estimated at 35 percent. Based upon the efforts of the Regional Waste Management Authority to implement new programs in support of AB 939, the Authority was granted a three-year time extension from the year 2000 deadline to achieve overall program goals of a 50 percent diversion rate. In support of this target, the Regional Waste Management Authority has implemented numerous programs within the past 18 months that are anticipated to increase the overall diversion rates of the County as the program mature.

Norcal Waste Systems operates Ostrom Road Sanitary Landfill, Inc. near Wheatland. The site is located approximately five miles east of SR 65 adjacent to the southern boundary of Beale Air Force Base. The facility has been in operation since 1995, and to date, approximately 35 acres of the 225 total disposal area has been constructed. The Ostrom Road facility currently encompasses an area of approximately 261 acres in size with 225 acres available for disposal. The landfill facility provides disposal services for both municipal and commercial customers. In addition to accepting municipal solid waste, Ostrom Road Landfill accepts a variety of commercial and industrial waste streams. Ostrom Road Landfill is not open to residential customers.

In March of 2002, the Yuba County Board of Supervisors granted Yuba-Sutter Disposal Inc. an amendment to its existing permit to allow more tonnage at the Ostrom Road Landfill, eventually reaching 3,000 tons per day in 2030, up from the current 1,000 tons per day. The Ostrom Road Landfill currently has at least 60 years of capacity based upon existing and projected waste streams.[6] The closure date for the facility is estimated to occur in the year 2066.

Regulatory context

Existing policies, laws, and regulations that would apply to the proposed project are summarized below.

Domestic Water Supply

Federal Government

The Federal Clean Water Act (CWA) establishes regulatory requirements for potable water supplies including raw and treated water quality criteria. The City is required to monitor water quality and conform to regulatory requirements of the CWA.

The Federal Safe Drinking Water Act (SDWA), which was enacted in 1974, gives the United States Environmental Protection Agency (EPA) the authority to set standards for contaminants in drinking water supplies. The SDWA was amended in 1986 and amended and reauthorized in 1996. For each of the 83 contaminants listed in the SDWA, the EPA sets a maximum contaminant level or treatment technique for contaminants in drinking water.

State of California

The State Water Resources Control Board (SWRCB) manages all water rights and water quality issues in California under the terms of the Porter-Cologne Water Quality Control Act (1969). The California Department of Health Services (DHS) has been granted primary enforcement responsibility for the SDWA (see above). Title 22 of the California Administrative Code establishes DHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

SB 610/SB 221

Senate Bills 610 and 221, which took effect January 1, 2002, require specific information about water availability to be presented and considered by land use agencies during the processing of certain land use entitlement applications. SB 610 and SB 221 generally apply to projects that would increase the number of water connections by 10 percent or more.

SB 610

SB 610 refers to numerous details that must be addressed in the water supply assessment, which are described in portions of the amended Water Code §10910:

(d)(1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system…under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system […] shall be demonstrated by providing information related to all of the following: (A) Written contracts or other proof of entitlement to an identified water supply. (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system. (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply. (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system […] under the existing water supply entitlements, water rights, or water service contracts, the public water system […] shall also include in its water supply assessment […] an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water…

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines…that the sufficiency of groundwater necessary to meet the initial and project demand associated with the project was addressed in [its urban water management plan].

SB 221

SB 221 requires supporting documentation of verification that sufficient water supplies are available for a project. SB 221 provides that in determining whether water supply is sufficient, the water agency shall consider a myriad of factors:

(A) The availability of water supplies over a historical record of at least 20 years.

(B) The applicability of an urban water shortage contingency analysis […] that includes actions to be undertaken by the public water system in response to water supply shortages.

(C) The reduction in water supply allocated to a specific water use sector pursuant to a resolution or ordinance adopted, or a contract entered into, by the public water system […]

(D) The amount of water that the water supplier can reasonably rely on receiving from other water supply projects, such as conjunctive use, reclaimed water, water conservation, and water transfer, including programs identified under federal, state, and local water initiatives such as CALFED and Colorado River tentative agreements [...]

If the water agency relies upon water supplies not then available to it, then the written verification must be based on the following elements, to the extent each is applicable:

(1) Written contracts or other proof of valid rights to the identified water supply that identify the terms and conditions under which the water will be available to serve the proposed subdivision.

(2) Copies of a capital outlay program for financing the delivery of a sufficient water supply that has been adopted by the applicable governing body.

(3) Securing of applicable federal, state, or local permits for construction of necessary infrastructure associated with supplying a sufficient water supply.

(4) Any necessary regulatory approvals that are required in order to be able to convey or deliver sufficient water supply to the subdivision.

If water supply for the proposed subdivision includes groundwater, the public water system shall also evaluate, based on substantial evidence, the extent to which it or the landowner has the right to extract the additional groundwater needed to supply the proposed subdivision.

The water agency's written verification must also "include a description, to the extent that data is reasonably available based on published records maintained by federal and state agencies, and public records of local agencies, of the reasonably foreseeable impacts of the proposed subdivision on the availability of water resources for agricultural and industrial uses within the public water system's service area that are not currently receiving water from the public water system but are utilizing the same sources of water." The water agency may rely upon a prior CEQA document for this analysis.

If the water agency determines that water supplies are insufficient, the local agency may override that decision. "The local agency may make a finding [based on substantial evidence], after consideration of the written verification by the applicable public water system, that additional water supplies not accounted for by the public water system are, or will be, available prior to completion of the subdivision that will satisfy the requirements of this section."

Solid Waste

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated with the County plan. They must promote (in order of priority); source reduction, recycling and composting, and environmentally safe transformation and land disposal.

City of Wheatland General Plan

The project involves establishment of goals and policies aimed at ensuring provision of adequate services for water, wastewater, gas and electric facilities, and telecommunication facilities. These applicable goals and policies have been included in the following impact discussions, where appropriate, in order to mitigate potential impacts.

Impacts and Mitigation Measures

Standards of Significance

A public services/utilities impact would be considered significant if implementation of the proposed project would:

- require substantial expansion of water supply treatment or distribution facilities;
- require extension of sewer mains with capacity to serve new development;
- require substantial expansion of water pollution control facilities;
- result in the degradation of existing wastewater infrastructure;
- produce solid waste in excess of available landfill capacity;

Method of Analysis

The utilities analysis below is primarily based on the *Master Water Plan Technical Report* and on the *Sewer Collection System Master Plan Technical Report*, both prepared by Terrance E. Lowell & Associates, Inc. In addition, the wastewater analysis is based upon the *Wastewater Treatment Facilities Master Plan* (September 2004) prepared by CH2MHILL. For additional information regarding the technical aspects of the water and sewer demand methodology and modeling, please refer to Appendix I, Appendix J, and Appendix K respectively. The water and sewer infrastructure designs proposed for the project are evaluated below and impacts are identified if the above standards of significance would be exceeded as a result of the proposed designs.

Water

The proposed major water system placed water lines in the GPU major road system and was modeled under three conditions using an H20net Version 3.0 computer-modeling program as follows:

Condition 1: Maximum day demand,
Condition 2: Maximum day demand plus 5,000 gpm fire flow at any junction. This condition was modeled rather than a 1,500 gpm and a 3,500 gprn fire at different location for ease of calculation.
Condition 3: Peak hour demand.

Condition 3 was modeled to verify that the maximum velocity at any location in the main transmission and/or distribution system pipe would not exceed 5 feet per second. The water model included only the GPU demand areas including all domestic and irrigation demands and none of the existing City limit demands.

Modeling Results

Figure 4.16-3 shows the size and item number of the major water system components modeled.

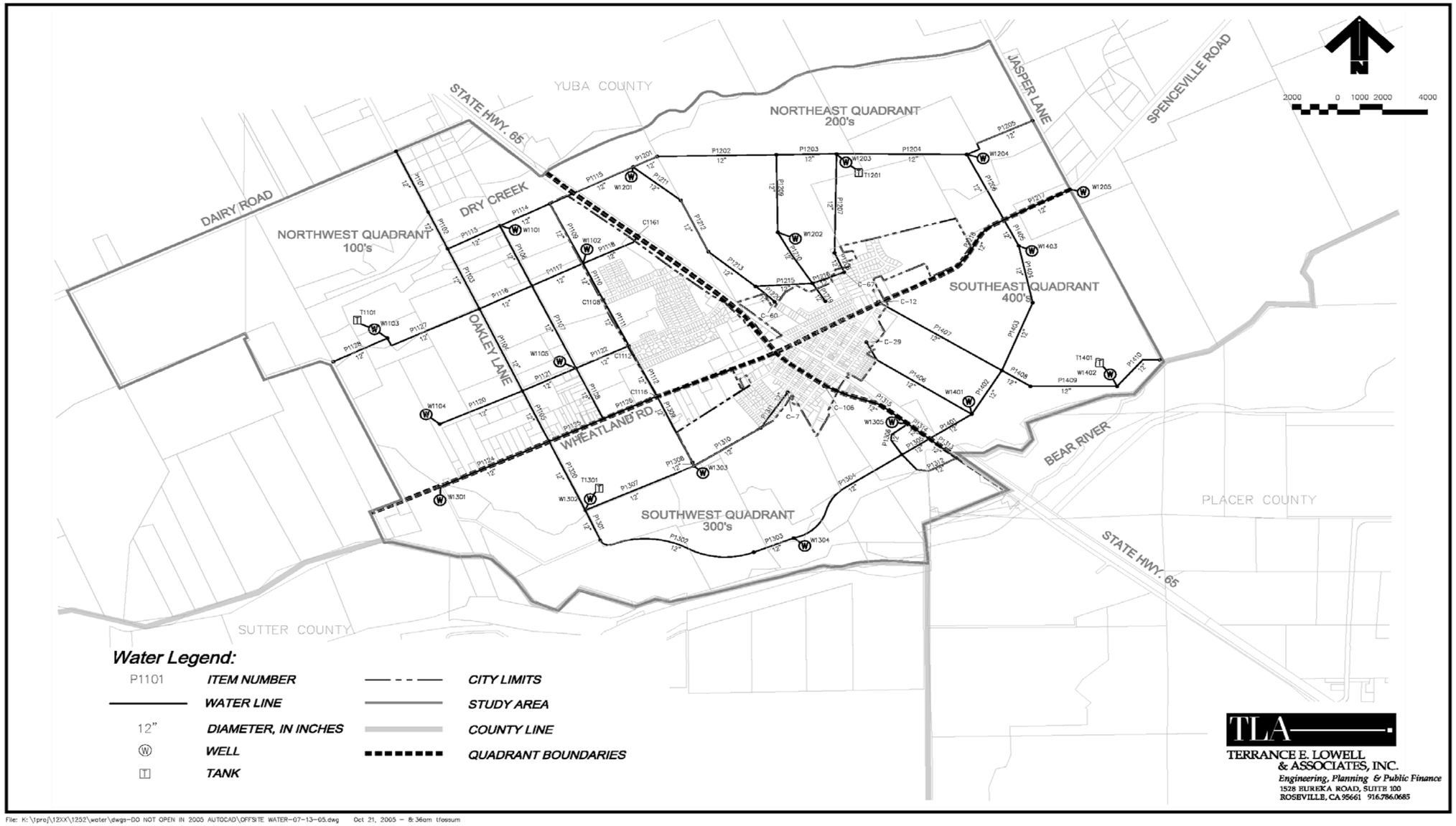
Wastewater

The proposed major sewer trunk system placed sewer lines in the GPU major road system and provides that the entire GPU area can be served by a gravity sewer trunk line system with no lift stations required.

The sewer model was developed and system sized to include the existing City limits at build-out demands. Inclusion of the existing City limits at build-out demands provides for and allows elimination of the five (5) existing City sewage lift stations.

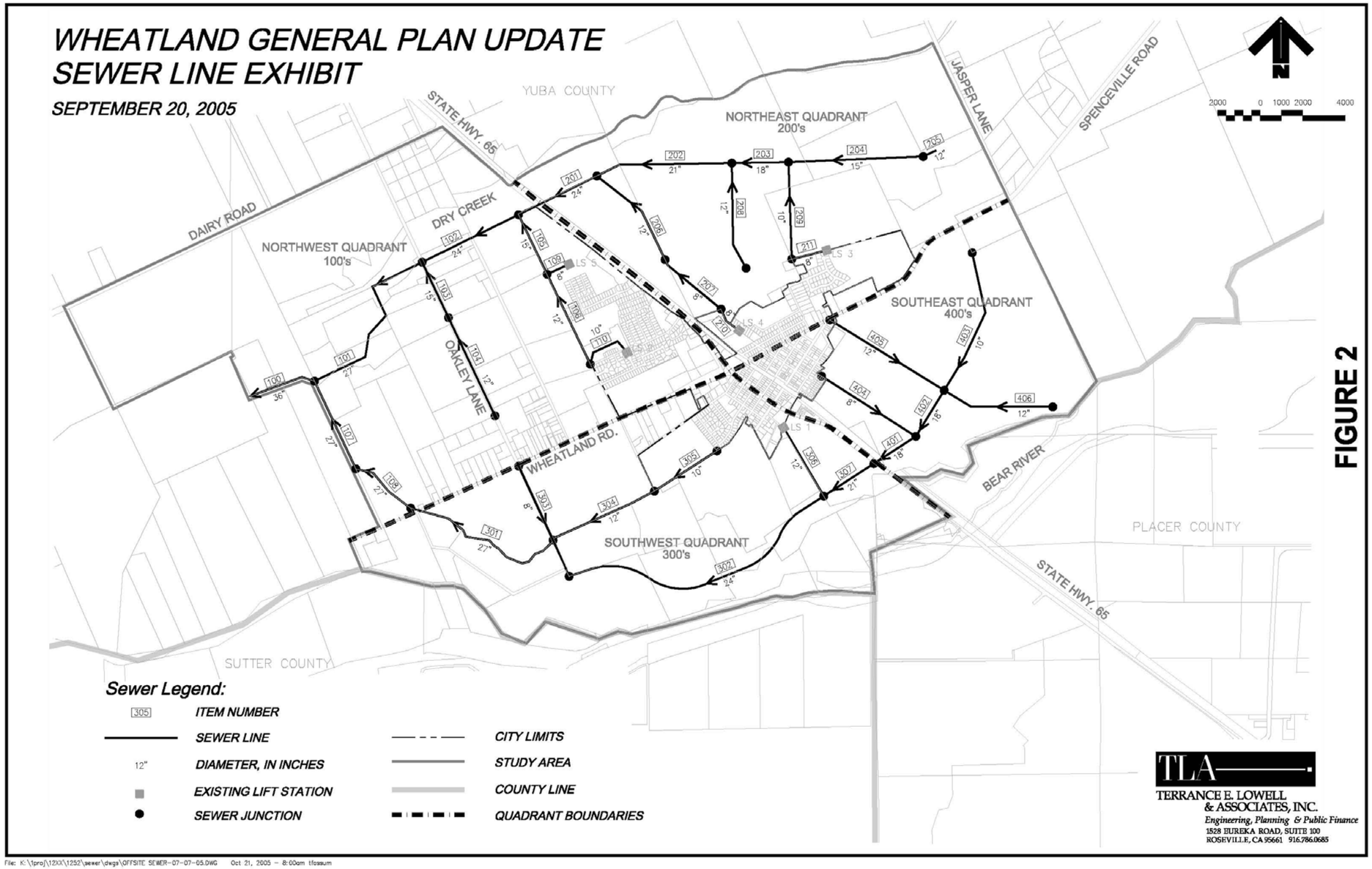
The results of the modeling are shown in Figure 4.16-4 which gives the size and line number of the major sewer trunk system components modeled.

Figure 4.16-3
Proposed Water System Improvements



File: K:\1proj\12XX\1252\water\dwgs-DO NOT OPEN IN 2005 AUTOCAD\OFFSITE WATER-07-13-05.dwg Oct 21, 2005 - 8:36am tfossum

Figure 4.16-4
Wheatland General Plan Update Sewer Line Exhibit



Project-Specific Impacts and Mitigation Measures

4.16-1 Increased demand for water.

The Wheatland General Plan Update (GPU) is a proposed mixed use urban development area consisting of residential, commercial, industrial, office, open space, roads, parks, schools and a civic center. The GPU area associated with water demand is located on approximately 8,205-acres (this figure does not include the urban reserve areas) surrounding the existing City of Wheatland's (City) approximately 480-acres, generally between Dry Creek on the north, Bear River on the South, Jasper Lane Far West on the east, and west to the existing limits of Wheatland. Included within the project area will be a portion of the proposed north-south SR 65 bypass. The project area is currently in the unincorporated area of southern Yuba County and within the City's Sphere of Influence (SOI) and is proposed for eventual annexation to the City and development.

The GPU Preferred Land Use Map was used to establish "villages" which are then assigned a number. Based on the land use for the village and its size a water demand is determined. As noted previously, the City of Wheatland depends on groundwater entirely for its water supply. Eighteen (18) news wells and four (4) new storage tanks with a capacity of 1.5 MG each would be constructed for the proposed GPU Preferred Land Use Map. The proposed GPU land uses are shown on Figure 4.16-5 and the corresponding water demand areas summarized in Table 4.16-6.

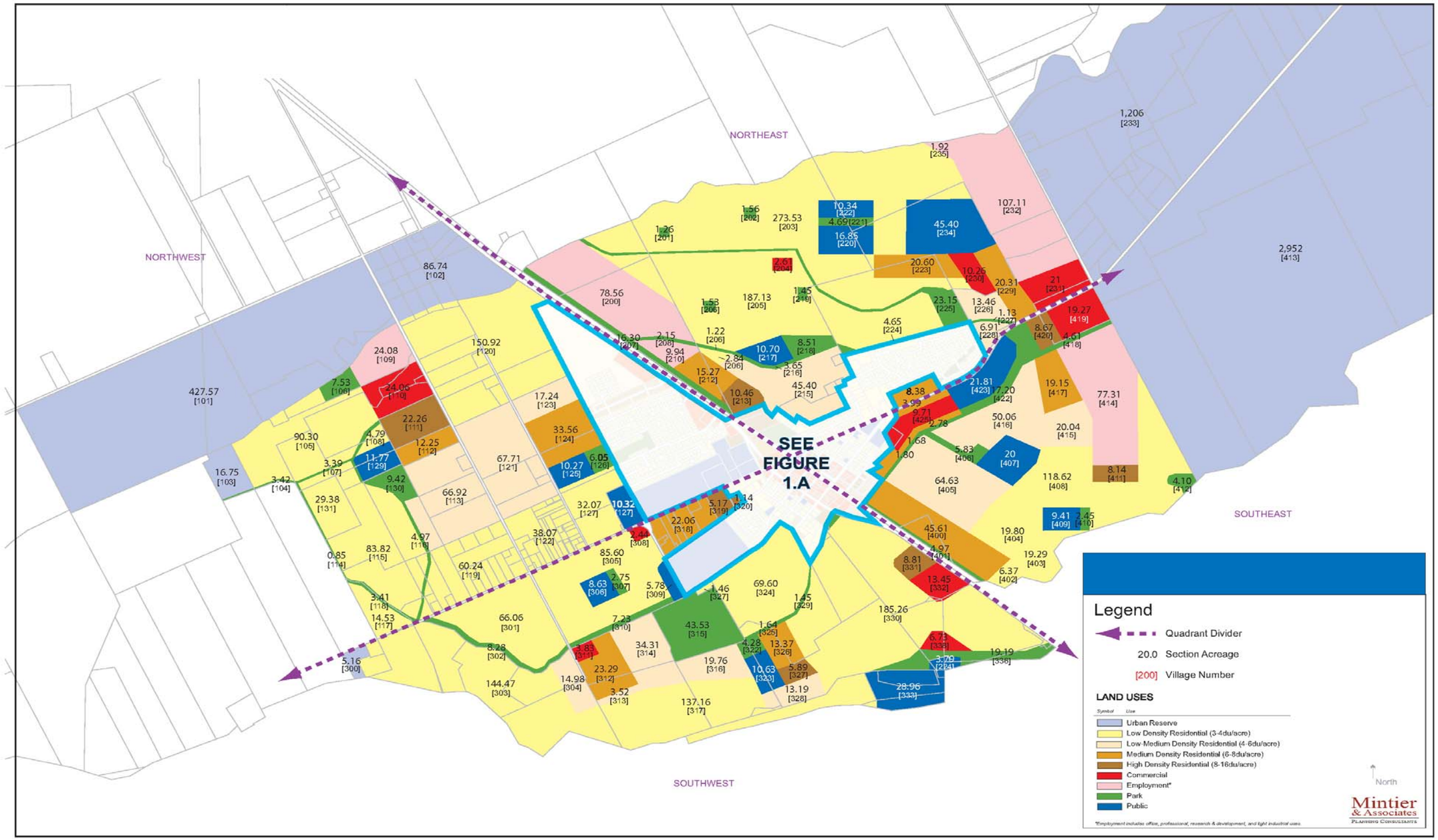
Table 4.16-6
Acreage of Water Demand Areas in GPU Study Area

GPU:	
Water demand areas	3,469 acres * **
Urban reserve areas (UR)	4,736 acres *
Total GPU area	8,205 acres *
Existing city limits:	480 acres
Total GPU area + city limits	8,685 acres

* Area does not include existing UPRR and existing SR 65
** Water demand areas included in this report

It should be noted that the GPU acreage used in this analysis does not include the existing City limits water system. In addition, the GPU area does include the urban reserve (UR) areas, but water demands are not assigned to the UR areas.

Figure 4.16-5
Major Infrastructure Areas, by Village



The existing City limit water system was not included in these calculations or model as the existing system was completely rebuilt and modernized in 2001 to 2003 and is completely adequate for the existing City limits.

During final design, the GPU system will be interconnected to the existing City system for additional looping and redundancy capabilities.

Two types of water use are needed to serve the Project: domestic and irrigation.

Domestic Water

The GPU area presently proposed for development (does not include the urban reserve, areas, UR) is located in a relatively flat area and will require only one water pressure zone. Domestic use water can be used for both domestic including fire flows and irrigation purposes.

Fire Flow Demand

Fire flow demands are determined by type of structures and location of fire fighting facilities and fire hydrants. In general, for the GPU, fire flow will be assumed to be available from the major water system up to a flow 5,000 gpm. Fire flow demands are for two fires occurring at one time for a total of 5,000 gpm; one residential fire of 1,500 gpm and one other (i.e. commercial) of 3,500 gpm. If a structure would require more than the amount of flow required per fire department requirements, because of type of construction and use, then the structure would need to be modified to stay within the fire flow available. Structural modifications can include, but are not limited to, the following modifications: changing the type construction to a more fire resistive construction; installation of a fire sprinkler system; alarm and monitoring notification facilities.

Irrigation-Recycled Water

Although not necessarily required, the use of recycled water for non-residential areas is quantified and may be of benefit to the city. Recycled water (reclaimed water) can be used for irrigation purposes provided it is properly heated. In general, recycled water will come from wastewater treatment plant effluent that has been treated to the requirements set by the State of California Regional Water Quality Control Board and the State Department of Public Health. Recycled water supply systems must be installed in separate lines (purple in color) and separated from domestic water supply lines in accordance with State and agency requirements. Recycled water could be available from the proposed GPU Wastewater Treatment Plant. Phasing in the use of recycled wastewater may be possible by first using domestic water for irrigation and cutting off the irrigation demand as domestic demand increases. Benefits associated with using recycled include reducing the annual demand for domestic water and reducing the number of domestic water wells, and reducing tank and line sizes. If a recycled water

system is incorporated for the GPU area, it is anticipated the City will own and operate the system.

Project Water Demands

Table 4.16-7 provides a summary by land use types and maximum day water demands and equivalent dwelling units (EDU's) if all water for domestic and irrigation purposes is provided from one source. One EDU is defined as the amount of maximum day water used by a single family detached residential lot. One (1) EDU is equivalent to 1150 gallons per day. Table 4.16-8 provides average day water demands by land use types for domestic use and non-residential irrigation uses. Demands included in Tables 4.16-7 and -8 have been developed from other similar areas within the Sacramento Valley.

Irrigation demand rates per total acre by land use type are derived as follows:

1. Amount of pervious area estimated and assumed irrigated.
2. The annual amount of evaporation that occurs annually in inches is determined over and above that from rainfall during the irrigation season.
3. The amount of irrigation water needed annually is then calculated by multiplying the pervious area x the evaporation amount and converted to gallons and acre-feet.
4. The amount of irrigation water needed on the maximum day is then calculated by multiplying by a peaking factor of 3.16.

GPU water demands are summarized as follows:

Type water use	**Max Day mgd**	**Annual acre-feet**
Domestic residential with irrigation	14.03	6,827
"Other" area domestic (no irrigation)	2.34	1,320
"Other" area irrigation demand	2.53	897
Total	**18.90**	**9,044**

According to the Water Master Plan prepared for the GPU, the size and location of the major facilities are adequate to meet the GPU system water demands for domestic and irrigation demands. The five exception locations are all at ends of dead-end lines that will be connected to the existing system or looped when development occurs. When connected, the pressure at these locations will be at least the minimum required pressure of 30 psi.

Table 4.16-7
Wheatland GPU – Major Infrastructure Maximum Domestic Water Demand

LAND USE	DESCRIPTION	ACRES	DWELLING UNITS	WATER DEMAND maximum day		WATER EDU's	
				gpd/unit	total	/unit	total
Single Family Residential							
LDR	Low Density Residential	1824.6	7,298	1150	8,393,114	1.00	7,298
LMDR	Low/Medium Density Res.	434.6	2,173	1150	2,499,008	1.00	2,173
MDR	Medium Density Residential	256.1	2,049	1150	2,356,120	1.00	2,049
Total Single Family Residential		2515.3	11,520		13,248,242		11,520
Other							
PD-12	Residential	0.0	-	690	-	0.60	-
HDR	High Density Residential	70.5	1,129	690	778,762	0.60	677
Total Multi-Family Residential		70.5	1,129		778,762		677
Total Residential		2585.8	12,649		14,027,003		12,197
Other							
C	Commercial	118.6	0	5750	681,663	5.00	593
E	Employment	298.9	0	5750	1,718,790	5.00	1,495
BP	Business Professional	0.0	0	5750	-	5.00	-
P	Park	99.1	0	9000	891,990	7.83	776
Pcp	Community Park	0.0	0	9000	-	7.83	-
MS	Middle School	36.9	0	9000	331,650	7.83	288
HS	High School	51.2	0	9000	460,620	7.83	401
ES	K-6 School	71.8	0	8000	574,000	6.96	499
OS	Open Space	141.8	0	0	-	0.00	-
ROAD	Roads R/W	0.0	0	2250	-	1.96	-
Total Other		818.2	-		4,658,713		4,051
		3404.0	12,649		18,685,716		16,248
BUSINESS PROFESSIONAL							
CC	Civic Center	21.8	-	5750	125,408	5.00	109
WWTP	Wastewater Plant	29.0	-	300	8,688	0.26	8
PB	Other Public	14.1	-	5750	81,133	5.00	71
LI	Light Industrial	0.0	-	5750	-	5.00	-
UR	Urban Reserve	4736.2	-	0	-	0.00	-
65BP	SR65 Bypass/Interchange	0.0	-	2250	-	1.96	-
Total Business Professional		4801.1	-		215,228		187
Grand Total General Plan Study Area		8205.1	12,649		18,900,944		16,436
				gpm=	13126		

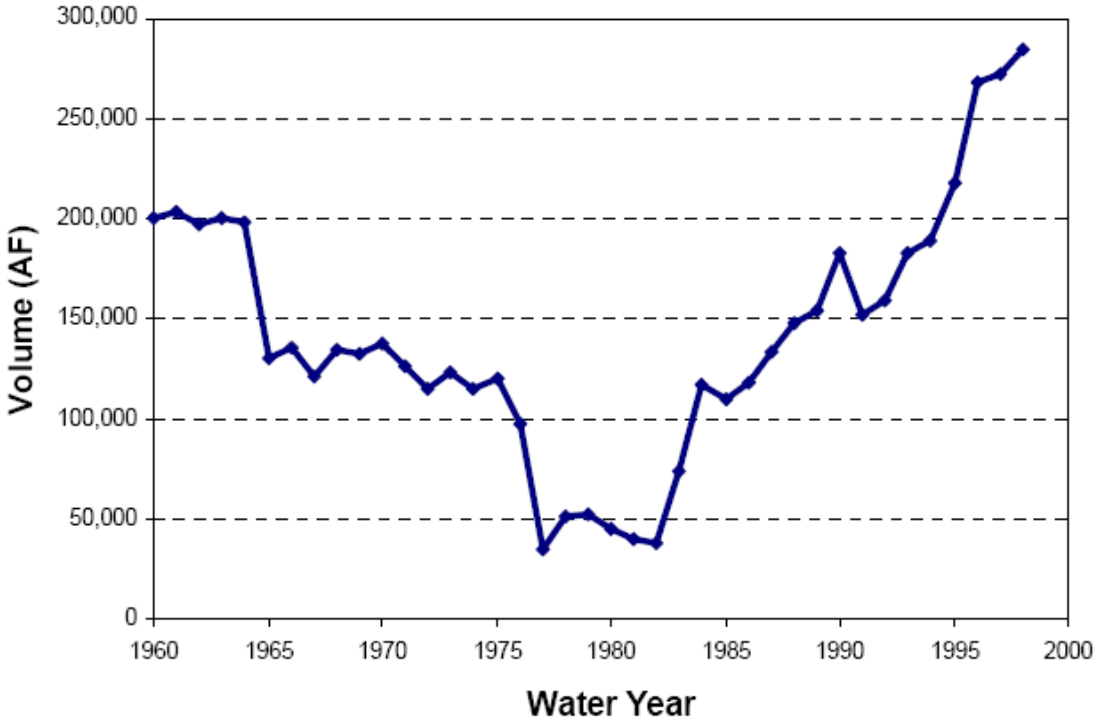
Table 4.16-8
Wheatland GPU – Major Infrastructure Average Day Domestic and Irrigation Water Demand

LAND USE	DESCRIPTION	ACRES	DWELLING UNITS	DOMESTIC and IRRIGATION, average day water demands				
				domestic ave. day demand		irrigation ave. day demand		TOTAL
				gpd/unit	total gpd	gpd/unit	total gpd	dom&irr gal/day
Single Family Residential								
LDR	Low Density Residential	1824.6	7,298	500	3,649,180		-	3,649,180
LMDR	Low/Medium Density Res.	434.6	2,173	500	1,086,525		-	1,086,525
MDR	Medium Density Residential	256.1	2,049	500	1,024,400		-	1,024,400
Total Single Family Residential		2515.3	11,520	1750	5,760,105		-	5,760,105
Other								
PD-12	Residential	0.0	-	300	-		-	-
HDR	High Density Residential	70.5	1,129	300	338,592		-	338,592
Total Multi-Family Residential		70.5	1,129		338,592		-	338,592
Total Residential		2585.8	12,649		6,098,697		-	6,098,697
Other								
C	Commercial	118.6	0	1750	207,463	750	88,913	296,375
E	Employment	298.9	0	1750	523,110	750	224,190	747,300
BP	Business Professional	0.0	0	1750	-	750	-	-
P	Park	99.1	0	1750	173,443	2420	239,846	413,289
Pcp	Community Park	0.0	0	1750	-	2420	-	-
MS	Middle School	36.9	0	1500	55,275	1210	44,589	99,864
HS	High School	51.2	0	1000	51,180	1750	89,565	140,745
ES	K-6 School	71.8	0	1400	100,450	1210	86,818	187,268
OS	Open Space	141.8	0	0	-	0	-	-
ROAD	Roads R/W	0.0	0	0	-	605	-	-
Total Other		818.2	-		1,110,920		773,920	1,884,840
		3404.0	12,649		7,209,617		773,920	7,983,537
BUSINESS PROFESSIONAL								
CC	Civic Center	21.8	-	1750	38,168	750	16,358	54,525
WWTP	Wastewater Plant	29.0	-		-		-	-
PB	Other Public	14.1	-	1750	24,693	750	10,583	35,275
LI	Light Industrial	0.0	-	1750	-	750	-	-
UR	Urban Reserve	4736.2	-	0	-	0	-	-
65BP	SR65 Bypass/Interchange	0.0	-	0	-		-	-
Total Business Professional		4801.1	-		62,860		26,940	89,800
Grand Total General Plan Study Area		8205.1	12,649		7,272,477		800,860	8,073,337
				acre-feet/yr =	8,147		897	9,044

Based on the modeling results, the proposed water infrastructure improvements appear to have adequate pressure to serve the buildout of the GPU Preferred Land Use Map. The Yuba South Basin has sufficient water supply to serve the proposed buildout. Although historic groundwater pumping was causing a decrease in the level of the groundwater basin, since the construction of the South Yuba Canal, and delivery of surface water by the Yuba County Water Agency (YCWA) to the member districts of Brophy Water District, South Yuba Water District, and, more recently, Dry Creek Mutual Water

Company, groundwater storage has recovered to the extent that current groundwater storage in the basin probably exceeds that of 1960 and is nearing the levels of the pre-development era[7] (See Figure 4.16-6). Additionally, although the groundwater basin has sufficient supply to serve the buildout of the GPU Preferred Land Use Map, policies 5.C.1 and 5.C.2 of the City's General Plan Update Policy Document ensure that the City will work with the YCWA and other water agencies to monitor the level of the basin and determine if water conservation measures, reuse, surface water supplements, and other water management techniques are necessary to protect the basin.

Figure 4.16-6
Estimated Groundwater Storage in the South Yuba Subbasin Area from 1960 to 1998



Source: Yuba County Water Agency, *Groundwater Management Plan*, March 2005.

In an effort to relieve some of the demand on groundwater in the area, the YCWA has proposed the construction of a new canal system for delivery of surface water to the Wheatland Water District. Delivery of surface water would allow for in-lieu recharge of the South Yuba subbasin. In-lieu recharge consists of a change in the water balance of the basin, to allow for an increase in the basin storage volume. Based on year 2000 water level data for the entire South Yuba subbasin, about 70,000 acre-feet of voided aquifer storage would be available for in-lieu recharge. The canal project would increase the safe yield of the Yuba South subbasin, creating an additional water supply that can be used to meet local and out-of-county water needs.

The General Plan Update includes the following goals and policies applicable to water issues:

Goal 5.C To ensure a safe and reliable water supply sufficient to meet the future needs of the city.

Policy 5.C.1. The City shall protect the groundwater basin from overdraft from City use of groundwater. To this end, the City shall study, working closely with other public and private entities as deemed appropriate, the safe yield of the groundwater basin. Water management programs such as conjunctive use and recharge programs will also be considered. The City shall use this information to determine the most appropriate long-term water supply to serve Wheatland.

Policy 5.C.2. If the results of studies undertaken pursuant to Policy 5.C.1 indicate an imbalance between safe groundwater yield and projected water requirements, the City shall develop a response plan to address the imbalance. This response plan will include an appropriate mix of water conservation measures, reuse, surface water supplements, and other water management techniques.

Policy 5.C.3. The City shall promote efficient water use and reduced water demand by:

a. Requiring water-conserving building design and equipment in new construction;
b. Encouraging water-conserving landscaping and other conservation measures; and
c. Encouraging retrofitting of existing development with water-conserving devices.

Policy 5.C.4. The City shall work with other agencies to promote water conservation measures countywide for both urban and agricultural uses.

Policy 5.C.5. The City shall only approve new development that relies on an adequate City water supply and delivery system.

Policy 5.C.6. The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.

Policy 5.C.7. The City shall investigate processes for monitoring water demand growth trends to anticipate water supply needs.

Policy 5.C.8. The City shall monitor water quality regularly to ensure that safe drinking water standards are met and maintained in accordance with State and EPA regulations and take necessary measures to prevent contamination.

Policy 5.C.9. The City shall ensure that water supply capacity and infrastructure are in place prior to granting building permits for new development.

Policy 5.C.10. The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.

Policy 5.C.11. The City shall ensure adequate water pressure throughout the urban area for fire protection purposes.

Implementation of the goals and policies above would minimize impacts to water, but not to a *less-than-significant* level. The resultant impact would therefore remain ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.16-1 *In conjunction with submittal of a tentative map application for a subdivision that would increase water connections by 10 percent or more, a Water Supply Assessment consistent with the requirements of SB 610 and 221 shall be submitted for review and approval of the City Engineer.*

4.16-2 Capacity at wastewater treatment facility.

A *Wastewater Treatment Facilities Master Plan* (Plan) was prepared by CH2MHILL (September 2004) to analyze the wastewater demands associated with buildout of the Jones Ranch and Heritage Oaks Estates projects as well as the General Plan study area. The Plan states that the current flows into the existing WWTP are approximately 0.29 million gallons per day (MGD).

Table 4.16-9 provides a summary by land use type, average day sewer demands and equivalent dwelling units (EDU's) for the GPU area. One EDU is defined as the amount of average day dry weather discharge into the sewer system by a single family detached residential lot, or one (1) EDU is equivalent to 270 gallons per day average day dry weather flow (ADDWF). Demands included in Table 4.16-9 have been developed for the City of Wheatland based on City characteristics and from other similar areas within the Sacramento Valley.

Table 4.16-9
Wheatland GPU – Major Infrastructure Sewer Domestic Demands

LAND USE	DESCRIPTION	ACRES	DWELLING UNITS	SEWAGE DEMAND average day		SEWER EDU's	
				gpd/unit	total	/unit	total
Single Family Residential							
LDR	Low Density Residential	1824.6	7,298	270	1,970,557	1.00	7,298
LMDR	Low /Medium Density Res.	434.6	2,173	270	586,724	1.00	2,173
MDR	Medium Density Residential	256.1	2,049	270	553,176	1.00	2,049
Total Single Family Residential		2515.3	11,520		3,110,457		11,520
Other							
PD-12	Residential	0.0	-	270	-	1.00	-
HDR	High Density Residential	70.5	1,129	135	152,366	0.50	564
Total Multi-Family Residential		70.5	1,129		152,366		564
Total Residential		2585.8	12,649		3,262,823		12,085
Other							
C	Commercial	118.6	0	1750	207,463	6.48	768
E	Employment	298.9	0	1750	523,110	6.48	1,937
BP	Business Professional	0.0	0	1750	-	6.48	-
P	Park	99.1	0	275	27,255	1.02	101
Pcp	Community Park	0.0	0	275	-	1.02	-
MS	Middle School	36.9	0	2500	92,125	9.26	341
HS	High School	51.2	0	2000	102,360	7.41	379
ES	K-6 School	71.8	0	2500	179,375	9.26	664
OS	Open Space	141.8	0	0	-	0.00	-
ROAD	Roads R/W	0.0	0	0	-	0.00	-
Total Other		818.2	-		1,131,688		4,191
		3404.0	12,649		4,394,511		16,276
BUSINESS PROFESSIONAL							
CC	Civic Center	21.8	-	1750	38,168	6.48	141
WWTP	Wastew ater Plant	29.0	-	500	14,480	1.85	54
PB	Other Public	14.1	-	0	-	0.00	-
LI	Light Industrial	0.0	-	2500	-	9.26	-
UR	Urban Reserve	4736.2	-	0	-	0.00	-
65BP	SR65 Bypass/Interchange	0.0	-	0	-	0.00	-
Total Business Professional		4801.1	-		52,648		195
Grand Total General Plan Study Area		8205.1	12,649		4,447,158		16,471

Source: TLA Associates, Sewer Collection System Master Plan Technical Report, July 2005.

According to the Master Plan prepared by TLA Associates, GPU sewer demands can be summarized as follows:

Type sewer demand		**Average Day Dry Weather Flow mgd**
GPU:	Sewer demand	4.45
	Urban reserve (UR)	0.00
	Total GPU area	**4.45**
Existing city limits:	Sewer demand	0.59
	Total GPU area + city limits	**5.04**

Given that the current capacity of the WWTP is 0.62 MGD, the existing plant capacity is insufficient to accommodate the buildout of the General Plan Land Use Diagram. Furthermore, the Regional Water Quality Control Board (RWQCB) has indicated that the City's current method of wastewater disposal (into rapid infiltration basins located within the levees of the Bear River) is not a viable long-term option. Therefore, as part of the Study performed by CH2MHILL, two other discharge alternatives were evaluated, one for the application of treated effluent to land and the other for the direct discharge of effluent to either the Bear River or Dry Creek. Other viable discharge alternatives are not available.

Discharge Alternatives

Land Application of Treated Effluent

This alternative would require the purchase and development of land for the purpose of disposing of treated effluent. In order to dispose of effluent, the California Code of Regulations requires the wastewater to be treated via disinfection processes. Wheatland's current WWTP does not have disinfection facilities; however, these could be added to the plant, so that the effluent could be discharged to land. The additional capacity needed to accommodate buildout of the General Plan would be provided by a new WWTP. A new treatment plant for land application would require the following treatment processes:

- Fine screens
- Grit removal
- Closed-loop oxidation ditch
- Secondary clarification
- Chlorination and dechlorination
- Aerobic digestion
- Sludge handling facilities

The land application facilities would consist of approximately 850 acres of land (770 acres of irrigable land, plus an additional 80 acres for setbacks and roadways) for

disposal of the combined plant effluents; approximately 380 acres for a 10-foot deep reservoir (including 70 acres for levees and buffer lands); a pump station to convey treated effluent from the plants to the reservoir; and a pump station to pump from the reservoir to the irrigation fields. The reservoir is necessary because land disposal is not permitted during wet weather. The cost estimate for the Land Application alternative is $71.6 million, which includes construction and operation and maintenance costs.

Direct Discharge of Treated Effluent

The second alternative for the City's future WWTP disposal is direct discharge to the Bear River (or to Dry Creek). The City will have to submit a Report of Waste Discharge (RoWD) and apply for a permit to discharge waste under the NPDES Program.

The exact nature of a direct discharge permit for the City cannot be known until the Waste Discharge Requirements (WDR) are finalized. However, based on the permit that was recently issued to the Olivehurst Public Utility District, which will discharge indirectly to the Bear River, the City's permit will have stringent WDRs, requiring advanced wastewater treatment. The final WDR will drive final treatment process selection for a direct discharge WWTP but some of the treatment processes that will be required are obvious, such as the use of ultraviolet (UV) disinfection to satisfy WDRs that will limit chlorine disinfection by –products in the effluent.

The existing WWTP produces a secondary effluent that is incapable of satisfying the future WDRs for direct discharge to the Bear River. For example, the future WDR for nitrogen will be a maximum of 10mg/l for nitrite and nitrate, and approximately 3mg/l for ammonia. The existing oxidation ditch was not designed for nitrogen removal. However, the ditch is capable of achieving some nitrogen removal if flows and loads are kept well below its design capacity. Therefore, the ditch's treatment capacity would have to be derated if nitrogen removal is to be accomplished. Analysis indicates that the nitrogen removal capacity of the ditch is approximately 0.35 MGD ADWF.

Two types of advanced WWTPs were evaluated for the direct discharge alternative.

Conventional Activated Sludge (CAS)
This method involves CAS treatment followed by cloth filtration and UV disinfection. A new conventional WWTP constructed for direct discharge would require the following:

- Fine screens
- Grit removal
- Activated sludge system (similar to existing plant)
- Secondary clarifiers
- Flow equalization
- Coagulation
- Cloth filters
- Ultraviolet disinfection
- Post aeration

- Cooling tower
- Aerobic digestion
- Sludge handling facilities

The cost estimate for the CAS alternative is $64.5 million, which includes construction and operation and maintenance costs.

Membrane Bioreactor (MBR)
This treatment method involves MBR technology followed by UV disinfection. A new MBR WWTP constructed for direct discharge would require the following:

- Fine screens
- Grit removal
- MBRs
- Ultraviolet disinfection
- Post aeration
- Cooling tower
- Aerobic digestion
- Sludge handling facilities

The cost estimate for the MBR alternative is $62.7 million, which includes construction and operation and maintenance costs.

Summary

Based upon cost estimates, the Wastewater Treatment Facilities Master Plan concludes that the direct discharge alternative is the best choice for the City's future wastewater treatment. In addition to the initial cost savings, each of the direct discharge alternatives will be easier to phase than land application. In addition, should the determination be made in the future that additional treatment is needed above what has been identified for GPU buildout, the direct discharge alternatives will be simpler and less costly to expand than the land application alternative. The difference between the cost estimates for the two direct discharge alternatives is insignificant at this level of costing accuracy. However, the MBR treatment option has been proposed by CH2MHILL for the following reasons, though not exhaustive:

- Both types of plants are capable of meeting a stringent direct discharge permit, but the treated effluent quality of MBR systems is slightly better than the CAS/cloth filtration systems because the membranes provide a finer degree of filtration.

- Membranes will have a better removal performance than conventional filters for particulate metals and organic compounds associated with particulates.

- Should another treatment process be necessary to achieve the WDRs, an MBR effluent will be more amenable to advanced treatment than a conventional treatment plant effluent.

- Longer solids retention times per unit volume with MBR systems results in better removal of organic contaminants.

- MBR treatment serves as a positive barrier against pathogens, such as the chlorine-resistant organisms, *Cryptosporidium* and *Giardia*.

The costs associated with the construction and maintenance of a new WWTP, as outlined above, would be collected through impact fees on new development. As buildout of the General Plan Update occurs, money accrued from development impact fees would allow phasing of a new wastewater treatment system to serve the City's needs.

The General Plan Update includes the following goals and policies applicable to wastewater issues:

Goal 5.D To ensure adequate wastewater collection and treatment and the safe disposal of wastes.

Policy 5.D.1. The City shall complete and implement a Wastewater Treatment Master Plan that identifies treatment facility and collection system location and size to serve the needs of the expanding city.

Policy 5.D.2. The City shall require all sewage generators within its service area to connect to the City's system.

Policy 5.D.3. The City shall require that collection systems be designed on a gravity-flow basis except where a site-specific engineering analysis clearly demonstrates the long-term cost-effectiveness or need for pumped facilities.

Policy 5.D.4. The City shall comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants to surface waters.

Policy 5.D.5. The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.

Implementation of the goals and policies above would minimize impacts to wastewater treatment capacity to a ***less-than-significant*** level.

<u>Mitigation Measure(s)</u>
None required.

4.16-3 Impacts related to wastewater conveyance system.

The GPU proposes mixed use urban development consisting of residential, commercial, industrial, office, open space, roads, parks, schools and a civic center. Included within the Project site will be a portion of the proposed north-south SR 65 bypass. Using the Preferred Land Use Map, the various land use blocks were assigned a "village" number. The villages were then assigned a sewer demand based on the village land use its size. The proposed GPU land uses are shown on Figure 4.16-5 and the corresponding sewer demand areas summarized in Table 4.16-6.

It should be noted that the GPU acreage used in this analysis does not include the existing City sewer system. However, sewer demands for the existing City limits are included in the GPU demands as the proposed GPU trunk line system, because of its location, will be able to take the existing City wastewater by a gravity sewer system and allow the elimination of the existing five (5) sewer lift stations. The GPU area does include the urban reserve (UR) areas, but no sewer demands are assigned to the UR areas.

As previously mentioned, the proposed major sewer trunk system provides that the entire GPU area can be served by a gravity sewer trunk line system with no lift stations required. According to the *Sewer Collection System Master Plan*, the size and location of the proposed major facilities (See Figure 4.16-4) are adequate to meet the GPU system sewer peak flows and the existing City limits at build-out peak flow demands.

The General Plan Update includes the following goals and policies applicable to wastewater conveyance issues:

Goal 5.D To ensure adequate wastewater collection and treatment and the safe disposal of wastes.

Policy 5.D.1. The City shall complete a Wastewater Treatment Master Plan that identifies treatment facility and collection system location and size to serve the needs of the expanding city.

Policy 5.D.2. The City shall require all sewage generators within its service area to connect to the City's system.

Policy 5.D.3. The City shall require that collection systems be designed on a gravity-flow basis except where a site-specific engineering analysis clearly demonstrates the long-term cost-effectiveness or need for pumped facilities.

Policy 5.D.4. The City shall comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants to surface waters.

Policy 5.D.5. The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing.

Implementation of the goals and policies above would minimize impacts to wastewater conveyance to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

4.16-4 Impacts related to the provision of solid waste service.

Norcal Waste Systems operates Ostrom Road Sanitary Landfill, Inc. near Wheatland. Waste collected from the City is ultimately transferred to the Ostrom Road facility. The facility has been in operation since 1995, and to date, approximately 35 acres of the 225 total disposal area has been constructed. The Ostrom Road facility currently encompasses an area approximately 261 acres in size with 225 acres available for disposal.

In March of 2002, the Yuba County Board of Supervisors granted Yuba-Sutter Disposal Inc. an amendment to its existing permit to allow more tonnage at the Ostrom Road Landfill, eventually reaching 3,000 tons per day in 2030, up from the current 1,000 tons per day. The Ostrom Road Landfill currently has at least 60 years of capacity based upon existing and projected waste streams. The closure date for the facility is estimated to occur in the year 2066. Donald Gambelin from NorCal Waste Systems indicated that the Ostrom Road Landfill would have adequate capacity to serve the buildout of the Wheatland General Plan.[8] As a result, increased solid waste generated by buildout of the Wheatland General Plan Update Land Use Map would not result in adverse impacts to the existing facility.

Furthermore, the General Plan Update includes the following goals and policies regarding solid waste aimed at reducing the City's waste stream:

Goal 5.F To ensure the safe and efficient disposal or recycling of solid waste generated in Wheatland.

Policy 5.F.1. The City shall require waste collection in all new developments.

Policy 5.F.2. The City shall promote maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes.

Policy 5.F.3. The City shall participate in regional or countywide studies and solutions for solid waste disposal problems.

Policy 5.F.4. The City shall encourage recycling in public and private operations to reduce demand for solid waste disposal capacity.

Policy 5.F.5. The City shall investigate using recycled materials and products where economically feasible.

Policy 5.F.6. The City shall require the proper disposal and recycling of hazardous materials.

Policy 5.F.7. The City shall require the recycling of construction debris.

Policy 5.F.8. The City shall ensure that all new development has appropriate provisions for solid waste storage, handling, and collection pickup.

Implementation of the goals and policies above would minimize impacts to solid waste to a ***less-than-significant*** level.

Mitigation Measure(s)
None required.

Endnotes

[1] *City of Wheatland, General Plan Update, Master Water Plan Technical Report*, Terrance E. Lowell & Associates, Inc., September 28, 2005.
[2] *City of Wheatland, General Plan Update, Sewer Collection System Master Plan Technical Report*, Terrance E. Lowell & Associates, Inc., July 22, 2005.
[3] City of Wheatland *Wastewater Treatment Facilities Master Plan*, CH2MHILL, September 2004.
[4] City of Wheatland, Wheatland General Plan Update Background Report, July 2004.
[5] Yuba County Water Agency, Groundwater Management Plan, March 2005.
[6] *Yuba Highlands Specific Plan EIR*, Yuba County, January 2005.
[7] *Analysis of the Groundwater Substitution Portion of the Yuba County Water Agency-CALFED Environmental Water Account/Department of Water Resources and State Water Contractor 2005 Transfer*, MWH, January 23, 2005.
[8] Personal communication with Donald Gambelin, NorCal Waste Systems, December 21, 2005.

5. STATUTORILY REQUIRED SECTIONS

Introduction

The Statutorily Required Sections chapter includes brief discussions regarding those topics, which are required to be included in an EIR, pursuant to CEQA Guidelines Section 15126.2. The chapter includes a discussion of the proposed project's potential to induce economic or population growth, and in addition, the chapter includes lists of significant irreversible environmental changes, cumulative impacts, and significant and unavoidable impacts which would be caused by the proposed project.

Growth Inducement

Section 15126.2(d) of the CEQA Guidelines states that an EIR should discuss "… the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth, or through the stimulation of economic activity within the region.

The City of Wheatland General Plan Update proposes substantial development for the study area. The growth-inducing impacts of the General Plan Update can be divided into two general categories, direct, and indirect. Direct growth-inducing impacts are those, which relate to the provision of the urban services to an undeveloped area (development of the physical infrastructure, roadways, and utilities). The provisions of these services to a site, and the subsequent development of the site, can serve to induce other landowners in the vicinity to convert their property to urban uses and request annexation. Indirect or secondary growth-inducing impacts consist of growth induced in the region by the additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

Because the proposed project plans for continued expansion of the City of Wheatland through additional residential growth in concert with expansion of employment within Wheatland, the adoption of the General Plan Update would result in direct growth-inducing impacts. The General Plan Update would allow urban uses in areas that are now agricultural lands, while also promoting higher density uses in areas of existing development. Buildout of the land uses specified by the General Plan Update would result in a Wheatland population of approximately 30,100 compared to the current population of approximately 3,432 in the Wheatland city limits.

The propose project could also induce growth in the eastern portion of the study area, designated as Urban Reserve. The areas adjacent to the Urban Reserve would be

designated for office parks, research and development, warehouses and light manufacturing related to research and development, general commercial uses that cater to industrial uses in this designation, professional offices, public and quasi-public uses, and similar and compatible uses. The General Plan Update does not compel all areas under the Urban Reserve designation to be built out during the planning horizon, but the designation of Urban Reserve land does signal the ultimate intent of the City to urbanize these areas. Some of the Urban Reserve land may be developed within the next 20 years provided the development proposal meets criteria specified by the City. Such development proposals would be subject to further environmental review, but are considered as a growth-inducing impact of the General Plan Update.

The proposed project would also induce growth through decisions to upgrade, expand, and extend infrastructure facilities (including streets and water and wastewater facilities) in accordance with the proposed General Plan Update. Practicality and efficiency requirements dictate that new infrastructure facilities be oversized intentionally to ensure that adequate capacities would be available for later phases of development. The short-term overcapacity of infrastructure is an inducement to development because of the appeal provided by ready access to roads and utilities.

Substantial planning considerations in the City of Wheatland have been devoted to the eventual construction of the State Route 65 Bypass. The increase in traffic capacity along this route will be an inducement to both commercial and residential growth, as developers seek to take advantage of the improved access afforded to employees and potential customers. Development of commercial uses along this route is a growth-inducing impact of the General Plan Update.

The project would indirectly induce growth by increasing development pressures along the edges of proposed urban development. As Wheatland expands to the south and north, lands within Yolo County adjacent to Wheatland will become increasingly attractive for development, particularly as infrastructure capacity is increased to these areas. This is a potential growth-inducing impact.

Significant Irreversible Environmental Effects

Section 21100(b)(2)(A) of CEQA requires that an EIR identify any significant irreversible changes that would result from implementing the project. Section 15126(b), of the CEQA Guidelines suggests that irreversible environmental changes may involve uses of nonrenewable resources or irrevocable damage resulting from environmental accidents.

- Development of any of the project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of development would generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);

- Development of the proposed project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing and eventual development of the project would result in an unjustified consumption of resources (e.g., the wasteful use of energy).

The proposed project would lead to demolition, excavation, and construction activities as new land uses and infrastructure develop. Thus, in both the short term and the long term, the project would require a commitment of non-renewable resources, including building materials, fossil fuels, and land. A portion of the undeveloped study area lands would be committed to urban development. A large percentage of this acreage contains prime agricultural soils. Construction materials and fuels would be used to construct the various urban structures and related infrastructure. Because of the high level of investment in these uses, their subsequent reuse or reversion to generally undeveloped land is highly unlikely. As a result, the proposed project would result in an irreversible change in the Wheatland study area, including precluding use of prime agricultural soils for future cultivation.

As discussed in section 4.4, Biological Resources, a number of sensitive species and their biological habitats would be affected. Mitigation measures identified in Section 4.4 would reduce potential effects to flora and fauna. Nevertheless, the loss of foraging and breeding habitat within the Wheatland study area is irreversible.

Environmental accidents, such as the release of hazardous materials, may trigger irreversible damage. The proposed project would increase the number of individuals exposed to, but not the nature of, physical safety hazards in the Wheatland study area. Because the General Plan Update envisions an increase in industrial-related activities the proposed project would increase hazardous materials storage, handling, and transportation in the Planning Area. Consequently, a greater potential exists for an accidental release that could affect Wheatland's population.

Cumulative Impacts

The *CEQA Guidelines* Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." This Section further states, "Individual effects may be changes resulting from a single project or a number of separate projects." Additionally, "The cumulative impact from several projects is [defined as] the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

The Citywide impact analyses in chapters 4.1 through 4.16 are effectively the cumulative impact analyses. The analyses examine the cumulative effects of each resource topic

through buildout of the proposed General Plan Update. Additionally, as noted in the Transportation and Circulation chapter (Chapter 4.15), future development in Yuba County outside of the City's Sphere of Influence (SOI) would result in increased impacts identified in this General Plan Draft EIR document. For example, as noted on page 4.15-39 of the Transportation and Circulation chapter, build out of proposed developments, such as Yuba Highlands and Plumas Lakes would increase vehicle trips within the study area. While not quantitatively assessed, the addition of additional development in Yuba County would increase traffic volumes on area streets and intersections. As such, traffic volumes in Wheatland are anticipated to rise, which may result in degradation to the projected levels of service that are reported in this document. Therefore, a *significant and unavoidable* cumulative traffic impact could occur. Increased vehicle trips would also result in air quality emissions and noise level increases within the study area. It is also important to note that future development potential within Yuba County but outside the City's Sphere of Influence, is outside the City's jurisdiction; therefore the extent to which it may occur, cannot be conclusively determined at this time.

Significant and Unavoidable Adverse Impacts

Section 21100(b)(2)(A) of the CEQA requires that an EIR identify any significant environmental effects that cannot be avoided if the project were implemented. Significant and unavoidable impacts are identified in Chapter 4, Environmental Setting and Impact Analysis, of this EIR, whenever the mitigation measures would not ensure that a potential impact would be reduced to a less-than-significant level. Significant and unavoidable impacts resulting from the General Plan Update include the following:

- Development associated with the proposed General Plan Update would convert Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to non-agricultural use;
- Development associated with the proposed General Plan Update would involve other changes in the existing environment, which could result in conversion of Farmland to non-agricultural use;
- Construction activities associated with buildout of the General Plan Update Study Area;
- Regional Emissions Increases;
- Development associated with the proposed General Plan Update would result in the removal of substantial flora and fauna habitat;
- Development associated with the proposed General Plan Update would result in impacts to Swainson's hawk foraging habitat within the General Plan study area;
- Noise impacts associated with increased traffic on City streets resulting from buildout of the General Plan Update study area;
- Development associated with the proposed General Plan Update would result in the increase of traffic volumes; and
- Cumulative Traffic Impacts.

6. ALTERNATIVES ANALYSIS

Introduction

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Further, the Guidelines state that "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." An EIR must describe a range of reasonable alternatives to the proposed project that could feasibly attain most of the basic objectives of the project. The feasibility of an alternative may be determined based on a variety of factors including, but not limited to, site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control.

CEQA provides the following guidelines for discussing alternatives to a proposed project (note: the proposed project is herein referred to as the “Proposed GPU”):

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).

- The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (CEQA Guidelines Section 15126.6[c]).

- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project (CEQA Guidelines Section 15126.6[d]).

- “No project” alternative . . . shall also be evaluated along with its impact. The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with

> available infrastructure and community services. . . . When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the "no project" alternative will be the continuation of the existing plan, policy or operation into the future. . . . If the project is other than a land use or regulatory plan . . . the "no project" alternative is the circumstance under with the project does not proceed. . . . After defining the "no project" alternative using one of these approaches, the lead agency should proceed to analyze the impacts of the "no project" alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines 15126.6[e]).

Selection of Alternatives

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the Public Resources Code and the CEQA Guidelines direct that the EIR need "set forth only those alternatives necessary to permit a reasoned choice." The CEQA Guidelines provide definition for "a range of reasonable alternatives" and, thus, limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section15126.6[f]:

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

The objectives in the proposed General Plan Update are as follows:

- To guide the physical development of Wheatland over the next 20 years.
- To allow for future development within the Wheatland Planning Area, while preserving the City's existing identity and Character.
- To ensure the community infrastructure keeps pace with development.
- To ensure the provision of a safe and convenient circulation system in the City of Wheatland.
- To encourage future economic growth within the City of Wheatland, while also providing adequate housing for all economic segments of the community.
- To provide economic growth that balances the existing development and future growth in Wheatland.
- To preserve agricultural land and uses in and adjacent to Wheatland and to ensure that there are open space buffers between Wheatland and surrounding cities.

- To protect current and future Wheatland residents from adverse effects of noise and other potential environmental hazards.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Public Resources Code Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Further, the following factors may be taken into consideration in the assessment of the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control. Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Considered But Dismissed from Further Analysis in this EIR

Lane Use Alternative A: East Bypass[1]
The East bypass under this alternative has an effect on land uses, given the accessibility and visibility within the project area. Much of the future commercial and employment development would be located near the bypass access to Wheatland. However, Land Use Alternative A: East Bypass was considered, but dismissed because the alternative did not meet City land use objectives.

Land Use Alternative B: West Bypass[1]
The Land Use Alternative B: West Bypass was originally considered because the eastern alignment would be more centrally located for long-term City growth. The West Bypass Alternative would also bisect the existing Sphere of Influence. This alternative was dismissed because the cost to construct the State Route 65 bypass would not be feasible and because additional development within the City limits would have to be moved away from flood-prone areas as well as raising the bypass to avoid potential flooding in a designated floodplain. In addition, the present railroad tracks would require additional railroad track crossings within the study area as well as longer bridge crossings near sensitive environmental areas along the Bear River south of the Bear River Hop Farm. Furthermore, future development within the western portion of the study area would impact wetlands currently located in Placer County. Therefore, this alternative has been dismissed because it does not meet the intended uses for the City of Wheatland and would have substantial adverse environmental impacts.

Land Use Alternative C: Village Concept[1]
The Land Use Alternative C: Village Concept was considered because this alternative would establish smaller, defined neighborhoods and would include services within walking distance of most residences (approximately ¼ mile distance). Each of the seven

villages, encompassing approximately 60 acres of land each, would include medium and high-density residential housing, neighborhood commercial, a park, and an elementary school. The villages would be located evenly throughout the planning area, mainly along the proposed ring road about a ½ mile apart. This alternative was dismissed because the community of Wheatland thought that the Proposed GPU was a better fit for City's needs.

Alternatives Considered in this EIR

No Project Alternative

The No Project Alternative would result in the continuation of the existing Wheatland General Plan. As a result, the No Project Alternative would accommodate substantially less development than the proposed project. While this Alternative would not meet the project objectives, CEQA requires the alternative to be analyzed.

Aesthetics

The No Project Alternative would include buildout of the Wheatland General Plan within city limits. Currently 17 percent of the land is undeveloped and minor aesthetic impacts would result with buildout within the City of Wheatland. The Proposed GPU could result in increased development outside of the city limits to create a larger urban setting. The majority of this land is currently agricultural. Therefore, this Alternative would have fewer impacts than the Proposed GPU.

Agricultural Resources

The No Project Alternative would not significantly alter the agricultural setting within the city limits. Development within the City of Wheatland totals approximately 83 percent with approximately 17 percent of agricultural land allocated for future development. The proposed project would expand the General Plan Update study area to include additional land for development outside the city limits and would reduce the amount of agricultural resources within Yuba County. Therefore, the No Project Alternative would have fewer impacts than the Proposed GPU.

Air Quality

The Proposed GPU would create air quality impacts from the construction of new residential and commercial development as well as the additional vehicles trips associated with the new development. The 1980 Wheatland General Plan predicted a low population at buildout (2,421 by 2005) and the City has nearly reached this estimate, but the General Plan Update identifies a lot greater growth level. The Housing Element Background Report population projection is estimated to be approximately 30,100 by the year 2025. Therefore, air quality impacts for the No Project Alternative would be less than the Proposed GPU.

Biological Resources

The No Project Alternative would include buildout of existing General Plan which includes undeveloped parcels and include Almond Estates, a commercial parcel east of Almond Estates, and a few additional parcels of land. These undeveloped parcels within the city limits, when developed, could result in biological impacts under the No Project Alternative. Although the No Project Alternative could potentially result in biological impacts, the Alternative would have fewer impacts than the Proposed GPU.

Cultural Resources

The No Project Alternative would include buildout of existing General Plan which includes undeveloped parcels and include Almond Estates, a commercial parcel east of Almond Estates, and a few additional parcels of land. These undeveloped parcels within the city limits, when construction begins, could result in cultural impacts under the No Project Alternative. Although the No Project Alternative could potentially result in cultural impacts, the Alternative would have fewer impacts than the Proposed GPU.

Geology

The geological and soil conditions under the No Project Alternative would not change; and the level of development would be limited to existing city limits, which would result in substantially decreased development. Therefore, impacts related to geology would not occur.

Hazards

Under the No Project Alternative, the use of the project site would not substantially change. Development potential under the No Project Alternative is limited to vacant parcels within the existing city limits (i.e., small portion of agricultural land in the northern portion within the city limits). The Proposed GPU includes development on agricultural lands outside the city limits. With the implementation of the Proposed GPU, the use of pesticides and other hazardous materials would be decreased. In addition, agricultural land would be developed within the current city limits and soil assessments would be conducted to remediate any contaminated soils. Furthermore, the area proposed for industrial uses under the No Project Alternative would be less than under the Proposed GPU. Thus, it might be expected that this Alternative could reduce potential use, handling, and transportation of hazardous materials and wastes. Therefore, compared to the Proposed GPU, the No Project Alternative would result in fewer impacts related to hazards.

Hydrology and Water Quality

The No Project Alternative includes the urbanized area with the City limits. Buildout within the City of Wheatland would not result in a significant change to the existing

drainage pattern for the project area. Therefore, compared to the Proposed GPU, the No Project Alternative would have no impact on hydrology and water quality.

Land Use

The No Project Alternative could result in full buildout of the City of Wheatland, anticipated by the current General Plan. In addition, zoning would be consistent within the city limits under the No Project Alternative. However, the Proposed GPU would require rezoning city-wide to accommodate new development and growth within the Wheatland study area. Therefore, compared to the Proposed GPU, land use impacts as identified for the No Project Alternative would result in fewer impacts than the Proposed GPU.

Mineral Resources

The No Project Alternative includes the urbanized area within the City limits. Full buildout within the City of Wheatland would result in no impact to mineral resources. The Proposed GPU would involve the expansion of the existing city limits and would result in the loss of a minimal amount of mineral resources on 1-acre of land on Nichols Ranch. Therefore, compared to the Proposed GPU, the No Project Alternative would have no impact on mineral resources.

Noise

The Proposed GPU would create an increase in noise levels resulting from additional vehicle trips associated with increased development, and construction noise. While noise levels would be substantially less under the No Project Alternative, noise would still be slightly increased over existing levels due to possible buildout of the remaining vacant areas in the city limits. Therefore, while the noise levels would be decreased under this Alternative, existing urban noise impacts would slightly increase.

Population, Housing and Employment

The Proposed GPU would result in an increased number of jobs and a better jobs-to-housing balance. In addition, the increase in the number of available jobs would result in increased population which would result in a greater demand on services, which are discussed in other sections of this analysis.

Public Services

The No Project Alternative would not result in substantial new development within the City of Wheatland and would therefore result in minor additional public services demand. The Proposed GPU would include a significant amount of development and would require the expansion of the existing City limits and would result in impacts to public services. Therefore, the No Project Alternative would have minor impacts on public services.

Recreation

The No Project Alternative would result in a minor amount of additional development resulting in an increased demand for park facilities. Although a greater demand for parks would be generated as a result of the Genera Plan Update buildout, the General Plan Update Land Use Map identifies additional parks to meet these demands.

Transportation and Circulation

The No Project Alternative would not substantially increase traffic in the surrounding area because buildout within the City limits is almost complete. However, SR 65 already operates at LOS F through the City limits. The Proposed GPU identifies an SR 65 Bypass east of the City, which would reduce traffic impacts along the existing SR 65 to a less than significant level. Therefore, compared to the Proposed GPU, fewer traffic impacts from the Existing Conditions/No Project Alternative would occur.

Utilities and Service Systems

The No Project Alternative would accommodate complete buildout within the City of the Wheatland and would slightly increase the demand for additional utilities and service systems in the project area. Therefore, this alternative would have no impact on utilities and service systems.

65 East Development Alternative

The 65 East Development Alternative would include the same level of development as the Proposed GPU, but involves shifting all future development to the east, out of the floodplain areas. It should be noted that Jones Ranch and Heritage Estates would be included as part of this Alternative.

Aesthetics

The 65 East Development Alternative would involve shifting all future development to the east. The Proposed GPU could result in increased development outside of the City limits to create a larger urban setting. The majority of this land is currently agricultural. Therefore, this Alternative would have similar impacts as the Proposed GPU.

Agricultural Resources

The 65 East Development Alternative would result in the conversion of agricultural land to an urban setting on the eastern side of the study area. However, agricultural lands within the eastern portion of the study area have a decreased agricultural quality than on the western side of the study area. This alternative would locate all development within the Sphere of Influence with some portions outside of the Study Area. The Proposed GPU would expand the study area to include additional land for development outside the

city limits and would reduce the amount of agricultural resources within Yuba County. Therefore, the 65 East Development Alternative would have fewer impacts than the Proposed GPU.

Air Quality

The 65 East Development Alternative would create air quality impacts as a result of construction of new residential and other development as well as additional vehicles trips associated with new development. The development anticipated under this Alternative would be shifted east of SR 65 and out of any flood plain areas; however, the level of development would be the same as projected for the Proposed GPU. Therefore, air quality impacts for the 65 East Development Alternative would be the same as the Proposed GPU.

Biological Resources

The 65 East Development Alternative would include development of land in the eastern portion of the study area. These undeveloped parcels could result in biological impacts under the 65 East Development Alternative. The Proposed GPU could potentially result in the loss, degradation, and fragmentation of important biological resources located within the western portion of the study area. Although this Alternative could potentially result in biological impacts, the Alternative would have fewer impacts than the Proposed GPU.

Cultural Resources

The SR 65 East Development Alternative would involve development only in the eastern portion of the GPU study area. Development of this area could result in impacts to cultural resources. Because the area of land would be the same as the Proposed GPU, the Alternative would potentially result in cultural impacts similar to the Proposed GPU.

Geology

The geological and soil conditions under the 65 East Development Alternative could potentially be impacted as a result of development of land within the study area. Expansive soils and liquefaction could potentially affect buildings constructed within the study area. In addition, soil erosion, as a result of construction activities could potentially impact the existing soil conditions. Therefore, the 65 East Development Alternative would result in impacts related to geology and would be similar to the Proposed GPU.

Hazards

Under the 65 East Development Alternative, the use of the study area would potentially change from a rural to an urban setting. The Alternative, as well as the GPU study area, includes agricultural lands outside the city limits. Implementation of either the 65 East Development Alternatives or the Proposed GPU would involve a decrease in the use of pesticides and other hazardous materials used for agricultural practices. Although hazards

related to agricultural uses would be reduced, potential new commercial and industrial development would introduce new sources of hazardous materials. Therefore, this Alternative and the Proposed GPU would result in fewer impacts related to hazards.

Hydrology and Water Quality

The 65 East Development Alternative would include the same level of development as the Proposed GPU, but would result in the shifting of all future development to the east where land is higher and outside of the floodplain; thereby resolving many of the levee issues that currently exist for many development areas identified for the Proposed GPU study area. Development of this Alternative as well as the Proposed GPU could result in a substantial change to the drainage pattern for the study area. However, appropriate detention basin drainage systems would be designed to accommodate increased storm water runoff for both Land Use Diagrams. Water quality impacts would be similar for both the Alternative and the Proposed GPU because the level of increased development that would generate urban pollutants would be the same. Overall, the Alternative and the Proposed GPU would result in fewer impacts related hydrology and water quality.

Land Use

The 65 East Development Alternative could result development of the eastern portion of study area. This alternative would result in the shifting of development east of SR 65 and outside of the floodplain areas. Under this Alternative, development would encroach into areas east of Jasper Lane currently designated for Urban Reserve. Therefore, agricultural incompatibility impacts would result from implementation of this Alternative, similar to those which would result from the Proposed GPU.

Mineral Resources

The 65 East Development Alternative would include development of agricultural land to the east of the City of Wheatland. This Alternative would be expected to result in no impacts to mineral resources. Therefore, compared to the Proposed GPU, the Alternative would have similar impact on mineral resources.

Noise

The 65 East Development Alternative involves generally the same area of potential future development as does the Proposed GPU. Therefore, this Alternative would create a substantial increase in noise levels due to increased development and related construction noise, as well as traffic noise due to the increased number of vehicles. Noise impacts for the 65 East Development Alternative would be similar to the Proposed GPU.

Population, Housing and Employment

The 65 East Development Alternative would involve generally the same amount and type of development as the Proposed GPU; thereby, resulting in an increase in population,

housing needs, and employment opportunities. This Alternative, as well as the Proposed GPU, would result in a higher number of jobs and a better jobs-to-housing balance. Overall, both the Alternative and the Proposed GPU would create additional housing and job opportunities within the City of Wheatland.

Public Services

The 65 East Development Alternative would be expected to result in substantial new development within the study area and may result in the expansion of the existing city limits. Therefore, impacts to public services would be increased, such as fire, police, and school services. However, because the level of development anticipated for this Alternative would be the same as the Proposed GPU, impacts would be similar overall.

Recreation

The 65 East Development Alternative would result in a substantial amount of additional development; thereby, increasing the demand for park facilities. Although a greater demand for parks would be generated, the Land Use Diagram for both the Alternative and Proposed GPU would include sufficient park sites to meet expected demands. Furthermore, applicants may opt to pay park impact fees rather then dedicate adequate on-site park acreage. Because the level of planned residential development is the same for both the Alternative and the Proposed GPU, similar park impact fees would be expected to be collected for park facilities. Overall, impacts to recreation facilities would be the same for the 65 East Development Alternative and the Proposed GPU. It should also be noted that Grasshopper Slough bisects the approximate entire length of the eastern portion of the Sphere of Influence. This natural watercourse could be incorporated as a future parkway/open space corridor component as part of the 65 East Development Alternative.

Transportation and Circulation

The 65 East Development Alternative would involve the shifting of future development to the east, but would result in the same amount of development as the Proposed GPU. This Alternative would substantially increase traffic in the study area. The Proposed GPU and the Alternative would include the future SR 65 Bypass east of the City, which would shift traffic from the current SR 65 highway to the bypass. However, without the construction of a bypass, similar to the Proposed GPU, traffic impacts along existing SR 65 would be significant and unavoidable for this Alternative.

Utilities and Service Systems

The 65 East Development Alternative would include development beyond the current city limits and would substantially increase the demand for additional utilities and service systems in the study area as the population increases. In addition, because of the relocation of development east of 65, sewer connections for new development to the future wastewater treatment plant planned on the west side of the City would not be as

direct and may prove more costly. Therefore, this Alternative could have slightly more impacts to utilities and service systems compared to the Proposed GPU.

Reduced Buildout Alternative

The Reduced Buildout Alternative would decrease the level of development by approximately 1,694 acres compared to the Proposed GPU. This Alternative would include the existing city limits and several parcels to the north, northeast, west, and southwest, including Almond Estates, Heritage Oaks Estates, Jones Ranch, Nichols Ranch, Stineman Ranch, and a portion of the Bear River Hop Farm (See Figure 6-1).

Aesthetics

The Reduced Buildout Alternative would have a reduced level of development compared to the Proposed GPU, but any new development beyond the city limits would create a larger urban setting. Therefore, because the majority of this land is currently agricultural, this Alternative would result in significant aesthetic impacts.

Agricultural Resources

The Reduced Buildout Alternative would result in the conversion of agricultural land to an urban setting outside of the city limits. Prime agricultural land is located to the west of the City limits which is proposed for future development under this Alternative. Therefore, because this Alternative would reduce the amount of agricultural resources within Yuba County and would result in the conversion of prime farmland and significant impact would occur.

Air Quality

The Reduce Buildout Alternative would create air quality impacts as a result of construction of new residential and other development and the addition of vehicles trips associated with increased development. The Reduce Buildout Alternative project area is approximately 1,694 acres smaller in area compared to the Proposed GPU. As a result, the level of development associated with this Alternative would be correspondingly decreased. Overall, the Reduced Buildout Alternative would have fewer air quality impacts than the Proposed GPU.

Biological Resources

The Reduce Buildout Alternative would include development of agricultural land outside of the city limits. These undeveloped parcels could result in biological impacts under the Reduce Buildout Alternative. The Proposed GPU could potentially result in the loss, degradation, and fragmentation of important biological resources located within the western portion of the study area. Although the Reduced Buildout Alternative could potentially result in biological impacts, this Alternative would have fewer impacts than the Proposed GPU.

Figure 6-1
Reduced Buildout Alternative

Cultural Resources

The Reduced Buildout Alternative would involve development of agricultural land outside of the city limits. This undeveloped land, when construction begins, could result in cultural impacts under the Reduced Buildout Alternative. Although this Alternative would significantly reduce the amount of development in the study area, this Alternative could potentially result in cultural resources impacts.

Geology

The geological and soil conditions under the Reduced Buildout Alternative could potentially be impacted as a result of development of land within the study area. Expansive soils and liquefaction could affect buildings constructed within the study area. In addition, soil erosion, as a result of construction activities could potentially impact the existing soil conditions. Although, the Reduced Buildout Alternative would result in a smaller degree of development, impacts related to geology would likely occur.

Hazards

The Reduced Buildout Alternative includes agricultural lands outside the city limits and would likely change from a rural to an urban setting. With the implementation of the Reduced Buildout Alternative, the use of pesticides and other hazardous materials used for agricultural practices in the project area would be decreased. Although hazards related to agricultural uses would be reduced, there is the potential new commercial and industrial development would introduce new sources of hazardous materials. Although this Alternative could present new hazards into the project area, the Reduced Buildout Alternative would result fewer impacts related to hazards than the Proposed GPU.

Hydrology and Water Quality

The Reduced Buildout Alternative would result in a decreased level of development compared to the Proposed GPU, but would still include development in portions of the floodplain. Development of the Reduced Buildout Alternative would result in impacts to the drainage pattern for this Alternative, but would likely result in fewer impacts than the Proposed GPU.

Land Use

The Reduced Buildout Alternative could result in development outside of the city limits to the north, northwest, northeast, west, and south. Land located within this defined area would be allocated for future development, which could be annexed to the City of Wheatland. This Alternative would result in the conversion of agricultural land to accommodate additional residential and commercial development outside of the current city limits. This Alternative would reduce the study area by approximately 1,694 acres, which would substantially reduce the level of development, and therefore incompatibility issues, compared to the Proposed GPU. Although the Reduced Buildout Alternative

would have fewer land use impacts than the Proposed GPU, impacts would remain similar overall.

Mineral Resources

The Reduced Buildout Alternative would include development of agricultural lands outside the current city limits. This Alternative would result in no impact to mineral resources and would have similar impacts as the Proposed GPU.

Noise

The Reduced Buildout Alternative would create an increase in both noise levels due to increased development and related construction noise and also traffic noise due to the increased number of vehicles. Although noise impacts for the Reduced Buildout Alternative would be less than the Proposed GPU, significant and unavoidable noise impacts would still be anticipated.

Population, Housing and Employment

The Reduced Buildout Alternative would involve a decreased amount of development area, approximately 1,694 acres less than the Proposed GPU. This Alternative would result in an increase in population, housing needs, and employment opportunities. The Reduced Buildout Alternative would impact the population, housing, and employment within the study area, but compared to the Proposed GPU, this Alternative would result in fewer impacts.

Public Services

The Reduced Buildout Alternative could result in new development within the study area and would require the expansion of the existing city limits and would result in impacts to public services. Although this Alternative would result in fewer impacts related to public services than the Proposed GPU, the existing city limits have nearly reached capacity for public services and any new development would significantly impact existing public services.

Recreation

The Reduced Buildout Alternative would result in additional development over what is currently planned. Therefore, this Alternative would increase the demand for park facilities. Although a greater demand for parks would be generated under the Proposed GPU, impacts would be expected to be similar overall. Furthermore, the Land Use Diagram for both the Proposed GPU and Reduced Buildout Alternative would include adequate park areas to meet the level of development identified for the Plan.

Transportation and Circulation

The Reduced Buildout Alternative would result in substantially less development than the Proposed GPU by approximately 1,694 acres. This Alternative would generate an in increase traffic within study area. The Reduced Buildout Alternative would not be able to accommodate the future SR 65 Bypass as identified for the Proposed GPU. Although the Reduced Buildout Alternative would result in a decrease of traffic than the Proposed GPU, traffic impacts for the Alternative would still result in significant traffic impacts. Therefore, because the SR 65 currently operates at LOS F, any additional traffic would create a significant impact.

Utilities and Service Systems

The Reduced Buildout Alternative would include development beyond the current City limits and would likely increase the demand for additional utilities and service systems in the study area as population and housing increases. Although this Alternative would result in reduced development, compared to the Proposed GPU, the Reduced Buildout Alternative would result in increased impacts to utilities and service systems.

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(d)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated that states that if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among other alternatives.

The No Project Alternative would be considered the environmentally superior alternative to the Proposed GPU and the other alternatives because there would be no physical changes to the environment from the existing conditions. Significant and unavoidable adverse impacts associated with the implementation of the No Project Alternative would not occur. While this Alternative would be environmentally superior, it would not meet any of the project objectives.

All of the development alternatives evaluated would generate the same types of impacts and would be expected to generate significant and unavoidable impacts similar to the Proposed GPU. However, the 65 East Development Alternative would have less severe impacts because the majority of the development would take place outside of the floodplain, thereby reducing impacts related to flooding and drainage. In addition, shifting development to the east would preserve important agricultural land in the western portion of the study area, thus reducing impacts on agricultural resources. Furthermore, the shifting of development to the east would preserve existing wetlands located north of Dry Creek, west of SR 65. However, this Alternative would create a greater distance for connection to the future wastewater treatment plant. Impacts would still occur related to aesthetics, air quality, geology, cultural resources, hazards, noise, demand for public services, and traffic.

[1] City of Wheatland, *Issues and Options Report*, December 30, 2004.

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