



CITY OF WHEATLAND

CITY COUNCIL MEETING STAFF REPORT

October 13, 2020

SUBJECT: Council discussion and consideration of adoption of the 2018 Updated Yuba County Integrated Regional Water Management Plan

PREPARED BY: Dane H. Schilling – City Engineer, and
Laurie M. Loaiza – Coastland Engineering

Recommendation

Adopt Resolution No. 40-20 adopting the 2018 update of the Yuba County Integrated Regional Water Management Plan.

Background/Discussion

The City of Wheatland is a member of the Yuba Regional Water Management Group, which is comprised of Yuba County public agencies, water providers, agricultural interests, municipalities, business, residential water users, community, recreation, and environmental organizations and tribal interests. In October of 2015, the Yuba County IRWM stakeholder group known as the Regional Water Management Group (RWMG) began preparation of the Integrated Regional Water Management Plan (IRWMP or Plan) and adopted that Plan in June of 2018. The City of Wheatland, as a member of the Yuba Regional Water Management Group, is being asked to adopt the 2018 IRWMP. The plan is an update of the previous IRWMP that was adopted by the City of Wheatland on March 25, 2008 (City of Wheatland Resolution No. 05-08).

Adoption of the latest IRWMP by member agencies is required by the State in order to receive certain grant funds through the Yuba Regional Water Management Group.

Alternatives

Alternatively, the City Council may choose to not adopt the IRWMP. Not adopting the plan would mean that the City is not eligible for certain funding through the Yuba Regional Water Management Group including the pending the Comprehensive Water Reliability Project which involves a system-wide upgrade of water meters and water system communications.

Fiscal Impact

No direct fiscal impact is expected by this action.

Attachments

1. Resolution No. 40-20
2. Executive Summary of the Yuba County IRWMP Updated 2018. Note: a complete copy is available at: http://yubairwmp.org/wp-content/uploads/2019/08/Yuba-IRWMP_Collated-Chapters_2018-Update.pdf

RESOLUTION NO. 40-20

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WHEATLAND ADOPTING THE 2018 UPDATE OF THE INTEGRATED REGIONAL WATER MANAGEMENT PLAN PREPARED BY THE YUBA REGIONAL WATER MANAGEMENT GROUP

WHEREAS, population growth and development in the State of California will continue to pressure water resources, balancing the needs of urban, agricultural, environmental and recreational water supplies will be a challenge for all involved in water management; and

WHEREAS, the State of California has certified the Yuba County region as part of the Integrated Regional Water Management (IRWM) program and further provided funding to support preparation of the 2018 Updated Yuba County Integrated Regional Water Management Plan (IRWMP or Plan); and

WHEREAS, in October of 2015, the Yuba County IRWM stakeholder group known as the Regional Water Management Group (of which the City is a part) began preparation of an Integrated Regional Water Management Plan and adopted that Plan in June of 2018; and

WHEREAS, eligibility to apply for future funding to support IRWM-identified project implementation can be dependent on individual regional stakeholders and/or entities adopting the 2018 IRWMP; and

WHEREAS, the Yuba County IRWM planning region consists of the valley floor, foothill and lower watersheds of the Yuba River; and

WHEREAS, the Yuba RWMG is comprised of a diverse group of public agencies, water providers, agricultural interests, municipalities, business, residential water users, community, recreation, and environmental organizations and tribal interests who have jointly developed the Integrated Regional Water Management Plan (IRWMP); and

WHEREAS, the IRWMP serves as a voluntary planning document that identifies a broadly supported vision, guiding principles, goals, objectives and projects to enhance the beneficial uses of water for the Yuba region; and

WHEREAS, this collaborative planning effort is intended to formulate water management strategies for the region and prioritize projects that address watershed and regional issues, coordinate with other IRWMPs, address local, state and federal plans' priorities, achieve multiple benefits, encompass more than one watershed, and meet short- and long-term water resource need;. and

WHEREAS, Yuba Regional Water Management Group (RWMG) members are formulating a cooperative governance structure necessary to implement the IRWMP that is favorable to all local governments, water suppliers, business groups, environmentalists, agriculture, recreation, and citizens; and

WHEREAS, an integrated regional approach to water management will streamline individual efforts and increase efficiencies. The Yuba IRWMP will also increase partnership, collaboration and organizational capacity. Collaborative management discussions at the

RWMG, based on the IRWMP, will provide a forum for stakeholder input and support for projects that address the common goals and objectives for the Yuba region; and

WHEREAS, this regional planning effort will improve regional competitiveness for grant funding for projects and efforts to implement the IRWMP and achieve agency or organizational goals; and

WHEREAS, upon adoption, member entities will be entitled to be voting members or continue to be voting members of the RWMG for all issues, topics and efforts that are brought to the RWMG; and

WHEREAS, in June of 2018, the Yuba RWMG adopted an Updated IRWMP consistent with the 2016 DWR Guidelines;

WHEREAS, the IRWMP will not be a legally binding document. Rather, it will be a regional compact with commitments to work together as a region to implement the plan; and

WHEREAS, the IRWMP will be a living document, reviewed and updated over time. Individual signatories can remain involved or terminate their involvement at any time.

NOW, THEREFORE IT IS HEREBY RESOLVED, ORDERED AND FOUND by the City Council of City of Wheatland, State of California, hereby adopts the 2018 Update of the Yuba Integrated Regional Water Management Plan prepared by the Yuba Regional Water Management Group as a voluntary document that provides broadly supported, identified goals, objectives, strategies, and projects to meet the integrated water needs of the people and the resources of the Yuba River region now and into the future.

PASSED AND ADOPTED by the City Council of City of Wheatland, State of California this 13th day of October 2020, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:

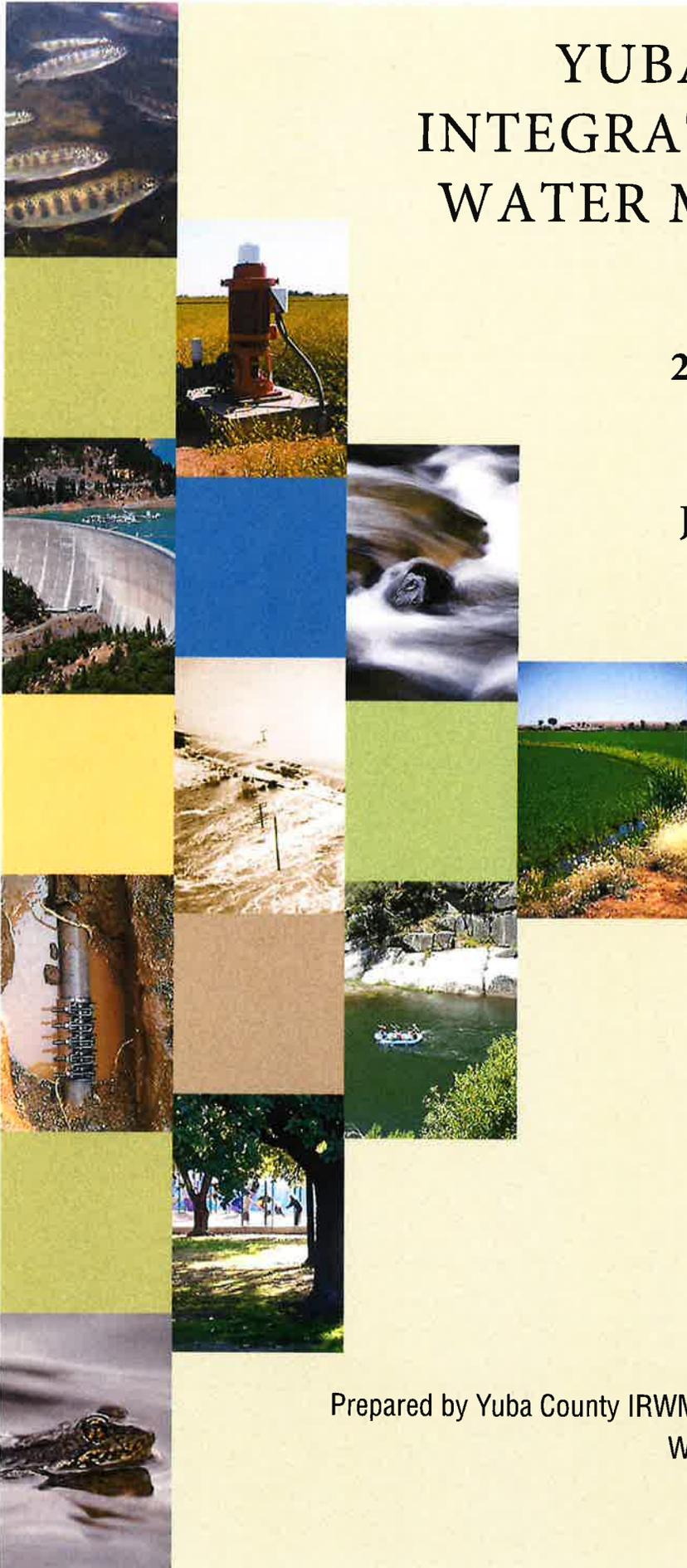
Rick West, Mayor

Lisa Thomason, City Clerk

YUBA COUNTY INTEGRATED REGIONAL WATER MANAGEMENT PLAN

2018 UPDATE

**ADOPTED
June 27, 2018**



Prepared by Yuba County IRWM Regional Water Management Group
With support from Burdick & Company

June 2018

**YUBA COUNTY
INTEGRATED REGIONAL WATER MANAGEMENT PLAN
2018 UPDATE**

**ADOPTED
June 27, 2018**

**Prepared by:
Yuba County Regional Water Management Group**

**In Collaboration with:
Burdick & Company
Auburn, California**

Chapter 1 Executive Summary

1.0 Introduction

The Yuba County Integrated Regional Water Management (IRWM) planning effort is a formal collaborative process that supports all aspects of water management in the Yuba County IRWM Plan area. The IRWM Plan was initially developed by many organizations and adopted by 12 agencies in Yuba County in 2008. The 2015 IRWM Plan Update was developed with the help of volunteer agencies and stakeholders over a two-year period following a public process that included: ten Regional Water Management Group (RWMG) meetings; a number of Core Group meetings that addressed climate change vulnerabilities and adaptation strategies; several public workshops throughout the Plan area; and outreach to disadvantaged, Latino, Hmong, and Tribal communities. The 2015 Plan Update had added focus areas, given a State drought declaration, the release of the Governor's updated *California Water Action Plan* (2014), and potential groundwater legislation.

The 2018 Plan Update focuses on new requirements in the 2016 IRWM Program Guidelines that will make the Plan and implementation project applications compliant with those Guidelines, and thus qualify projects for funding from the State.

This IRWM Plan Update articulates the challenges and issues the Yuba region faces, and defines the objectives it hopes to accomplish. The challenges are significant, as is the opportunity to improve the situation by working together and with the California Department of Water Resources (DWR). This Plan prominently considers the complexities of managing water supply and quality, uncertainty, and the needs of Disadvantaged Communities (DAC), under-represented communities, and Tribal organizations, and focuses on identifying resources to ensure a sustainable future.

This Update provides the framework for all entities to work together to address these challenges for a more sustainable water management future, and is being produced and sponsored by Yuba County Water Agency (YCWA), one of the Plan area's major water purveyors. It is funded in part through a Proposition 1 IRWMP Planning Grant from DWR. The Plan Consultant Team is led by Burdick & Company, hereinafter referred to as the Project Team.

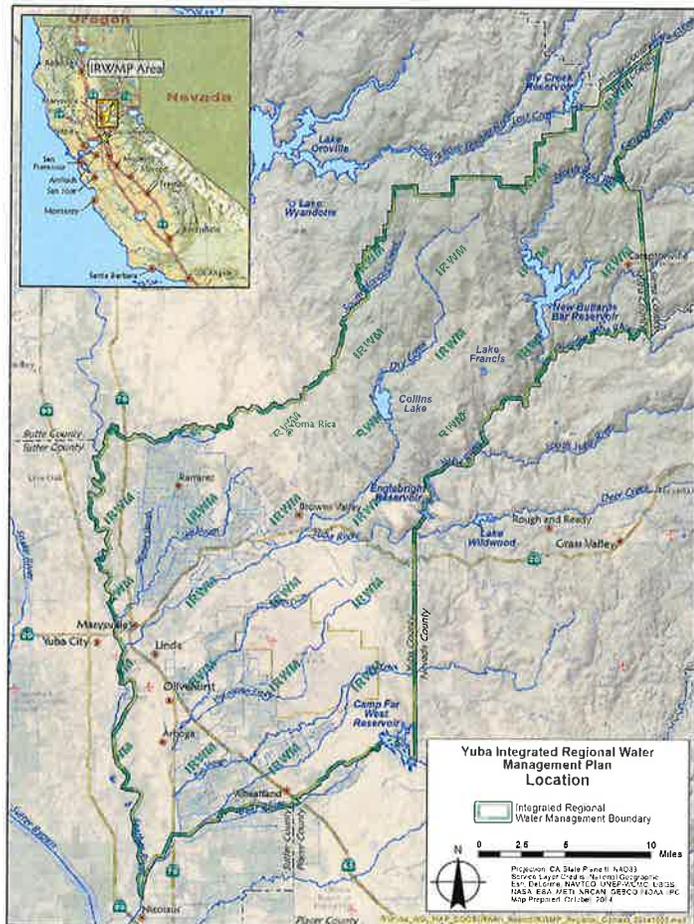
The Project Team has developed a website, yubairwmp.org, to collect and disseminate information, has met with stakeholders, and has developed a process to evaluate and integrate implementation projects. This framework enables the Plan to be adapted to changing conditions and meet current and future water management challenges.

Acronyms Frequently Used in this IRWMP

DAC	Disadvantaged Community
DWR	Department of Water Resources
GHG	Greenhouse Gas
IRWM	Integrated Regional Water Management
MOU	Memorandum of Understanding
RDS	Robust Decision Support
IRWMP	Integrated Regional Water Management Plan
RMSs	Resource Management Strategies
RWQCB	Regional Water Quality Control Board
RWMG	Regional Water Management Group
SWRCB	State Water Resources Control Board
YCWA	Yuba County Water Agency

1.1 The Yuba County IRWM Plan Area

The Yuba County IRWMP region is situated within the northern region of California's Central Valley and encompasses Yuba County. The region extends from the Sierra Nevada foothills to the Sacramento Valley floor, where the Yuba River flows into the Feather River near Marysville. The Plan area can be divided into two distinct zones: the lower watershed (i.e., valley floor) and upper watershed (i.e., foothill and mountain areas), both of which are within the lower reaches of the Yuba River watershed. While these distinct zones have some differing water management issues, they are linked by shared use of resources, including surface water of the Yuba, Feather, and Bear Rivers and their tributaries. The Yuba County IRWM Plan area overlaps in its upper reaches with the Cosumnes American Bear Yuba (CABY) IRWM Plan area, and in small part near its western boundary with the North Sacramento Valley IRWM Plan area.



In developing the Yuba County IRWMP boundaries in 2008, stakeholders considered the following unique challenges of the Yuba County Plan area:

- a groundwater basin that has physical and institutional separations from the adjacent groundwater basins;
- the Lower Yuba River Accord, which manages flows to protect Chinook salmon and steelhead trout and is highly dependent on local surface water and groundwater conjunctive management operations;
- local flood control issues, such as those associated with Olivehurst, within the jurisdictions of local agencies in Yuba County;
- an agricultural-based economy that is experiencing urban development; and
- foothill and mountain areas with limited access to groundwater that share surface water resources with the valley floor area of the county.

1.2 2015 IRWM Plan Update Process

As mentioned above, the 2018 IRWM Plan Update focuses on new requirements in the 2016 IRWM Program Guidelines. Highlights of the 2018 Update Process are included in Chapter 2 *Plan Development Process*. 1.2.1 Elements of the 2015 IRWM Plan

1.2.1 Issues

Early in the 2015 IRWM Plan Update process, the Project Team conducted in-person and phone interviews with stakeholders identified through the stakeholder outreach and engagement process. One of the central objectives of these initial interviews was to identify regional issues and water-related conflicts. By reviewing the issues and conflicts from the original IRWMP, conducting more than two dozen interviews, and facilitating discussions at the first and second RWMG meetings, the Project Team was able to generate, and the RWMG to confirm, a final issues and conflicts list, as follows.

Table 1-1. Issues	
Primary Issues	Associated Problem Statements Each of the following statements is prefaced by "The need to:"
Water Storage	<ul style="list-style-type: none"> Develop new water storage or identify alternatives to new storage that would increase water supply as a result of projected future uncertainties.
Infrastructure	<ul style="list-style-type: none"> Develop new infrastructure as well as repair, replace, and retrofit aging infrastructure to ensure adequate and reliable water supply.
Wastewater Management	<ul style="list-style-type: none"> Improve wastewater management and manage water quality impacts from spills and discharges while addressing the rising costs of operation and regulatory compliance.
Water Use Efficiency/ Water Conservation	<ul style="list-style-type: none"> Promote and implement policies and practices to increase water use efficiency <i>and</i> water conservation in municipal and agricultural sectors.
Groundwater	<ul style="list-style-type: none"> Promote integrated management of groundwater and surface water. Educate the public to protect groundwater resources, especially from contamination and overuse. Understand where groundwater and surface water are connected and where they have been disconnected. Protect groundwater and groundwater-dependent ecosystems, especially to address the projected impacts of climate change.
Flood Management	<ul style="list-style-type: none"> Improve integrated flood management to ensure better emergency preparedness. Increase flood protection and enhance floodplain functions and habitat. Create multi-stakeholder collaboration for flood management to achieve multiple economic, public safety, and ecological benefits.
Water Quality Contamination: Urban and Agricultural Run-off	<ul style="list-style-type: none"> Maintain and improve water quality by mitigating for urban and agricultural runoff.
Sediment Management	<ul style="list-style-type: none"> Manage sedimentation to maintain and/or increase water-holding capacity in reservoirs, and to implement erosion control to prevent contamination in water courses and water management operations.
Recreation	<ul style="list-style-type: none"> Promote and implement comprehensive recreational planning with a focus on regional economic development in the Lower Yuba River and beyond to improve local economies, improve habitat, and reduce human impact and threats to public safety.
Forest Health	<ul style="list-style-type: none"> Promote management policies and practices that protect forests and water supply and quality. Steward healthy forests, employ fire and fuels management, and restore watershed health vulnerable to the impacts of climate change.
Environmental Flows	<ul style="list-style-type: none"> At minimum, maintain quantity, timing, and quality of stream flows required to restore and protect freshwater ecosystems.

Invasive Species	<ul style="list-style-type: none"> Identify and manage for aquatic and terrestrial invasive species and their impacts on water supply infrastructure and watershed health.
Fisheries	<ul style="list-style-type: none"> Recover endangered and threatened fish species, particularly anadromous fish, and restore access to historic habitat wherever feasible.
Land Use and Land Conservation	<ul style="list-style-type: none"> Address the connection between land use planning and water. Enhance recreational and economic development opportunities through land conservation efforts. Protect working landscapes being lost to development, particularly ranch/ag lands, and the watershed benefits they provide.
Legacy Mining Toxins	<ul style="list-style-type: none"> Address the physical and chemical hazards of abandoned mine lands with a focus on watershed-scale remediation from the most toxic mine tailings.
Regulatory Compliance	<ul style="list-style-type: none"> Mitigate for the impacts of regulatory compliance on water management decision-making and processes, including increased costs and decreased opportunities for collaboration. Ensure a regulatory framework allowing for local and regional authority to respond to water and watershed management. Promote consistent enforcement of environmental protections to achieve the recovery of economically and culturally important species.
Climate Change	<ul style="list-style-type: none"> Respond to projected climate change impacts on water supply reliability, water quality, public safety, and watershed health, and develop regional and interregional adaptive management strategies.

1.2.2 Conflicts

Conflicts are characterized by prolonged disagreement and/or seemingly divergent, irreconcilable approaches toward addressing or resolving an issue.

Issues where a conflict or divergence was identified	Characterization of Conflict/Divergence
Water Storage	<ul style="list-style-type: none"> Stakeholders differ over whether new storage facilities should be considered for out-of-region water transfers, and whether groundwater storage should be intentionally developed by pumping down existing aquifers.
Fisheries	<ul style="list-style-type: none"> Stakeholders differ over how and where anadromous fish should be recovered.
Regulatory Compliance	<ul style="list-style-type: none"> Divergence exists among stakeholders over agency requirements and how to address regulations.

Conflicts surrounding fisheries and the interrelated conflicts of regulatory compliance and out-of-region water transfers have long been a source of discord in the region. Yet, even amidst protracted litigation and negotiations, diverse groups of stakeholders are engaged in dynamic, ongoing discussion and collaborations to seek solutions or viable compromise. The Lower Yuba River Accord and ongoing collaborative, multi-party processes, such as the River Management Team and the Yuba Salmon Forum, illustrate some of these efforts. Disagreement persists over the National Marine Fisheries Service’s Biological Opinion for Yuba River anadromous fisheries.

1.2.3 Goals & Objectives

In coordination with the Project Team, the RWMG developed updated goals and objectives to address identified issues for the Yuba County IRWM Plan area. No single objective was determined to be higher priority than the others, as the RWMG indicated that a prioritization or ranking of objectives could erode efforts to promote

integrated, multi-objective solutions to water and watershed management issues. The RWMG identified the following seven goals and corresponding objectives:

- 1 *Ensure adequate and reliable water supply that meets the diverse needs of the region***
 - 1.1 Improve water supply system capacity, flexibility, and efficiency, including, but not limited to, optimizing existing water storage, upgrading and retrofitting aging infrastructure, and developing new infrastructure, where necessary
 - 1.2 Promote water conservation and water use efficiency by instituting various techniques including, but not limited to, groundwater recharge, conjunctive management, irrigation efficiencies, municipal water conservation, water recycling and reuse
 - 1.3 Protect and restore water supplies that support watershed health
 - 1.4 Promote disaster preparedness and conservation planning efforts
 - 1.5 Maintain and enhance flood control infrastructure to protect water supplies
 - 1.6 Preserve water supplies that support recreational opportunities, ecosystem services, and agricultural uses
 - 1.7 Support regulatory compliance of state and federal water supply standards
 - 1.8 Promote regional education and outreach regarding water conservation, water supply issues and needs

- 2 *Protect, restore, and enhance water quality for water users and in support of healthy watersheds***
 - 2.1 Protect and improve water quality by mitigating for urban, agricultural, and wildland (sediment) run-off
 - 2.2 Minimize water quality impacts from flood, effluent discharge, and wastewater spills
 - 2.3 Promote recreational activities and programs that minimize or mitigate impacts to water quality
 - 2.4 Protect and improve the water quality generated by healthy, forested watersheds
 - 2.5 Maintain and improve water quality required to restore and protect freshwater ecosystems and fisheries
 - 2.6 Support regulatory compliance with state and federal water quality standards
 - 2.7 Protect public and ecosystem health from the physical and chemical hazards of Abandoned Mine Lands (AMLs)

- 3 *Preserve and restore watershed health and promote environmental stewardship***
 - 3.1 Steward healthy forests through fire and fuels management, erosion control measures, wetland and groundwater-dependent ecosystems restoration
 - 3.2 Identify and manage for aquatic and terrestrial invasive species and their impact on water supply infrastructure and watershed health
 - 3.3 Recover endangered and threatened fish species through habitat restoration and by providing access to historic habitat, wherever feasible
 - 3.4 Enhance floodplain function and wildlife habitat while achieving multiple flood management benefits and maintaining public safety
 - 3.5 Promote watershed-level remediation of legacy mining toxins
 - 3.6 Support environmental protections to prevent the extinction of economically, ecologically, and culturally significant species
 - 3.7 Steward the region's biodiversity and ecological resources that directly provide opportunities for public access, recreation, and education

- 4 *Enhance regional economic development by supporting recreational opportunities and sustainable agriculture***

- 4.1 Promote comprehensive recreation planning and implementation with a focus on regional economic development
 - 4.2 Enhance river access points to encourage recreational use while managing for human impacts to watershed health
 - 4.3 Create recreational river corridor linkages while enhancing migration corridors for plants and animals
 - 4.4 Explore opportunities to increase water-dependent tourism throughout the region while building local communities' capacity to manage their recreational amenities
 - 4.5 Protect and restore working landscapes, particularly ranch/ag lands, and the watershed benefits they provide
 - 4.6 Promote regulations that support local and regional economic resiliency by working with and among regulatory agencies to: 1) reduce regulatory conflicts, 2) ensure consistent enforcement of regulations, and 3) reduce costs and difficulty of meeting regulatory compliance
- 5 *Protect public safety through emergency and drought preparedness and integrated flood management***
- 5.1 Improve integrated flood management to ensure emergency preparedness, increase flood protection, and enhance regional and interregional collaboration
 - 5.2 Support regional and interregional collaboration to improve drought and emergency preparedness
- 6 *Address climate vulnerabilities and reduce greenhouse gas emissions***
- 6.1 Support efforts to reduce greenhouse gas emissions in the region, particularly those related to water management operations
 - 6.2 Improve data, modeling, and technical analyses to better understand the impacts of climate change on regional and interregional water supply and watershed health
 - 6.3 Increase system flexibility and resiliency to adapt to climate variability
 - 6.4 Promote alternative energy and energy efficiency throughout the region
 - 6.5 Promote education about climate change and its impacts on water management and watershed health throughout the region
 - 6.6 Promote regional and interregional collaborations to implement climate change adaptive management strategies
- 7 *Promote equitable distribution of resources to disadvantaged communities and Tribes across the region***
- 7.1 Support DAC and Tribal project development/ implementation activities by providing ongoing outreach, proposal and funding development assistance, and training
 - 7.2 Prioritize ongoing participation of DACs and Tribes in the Regional Water Management Group
 - 7.3 Foster partnerships to build the capacity of DACs and Tribes throughout the region to manage their own recreational amenities
 - 7.4 Promote regional education and outreach in collaboration with DACs and Tribes

1.2.4 Resource Management Strategies

After identifying the issues and objectives, the RWMG considered the strategies and approaches necessary to address them. DWR Guidelines require the IRWM Plan to document the range of Resource Management Strategies (RMSs) considered to meet the IRWM objectives and identify which RMSs were incorporated into

the IRWM Plan. A list of revised RMSs is displayed below, including new strategies required to be considered under the 2016 Guidelines:

RMS	Management Objective
1 Agricultural Lands Stewardship	Practice Resource Stewardship
2 Agricultural Water Use Efficiency	Reduce Water Demand
3 Conjunctive Management and Groundwater Storage	Increase Water Supply
4 Conveyance - Delta	Improve Operational Efficiency and Transfers of Water
5 Conveyance - Regional/Local	Improve Operational Efficiency and Transfers of Water
6 Crop Idling for Water Transfers	Improve Operational Efficiency and Transfers of Water
7 Desalination	Increase Water Supply
8 Drinking Water Treatment and Distribution	Improve Water Quality
9 Economic Incentives	People and Water
10 Ecosystem Restoration	Practice Resource Stewardship
11 Flood Risk Management	Improve Flood Management
12 Forest Management	Practice Resource Stewardship
13 Groundwater Remediation/Aquifer Remediation	Improve Water Quality
14 Land Use Planning and Management	Practice Resource Stewardship
15 Matching Water Quality to Use	Improve Water Quality
16 Recycled Municipal Water	Increase Water Supply
17 Outreach and Engagement	People and Water
18 Pollution Prevention	Improve Water Quality
19 Precipitation Enhancement	Increase Water Supply
20 Recharge Area Protection	Practice Resource Stewardship
21 Salt and Salinity Management	Improve Water Quality
22 Sediment Management	Practice Resource Stewardship
23 Surface Storage - CALFED	Increase Water Supply
24 Surface Storage - Regional/Local	Increase Water Supply
25 System Reoperation	Improve Operational Efficiency and Transfers of Water
26 Urban Stormwater Run-off Management	Improve Water Quality
27 Urban Water Use Efficiency	Reduce Water Demand
28 Water and Culture	People and Water
29 Water Transfers	Improve Operational Efficiency and Transfers of Water
30 Water-dependent Recreation	People and Water
31 Watershed Management	Practice Resource Stewardship
32 Other Strategies (such as Irrigated Land Retirement)	Objectives Vary by Strategy

1.2.5 Stakeholders and Outreach

1.2.5.1 Public Outreach Process

Extensive outreach was conducted in the form of traveling to meet with both existing and potential individual stakeholders – “circuit riding” – to ensure that the broadest possible spectrum of stakeholders and interested parties were included in the process of Plan development. Disadvantaged Communities were a particular focus of this outreach, which will continue during subsequent years under the 2017-2020 DAC-Involvement program

¹ State of California, Water Plan Update 2013, Volume 3 Resource Management Strategies.

currently underway in the Yuba region (as part of the Sacramento River Funding Area Disadvantaged Community Involvement program – SRFA DACI).

Considerable time was spent updating and finalizing a fully updated Tribal organization outreach list. Once this was developed, formal engagement was initiated via letter to request the participation of the respective organization. For outreach purposes, it is important to note that Federally Recognized Tribes generally have paid staff and clear points of entry for communication efforts, whereas Non-Federally Recognized Tribes often do not. Further, individual Non-Federally Recognized Tribes members may themselves be geographically dispersed, making outreach more difficult. Because the SRFA DACI program also includes extensive Tribal engagement (including within the Yuba County IRWM area), these efforts will continue and adapt to input received from both federally and non-federally recognized Tribal organizations.

To promote public participation in the Yuba region, access to IRWM planning information was also provided via the Yuba County IRWMP website (yubaregion.org), via telephone and U.S. Post Service outreach, and during public meetings that were noticed in several local newspapers.

1.2.5.2 Stakeholder Involvement

The RWMG consisted of members from government agencies, special districts, Tribal organizations, and non-profit organizations. Of the entities on the RWMG, a near majority participated regularly in direction on Plan content, project development and integration, and public outreach. This effort resulted in cooperation across geographies, political boundaries, and project types.

These RWMG participants have identified projects and actions for the Yuba County IRWM planning region that will create mutually beneficial water management outcomes and produce projects with multiple benefits.

1.2.5.3 Governance Structure

The RWMG affirmed a new governance structure with Plan adoption. Attendance at RWMG meetings during Plan preparation was a determinant of ability to participate in formal decisions; participation in two out of three meetings was the minimum for eligibility to vote. No attendance limit was placed on participating in discussions and debate about Plan content or process. All decisions were by consensus or, if consensus could not be reached, then by a 75 percent supermajority vote.

1.2.6 Climate Change

DWR Guidelines require an in-depth analysis of climate change. The Yuba region analysis was unique in this regard because in 2015, parallel but coordinated analyses addressed climate change during Plan preparation. The Project Team involved stakeholders via an advisory Core Group made up of individuals from the RWMG to identify regional climate vulnerabilities and help determine adaptation strategies that could make the region more “climate resilient.”

Meanwhile, team members from the Stockholm Environmental Institute used a Robust Decision Support process with the Core Group that integrated natural, social, and political aspects of water resource management in a quantitative model to evaluate possible futures and project outcomes. In this way, it further refined project development, and aids local agencies in choosing the most efficacious and cost-effective solutions to water management. In summary, both evaluations helped identify observed and projected climate trends and impacts affecting or potentially affecting the Yuba County IRWM region. A summarized list follows:

1.2.6.1 Climate Effects Anticipated in the Yuba County IRWMP Region

- Reduced streamflow and water supply resulting in increased conflicts between human and environmental uses
- Reduced water quality from rising temperatures, eutrophication, increased algal growth, release of mercury methylation, increased sedimentation from increased winter runoff, and decreased vegetative cover due to fire
- Increased flooding with greater storm intensity and higher winter precipitation
- Inability of water infrastructure designed for a historic flow regime to accommodate increased winter peak flows
- Increased wildfire potential and catastrophic wildfire
- Upslope movement of vegetative communities as temperatures rise
- Potential fragmentation and/or degradation of habitat for stream-dependent species and elevationally dependent species in particular
- Greater numbers of both terrestrial and aquatic invasive species
- Reduced viability for heat-sensitive crops—berries, mandarin oranges, grapes, and apples;
- Effects on the region’s recreation industry from lower summer flows, both rafting and reservoir-based use

Stakeholders and the Project Team considered these trends and effects, determined likely regional climate vulnerabilities, and identified a range of adaptation strategies to reduce climate impacts and increase regional climate resiliency. A synopsis of strategies follows

1.2.6.2 Adaptation Strategies

Water Supply

- Add storage projects
- Conserve and/or recycle water
- Dredge reservoirs
- Increase and improve groundwater monitoring and management

Flooding

- Upgrade levees
- Implement headwaters meadow restoration

Wildlife and Habitat

- Provide off-channel salmon habitat
- Dam removal
- Provide habitat requirements for fish and wildlife, especially species of concern
- Manage for ecosystem structures and processes

Fire and Fuels

- Implement fuel reduction projects
- Creating fire-safe zones around critical facilities
- Provide better public education about fire safety

Socioeconomics

- Change cropping practices
- Local agency and public involvement in State policy and regulatory processes
- Increased monitoring of both surface and groundwater processes and quality
- Consider incentives for agricultural and municipal customers that meet conservation targets
- Create biomass utilization projects

New requirements in the 2016 IRWM Program Guidelines resulted in revisions to the climate chapter and related sections in the Plan, primarily focusing on assuring conservation through updated climate and greenhouse gas assessment analyses. Through stakeholder involvement and deliberation, as well as technical expertise and familiarity with local conditions, the Yuba region will be more resilient to climate impacts and better able to prevent negative effects related to human health and the local economy, as well as damages to natural resources.

1.3 Project Development Process

The central means of implementing the IRWMP is through project implementation, making it essential for the project development process to be aligned with the development of issues, goals, and objectives. Project sponsors demonstrated through the project application process how their proposed projects addressed the regionally identified issues, while meeting the goals and measurable objectives. Project sponsors will periodically submit applications to the Yuba County IRWM region to be included in the Plan and potentially included in project funding applications approved by the RWMG.

1.3.1 Project Solicitation Process

The project applications were distributed by the Project Team via the stakeholder email distribution list and by posting on the Yuba County IRWMP website. The Project Team worked to 1) provide an overview of the project development timeline; 2) review the Project Solicitation Form; 3) allow project proponents the opportunity to briefly present the projects they intended to submit to be considered for Plan inclusion; and 4) discuss project integration opportunities. The full project solicitation process is shown below.

Table 1-4. Project Development Process
Project sponsors hold one-on-one conversations with stakeholders in pursuit of forming project partnerships
Project Team distributes Project Solicitation Form materials to stakeholders via email distribution list and posts form to Yuba County IRWM website
Project development and integration workshop may be held
Project application deadline
Project Team conducts circuit-riding to assist in filling out forms; facilitate integration; brainstorm options for multi-stakeholder, multi-objective projects; gather input on review criteria; and assist in clarifying process for getting projects to 'ready to proceed' status.
<ul style="list-style-type: none"> • Preliminary project list presented to RWMG at meeting • Process for project review identified • Draft project review criteria developed • Partnership confirmation and project integration occurs • Project list finalized • Process for project review criteria refined and approved • Final project descriptions distributed for RWMG review
<ul style="list-style-type: none"> • Economic feasibility questionnaire and greenhouse gas (GHG) inventories completed for projects (if project sufficiently developed) • Project sponsors make project presentations at RWMG meeting • Project review conducted and projects confirmed for IRWMP inclusion at RWMG meeting • Draft project chapter completed and distributed to RWMG for review • RWMG comments received for draft project development chapter • Project development chapter refined

Through a consensus decision, the RWMG determined it would not rank or prioritize projects. It was the view of the group that ranking projects sets up a de facto project selection process for funding purposes. The RWMG confirmed that the role of the IRWMP project review process is to collaboratively develop projects for Plan inclusion (not for funding) that as a complete suite would effectively implement the IRWMP. The RWMG further asserted that ranking would create unnecessary competition and conflict among project proponents. Instead, the RWMG decided that they would apply the project review criteria to all of the projects (including conceptual projects) and, in doing so, work to get as many projects as possible to an enhanced status of readiness. Another factor affecting the RWMG's decision to forego project ranking is the region's ongoing interest in diversifying its funding of projects beyond DWR's Implementation Grant programs. By maintaining a list of unranked projects, the region is able to maximize its responsiveness to the specific priorities of different and varied funding programs.

1.4 Financing Strategies

Two types of ongoing funding are needed to implement the plan: funding the administration of the IRWM program, such as annual Plan evaluation and amendment and governance issues, and funding to implement projects. Program funding will likely come from RWMG partners in the form of donations and in-kind support, and/or administrative line items included in project grants.

Project funding far exceeds the state's IRWM Program funding capacity. Therefore, funding and financing for projects proposed under this Plan are anticipated to come from public and private grants, user fees, and in-kind donations.

1.4.1 Plan Funding

YCWA took a lead role in the IRWM process, both as the planning grantee and administrator, and by making space, support staff, and electronic media available for RWMG meetings. The RWMG is currently staffed by a Project Team preparing this Plan and funded by the IRWM Planning Grant. Once the IRWMP is complete and adopted, the RWMG will need to secure ongoing revenues to support the cost of implementation (e.g., coordinator support, securing necessary staffing to help prepare DWR Implementation Grant proposals and other sources of funding, potential technical updates to the Plan, and RWMG-related costs for meetings, such as meeting venues, technical media, postage, and copying).

Expenses associated with the RWMG are mostly confined to facilitation costs, typically borne by support from various RWMG members. Funding applications are generally prepared through volunteer efforts of project sponsors.

Foundation and public grants are a secondary source of support. Public, private, and family foundations connected to the watershed or its attributes could be approached, both for technical reports and general RWMG support. Additionally, stakeholders may be able to include support for Plan updates within future DWR IRWM Planning Grant applications.

1.4.2 Project Funding

A wide variety of sources could be sought to meet the needs of natural resources, infrastructure, and disadvantaged communities. These include: revenue bonds, property tax assessments, user fees, special districts; State grant sources; federal funding, such as EPA's Source Reduction Assistance and U.S. Fish & Wildlife Service's North American Wetlands Conservation Act grant programs; and a variety of private foundations.

1.5 Plan Implementation

1.5.1 Plan-related Implementation Actions

The RWMG will convene a meeting to evaluate Plan performance once annually, and more often if needed, to enhance chances for project funding, to respond to revisions to guidelines or updates to regulations, to take advantage of opportunities to improve the Plan, and to recognize and document circumstances in the watershed that substantively affect the Plan.

At minimum, the evaluation will consist of measuring Plan progress against the adopted Plan-level performance measures developed during the first evaluation session. As part of its adaptive management strategy to stay current and revise the Plan, the RWMG will compare implemented projects and their outcomes against objectives metrics to determine progress toward achieving the Plan's goals and objectives. New scientific data, regional conditions, or natural resource events could substantively alter the understanding of issues or solutions within the watershed. Potential alterations to the Plan goals or objectives will necessarily need to consider and address changes in water demand, water supply, water quality, and effects on DACs. The RWMG will write up its Plan evaluations (annually at minimum) and will post evaluations on the Yuba County IRWMP website.

This RWMG will oversee all aspects of Plan implementation including pursuit of funding for projects, updating and revising the Plan, continuing to develop and advance new projects, and continued recruitment of and management of relations with regional stakeholders.

1.5.2 Project-related Implementation Actions

Project outcomes will be assessed relative to the objective metrics in the IRWMP. Sponsors of existing and future projects will be expected to provide measures and outcomes for their projects which provide specific quantitative measures. Project sponsors will submit relevant information about projects and project performance to the RWMG's data management system via its website, and will be responsible for development of monitoring plans for their respective project when applying to a funding source and will specify both who will conduct the monitoring and how it will be funded. The IRWMP indicates that specific monitoring group will evaluate the monitoring plans at regular intervals. As findings and the resulting lessons learned from monitoring become available, they will be a valuable tool in improving project design in the future, amending resource management strategies, and altering objectives to be more responsive to watershed needs.