



Upper Feather River IRWM Proposition 84 Planning Grant Proposal **Attachment 6: Program Preferences**

The existing Upper Feather River IRWM Plan is consistent with many of DWR's program preferences, and the updated IRWM Plan will continue to expand upon the Upper Feather River Region's commitment to implement an IRWM Plan that addresses both local and statewide water management priorities. The RWMG has carefully planned for and implemented a watershed-based management program that is responsive to many aspects of importance to the Upper Feather River region including ensuring adequate supply reliability for uses within and outside the watershed, protection and restoration of surface and groundwater quality, environmental stewardship and ecosystem protection, and flood management. The updated IRWM Plan will go a step further in addressing DWR's program preferences, particularly with consideration of likely climate change impacts, and a focus on local water supply issues benefiting DACs and tribal water concerns as summarized in Table 6-1 on the following page.

Include Regional Projects or Programs

Development of regional projects and programs is intrinsic in the current IRWM Plan and will be enhanced through the IRWM Plan update process. The implementation strategies developed for the existing IRWM Plan were formulated around a holistic and regional watershed management approach to identify projects that provided benefits and linkages to the entire region. In order to accomplish this, the IRWM Plan involved the development of overarching guidelines to support sustainable management of the UFR region through a three-tiered hierarchal approach: goals desired to be accomplished by the RWMG, objectives are the means to accomplish the goals, and actions

which are the specific steps that will be taken to accomplish each objective. Through this pragmatic approach, the Region was able to identify regional actions, programs and projects that supported achievement of multiple objectives and goals. For example, the existing IRWM Plan identifies improvement of dry season base flows as one of the water quantity strategies. One of the objectives of this strategy was continued development of a GIS Database and resource mapping as an essential element of the IRWM program, in that it would help achieve 11 of the 12 IRWM objectives. The IRWM Plan Update includes development and deployment of the first phase Data Management System, which will provide a new medium for the UFR Region to communicate and share water-related information across a broad cross-section of entities.

The Upper Feather River Region's recently promulgated memorandum of understanding (MOU) greatly expands the breadth of water interests participating in the IRWM process, which will therefore encourage the development and expansion of regional project and programs. The IRWM Plan Update will include a widely advertised and public process of identifying the current water-related needs of the region and conducting an assessment of the current IRWM Plans strategies. Each strategy will be reviewed to determine areas of strength and weakness, and identify refinements, deletions, or additional goals, objectives, or actions that will address current regional water challenges and opportunities and should be incorporated into the revised plan.



**Upper Feather River IRWM
 Proposition 84 Planning Grant Proposal
 Attachment 6: Program Preferences**

Table 6-1: Summary of DWR’s Program Preferences will be met with the Updated UFR IRWM Plan

Program Preference	Preference Currently Addressed in IRWM Plan	Preference that will be Addressed/Enhanced in IRWM Plan Update
Include Regional Projects or Programs	✓	
Effectively Integrate Water Management Programs and Projects within a Hydrologic Region	✓	✓
Effectively Resolve Significant Water-related Conflicts within or between Regions	✓	✓
Contribute to Attainment of One or More Objectives of the CALFED Bay-Delta Program	✓	
Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the IRWM Region	✓	✓
Effectively Integrate Water Management with Land Use Planning		✓
Include Actions Designed to Integrate the Stormwater Resource Plan Requirements Specified in CWC Section 10562 into an IRWM Plan		
<u>STATEWIDE PRIORITIES</u>		
Drought Preparedness	✓	
Use and Reuse Water More Efficiently		
Climate Change Response Actions		✓
Expand Environmental Stewardship	✓	
Practice Integrated Flood Management	✓	
Protect Surface and Groundwater Quality	✓	
Improve Tribal Water and Natural Resources		✓
Ensure Equitable Distribution of Benefits		✓



Upper Feather River IRWM Proposition 84 Planning Grant Proposal **Attachment 6: Program Preferences**

Effectively Integrate Water Management Programs and Projects within a Hydrologic Region

The existing Integrated Regional Water Management (IRWM) Plan is an implementation plan for the management of water resources throughout the Upper Feather River Watershed. The foundation for the functionally equivalent IRWM Plan comprises the integration of seven existing plans by the statutory planning entities in the watershed. These plans all have statutory authority and are, therefore, mandatory. However, the mandatory plans do not address all water issues in the watershed, nor do they geographically encompass the entire watershed. Thus, one of the primary benefits of the IRWM Plan is that it serves to bridge the geographic scope and capacity of the mandatory plans to manage water resources throughout the region. The goals, objectives, and integrated actions incorporated in the existing IRWM Plan are consistent with the seven statutory plans.

The Upper Feather River watershed is the primary supply for the State Water Project and one of the key water supplies within the Sacramento River Hydrologic Region, which in turn provides essential surface water for much of California. For this reason, the IRWM Plan is built on the premise that it is in the best interest of both local and downstream water users to enable the statutory watershed planning entities in the Upper Feather River Watershed to achieve the integration of sustainable water management programs at a regional, watershed scale. In addition, the existing IRWM Plan seeks to support meeting the CVRWQCB Basin Plan, particularly compliance with irrigated lands requirements and/or waivers are attained for the 60,000 acres of irrigated land in the UFR Region.

Effectively Resolve Significant Water-related Conflicts within or between Regions

The existing IRWM Plan identified many programs and policies that brought together water management solutions to conflicts over water supply, water quality, and ecosystem protection, but these programs and policies are often limited by jurisdictional and institutional boundaries. The unresolved issues of water supply, water quality and special status species' habitat needs in the watershed require workable solutions that are based on natural water catchment boundaries that extend beyond the jurisdictional and institutional limitations of the existing mandatory plans. Examples of persistent watershed-wide water conflicts include (1) temperature, sediment and nutrient water quality impairments in reservoirs and rivers; (2) fish passage and cold water refugia for salmonids; and (3) increasing water supply to ameliorate conflicts between water diverters, and riparian and in-stream environmental water needs.

In addition to the issues listed above, the IRWM Plan Update will seek to address the following issues described in detail in the 2009 RAP Application pages 21 to 31 (see Attachment 3: Work Plan, Appendix A), and find ways to increase collaboration and coordination to address the following significant water related conflicts:

- Forest Management
- Meadow Restoration and Management
- Groundwater Overdraft
- Municipal Services
- FERC Relicensing
- Water and Land Management Linkages

The Upper Feather River RWMG is also committed to identifying and resolving conflicts



Upper Feather River IRWM Proposition 84 Planning Grant Proposal **Attachment 6: Program Preferences**

with neighboring IRWM Regions, particularly the North Sacramento IRWM Region, which has an overlapping area with the Upper Feather River Region in the portion of Butte County that includes the Upper Feather River watershed. Both planning areas consider the overlap area to be an important and appropriate part of both the North Sacramento Valley IRWM and the Upper Feather River Region for a number of reasons, notable the significance that Lake Oroville is included and key to management of both regions. In addition, since the Feather River watershed supplies the State Water Project's primary storage facility at Lake Oroville, finding common opportunities to improve monitoring and measuring effects on the watershed scale is an important means of quantifying benefits and directing watershed investment in collaboration with the two local IRWM regions, the Department of Water Resources, State Water Project Contractors, and IRWM regions throughout the state that rely on the Upper Feather River for water supplies.

Contribute to Attainment of One or More Objectives of the CALFED Bay-Delta Program

The Upper Feather IRWM has been successful in implementing landscape level forest, range and meadow restoration management actions that significantly improve the water quality to the tributaries to the Feather River. Those improved upstream conditions incrementally and increasingly provide a cleaner source of water flowing to the Delta and contribute to improved Delta water quality conditions, one of the objectives of the CALFED Bay-Delta Program.

No delta tributary has done more to improve downstream ecosystem health than the Upper Feather River Region. Upper Feather River actions have improved the water quality leaving the region to the benefit of downstream users.

Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the IRWM Region

All of Plumas County qualifies as a disadvantaged community according to IRWM Guidelines. Water management decision-making often ignores historic, economic, environmental, and social burdens of disadvantaged communities. These communities reside amidst the economically viable water infrastructure, but rarely directly benefit from the economics of water resource supply and demand. Management solutions to watershed scale problems that fail to enhance overall water reliability and flexibility disproportionately shift risks from managers to those that benefit the least - the residents of the watershed. The Area of Origin statutes legally ensure that Plumas County residents have first rights to domestic supplies and may, in the future, legally obtain water supplies by minimally reducing the reliability of water supplies to Lake Oroville. The IRWM Plan is built on the premise that it is in the best interest of both local and downstream water users to enable the statutory watershed planning entities in the Upper Feather River Watershed to achieve the integration of sustainable water management programs at a regional, watershed scale.

One of the key focuses of the IRWM Plan Update is identification and outreach to DACs. The plan update process includes mechanisms to encourage DAC involvement in the plan update process, such as focused phone calls and meetings with local stakeholders and entities that represent DAC interests, and distributed multiple outreach meetings to targeted communities throughout the region. Furthermore, the RWMG will provide technical



Upper Feather River IRWM Proposition 84 Planning Grant Proposal **Attachment 6: Program Preferences**

assistance to DAC's that may not have the staffing or financial resources to submit implementation projects to the IRWM for consideration.

Effectively Integrate Water Management with Land Use Planning

The IRWM Plan was signed and adopted by the four agencies with land management authority for the majority of the Feather River watershed. Plumas National Forest, Plumas County, Butte County and Sierra Valley Groundwater Management District all will have a stake in the coordinated management of the IRWM Plan. Future planning includes linking Tahoe National Forest, Lassen National Forest and Sierra Valley groups in the watershed through the forthcoming Plumas County General Plan and Forest Plan Amendments. Plumas County's nearly completed General Plan includes a Water Resources Element, Conservation Element and Agriculture/Forest Element, which will be incorporated into the IRWM Plan Update to demonstrate the linkages between land use planning and water management, riparian and wetland habitat conservation, and preservation, protection and conservation of water supply and quality. Butte County has identified a goal of developing a water resources element in its next General Plan update. The Quincy Library Group Pilot Project which encompasses portions of the Plumas, Lassen, and Tahoe National Forests may be reauthorized in a similar timeframe. The above outlined local planning efforts will incorporate strategies outlined in the IRWM Plan. Thus, the IRWM Plan will serve as the guidebook for how to manage water resources in future General Plan updates and Forest Plan Amendments. The IRWM Plan will serve as the link between past planning efforts, since it is based on the existing mandatory plans, and future planning efforts.

Include Actions Designed to Integrate the Stormwater Resource Plan Requirements Specified in CWC Section 10562 into an IRWM Plan

The existing IRWM Plan considers stormwater resources benefits and documents that future stormwater management will be important. The State CWC guidelines have a number of similarities with the strategies identified in the existing IRWM Plan in that many of the programs and actions include utilization of natural resources function improvements, such as improving meadow condition to attenuate stormwater flows and thereby increasing habitat, reducing localized flooding problems, and enhancing groundwater recharge conditions. The Upper Feather River Region has also identified irrigated lands compliance with the RWQCB as a key future endeavor that is consistent with the Basin Plan.

The Updated Upper Feather River IRWM Plan, combined with the seven mandatory plans and several other watershed planning documents in the region could be used as a functionally equivalent Stormwater Resource Plan consistent with the provisions CWC 10562. The RWMG will consider the benefits of promulgating a functionally equivalent Stormwater Resource Plan during the IRWM Plan update process.

Statewide Priorities

The following describes how the existing and updated IRWM has or will meet the Statewide Priorities.

Drought Preparedness

Drought preparedness is essential to water users throughout the Upper Feather River region, many of whom are spread out geographically and do not have the benefit of interconnections



Upper Feather River IRWM Proposition 84 Planning Grant Proposal **Attachment 6: Program Preferences**

with neighboring systems or multiple sources of supply in the event of an extended decline in water supply reliability. Groundwater from self-supplied wells or small community wells is the primary source of supply for most domestic water users in the Upper Feather River Region. Therefore, identifying areas in the fourteen (14) groundwater basins in the region that may become susceptible to overdraft conditions in an extended drought scenario will be essential to understanding current and future water supply reliability implications.

The existing IRWM identifies that a policy will be developed for the Region that addresses short- and long-term impacts of drought. The policy will include a procedure for monitoring climatic conditions in cooperation with state and Federal agencies to predict drought. The goal is to minimize the effect of drought on residents through the early detection of drought conditions and the establishment of drought management procedures prior to experiencing the next drought. The current status of policy development, implications of long term droughts especially with regard to climate change will be considered and revised as necessary in the updated IRWM Plan.

Use and Reuse Water More Efficiently

The IRWM Plan will address water use efficiency as a potential Resource Management Strategy. The IRWM Plan update work plan includes the development of projects which address these strategies. These strategies will be evaluated for inclusion in the IRWM Plan and for eventual implementation, if it is determined that water use efficiency measures will help achieve the plan objectives.

Climate Change Response Actions

Climate change in the Upper Feather River watershed could have far reaching impacts

throughout the state, as significant changes in the reliability and quantity of Feather River watershed flows could, over time affect the available storage in Lake Oroville. This is one of the many reasons why climate change will be a focus of the IRWM Plan Update, which will bring the IRWM Plan into compliance with Proposition 84 guidelines. A Climate Change Study consistent with the DWR Climate Change Handbook will be completed to identify and prioritize vulnerabilities to climate change in the region, and select climate adaptation strategies that will improve the reliability of watershed management. Management and reduction of greenhouse gas emissions will also be a key consideration in the updated IRWM Plan. Additionally, the nearly-completed Plumas County General Plan includes policies that will be used to develop a climate action plan, which will be incorporated into the IRWM Plan where commonalities are identified.

Expand Environmental Stewardship

The existing IRWM plan focuses on management of natural resources to improve water supply, flood protection, and water quality. Examples of strategies identified in the IRWM Plan include meadows restoration and management, uplands vegetation management, forest management practices including fuels reduction, forest thinning, and road rehabilitation and closure, and reestablishment of salmonid species in the Upper Feather River watershed. The existing IRWM Plan also recognizes and addresses the need to increase the knowledge of the presence, abundance, and location of animals listed as threatened or endangered by the U.S. Fish and Wildlife Service, and to take measures to improve habitat conditions for these species. The IRWM Plan update will continue to foster adaptive watershed management through support of natural ecosystem function.



Upper Feather River IRWM Proposition 84 Planning Grant Proposal **Attachment 6: Program Preferences**

Practice Integrated Flood Management

The Upper Feather River IRWM Plan established groundbreaking practices in integrated flood management through meadows restoration programs that have resulted in extensive improvements in areas such as flood flow attenuation, improved groundwater infiltration, and ecosystem enhancement. The plan update will continue to build on this focus while expanding the breadth of flood management issues covered to explore ways the region will be able to better manage localized flooding issues.

Region-wide comprehensive planning to protect floodplains, control encroachment from development, and manage stormwater is an important passive watershed management tool documented in the IRWM Plan. Most of the major valley streams and many of their tributaries flow through or near urban areas. As a result, the updated IRWM Plan will include consideration of projects and programs that could enhance emergency flood preparedness for populated areas that are highly vulnerable to flooding. The plan update process will also consider the benefit of low impact development strategies that could improve groundwater recharge, and incorporate and recently updated county ordinances, policies, and the forthcoming General Plan into the IRWM Plan.

Protect Surface and Groundwater Quality

The existing IRWM Plan focused on protection and improvement of surface water quality for ecosystem, agricultural, and human health benefits. The existing IRWM Plan addresses issues such as temperature and sediment monitoring of critical instream habitat to identify and resolve areas of concern that could

impact spawning and early rearing habitat for anadromous and other salmonid species. The existing IRWM Plan also documents the need to manage non-point source pollution sources, such as the 60,000 acres of agricultural and grazing land in the region that could cause adverse contamination of surface waters.

Groundwater quality protection is a challenge that will be addressed with the IRWM Plan update. Many individual well owners in the region are also not connected to sewer collection systems, and therefore utilize engineered septic systems to dispose of sewage waste. Improperly designed or maintained septic systems can cause microbial contamination of shallow groundwater and surface waters. The IRWM Plan update will consider ways that protection of the aquifer can be improved, such as through programmatic septic system evaluation and maintenance.

Improve Tribal Water and Natural Resources

Between 2005 and 2007, the Upper Feather River IRWM program contracted with the Maidu Cultural & Development Group to work with Native American interests in the region and to seek out other populations whose interests may be underrepresented through normal local government processes. The findings from this outreach will be included in consideration of the IRWM Plan update. Furthermore, the governance of the RWMG-MOU provides for one seat on the board of directors appointed by the Maidu Summit Consortium, which will be one of the Non-governmental board members that are expected to have extensive input in the plan development process.

There is also an existing MOU between Plumas County and the Greenville Rancheria that provides for government-to-government



Upper Feather River IRWM Proposition 84 Planning Grant Proposal *Attachment 6: Program Preferences*

consultation on matters related to regional water management. The Upper Feather River IRWM Program MOU provides for similar consultation for any tribes that desire to coordinate through government-to-government procedures.

This IRWM Plan update will incorporate these important discussions, continue the outreach process through extensive tribal consultations to identify and integrate new actions specific to addressing tribal waters and preservation of natural resources.

Ensure Equitable Distribution of Benefits

All of the Upper Feather River Region meets the definition of a DAC. Furthermore, with a total population of approximately 20,000, the UFR region is comprised of many geographically dispersed small communities that rely on funding and technical support to meet essential water supply and wastewater disposal needs. For these reasons, one of the essential priorities of the IRWM Plan update, if funded, will be to encourage increased participation of small and DAC communities in the planning process, and to assist these communities with the identification of projects that will ensure residents of the communities are receiving reliable and safe drinking water, are provided with the means to properly dispose of wastewater, and contribute to achieving the Upper Feather River region's IRWM program objectives.

As previously described, the RWMG will also work closely with Tribal leadership, and have allocated a seat on the Steering Committee for a Tribal representative to ensure Native American water concerns are incorporated throughout the IRWM planning process.