

Upper Sacramento, McCloud, and Lower Pit Integrated Regional Water Management Plan



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Upper Sacramento, McCloud, and Lower Pit
Regional Water Management Group

Chapter 1: Introduction



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1. Introduction

Stakeholders in the Upper Sacramento, McCloud, and Lower Pit Region (USR) have worked together since 2009 to implement Integrated Regional Water Management (IRWM) planning. This effort has been enhanced by the regional cooperation and collaboration that took place for decades between stakeholders covering such topics as resource planning and management, endangered and special status species, issue and watershed management prioritization for national forests, the management and future of groundwater resources, and many other topics. This IRWM plan incorporates relational and resource synergies from those efforts for identifying and developing opportunities for further consideration of regional water management issues.

1.1 Purpose and Vision

This planning effort and adopted USR IRWM plan (IRWMP, or Plan) is not a final destination, but rather is the continuation of past discussions and the beginning of a process that participants expect to follow for years. Stakeholders have voiced the need for continued dialogue as water resource projects are proposed and implemented while further developing communication pathways to address regulatory issues, speak with a unified voice when needed about resource issues of federal and state importance, and make use of each others' strengths to accomplish objectives identified in this IRWMP. As part of this commitment, participants have identified an important expectation of all regional water management group (RWMG) members as the IRWMP is implemented: Members need to participate in at least one work group and/or committee; and, Member entities need to contribute some in-kind effort toward the ongoing implementation, tracking, and development effort of the plan as it will be a living document and management process.

1.2 Regional and Statewide Priorities

In addition to addressing regional issues, there are multiple priorities identified in the DWR Guidelines that address issues of concern on a statewide basis. These issues have differing relevance and importance within the USR, as described below.

Drought Preparedness: While much of the literature described in the climate change section (Chapter 9) indicates that community water sources in the USR are largely insulated from drought due to substantial utilization of spring water sources, extreme droughts – in supply or duration – could adversely affect those springs. Several of the projects submitted by jurisdictions in the USR are targeted at increasing water system reliability and flexibility, thereby incorporating drought contingency and climate change adaptation into regional water systems.

Use and Reuse Water More Efficiently: Water use efficiency measures are built into some of the infrastructure projects identified in Chapter 10. In addition, the added resource management strategy of education (see strategy “aa” in section 8.1.5) will help stakeholders focus on the benefits of region-wide education and outreach regarding water use efficiency, reuse opportunities, and drought preparedness.

Climate Change Response Actions: There are extensive opportunities for climate change response in the USR. This ranges from the concerted effort to use local labor, thereby minimizing travel emissions; to implementing small and micro-hydropower projects to take advantage of the region's topography in producing green infrastructure; to collaborative prioritization efforts with the USFS to implement more comprehensive, system-wide habitat management strategies for endangered and special status species, green infrastructure, and recreational and local economic purposes. This topic is further described in Chapter 9, Climate Change.

Expand Environmental Stewardship: USR stakeholders are aware of and support the idea of the use of natural systems as buffers for climate change and “green” infrastructure. Many stakeholders in the USR have a unique relationship with natural resources in that the clean – and even pristine – state of much of the region’s resources supports excellent tourist attractions and helps to generate needed economic development dollars in the region. Many of the projects proposed for implementation address the topic of environmental stewardship (see tables 10.4 and 10.5 in Chapter 10, Project Implementation, for how the environmental stewardship objective and resource management strategy are met by the suite of projects – 70% and 63%, respectively). Resource stewardship is important to all USR stakeholders, as described in section 3.4.4 of the Region Description.

Practice Integrated Flood Management: The identification of some of the region’s natural resources and habitats as “green” infrastructure is a frequent theme in considering resource management strategies in the region. Stakeholders are interested in the many uses of resources on a multitude of levels. As a source water region, stakeholders have also identified the downstream benefits of effective headwaters management, whether it includes meadow restoration for flood attenuation or examination of system capacity in order to better prepare local communities for flood flows and retain more storm water back in the system in times of need. More information on flooding is available in the Region Description and Climate Change sections of this document (Chapters 3 and 9). In addition, stakeholders identified an Objective 9 to address the specific flooding issues experienced by localities over the last few decades (section 7.4.9 of Chapter 7, Objectives).

Protect Surface Water and Groundwater Quality: Water quality – in both surface and groundwater systems – is of great importance to USR stakeholders. This is the water supply source for the region, and it is currently of very high quality with very limited need for treatment for contamination or aesthetic considerations. The protection of regional water quality through investigation of resource status and use (identified in several implementation projects described in Chapter 10) seeks to add greater understanding to the region through research activity. Most stakeholders believe that, through better understanding of water resources, those resources can be more securely protected and managed in an uncertain future.

Improve Tribal Water and Natural Resources: Indigenous groups (i.e., nations, tribes) have been integral to the development of this IRWMP. Water supply issues vary throughout the USR for these aboriginal groups. Some experience extreme difficulty getting clean water of adequate quantity, and some resources are threatened by nearby development and unknown groundwater conditions. Without exception, tribes view their aboriginal ties to these resources as strong and immutable. They are an integral and essential part of resource planning in the USR and should continue to be key participants in the process.

Ensure Equitable Distribution of Benefits: The USR is almost completely made up of disadvantaged communities as identified by the 2010 US census. Thus, the participation of these communities is essential to the continuing planning process. Special considerations for outreach, meetings, and the provision of expertise and materials was made during the planning process in ways that would have been very different if the region was made up of large, well-funded urban areas. The benefit of this expanded outreach can be seen in the integrated nature of the project development process, as well as the inclusion of projects addressing regional needs outside of convention, such as tourism and the preservation of habitat for endangered species. More conventional projects such as water, wastewater, and energy infrastructure for small disadvantaged communities are also included in Chapter 10, which will help the region comply with state policies that identify the need for clean, safe, and affordable water for all people.

1.3 IRWMP Organization

The elements of this IRWMP were guided both by the DWR Guidelines (November 2012) as well as the priorities and preferences of participating stakeholders and the RWMG. They are described in order below.

Chapter 2: USR Planning Framework, Stakeholder Involvement, and Integration

This chapter describes the history of watershed planning in the USR and how that planning was integrated into this IRWMP. It describes the process of stakeholder outreach and inclusion, and introduces the decision-making process identified by stakeholders for preparation of the IRWMP. As part of the document development, stakeholders identified how local, state, and federal priorities fit into the USR itself, as well as the IRWMP document.

Chapter 3: USR Region Description

The USR region description describes in general terms the natural resources, stakeholders, communities, and native habitats throughout the USR. It draws on many local, state, and federal documents to complete this description, and serves to inform related planning objectives (Chapter 7) directly.

Chapter 4: Relation to Local Water Use Planning

Because of the nature of the USR as a headwaters region, the relationship of the water management plans of local jurisdictions and water purveyors to regional resource issues is quite different from other parts of California. This chapter describes how local jurisdictions and water authorities consider and plan for water use within the USR.

Chapter 5: Relation to Local Land Use Planning

Land use planning is an important component of water resource planning. Except for limited specific areas, the USR hasn't experienced extensive amounts of growth or development in the past. Furthermore, due to various development constraints, extensive growth isn't expected in the near future. However, land use planning can also be affected by the planning conducted for natural resources, including resources on public lands. This chapter identifies the various forms of land use planning occurring in the USR and how it relates to water resources in the region.

Chapter 6: Issues and Interests

The process by which issues, interests, and challenges were identified represents a significant amount of work and negotiation on the part of participating stakeholders, and is represented in this chapter. The issues are identified as headers in the chapter and the interests are those nuances of issues identified by various stakeholders as being of concern and/or note. The identified challenges stem largely from topics on which there has been significant disagreement or from processes that are outside the scope of IRWM planning. Related concerns are identified and described, and possible opportunities for continued discourse and engagement are noted.

Chapter 7: Objectives

The objectives of the plan are described in this chapter, along with two overarching goals that were identified to guide implementation and tracking. The objectives are accompanied by measurable components that can also serve as performance metrics (see also Chapter 12).

Chapter 8: Resource Management Strategies

The resource management strategies (RMS) identified in Chapter 8 represent those identified in the 2009 California Water Plan, the 2012 IRWM Guidelines, and the priorities identified by stakeholders

through the issues identification process. These RMS will help guide the activities and suite of options discussed by stakeholders as the IRWMP is implemented.

Chapter 9: Climate Change

The USR, as a forested source water area, is expected to experience unique effects in the future as a result of climate change. Potential effects are identified in this chapter along with analysis of climate change projections for the region. Effects and vulnerabilities are identified, and the vulnerabilities are prioritized using a matrix of urgency, risk, and cost.

Chapter 10: Project Review Process and Implementation

Initial projects identified by the RWMG to implement this IRWMP are identified and described in this chapter along with the process by which projects were solicited, submitted, developed, reviewed, prioritized, and publicized. General and projected outcomes of project implementation are described as well as the process by which stakeholders expect to revise the project implementation list in the future.

Chapter 11: Impacts and Benefits

Discussing and identifying IRWM planning impacts and benefits on various stakeholder groups throughout the USR was an important component of the planning process and is represented in this chapter. There was some disagreement between stakeholders – individuals and entities – throughout the planning process and much of this discussion is represented here. In addition, the benefits and impacts of regional planning are identified for the region as a whole as well as for interregional relationships and a process by which adaptive management may be implemented is described.

Chapter 12: Plan Performance and Monitoring

The performance and monitoring chapter describes how progress and success of IRWM implementation will be tracked. This chapter also describes the process by which this evaluation will occur and the responsibility for implementation.

Chapter 13: Data Management

Data collection and management is an important consideration for a region that has undertaken and completed significant planning efforts. This chapter describes specific data gaps and information needs of the region, as well as how data is to be managed. This includes reporting to state databases and the proposed in-region data management system.

Chapter 14: Technical Analysis

Technical analysis is the process by which stakeholders assessed the relative reasonability of technical data and information as well as how the analyses feeding the development of the IRWMP (some of it identified as cost-share in the planning grant budget) was developed and used. This section also identifies important data gaps for the USR and includes a table representing the key reference documents used in development of this IRWMP.

Chapter 15: Financing IRWM Implementation and RWMG Operations

Planning for IRWMP implementation requires consideration of financial needs and the operations of the RWMG. This chapter outlines stakeholder preferences, identifies options, and will serve as the guiding document for RWMG identification and recruitment of implementation funding.

Chapter 16: Governance and Next Steps

This chapter provides information on many of the general topics identified in Chapter 2. The RWMG, which will be the group responsible for IRWMP development, is described in Chapter 16, as well as how the formation of that group occurred. The governance structure for the RWMG going forward is

identified and described. Communication, coordination, and collaboration efforts are described as both a historical reference and as a plan for ongoing implementation and operations.

The appendices for the plan are provided as directly relevant materials to IRWM planning and implementation. Stakeholder data, background, and information are provided as requested and submitted by stakeholder entities in the data management system (described in Chapter 13).

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UpperSacIRWM.org



5937 Dunsmuir Avenue • Dunsmuir, CA 96025
530.235.2012 • RiverExchange.org

FORSGREN
Associates Inc.

3110 Gold Canal Drive, Ste. C • Rancho Cordova, CA 95670
916.638.1119 • Forsgren.com