

Section 1: Introduction

This *Integrated Regional Water Management Plan* (IRWM Plan) defines a clear vision for the management of water resources in the Westside Sacramento Region (Region) and highlights important actions needed to help accomplish that vision through the year 2035. This IRWM Plan complies with the *Integrated Regional Water Management Guidelines for Proposition 84 and 1E* published by the California Department of Water Resources (DWR) in November 2012. Financial assistance from DWR supported the development of this Plan.

The information contained within this IRWM Plan provides an opportunity for the more than 70 water supply, land use management, flood management, and ecosystem-focused organizations operating within the Region to accomplish more than they could accomplish individually. The array of goals, objectives, selected resource management strategies, and high-priority projects represent a collective view of how to improve integrated water management throughout the Region.

The work necessary to produce this IRWM Plan began many years ago. For example, the Westside Regional Water Management Group (RWMG) was formed in September 2010, gathering together numerous resource managers and stakeholders in the Region who had been taking a proactive approach to water management for a number of previous years. Before this effort to produce an IRWM Plan for the entire Westside Sacramento Region, four of the five counties represented in the RWMG had already developed or begun developing county-based IRWM plans. These organizations joined together in 2010 in response to a new requirement from the State that IRWM planning regions must be more watershed-based in order to be eligible for financial assistance from the State’s Proposition 84 and 1E funds. This larger collaboration presented a fruitful opportunity to build upon the previous county-focused efforts and strengthen existing collaborative relationships.

This IRWM Plan synthesizes the years of water planning efforts. The Plan establishes a clear path forward both to increase the collective understanding of integrated water management throughout the Region and to respond collaboratively to the

challenges of managing water and associated natural resources.

If this effort has been successful, this IRWM Plan will be a dynamic and useful planning tool for the Region. While it does not provide discretionary approval for any given project, it does provide a framework to improve understanding and take high-priority actions to address the major water-related challenges and opportunities facing the Region through 2035.

The RWMG decided that the IRWM Plan would be developed by a Project Team with public input and overseen by the Regional Coordinating Committee (CC). Section 1.1.5 describes the CC and its responsibilities. The Project Team includes the technical, public outreach, and facilitation consultants (Consultant Team) as well as the CC.

1.1 Background

1.1.1 Regional Features

The Region encompasses approximately 3,000 square miles, from the Coastal mountain range in the west to the Sacramento River and Sacramento-San Joaquin River Delta on the south and east. The Region includes all of Yolo County and portions of Lake, Napa, Solano, and Colusa Counties that are within the Cache Creek and Putah Creek watersheds. Major communities within the Region include the cities of Clearlake, Davis, Dixon, Lakeport, Rio Vista, Vacaville, West Sacramento, and Woodland. Figure 1-1 shows a map of the Region.

1.1.2 Primary Focal Points of the IRWM Plan

The collective vision presented in this Plan aims to address the major challenges and opportunities related to managing water and associated natural resources within the Region. The numerous and complex challenges and opportunities addressed in this Plan are captured in the following primary focal points:

- Continue to provide safe and reliable water supplies for a variety of uses.

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- Improve habitat and ecosystem health (including the monumental challenge of addressing effects caused by numerous invasive species).
- Manage a wide array of risks including public health, fire, flood, and potential disruptions to institutional services.
- Sustain and modernize water supply, water quality, and flood management infrastructure.
- Address many significant and long-standing water quality concerns.
- Foster the reasonable use of water and associated natural resources within the Region through the adoption of evolving technologies and best management practices.
- Further the collective understanding of watershed functions and groundwater basins.
- Improve education and awareness among citizens about the importance of sustainable water and natural resources management and the crucial roles citizens play.
- Improve opportunities for water-based recreation.

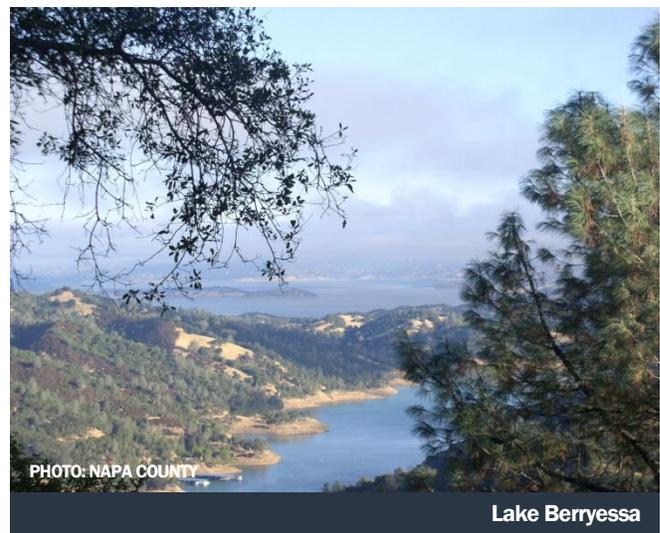
1.1.2.1 Provide Safe and Reliable Water Supplies

Water is used within the Region predominantly for agricultural irrigation. Municipal and industrial (M&I) use is small relative to agricultural use, but vital because it supports a number of local communities. Although some population growth is expected throughout the Region between now and 2035, agriculture is expected to remain the dominant water use into the foreseeable future.

Existing water supplies within the Region are generally sufficient to fulfill the current M&I and agricultural demands during an average water year. However, in dry years, decreased surface water availability could create negative effects for agricultural and municipal users alike. In years with decreased surface water supply, many agricultural users convert to more expensive groundwater or fallow their land for that year. Some municipal suppliers could experience occasional short-term shortages and might be required to use alternative supplies under the driest of expected conditions. This IRWM Plan includes objectives and numerous strategies to maintain or increase the reliability of

water supplies for agricultural and municipal users within the Region.

Many water users rely on conjunctive water management (meaning the strategic and coordinated use of a variety of surface and groundwater sources), which will be essential to the sustainability of a reliable water supply in the future. The water-supply portfolio for the Region is diverse and includes the following primary sources: Lake Berryessa supplied by Upper Putah Creek; Clear Lake and Indian Valley Reservoir in Upper Cache Creek; State Water Project (SWP); Central Valley Project (CVP); Sacramento River; and multiple groundwater aquifers.



Groundwater supplies have been relatively stable, especially in the eastern portion of the Region, since historical groundwater overdraft was corrected with the construction of Monticello Dam on Upper Putah Creek and Indian Valley Dam on the North Fork of Cache Creek. These dams created Lake Berryessa and Indian Valley Reservoir, respectively, which substantially increased conjunctive use of surface water and groundwater throughout Yolo and Solano Counties. Some areas that still rely solely on groundwater occasionally experience the effects of periodic overdraft and subsidence, both of which may occur after multiple years of drought conditions. An improved understanding of the interconnections between the watersheds and groundwater basins of the Region may lead to additional conjunctive water management opportunities on a regional level.

1.1.2.2 Improve Habitat and Ecosystem Health

The Region contains habitats for a broad range of terrestrial and aquatic, state and federally recognized special-status species. In particular, aquatic species specific to the Delta and vernal pools, such as Delta smelt, vernal pool fairy shrimp, and steelhead, have led to ongoing preparation of habitat conservation plans as well as the *Bay Delta Conservation Plan*.

In addition, a number of aquatic/riparian invasive plants and animal species either already occur or pose a significant threat to the Region. Invasive animal species occurring in the Region include New Zealand mud snails (currently confined to Putah Creek). Dreissenid mussels, such as quagga and zebra mussels, have not yet been found in the Region. Because of their presence in nearby watersheds, however, the threat of infestation is real and the potential consequences daunting. Regional resource management agencies have already initiated activities to prevent the introduction of these mussels to the Region, but more must be done. Several invasive plant species, including *Arundo donax* (giant reed), water hyacinth, Eurasian milfoil, and ravena grass, already cause significant negative impacts in the Region.

1.1.2.3 Manage Risks

Citizens within the Region face a number of other water-related risks that must be managed, including public health hazards associated with water quality and water-borne pathogens; flood hazards; fires; and other potential disruptions to water supply availability. Flood hazards pose a significant challenge for certain areas within the Region, specifically the tributaries to and lakefront areas of Clear Lake, as well as the floodplains of the Sacramento River.

1.1.2.4 Sustain and Modernize Infrastructure

The water management system within the Region includes a wide array of infrastructure, such as dams, canals, distribution systems, treatment systems, groundwater wells and pumps, and levees. As the infrastructure ages, the risks described above increase. Maintaining, modernizing, and improving this extensive infrastructure to continue to provide the expected level of service will require significant investment and effort over the next 20 years.

1.1.2.5 Address Water Quality Concerns

The protection and improvement of water quality is essential to both human health and aquatic ecosystem function. Surface water quality within the Region can affect the cost of providing safe drinking water, and it directly impacts ecosystem function. Issues such as mercury contamination, cyanobacteria management, long-term groundwater quality degradation, and other surface water quality concerns are addressed in this IRWM Plan. Groundwater quality varies throughout the Region and among different aquifer formations. Groundwater quality can affect managers' ability to meet wastewater discharge requirements in the future. Some agencies that currently rely on groundwater for drinking water supplies are working to develop surface-water supplies to help address these concerns.

1.1.2.6 Foster Reasonable Use

The growing number of water-related conflicts within California, in particular related to the Sacramento-San Joaquin Delta, increase expectations to foster the reasonable use of water and promote environmental and natural resource stewardship within all regions of California. This IRWM Plan addresses opportunities to increase the wise use of water within the Region and explores ways to reduce negative impacts related to human water use and waterway management.

1.1.2.7 Further Collective Understanding of Watersheds and Aquifers

As human activities related to water resources in the Region and demands on these resources continue to increase, a more robust understanding of the functions of the watersheds and groundwater basins becomes more crucial. This IRWM Plan summarizes much of what is known about the natural and constructed water management systems within the Region and identifies areas where additional investments to improve understanding are important.

1.1.2.8 Improve Education and Awareness

In addition to improving understanding among the Region's water management entities regarding watershed functions and groundwater basins, raising citizens' awareness of their role in sustaining the Region's water and natural resources will be vital. Many individuals and organizations throughout the Region who are interested in water resources

management are already engaged in efforts that support the work of water management entities; however, this is not enough to satisfy the objectives in this IRWM Plan. Fulfilling the vision for integrated water management presented in this Plan will require more education and broader involvement of residents within the Region.

1.1.2.9 Improve Opportunities for Recreation

Finally, the lakes and streams in the Region support an array of water-based recreation including fishing, swimming, water skiing, sailing, boating, jet skiing, and white-water sports. These recreational opportunities are enjoyed by both residents of and visitors to the Region. Protecting the Region’s waterways to maintain and improve recreational opportunities is important to the quality of life for residents and economic vitality of the Region.

1.1.3 Forming the Westside IRWM Region

The Westside IRWM Region was established by several agencies that had completed or were in the process of developing IRWM plans. Before the formation of the Region, Yolo and Solano Counties each adopted IRWMs, Napa County had developed an Integrated Resources Water Management Planning Framework (IRWMPF), and Lake County was developing an Integrated Watershed Management Plan and had initiated IRWM planning efforts. County lines served as the Region boundaries for each of these efforts.

DWR later clarified its preference that Regions be based on watersheds as well as that they span areas larger than county-based Region boundaries. Proposition 84 identified watershed-based funding areas throughout the state, with the Westside Region being a part of the Sacramento River Funding Area. Each Funding Area is allocated, based on population, a portion of the \$1 billion approved by the voters under Proposition 84 in 2006. Predecessor bonds, including Propositions 13 and 50, also provided incentives for development of IRWM Plans. DWR designed the IRWM planning process to be consistent with the *California Water Plan*, a statewide water resources planning document updated periodically, and DWR intends that IRWM Plans and future updates of the *California Water Plan* be integrated further in the future.

The Westside Region includes the two principal watersheds of Putah and Cache Creeks and the commonly managed land in the northern portion of Yolo and Solano Counties, as shown in Figure 1-1. Some portions of the Region include areas that were not likely to be included in neighboring IRWM regions and that share many common water supply sources and groundwater basin interconnections.

Although the Putah and Cache Creek watersheds are the basis for the Region boundaries, the Region also accounts for the following boundaries and includes the following features:

- Political/jurisdictional boundaries: the entirety of Yolo County and portions of Colusa, Lake, Napa, and Solano Counties;
- Surface water bodies: Clear Lake, Lake Berryessa, and Indian Valley Reservoir; and
- Major water-related infrastructure: Monticello Dam, Indian Valley Dam, Cache Creek Dam, and Capay Diversion Dam.

The Region encompasses the service areas (or partial service areas) of multiple local agencies, including more than 90 entities with water and related resource management responsibilities.

1.1.4 Regional Water Management Group (RWMG)

As noted above, several agencies in the Region recognized the need for, and benefits of, more regional cooperation and planning. To represent the Region, four agencies and an association of agencies formed the RWMG through a *Memorandum of Understanding* (MOU) (see Appendix A). The RWMG includes Lake County Watershed Protection District (WPD), Napa County Flood Control and Water Conservation District (FC&WCD), Colusa County Resource Conservation District (RCD), Solano County Water Agency (SCWA), and Water Resource Association (WRA) of Yolo County. Therefore, the RWMG meets the definition of such an entity in California Water Code (CWC) Section 10539, which states, “RWMG means a group... [of] three or more local agencies, at least two of which have statutory authority over water supply or water management.”

As stated in the MOU, these agencies and association joined together to develop an IRWM Plan that will:

- Foster coordination, collaboration, and communication among entities responsible for

water-related issues and interested stakeholders to achieve greater efficiencies, provide for integration of projects, enhance public services, and build public support for vital projects; and

- Assist in the development of a comprehensive plan to facilitate regional cooperation in providing water-supply reliability, water recycling, water conservation, water-quality improvement, stormwater capture and management, flood management, wetlands enhancement and creation, and environmental and habitat protection and improvements, and other elements and to obtain funding for plan development.

The Westside RWMG submitted a Region Acceptance Process (RAP) application in 2009 for the Westside Sub-Region of the Proposition 84 Sacramento River Funding Area. Following acceptance of the Region through the RAP process by the DWR, the RWMG began developing the IRWM Plan, using a stakeholder-driven process. The authorities and related planning efforts of each of the entities comprising the RWMG are discussed below.

1.1.4.1 Lake County Watershed Protection District

The Lake County WPD has limited water quality, flood management, and water supply responsibilities. It is governed by the Lake County Board of Supervisors, which serves as its Board of Directors. In addition to participating in planning for the Westside IRWM Plan, the Lake County WPD has been coordinating the development of goals and objectives for the Lake County stakeholders for more than three years. It also has been interacting with other stakeholders and IRWM groups within the Sacramento River Funding Area.

As the County of Lake, the Lake County Board of Supervisors is also responsible for land use planning management of the bed of Clear Lake, municipal stormwater, implementation of the two Clear Lake total maximum daily loads (TMDLs), and recreational planning and maintenance, and it oversees numerous water supplies and wastewater districts. The Lake County WPD coordinates activities with the appropriate agencies within the County of Lake.

1.1.4.2 Napa County Flood Control and Water Conservation District

Napa County FC&WCD maintains a contract to receive a limited amount of surface water supply from Lake Berryessa with the U.S. Bureau of Reclamation (USBR). The contract serves several small developments along the edge of Lake Berryessa. Napa County also manages and operates the water and wastewater systems of two small communities in the Lake Berryessa area: the Lake Berryessa Resort Improvement District (LBRID) and the Napa Berryessa Resort Improvement District (NBRID).

In addition to participating in the present Westside IRWM planning, FC&WCD staff has been attending Sacramento River funding area meetings. In 2007, an informal Napa County IRWM Plan working group was formed and has since met monthly to discuss Napa County's IRWM Plan participation. The group consists of Napa County Public Works, Napa County Department of Planning, Conservation and Development, Napa County FC&WCD, the Napa County Resource Conservation District (RCD), and the City of Napa. The other cities in Napa County and the Napa Sanitation District interact through the county Water Technical Group, which also meets monthly.

1.1.4.3 Colusa County Resource Conservation District

The Colusa County RCD has an interest in water resources projects planning and funding in the Bear Creek watershed, a tributary to Cache Creek. It often coordinates watershed management responsibilities with neighboring agencies in the Region.

Along with participating in the present Westside IRWM planning for the portion of the Bear Creek watershed contained in Colusa County, the RCD works with the North Sacramento Valley RWMG (Colusa, Glenn, Butte, Shasta, Sutter, and Tehama Counties) to develop an IRWM Plan for the majority of Colusa County, which is outside the Bear Creek/Cache Creek watershed.

1.1.4.4 Solano County Water Agency

The SCWA provides untreated water to cities and agricultural districts in Solano County from the Federal Solano Project (i.e., Lake Berryessa and Monticello Dam) and the North Bay Aqueduct of the SWP. The SCWA also has a flood management function.

Along with participating in Westside IRWM planning, the SCWA has been active in the Sacramento Valley IRWM process and is involved in the ongoing San Francisco Bay Area IRWM Plan update.

1.1.4.5 Water Resources Association of Yolo County

The WRA of Yolo County is a non-profit organization composed of agencies with water management responsibilities, including four municipal water agencies, two reclamation districts, and two irrigation districts, as well as UC Davis and Yolo County. Its members are:

- City of Davis,
- City of West Sacramento,
- City of Winters,
- City of Woodland,
- Colusa County Water District,
- County of Yolo,
- Dunnigan Water District,
- Reclamation District 108,
- Reclamation District 2035,
- University of California at Davis, and
- Yolo County Flood Control and Water Conservation District.

In July 2007, the WRA of Yolo County and each of its member agencies approved and adopted the *Yolo County IRWM Plan* (WRA of Yolo County 2007), a successful water planning document presently used in Yolo County. The WRA was the lead agency in Yolo County conducting public workshops, coordinating member agencies, and assembling the *Yolo County IRWM Plan*. Yolo County also was included in the Sacramento Valley IRWM Plan for projects related to the Sacramento River.

1.1.5 Coordinating Committee

The Regional Coordinating Committee (CC) consists of one staff representative and an alternate appointed from each of the agencies and associations that comprise the RWMG. The committee was officially formed on March 1, 2012, through a charter signed by each member of the RWMG (see Appendix A). The CC’s overall function is to oversee the preparation of the Westside IRWM

Plan through its adoption, including identifying proposed Plan goals and objectives, proposing a process for prioritizing projects, developing drafts of the IRWM Plan, hiring and managing consultants, and administering grant funds.

The charter outlines the goals and responsibilities of the CC and establishes shared principles for Plan development. It also includes agreements to develop the IRWM Plan in an open and transparent process, encourage the participation and input of stakeholders, and support a decision-making process led by broad public agreement wherever possible.

1.1.6 Existing IRWM Plans and Previous Planning Efforts

Development of the Westside IRWM Plan benefited considerably from previous plans and documents written for portions of the Region. While many other documents were consulted during development of this Plan, the following documents specifically relate to integrated resources management within the Region:

1. *Yolo County IRWM Plan* (WRA of Yolo County 2007);
2. *Solano Agencies IRWM Plan* (SCWA and Solano Agencies 2005);
3. *Clear Lake Integrated Watershed Management Plan* (County of Lake Department of Public Works 2010); and
4. *Napa County IRWM Plan Integrated Resources Water Management Planning Framework* (Napa County FC&WCD, 2011) (IRWM Plan Functional Equivalent [Napa County FC&WCD, 2005]).

The Bear Creek watershed portion of Colusa County (tributary to Cache Creek) has not been included in any IRWM Plan previously, but now is addressed in the Westside IRWM Plan.

The background for and description of these plans, previous planning efforts, and their integration into the Westside IRWM are described in this subsection. The Westside IRWM Plan includes key information from these documents, builds on these previous IRWM planning efforts, and supersedes the actions laid out in previous IRWM plans.

Yolo County IRWM Plan

The WRA of Yolo County adopted the Yolo County IRWM Plan in 2007, defining the IRWM Plan region as within the Yolo County boundaries. This decision was made with the understanding that detailed formulation and implementation of projects may involve member agencies working in partnership with agencies from other neighboring regions. The preparation of the Westside IRWM Plan has facilitated identification of partnership opportunities with implementation of the Yolo IRWM and coordinated project development.

Solano Agencies IRWM Plan

The SCWA adopted the Solano Agencies IRWM Plan in 2005, using the Solano County boundaries, while simultaneously participating in the Bay Area IRWM Plan. Because SCWA understands that the State prefers larger, watershed-based regions, SCWA chose not to update its IRWM Plan and instead became part of the Westside RWMG to address the eastern portion of Solano County located in the Putah Creek watershed.

Clear Lake Integrated Watershed Management Plan

Lake County water managers recognized the benefits of the IRWM program early on. In 2005, Lake County staff began the process of developing an IRWM Plan at the county level. Starting in May 2007, the County held public meetings and established strong stakeholder participation for preparation of an integrated document. In addition, Lake County WPD worked with the Yolo County FC&WCD to address Clear Lake issues and to identify projects of mutual benefit, with a focus on the Cache Creek watershed. Lake County staff also attended several of the Yolo County IRWM planning meetings during development of the 2007 Yolo County IRWM Plan.

Before the County completed development of a county-based IRWM Plan, the State indicated that it prefers larger, watershed-based regions. Therefore, Lake County chose to participate in the Westside IRWM Plan development instead of proceeding with its local plan, and the portions of Lake County located in the Cache and Putah Creek watersheds are addressed within the Westside IRWM Plan.

Napa County IRWM Plan Integrated Resources Water Management Planning Framework and IRWM Plan Functional Equivalent

Napa County did not have an adopted IRWM Plan in 2005, when Round 1 grant opportunities for Proposition 50 became available. Therefore, Napa County decided to form the Napa County RWMG, a working group of local water agencies, with the Flood Control District as the lead agency. The group worked together to draft the Napa County IRWM Plan Functional Equivalent, dated June 2005. This functional equivalent was used to identify local projects under the Proposition 50 Round 1 grant cycle. Napa County projects did not receive any funding under this grant cycle because DWR stated that Napa County's plan lacked sufficient regional focus.

Napa County includes watersheds that are part of other established IRWM planning regions. Therefore, Napa County is now participating in the Bay Area RWMG for the Napa River watershed and in the Westside RWMG efforts for the Putah Creek watershed. Furthermore, Napa County embarked on a County IRWM Plan Integrated Resources Water Management Planning Framework (IRWMPF) in 2011, coordinated by the Watershed Information Center and Conservancy of Napa County (WICC). The WICC Board serves as an advisory board to the Napa County Board of Supervisors. The Napa County FC&WCD Board of Directors governs the Napa County IRWMPF with assistance from several advisory committees.

1.2 Stakeholder Involvement

This section describes the stakeholder involvement and public outreach processes employed during Westside IRWM Plan development.

1.2.1 Overview of Stakeholder Involvement Process

The RWMG acknowledged that agencies and planning jurisdictions must work closely together to foster the delivery of clean, reliably available water, improve protection of people and structures from flood damage, and protect aquatic species and riparian habitats throughout the Region. The planning process used to develop this IRWM Plan included extensive stakeholder engagement to help ensure that the Plan reflects the water-related needs of the entire Region, promotes the formation of regional partnerships, and encourages increased coordination with state and federal agencies.

The term “stakeholder” refers to representatives of agencies, nonprofit groups, nongovernmental organizations, government organizations, and private citizens who were interested in or could be affected by the development of the IRWM Plan.

One of the benefits of this collaborative approach to planning is that it brought together representatives of a broad array of groups to discuss and better understand shared needs and opportunities. The members of the RWMG and other stakeholders participated in stakeholder input meetings, reviewed meeting materials that included draft IRWM Plan sections, and provided collaborative input to shape this IRWM Plan throughout the planning process. In addition, stakeholders had a variety of opportunities to discover and establish mutually beneficial partnerships through participation in meetings and conversations.

The CC convened via conference call at least once before each stakeholder meeting to review and discuss the meeting agenda and materials before posting them on the web. Table 1-1 summarizes the CC and stakeholder input meetings held during the IRWM Plan development process. Stakeholder meetings were held every one to four months, with a total of 10 meetings. Some topics were discussed in meetings held at two different locations to provide ample opportunity for participation. Some meetings were webcast to allow remote participation. Open to the public and all other interested parties, all stakeholder meetings were announced ahead of time. Copies of meeting agendas, meeting summaries, presentations and handouts, and lists of meeting attendees are available on the project website (www.westsideirwm.com).

Table 1-1: Summary of IRWM Coordinating Committee and Stakeholder Input Meetings

Meeting No. and Type	Date	Location(s)	Key Topics	No. of Attendees
1 Stakeholder	10/31/2011	Vacaville	Discuss team charter, planning goals, plan development process	11
2 Stakeholder	11/28/2011	Vacaville	Review plan scope and goals, discuss engagement plan, review team charter	13
3 Stakeholder	1/25/2012, 2/1/2012, 2/6/2012	Vacaville, Woodland, Clearlake	Kick-off project, discuss plan development process, scope, goals, objectives	63
4 Stakeholder	4/23/2012, 4/24/2012	Woodland, Clearlake	Review current and future conditions, discuss water balance, refine planning goals, review challenges and opportunities, discuss plan goals and objectives	26
5 Stakeholder	6/4/2012	Vacaville & webcast	Call for projects, review region description, refine plan goals and objectives	18 – in person and 22 – separate webcast connections
6 Stakeholder	7/9/2012	Woodland & webcast	Discuss integration and approach for project screening and prioritization, discuss public outreach, refine plan goals and objectives, present plan development status	29
7 Stakeholder	9/17/2012, 9/20/2012	Vacaville, Clearlake	Evaluate, screen, and prioritize integrated projects, refine plan goals and objectives, present draft plan sections	36

Meeting No. and Type	Date	Location(s)	Key Topics	No. of Attendees
1 CC	10/15/2012	Vacaville	Review and finalize plan goals and objectives, discuss and agree upon approach to project selection and prioritization, discuss ideas for governance, discuss draft prioritized climate change vulnerabilities	8
2 CC	11/7/2012	Woodland	Discuss proposed governance, discuss round 2 implementation grant application, finalize plan goals and objectives and prioritize objectives, discuss approach for project selection and prioritization, and draft prioritized climate change vulnerabilities	10
3 CC	12/4/2012	Vacaville	Discuss proposed governance revised text, review project lists and prioritization, discuss questions on draft water balance and Section 3	9
8 Stakeholder	12/13/2012, 12/18/2012	Woodland, Clearlake	Present final draft goals and objectives, refine projects, develop recommendations, revisit governance, and introduce plan sections available for review	27
4 CC	1/28/2013	Vacaville	Review refined governance, discuss crafting of plan recommendations, discuss definition of plan performance monitoring and data management, review financing of plan update/implementation	7
9 Stakeholder	2/14/13	Clearlake & webcast	Give update on IRWM plan preparation, discuss refined governance, discuss draft plan recommendations, discuss plan performance monitoring and data management, discuss approach to financing plan update and plan implementation	16
5 CC	3/26/2013	Vacaville	Discuss schedule for plan completion, prepare for plan implementation, consider data management system options	5
10 Stakeholder	5/21/13	Vacaville & webcast	Present draft of entire plan for public review	21

The Westside IRWM Plan benefited from the input of many interested agencies, organizations, and individuals beyond those on the CC, including the active participation of 69 individuals out of the 700 entries on the Region's public outreach email list. The individuals and organizations who participated are listed in Appendix B. Representatives from 39 agencies and organizations interested in improving water supply reliability, water quality, water conservation, flood management, natural habitat, and land-use planning within the Region participated in one or more meetings. This broad participation resulted in collaboration among an extensive mix of cities as well as regulatory, environmental,

agricultural, and land-use planning organizations that represent the entire Region.

All stakeholders were invited to participate in the collaborative IRWM Plan development process, regardless of whether they represented an agency or had contributed funds to develop the plan. Furthermore, individuals from disadvantaged, small, and rural communities, tribal communities, and other interested groups were frequently encouraged to participate and were provided information about the IRWM Plan development efforts through a variety of targeted outreach efforts.

1.2.2 Stakeholders and Plan Participants

As noted earlier, the RWMG communicated regularly to more than 700 people on its public outreach email list, including citizens and representatives of:

- Municipal and county governments;
- Wholesale and retail water purveyors, wastewater agencies, flood management agencies, and similar special districts;
- State and federal regulatory and resource agencies;
- The environmental community; and
- The tribal communities.

1.2.2.1 Municipal and County Governments

Representatives of municipal and county governments participating in the IRWM Plan process included local jurisdictions and land use planning agencies. They were involved in the identification of challenges and opportunities, formation of objectives, and development of projects for the Plan. Participants included the representatives of the Cities of Clearlake, Davis, Dixon, Vacaville, Winters, and Woodland and the Counties of Colusa, Lake, Napa, Solano, and Yolo.

1.2.2.2 Wholesale and Retail Water Purveyors, Wastewater Agencies, Flood Management Agencies, and Other Special Districts

Several organizations with a water management focus (including wholesale and retail water purveyors, wastewater agencies, flood management agencies, reclamation districts [RDs], and other special districts) participated throughout the planning process. Appendix B includes a list of the 100 organizations that focus on water or resource management within the Region and identifies the 17 organizations that participated in one or more stakeholder meetings.

The active participants helped develop all aspects of this IRWM Plan. Their participation focused particularly on the water supply, water quality, flood management, and resource management concerns of the Region.

Water management organizations active in the planning process include the City of Davis, City of Vacaville, City of Woodland, Colusa County RCD, Dixon RCD, Dunnigan Water District, Eastlake and

Westlake RCD, Golden State Water Company, Lake County WPD, Napa County FC&WCD, Reclamation District 2068, SCWA, Solano RCD, WRA of Yolo County, Watershed Information Center and Conservancy of Napa County, Yolo County FC&WCD, and Yolo County RCD.

1.2.2.3 State and Federal Regulatory and Resource Agencies

Several state and federal regulatory and resource agencies helped in describing ongoing activities that require coordination with IRWM, identifying challenges and opportunities, shaping Plan objectives, and developing projects for the Plan. They provided an invaluable perspective and will likely support the effort to obtain regulatory and environmental approval for Plan actions during implementation.

State agencies participating in the planning process were DWR, including the DWR FloodSAFE Environmental Stewardship and Statewide Resource Office (FESSRO), and the Central Valley Regional Water Quality Control Board (RWQCB). Federal agencies such as the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and USBR provided information for the Plan, along with the U.S. Forest Service and Bureau of Land Management, which manage a large portion of the lands in the Upper Cache Creek.

1.2.2.4 Environmental Community

Representatives who focus on improving ecosystem health helped incorporate meaningful objectives and projects for conservation and protection of the natural resources and habitat within the Region. The environmental organizations involved in the planning process include the Putah Creek Council, Cache Creek Conservancy, Tuleyome, Inc., Sierra Club-Lake Group, and Upper Putah Creek Stewardship. Several private citizens interested in the environmental aspects of the IRWM Plan also participated.

1.2.2.5 Tribal Communities

Several tribal communities were represented throughout the planning process. (Outreach to tribal communities is also discussed in Section 1.2.3.3.) The tribal communities involved in planning included Big Valley Band of Pomo, Yocha Dehe Wintun Nation, Scotts Valley Band of Pomo, Cortina Band of

Winton, Robinson Rancheria of Pomo, and the Suscol Intertribal Council.

1.2.2.6 Others

Other entities involved in the Westside IRWM Planning process were representatives from FloodSAFE Yolo, League of Women Voters of Woodland, Luhdorff & Scalmanini Consulting Engineers, West Yost Associates, Essential Public Information Center, and KPFZ Radio. Agricultural and farm industry involvement came from individual CC members that deliver water to agricultural users, including Reclamation District 2068 and the Colusa County Agricultural Department. Several private citizens interested in water management also participated.

1.2.3 Public Outreach Process

Public outreach to a wide variety of stakeholders was a key component of efforts to create a successful IRWM Plan. Outreach built upon previous public outreach efforts for the county-based IRWM Plans adopted by Yolo and Solano Counties, as well as on input from Napa and Lake Counties, to yield a master list of more than 700 individuals, agencies, and organizations to contact.



Westside IRWM Stakeholder Meeting

1.2.3.1 Inclusive Planning Area Outreach

This IRWM Plan development included evaluating and addressing regional issues while recognizing local interests. To help accomplish this, stakeholder input was sought through outreach and then incorporated.

The general approach to outreach during this planning process had three key elements:

1. Identify stakeholders including disadvantaged communities and tribes;
2. Rotate meeting places to different locations within the Region to facilitate participation; and
3. Provide multiple opportunities and methods for participation and communication.

As discussed previously in Section 1.2, meetings were the main way that stakeholder input was sought and communicated during the planning process. Attendees were invited to participate through facilitated discussions and review of draft documents. The meetings and additional opportunities to review and comment on draft documents were announced to a broad distribution list via email and mailed invitations. Meeting materials were made available on the website one week before each stakeholder meeting. All meetings were open to the public, and some were webcast and recorded to facilitate participation.

Public outreach activities throughout the IRWM Plan process are described below:

- **Review of Plan Sections** – The sections of the IRWM were drafted incrementally and provided to stakeholders at multiple points for review and input. The content in draft sections was discussed with stakeholders and refined until there was broad agreement about it.
- **Stakeholder Meetings** – Ten stakeholder meetings were held throughout the IRWM process. These meetings were occasions for various participants to provide background on the planning process, identify challenges and opportunities within the Region, draft and discuss plan goals and objectives, consider opportunities for coordination among local and regional agencies, present plan sections and give and receive comments on them, identify and prioritize projects, and cover other topics included in the IRWM Plan. Some meetings were conducted at multiple locations to allow for involvement of a larger stakeholder group, in which case the content remained the same at each meeting location. Meeting 3 was conducted at Woodland, Vacaville, and Clearlake; Meeting 4 was conducted at Woodland and Clearlake, Meeting 7 was

conducted at Vacaville and Clearlake, and Meeting 8 was held at Woodland and Clearlake. The topics discussed during the stakeholder meetings are summarized in Appendix B.

- **Webcast** – Because not all of the meetings were conducted in areas within a short driving distance from each planning area, all stakeholder meetings held at a single location after Meeting 4 were webcast to enable inclusion of stakeholders who could not attend the meeting in person. To allow for interaction throughout the meeting, comments could be submitted via email during the meeting. The webcasts also were recorded for viewing and posted to the project website.
- **Project Website** – The Westside IRWM website (<http://www.westsideirwm.com>) was developed to inform stakeholders about the IRWM planning process and to make IRWM documents and handouts publically available. As noted previously, handouts were posted one week before each meeting, along with additional information, including general information on the IRWM Plan purpose and online resources, such as existing planning documents within the Region.
- **Electronic and Written Communications** – Email was the main tool used to communicate with and engage stakeholders. The email list, which contained approximately 700 entries, was used to invite participation at the meetings as well as to notify stakeholders that materials were available for review.
- **eNews** – A link to sign up for Westside eNews is available on the Westside IRWM website. This newsletter gave important updates on the IRWM planning process as well as information on upcoming stakeholder meetings.
- **Contact Information** – Email addresses and phone numbers of the IRWM planning coordinators were made available to any stakeholder or interested party to ask questions or offer comments about the IRWM Plan.
- **Notice of Intent** – A notice was published in four local newspapers describing the RWMG’s intent to prepare an IRWM Plan. A second notice will also be published describing the RWMG’s intent to adopt the Plan. These are available in Appendix B.

1.2.3.2 Disadvantaged Community Outreach

Outreach included special efforts to connect with the Region’s disadvantaged communities (DAC), defined as a community with a median household income (MHI) of less than 80% of the statewide MHI (Proposition 84 guidelines). A number of areas throughout the Region are considered DACs. These communities are primarily located around the Clear Lake area, with other areas located in central and northern Yolo County as well as in the Middletown area of Lake County. Section 2.4 gives additional information on DACs.

Informational invitations were sent or emailed to water agencies servicing known DACs within the Region, inviting them to stakeholder meetings and soliciting their input to the Plan and Plan projects. Additional information targeting DACs included mailers and focused meetings to engage DACs as well as coordination with agencies such as the Rural Community Assistance Corporation (RCAC), which provides technical assistance to rural and DAC areas.

Although no organizations specifically addressing environmental justice (EJ) concerns have been identified in the Region, conversations regarding the challenges and opportunities of the Region (and especially conversations with representatives of DACs and tribes) were structured to identify and include EJ concerns.

1.2.3.3 Tribal Outreach

Consistent with the 2009 *Update to the California Water Plan*, the Westside RWMG has used the term “California Native American Tribe” to signify all indigenous communities of California, including those that are non-federally recognized and federally recognized. The RAP identified the following tribes within the Westside Region:

- Yocha Dehe Wintun Nation (Yolo County)
- Big Valley Band of Pomo Indians (Lake County)
- Scotts Valley Band of Pomo Indians (Lake County)
- Habematolel Pomo of Upper Lake (Lake County)
- Robinson Rancheria of Pomo Indians (Lake County)
- Elem Indian Colony of Pomo Indians (Lake County)
- Middletown Rancheria of Pomo Indians (Lake County)

The Project Team sought input and participation from the tribes throughout the IRWM planning process. Emails, flyers, and focused meetings were

used to inform the tribes about the Plan process and to explore their goals and challenges related to water planning, quality, and sustainability. In addition, tribal cultural values pertaining to aquatic and riparian habitats were discussed and are documented in the IRWM Plan.

The WRA of Yolo County already coordinates with the Yocha Dehe Wintun Nation on water-related data collection efforts, and Lake County has regular contact with many of the environmental coordinators for tribes in Lake County. Lake County engages regularly with all of the tribal environmental directors in watershed-related venues such as the Clear Lake Advisory Committee and TMDL stakeholder meetings. Collaboration with tribes is most active in native fish restoration projects, Clear Lake issues and management, invasive species council and task force, TMDL plans and implementation, sustainable agricultural practices, mercury clean-up and restoration, and habitat protection and enhancement. Additional contact during the IRWM planning process included attendance of representatives from the Big Valley Band of Pomo, Yocha Dehe Wintun Nation, Robinson Rancheria, and Scotts Valley Band of Pomo at stakeholder input meetings as well as at tribal outreach meetings. All of these activities resulted in tribal input throughout the IRWM Plan preparation process.

1.2.3.4 Media Coverage of Plan Preparation

Media coverage of plan preparation included the attendance of a representative from KPFZ radio and publication of notices of IRWM Plan preparation in four newspapers in the Region.

1.2.4 Interregional Coordination

Coordination with neighboring IRWM regions was viewed as essential to the development of the Plan, since several of the water management challenges and opportunities involve or affect places outside of the Westside regional boundaries. The Westside Region is bordered by the Northern Sacramento Valley (NSV) Region to the north, the American River Basin Region to the east, the San Francisco Bay Area Region to the southwest, and the North Coast Region to the west and north. The East Contra Costa County Region and the Eastern San Joaquin Region are located to the south and southeast of the Westside Region, respectively, but do not directly border the Westside Region. The neighboring regions are

illustrated in Figure 1-2. Interregional Coordination is discussed further in Section 10 with regard to specific opportunities between regions.

The NSV Region includes six counties: Butte, Colusa, Glenn, Shasta, Sutter, and Tehama. The NSV Region is closely linked to the Westside Region through the Sacramento River watershed.

The American River Basin Region comprises three counties: Sacramento, Placer, and El Dorado. The Woodland-Davis Clean Water Agency and the City of West Sacramento located within the Westside Region are both members of the Regional Water Authority, which is a joint powers authority formed in 2001 to promote collaboration on water management and water supply reliability programs in the greater Sacramento, Placer, and El Dorado County region, and that is part of the American River Basin Region. Also, the Valley Floor planning area of the Westside Region shares many of the characteristics and attributes of much of the western portion of the American River Basin Region.

The San Francisco Bay Area Region includes all or portions of nine counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. Because Napa and Solano Counties are divided between the Bay Area and Westside Regions, these two agencies participated in both IRWM Plan development efforts. Specifically, Solano County Water Agency and the City of Napa (a member agency of Napa County Flood Control and Water Conservation District) are part of the Bay Area Regional Water Management Group.

The North Coast Region includes all of the Counties of Del Norte, Humboldt, Mendocino, and Trinity, major portions of Siskiyou and Sonoma Counties, and small portions of Glenn, Lake, Marin, and Modoc Counties.

To help ensure effective interregional coordination, the CC designated members to track the plans and projects of each neighboring and overlapping Region. Examples of coordination efforts between the groups are participation in adjacent IRWM meetings, consultant-to-consultant outreach between regions, and review of draft IRWM Plan sections from adjacent regions. Table 1-2 lists the agencies/representatives in charge of managing coordination.

Table 1-2: Interregional Coordination Representatives

Westside RWMG Member Responsible for Coordination	Coordinating Individual	Neighboring IRWM Region
Colusa County Resource Conservation District	Patti Turner/RCD Staff	Northern Sacramento Valley
Water Resources Association of Yolo County	Jacques DeBra Tim O'Halloran	American River Basin Northern Sacramento Valley
Solano County Water Agency	Chris Lee	San Francisco Bay Area
Napa County Flood Control and Water Conservation District	Jeff Sharp	San Francisco Bay Area
Lake County Watershed Protection District	Gary Hansen or Tom Smythe	North Coast

- The Plan development process will help improve understanding of water management activities that can be better accomplished collectively rather than individually.
- The Plan will provide a useful foundation for ongoing regional water resources efforts and support meaningful integration with and enhancement of County-based IRWMs and other sub-regional planning efforts.
- The Plan will comply with applicable state requirements (Proposition 84) and the legislative intent of the California Water Code. Also, the Plan will be consistent with the statewide California Water Plan.
- The Plan will be maintained as a living document under a governance structure that supports periodic updates in response to changing conditions. Plan updates will be completed as needed to benefit the Region and better position and prepare for implementation grant funding opportunities.
- The Plan will be prepared so as to provide compelling information that supports future efforts to secure available grant funding, including IRWM Implementation Grants.
- The Plan will be written and formatted to be engaging, clear, informative, and compelling.
- Existing data from County-based IRWM plans and other information relevant to the Region will be used where appropriate to develop the Plan.
- The Plan will be developed in a manner that encourages public participation in, and broad support of, the development process and the final plan content.

1.3 Plan Development

This subsection gives a brief overview of the process of developing this IRWM Plan.

1.3.1 Goals for the IRWM Planning Process

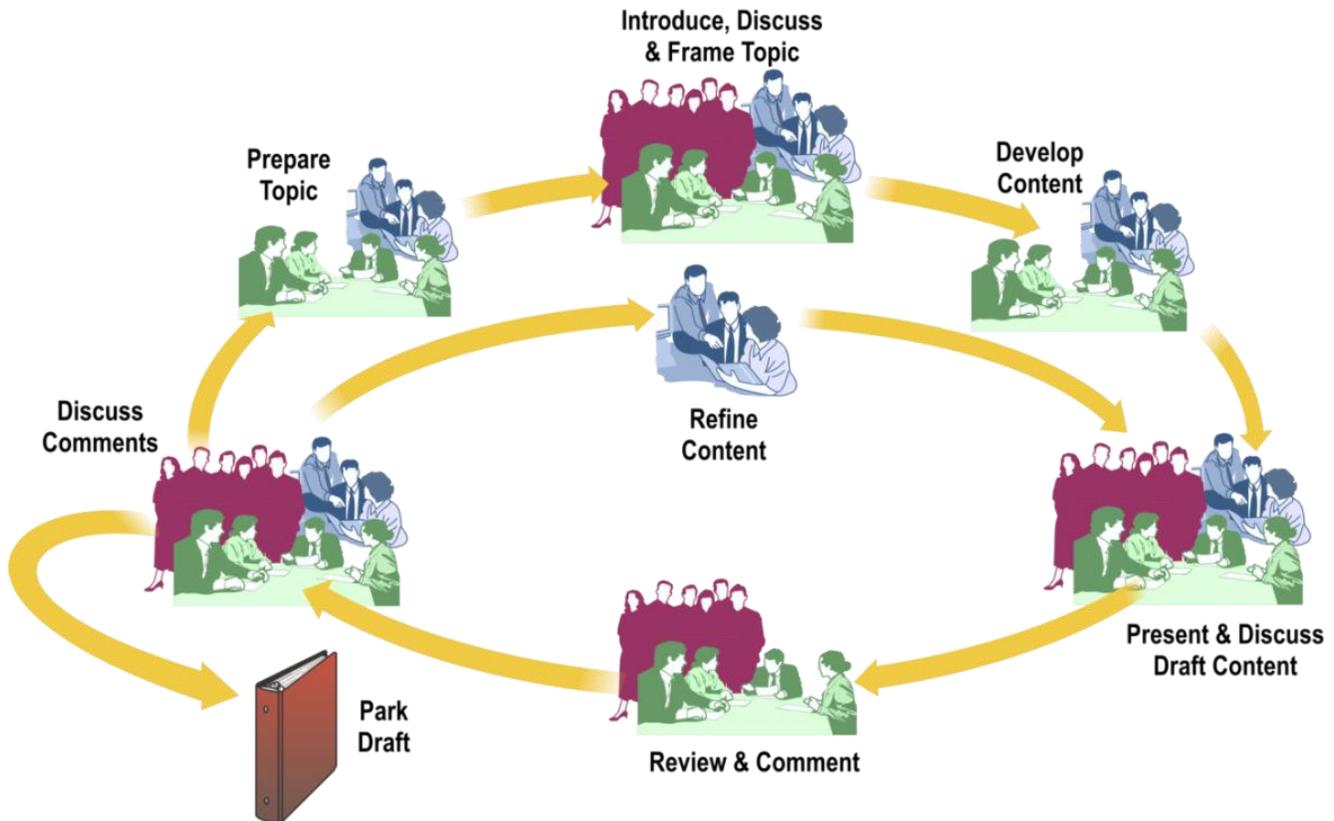
To gain a common framework to guide development of the Plan and clarify its overall intent, the Project Team developed the following goals for the planning process:

- The Plan will help foster a better understanding of the Region’s water resource challenges, needs, and opportunities through careful consideration of relevant watershed issues.
- The Plan development process will foster collaboration among agencies and stakeholders and will lead to development of effective strategies to address challenges, take advantage of opportunities, prioritize objectives and projects, and strengthen relationships between affected parties.

1.3.2 Plan Development Process

1.3.2.1 Overview

The IRWM Plan development process was organized around the stakeholder input meetings, as described in Section 1.2.2. A set of Topics for Engagement, discussed in Section 1.3.2.2, was identified at the beginning of the process and scheduled for discussion at specific times during the stakeholder



and public outreach process. The Project Team introduced these topics, and introduced and discussed draft plan sections addressing the topics, at the meetings. The Project Team also invited stakeholders to review plan sections and submit written comments after the meetings. The graphic below illustrates this interactive and iterative planning process.

1.3.2.2 Topics for Engagement

The Project Team developed the following list of topics to be discussed in a logical sequence. The list includes all of the content necessary to develop an IRWM Plan consistent with DWR’s published standards for IRWM Plans (see *Proposition 84 and Proposition 1E Integrated Regional Water Management Grant Program Guidelines*, August 2010), including Table 2 in these DWR guidelines, which lists 16 standards that must be covered in the IRWM Plan.

- Topic 1: Team Charter
- Topic 2: Plan Development Process
- Topic 3: Plan Scope
- Topic 4: Current Conditions
- Topic 5: Future Conditions
- Topic 6: Challenges and Opportunities

- Topic 7: Potential Projects
- Topic 8: Integration
- Topic 9: Benefits and Impacts
- Topic 10: Project Selection and Priority
- Topic 11: Plan Recommendations
- Topic 12: Governance
- Topic 13: Finance
- Topic 14: Plan Performance and Monitoring

See Appendix B for more detail on each topic.

1.3.2.3 Plan Section Development and Refinement

The Project Team presented information related to each of the Topics for Engagement and facilitated collaborative discussions during stakeholder input meetings. Content for most of the topics was discussed in more than one stakeholder input meeting. The Project Team then prepared the draft IRWM Plan content based on the discussion of each topic, posting the content for public review and comment throughout the planning process. The Project Team revised draft content as needed on the basis of comments by the stakeholders, offering the revised content for review and comment until it was broadly accepted by the stakeholder group. At the

end of the planning process, the Project Team combined and refined the agreed-upon content into this IRWM Plan for final public review and member agency adoption.

1.3.3 Subcommittees

The CC decided to form one ad hoc subcommittee during the course of plan development: the Water Balance Subcommittee. The Project Team assembled the Water Balance Subcommittee to discuss the topic and details of crafting a quantitative water balance for the Region. The Consultant Team engaged with the Water Balance Subcommittee to discuss detailed content with people interested and knowledgeable about that content while continuing to expedite overall IRWM Plan development during stakeholder input meetings.

1.4 Plan Organization

The Project Team fashioned this Westside IRWM Plan as a narrative, telling the story of the challenges and opportunities of the Region and how those challenges and opportunities informed the Plan goals and objectives, projects, and recommendations.

Also, the Plan includes all of the elements required by the IRWM Guidelines issued by DWR. Table 1-3 below describes each of the DWR required elements is presented in the Westside IRWM Plan.

Table 1-3: IRWM Plan Required Elements

Proposition 84/1E IRWM Standard	IRWM Plan Reference/Section
A. Governance	1, 11
B. Region Description	1, 2, 3, 5
C. Objectives	6
D. Resource Management Strategies (RMS)	7
E. Integration	8
F. Project Review Process	8
G. Impact and Benefit	9
H. Plan Performance and Monitoring	11
I. Data Management	11
J. Finance	11
K. Technical Analysis	14
L. Relation to Local Water Planning	2, 4
M. Relation to Local Land Use Planning	2, 4
N. Stakeholder Involvement	1
O. Coordination	1, 10
P. Climate Change	2, 3, 4, 5, 6, 8

1.5 Plan Adoption

The IRWM Plan is recommended to be adopted by all participants in the planning process, including each of the governing boards of the RWMG. It is currently anticipated that the Plan adoption will begin once the final IRWM Plan has been released in July 2013. Additional information regarding the Plan adoption process and recommendations is provided in Section 11 – Plan Implementation Framework.

