

10 April 2013

## DRAFT Technical Memorandum

To: Westside Sacramento IRWM Plan Participants

From: Westside Sacramento IRWM Consultant Team

Subject: Westside Sacramento IRWM Plan  
Information Needs, Potential Sources, and Suggested Implementation Steps for  
Tracking Progress on Plan Objectives  
K/J 1170019.00

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This Technical Memorandum has been prepared to identify information needs and potential information sources for tracking progress on the Westside Integrated Regional Water Management Plan (IRWM Plan) Objectives. This document is intended to provide a starting point for discussions amongst the Regional Water Management Group (RWMG) as plan implementation proceeds. This Technical Memorandum fulfills the scope of work associated with Task 2.1 of the Grant Agreement No. 4600009398 between the California Department of Water Resources and Yolo County Flood Control and Water Conservation District for preparation of the Westside IRWM Plan.

Attachment 1 of this TM provides a summary table of the 24 IRWM Plan objectives, targets and performance measures that were developed in a collaborative process with interested stakeholders and the RWMG. The table also includes a summary of some of the information needed to fully understand and monitor completion or progress towards implementation of each objective. A summary list of the 49 information needs identified in the table is also provided below by each focus area.

Attachment 2 of this TM provides an expanded version of the plan objectives presented in the Draft Section 6 – Goals and Objectives of the Westside IRWM Plan. A list of data sources and key information that will provide a starting point for developing a better understanding of each objective has been included. This is a working list and is expected to be expanded, refined, and updated based on feedback received from plan development participants.

The provided data sources were developed using background documents referenced during preparation of the IRWM Plan and was expanded with input from various RWMG members. Attachment 3 provides a summary of individuals who provided input for development of this TM by plan objective. It is recognized that there are vast amounts of data sources available for each objective and further research or contact with individuals will unveil additional sources; however this document is intended to serve as a guide and is not all inclusive.

Attachment 2 also includes a list of “suggested implementation steps” for each objective that the RWMG can use to initiate activities that will be needed to track objective progress. One approach for monitoring objectives could include the formation of several workgroups or sub-committees that would be responsible for refining and clarifying performance measures, coordinating actions, monitoring, and reporting on progress for specific Plan objectives. Additional description of implementation, plan performance, and monitoring activities can be found in Section 10 – Plan Implementation Framework.

## Summary of Potential Objective Information Needs

### **Education and Awareness Focus**

1. Total estimated number of students in Region by grade level.
2. Total estimated number of schools in Region by type and location.
3. Availability of benchmarked existing outreach efforts to schools and students by the various sources.
4. Confirm existence of programs in areas of the Region where no sources found.
5. Availability of benchmarked current public communications in the Region through various sources including outreach events, materials, and publications disseminated.

### **Habitat Focus**

1. Compilation of goals and targets from final adopted conservation planning documents.
2. Confirm existence or need for specific habitat planning document in upper Cache and upper Putah creek watersheds.
3. Availability of compiled and benchmarked program implementation and timing information to be able to determine to what extent the IRWM program will support goals established in Natural Communities Conservation Plans (NCCP)/Habitat Conservation Plans (HCP).
4. Documented research and GIS mapping identifying suitable life-cycle habitat for targeted species.
5. Prepare summary of findings in study for further implementation of Objective Nos. 5 and 6 as listed in Attachment 1 – Table Summary Objectives Information Needs.

### **Invasives Focus**

1. Documentation of an active regional, coordinated invasive aquatic invertebrates management and monitoring program.
2. Select targeted invasive species (e.g., tamarisk, arrundo, etc.).
3. Consistent geographic and species coverage in planning documents throughout Region.
4. Understanding of existing invasives management activities.

5. Description and synthesis of existing invasives management activities.
6. Existence of invasive plant management plan.

### **Infrastructure Focus**

1. Define what is key water management infrastructure (e.g., water supply, distribution, treatment, wastewater, flood management).
2. Select key metrics from International Infrastructure Management Manual (IIMM).
3. Synthesis of existing infrastructure plans including geographic coverage that match the criteria for key water management infrastructure.

### **Reasonable Use Focus**

1. 2015 interim GPCD target for City of Rio Vista.
2. Annual progress and 2015 UWMP updates to measure performance.
3. Number of Ag water suppliers complying with Act in the Region; availability of Agricultural Water Management Plans for review.
4. Number and type of Agricultural Best Management Practices (BMPs) and Efficient Water Management Practices (EWMPs) currently implemented by suppliers in the Region.

### **Recreation Focus**

1. Estimated usage at non-fee facilities/water bodies.
2. Existence of compiled estimates of recreation usage throughout the Region.
3. List of recreation areas to be tracked in the Region.
4. Summary of recreation-related maintenance activities throughout the Region.

### **Risk Management Focus**

1. Identify current and targeted levels of flood protection deemed appropriate in the Region.
2. GIS mapping coverage showing current and desired levels of flood protection.
3. Define "large erosion event" and criteria that will be used to identify such an event.

4. Documentation of preventative measures, programs, and activities currently undertaken throughout the Region.
5. Quantify number of acres burned in the Region

### **Understand Watershed Function Focus**

1. Identify which programs to monitor and existence of current representatives in the Region that monitor such programs.
2. Define “active participation.”
3. Selection of targeted basins for groundwater monitoring and key criteria for monitoring groundwater levels and quality.
4. Determination of key locations for monitoring groundwater levels and constituents to be monitored.
5. Establish desired parameters, topics, and information related to natural resources that is to be shared throughout the Region.

### **Water Quality Focus**

1. Understanding and benchmarking of existing stormwater permit compliance challenges, if any.
2. Determination of activities Regional stakeholders can participate in to help achieve Total Maximum Daily Load (TMDL) targets.
3. Compilation of annual number/quantity of spills for wastewater agencies for the Region.
4. Agencies that do not report to the California Integrated Water Quality System (CIWQS).
5. Identify contaminants of concern in drinking water sources to be monitored.
6. Understanding of drinking water sources that have present challenges meeting drinking water quality standards.
7. Track projects implemented by water suppliers to improve or provide treatment of contaminants.
8. Inventory of all water and wastewater entities in the Region.
9. Determine agencies that are not in compliance with water and/or wastewater standards.

## **Water Supply Focus**

1. Survey all Municipal and Industrial (M&I) water suppliers to determine existence of drought ordinances, stipulations, and number of days ordinance is invoked each year.
2. Include consideration of available alternate water supplies for each agency.
3. Identify what measures will be used to track “robust agricultural industry” – suggest using multi-year moving average of economic production for Region.
4. Contracted/requested amount of water compared to delivered (SCWA and other water suppliers).

Attachments: 1 – Table Summary – Objectives Information Needs  
2 – Data Sources and Suggested Implementation Steps  
3 – Summary of RWMG Members Who Provided Information and Potential Sources  
by Plan Objective

# Attachment 1

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## Table Summary – Objectives Information Needs

No.	Plan Objectives (Importance, Urgency)	Quantitative/Quantitative Measurement	Target	Potential Information Needs	Approximate Completion Date
<b>Education and Awareness Focus</b>					
1	Provide/promote use of educational curricula for K-12 students <b>(Medium, Low)</b>	Quantitative - Availability of curricula suitable to each grade and student population.	Contact 50% of all schools in Region each year.	- total estimated number of students in Region by grade level - total estimated number of schools in Region by type and location	Annually, beginning July 2013
		Quantitative - Number of schools contacted each year.		- availability of benchmarked existing outreach efforts to schools and students by the various sources	
		Quantitative -Number of students who receive instruction.	Reach 30% of student population within the Region each year starting in 2014.	- confirm existence of programs in areas where no sources found	Annually, beginning July 2013
2	Provide educational information to encourage stewardship by public <b>(Medium, Low)</b>	Quantitative - Number of people who receive the educational materials/messages each year.	10% of population annually.	- availability of benchmarked current public communications through various sources including outreach events, materials, and publications disseminated	Annually, beginning 2014
<b>Habitat Focus</b>					
3	Restore native vegetation/form/function in riparian/aquatic corridors <b>(Medium, Medium)</b>	Quantitative - Acres restored along corridors, canals and ditches; Number of native plants planted; Improved connectivity of habitat corridors, etc.	Support goals established within NCCP's, HCP's, and other habitat planning documents for the Region.	- compilation of goals and targets from final adopted planning documents - confirm existence or need for specific habitat planning document in upper Cache and upper Putah creek watersheds - availability of compiled and benchmarked program implementation and timing information to be able to determine to what extent the IRWM program will support goals established in NCCPs/HCPs	Annually
4	Quantify extent of suitable life-cycle habitat for T/E/I native fish <b>(High, Medium)</b>	Quantitative - Existence of documentation of extent of suitable life-cycle habitat currently accessible to threatened, endangered, or imperiled (T/E/I) native fish within the Region.		- documented research and GIS mapping identifying suitable life-cycle habitat for targeted species - prepare summary of findings in study for further implementation of Objective Nos. 5 & 6	31-Dec-14
5	Prioritize/Plan/schedule improvements of life-cycle habitat for T/E/I native fish <b>(High, Medium)</b>	Quantitative - Existence of a document with planned, prioritized, and scheduled improvements.		Linked to Objective No. 4	31-Dec-15
6	Increase availability of suitable life-cycle habitat for T/E/I native fish <b>(High, Medium)</b>	Quantitative - Change in the area of suitable life-cycle habitat that is accessible to target species.	number of acres of suitable habitat added	Linked to Objective Nos. 4 and 5 and possibly No. 3 once suitable life-cycle habitats are identified and associated with riparian/aquatic corridor restoration projects to the extent they also benefit T/E/I species.	Dependent on completion of Objective #5
<b>Invasives Focus</b>					
7	Prevent colonization by Quagga/Zebra mussels and eliminate/prevent spread of New Zealand mud snail <b>(High, High)</b>	Quantitative - Presence (or absence) of target invasive species.		-Documentation of an active regional, coordinated invasive aquatic invertebrates management and monitoring program.	
8	Establish invasive plant management plan <b>(Medium, Medium)</b>	Quantitative - Existence of an invasive plant management plan for the Region or integration of existing plans.		- select targeted invasive species (e.g. tamarisk, arrundo, etc) - consistent geographic and species coverage throughout Region. - understanding of existing invasives management activities -description and synthesis of existing invasives management activities - Existence of invasive plant management plan	31-Dec-15
9	Implement Invasive Plant Management Plan <b>(Medium, Low)</b>	Quantitative - Measures appropriate to the targeted outcomes designated in the Invasive Plant Management Plan created according to Objective 8.		Regional Invasive Plant Management Plan	

No.	Plan Objectives (Importance, Urgency)	Quantitative/Quantitative Measurement	Target	Potential Information Needs	Approximate Completion Date
<b>Infrastructure Focus</b>					
10	Create Asset Management Plan for key water management infrastructure <b>(Medium, Low)</b>	Quantitative - Existence of Asset Management Plan		- define what is key water management infrastructure (e.g., water supply, distribution, treatment, wastewater, flood management) - select key metrics from IIMM - Synthesis of existing infrastructure plans including geographic coverage that match the criteria for key water management infrastructure.	31-Dec-15
<b>Reasonable Use Focus</b>					
11	Meet 20% by 2020 Conservation Targets <b>(Medium, Medium)</b>	Quantitative - Water conservation measured in gallons per capita day as defined by the Water Conservation Act of 2009 and DWR guidance methodologies. Use UWMPs to measure progress.		- 2015 interim target for City of Rio Vista - Annual progress and 2015 UWMP updates to measure performance.	31-Dec-20
12	Increase adoption of Ag BMPs <b>(Medium, Medium)</b>	Quantitative - Compliance with SBX7-7. Number of required Efficient Water Management Practices (EWMPs) adopted and number of optional EWMPs adopted.		-number of Ag water suppliers complying with Act in the Region; availability of Agricultural Water Management Plans for review - number and type of Ag BMPs and EWMPs currently implemented by suppliers in the Region.	
<b>Recreation Focus</b>					
13	Maintain and increase water-related recreational opportunities <b>(Medium, Low)</b>	Quantitative - Describe maintenance activities performed annually. Quantitative - Describe additional or enhanced water-related recreational opportunities provided annually.		- estimated usage at non-fee facilities/water bodies - existence of compiled estimates of recreation usage throughout the Region. - list of recreation areas to be tracked in the Region - summary of recreation-related maintenance activities throughout the Region.	Annually
<b>Risk Management Focus</b>					
14	Provide adequate flood protection <b>(High, Medium)</b>	Quantitative - Change in calculated level of flood protection.	Provide flood protection consistent with the Central Valley Flood Protection Plan; for urban and urbanizing areas meet the urban level of flood protection; for other developed areas meet the FEMA standard of flood protection; for rural areas provide the level of protection warranted for the assets subject to damage.	- identify current and targeted levels of flood protection deemed appropriate in the Region - GIS mapping coverages showing current and desired levels of flood protection.	31-Dec-50
15	Manage watershed activities to reduce large erosion events <b>(Medium, Medium)</b>	Quantitative - Number of large erosion events documented each year. Quantitative - Number of preventive measures taken and repairs made to reduce large erosion events.		- define "large erosion event" and criteria that will be used to identify such an event. - documentation of preventative measures, programs, and activities currently undertaken throughout the Region - quantify number of acres burned in Region	
<b>Understand Watershed Function Focus</b>					
16	Monitor state/federal Delta programs <b>(Medium, High)</b>	Qualitative - Scientific information and studies available that characterize potential impacts. Qualitative - Active participation and engagement in specifically identified State and Federal water resources planning and projects.		- identify which programs to monitor and existence of current representatives in the Region that monitor such programs. - define "active participation"	



No.	Plan Objectives (Importance, Urgency)	Quantitative/Quantitative Measurement	Target	Potential Information Needs	Approximate Completion Date
17	Monitor conditions/improve understanding to support sustainable groundwater basins <b>(High, Low)</b>	Quantitative - Groundwater levels and quality throughout the Region.	Prevent long-term declines in groundwater levels and quality throughout the region.	- selection of targeted basins for groundwater monitoring and key criteria for monitoring groundwater levels and quality.  - determination of key locations for monitoring groundwater levels and constituents to be monitored	
		Qualitative -Information to understand and predict status of aquifer functions over the long-term; Understand opportunities to improve regional water supply portfolio through conjunctive management.			
18	Maintain and enhance monitoring network and information sharing. <b>(High, Medium)</b>	Qualitative Measurement - Availability of important information; ease of access to data and information across agency boundaries.		- establish desired parameters, topics, and information related to natural resources that is to be shared throughout the Region.	
<b>Water Quality Focus</b>					
19	Address pollutant sources to meet runoff standards and TMDL targets <b>(High, Medium)</b>	Quantitative - Compliance with runoff standards and progress toward meeting targets identified in specific TMDLs within the Region.  Qualitative - Actions taken to address pollutant sources.		- understanding and benchmarking of existing stormwater permit compliance challenges, if any. - determination of activities Regional stakeholders can participate in to help achieve TMDL targets.	
20	Minimize accidental wastewater spillage/discharges <b>(Medium, Medium)</b>	Quantitative - Number of spills reported per year; volume of wastewater spilled that reached receiving waters.	Zero spills per year of wastewater that reaches receiving waters.	- compilation of annual number/quantity of spills for wastewater agencies for the Region - agencies that do not report to the CIWQS system	
21	Reduce Public health risks by reducing contaminants in drinking water sources <b>(Medium, Medium)</b>	Quantitative - Improvements in source water quality; cost savings for meeting quality standards for drinking water at point of delivery; reductions in concentration of constituents of concern in drinking water at point of delivery.		- identify contaminants of concern in drinking water sources to be monitored - understanding of drinking water sources that have present challenges meeting drinking water quality standards. - track projects implemented by water suppliers to improve or provide treatment of contaminants	
22	Meet all drinking water and wastewater discharge standards <b>(High, High)</b>	Quantitative - Compliance with all relevant quality standards.		- inventory of all water and wastewater entities in the Region. - determine agencies that are not in compliance with water and/or wastewater standards	
<b>Water Supply Focus</b>					
23	Provide 100% reliability of M&I water supplies <b>(High, Medium)</b>	Quantitative - Number of days M&I water suppliers invoke drought ordinances and number of days rationing is required.	Zero days per year.	- survey all M&I water suppliers to determine existence of drought ordinances, stipulations, and number of days ordinance is invoked each year. - include consideration of available alternate water supplies for each agency.	
24	Provide agricultural water supplies to support a robust agricultural industry <b>(High, Medium)</b>	Quantitative - Groundwater levels and quality throughout the Region.	Prevent long-term declines in groundwater levels and quality throughout the region.	- identify what measures will be used to track “robust agricultural industry” – suggest using multi-year moving average of economic production for Region  - contracted/requested amount of water compared to delivered (SCWA and other water suppliers)	
		Quantitative - Annual surface water deliveries for agricultural use as compared to contracted amounts.	Provide 100% reliability for contracted annual deliveries by Solano County Water Agency.		
		Qualitative- Changes in agricultural outputs within the Region over time.			

## Attachment 2

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### Data Sources and Suggested Implementation Steps

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Education and Awareness Focus

- 1. Provide and promote use of educational curricula designed to increase awareness of watershed and resource stewardship and how individual stewardship relates to community health and well-being for K-12 students starting July 2013 through the planning period.**

#### *Qualitative Measurement*

None

#### *Quantitative Measurement*

- Availability of curricula suitable to each grade and student population within the Region.
- Number of schools contacted each year to promote use of curricula.
  - Target: Contact 50% of all schools in Region each year.
- Number of students who receive instruction from grade-suitable curricula.
  - Target: Reach 30% of student population within the Region each year starting in 2014.

#### *Addresses Plan Goals*

2, 3, 7, and 11

#### *Priority*

Importance = Medium

Urgency = Low

#### *Notes*

May host an education summit as part of Plan implementation that could result in new targets to replace the current ones.

#### *Suggested Implementation Steps*

Form a sub-committee/workgroup (potentially same sub-committee for both Objective Nos. 1 and 2) responsible for the following:

- Determine number of students in Region by grade level
- Determine number of schools in Region by type and location
- Establish contact with existing programs including those listed below and obtain:
  - Name of schools outreached to
  - Grade levels and number of students
  - Curricula used/available
  - Frequency of contact
- Establish contact with schools to obtain input from teachers who received CEEI curricula training

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Establish where and how data will be collected and saved
- Establish reporting protocol

### **Data Sources**

Education and outreach are available through various agencies within the Region that provide workshops, seminars, field trips, trainings conference presentations, site tours and environmental education to local schools. Local agency resources available to the Region:

#### Upper Cache Creek Planning Area

- Lake County Office of Education (<http://www.lake-coe.k12.ca.us/>)

#### Valley Floor Planning Area

- Yolo County Resource Conservation District – Currently run educational workshops for the public however do not have an active education program to target students (<http://www.yolorcd.org/>)
- Yolo Basin Foundation (<http://www.yolobasin.org/teachers2011.cfm>)
- Dixon Resource Conservation District (<http://www.dixonrcd.org/>)
- Cach Creek Conservancy (<https://sites.google.com/site/cccppractice2/>) – Does keep track of the number of students mainly focus on 3rd -6th grade students
- Center for Land-Based Learning (<http://landbasedlearning.org/>)
- Putah Creek Council (<http://www.putahcreekcouncil.org/restore>)
- Yolo County Office of Education ([www.ycoe.org/](http://www.ycoe.org/))

#### Upper Putah Creek Planning Area

- Watershed Information Center & Conservancy of Napa County ([http://www.napawatersheds.org/app\\_pages/view/4312](http://www.napawatersheds.org/app_pages/view/4312))
- Solano Resource Conservation District (<http://www.solanorcd.org/>)
- Bureau of Reclamation Mid-Pacific Region, Lake Berryessa (<http://www.usbr.gov/mp/berryessa/facts.html>)
- Napa County Resource Conservation District (<http://www.naparcd.org/education.html>)
- Napa County Office of Education ([www.napacoe.org/](http://www.napacoe.org/))
- Solano County Office of Education ([www.solanocoe.net/](http://www.solanocoe.net/))

#### General Resources

- California Environmental Protection Agency Education and the Environment Initiative (<http://www.californiaeei.org/>); A cooperative, statewide effort already in place to help K-12 students learn about the environment and how it relates to their everyday lives called the California Education and Environment Initiative (EEI). Curriculum information provided by the California Department of Education.
- California Department of Fish and Wildlife (<http://www.dfg.ca.gov/education/>)
- Water Education Foundation

## Attachment 2 – Data Sources and Suggested Implementation Steps

- NPDES Phase II Small Municipal Separate Storm Sewer System Permits ([http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/phase\\_ii\\_municipal.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml))

### *Potential Information Needs*

See Attachment 1.

In order to know if the Region is meeting or making progress towards this target the total number schools and students within the Region will need to be obtained. This information can be approximated from the U.S. Census (<http://www.census.gov>) or by contacting the school districts within the Region to obtain student counts by grade and number of schools.

2. **Provide educational information designed to increase awareness of watershed and resource stewardship and how individual stewardship relates to community health and well-being for the adult population within the Region starting July 2013 through the planning period.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

- Number of people who receive the educational materials/messages within the Region each year.
  - Target: 10% of population annually

### *Addresses Plan Goals*

2, 3, 7, and 11

### *Priority*

Importance = Medium  
Urgency = Low

### *Notes*

Likely will be able to coordinate and share resources with agencies in neighboring IRWM Regions (e.g. the Regional Water Authority in the American River Basin Region has expressed interest in collaborating on this objective) who intend to conduct similar public education campaigns.

### *Suggested Implementation Steps*

Form a sub-committee/workgroup (potentially same sub-committee for both Objective Nos. 1 and 2) responsible for the following:

- Establish contact with existing programs listed below and estimate the number of people outreached through media contacts such as:
  - Special events (i.e. booths at Fairs, conferences)

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Workshops
- Publications ordered,
- Materials disseminated (mailers, flyers, emails)
- Website access
- Establish where and how data will be collected and saved
- Establish reporting protocol

### **Data Sources**

Education and outreach are available through various agencies within the Region that provide workshops, seminars, field trips, trainings conference presentations, site tours and environmental education to local schools and communities. Local agency resources available to the Region are listed below:

#### Upper Cache Creek Planning Area

- No information found.

#### Valley Floor Planning Area

- Yolo County Resource Conservation District - Currently run educational workshops for the public and have several publications such as “Welcome to the Watershed” (<http://www.yolorcd.org/>)
- Yolo Basin Foundation (<http://www.yolobasin.org/teachers2011.cfm>)
- Dixon Resource Conservation District (<http://www.dixonrcd.org/>)
- Cach Creek Conservancy (<https://sites.google.com/site/cccppractice2/>)
- Putah Creek Council (<http://www.putahcreekcouncil.org/restore>)

#### Upper Putah Creek Planning Area

- Watershed Information Center & Conservancy of Napa County ([http://www.napawatersheds.org/app\\_pages/view/4312](http://www.napawatersheds.org/app_pages/view/4312))
- Bureau of Reclamation Mid-Pacific Region, Lake Berryessa (<http://www.usbr.gov/mp/berryessa/facts.html>)
- Solano Resource Conservation District (<http://www.solanorcd.org/>)
- Napa County Resource Conservation District (<http://www.naparcd.org/education.html>)
- Napa County Flood Control and Water Conservation District (<http://www.countyofnapa.org/FloodDistrict/>)

#### General Resources

- California Environmental Protection Agency Education and the Environment Initiative (<http://www.californiaeei.org/>)
- California Department of Fish and Wildlife (<http://www.dfg.ca.gov/education/>)

### **Potential Information Needs**

See Attachment 1.

## Attachment 2 – Data Sources and Suggested Implementation Steps

In order to know if the Region is meeting or making progress towards this target the total population of the Region will need to be obtained. This information can be approximated from the U.S. Census (<http://www.census.gov>).

### Habitat Focus

- 3. Restore native vegetation and form and function along riparian corridors, canals, and other aquatic sites throughout the Region to provide stream shading, habitat enhancement and increased biological diversity through 2035.**

#### *Qualitative Measurement*

None

#### *Quantitative Measurement*

- Acres restored along corridors, canals and ditches; Number of native plants planted; Improved connectivity of habitat corridors; etc.
  - Target: Support goals established within Natural Community Conservation Plans (NCCPs), Habitat Conservation Plans (HCPs), and other habitat planning documents for the Region. (See Appendix C.8 for a list of existing habitat planning documents and a summary of goals and targets within those planning documents.)

#### *Addresses Plan Goals*

1, 5, 8, and 13

#### *Priority*

Importance = Medium  
Urgency = Medium

#### *Notes*

As habitat planning documents are added or updated these targets need to be updated as well.

#### *Suggested Implementation Steps*

Form a sub-committee/workgroup (potentially same sub-committee for both Objective Nos. 3 and 4) responsible for the following:

- Track adoption and implementation of:
  - Bay Delta Conservation Plan
  - Yolo National Heritage Conservation Plan
  - Solano Habitat Conservation Plan
  - Other habitat restoration plans
- Establishing contact with existing programs listed below and determine projects implemented – location and scope of work

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Determine and document how implemented projects support goals in adopted conservation plans
- Establish where and how data will be collected and saved
- Establish reporting protocol

### **Data Sources**

#### Upper Cache Creek Planning Area

- Hitch Adaptive Management Plan (HAMP) - (<http://www.robinsonrancheria.org/environmental/water.htm>)
- Lake County. Clear Lake Integrated Watershed Management Plan ([http://www.co.lake.ca.us/Government/Directory/Water\\_Resources/watershedplan.htm](http://www.co.lake.ca.us/Government/Directory/Water_Resources/watershedplan.htm))
- Bear Creek Watershed Assessment. 2010. Colusa County Resource Conservation District.
- Colusa Basin Watershed Management Plan. 2012. Colusa County Resource Conservation District.
- Clear Lake Integrated Aquatic Plant Management Plan. 2004. Lake County.
- Evaluating and Managing a Multiply-Stressed Ecosystem at Clear Lake, California: A Holistic Ecosystem Approach. 2002. Suchanek et al.
- Kelsey Creek Watershed Assessment. 2010. West Lake and East Lake Resource Conservation District.
- Middle Creek Watershed Assessment. 2010. West Lake and East Lake Resource Conservation District.
- Scotts Creek Watershed Assessment. 2010. West Lake and East Lake Resource Conservation District.

#### Valley Floor Planning Area

- Bay Delta Conservation Plan (<http://baydeltaconservationplan.com/Home.aspx>)
- Yolo National Heritage Program Plan Document (<http://www.yoloconservationplan.org/enviro-portal.html>).
- Lower Putah Creek Watershed Management Action Plan. Lower Putah Creek Coordinating Committee
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County.
- Yolo County Resource Conservation District (<http://www.yolorcd.org/>) – Actively engaged in restoration work and partners with Solano RCD and the Audubon Landowner Stewardship Program (<http://ca.audubon.org/landowner-stewardship-program>)
- Cach Creek Conservancy (<https://sites.google.com/site/cccpractice2/>) – Restoration is main focus and where most of their budget is dedicated they manage a nature preserve. Complete annual maintenance on invasive removal along Cache Creek.
- Conaway Preservation Group (<http://www.conawayranch.com/home>)
- Yolo Bypass Wildlife Area Management Plan. 2006. California Department of Fish and Wildlife.



## Attachment 2 – Data Sources and Suggested Implementation Steps

- Integrated Regional Water Management Plan. 2007. Water Resources Association of Yolo County.
- Integrated Regional Water Management Plan. 2005. Solano County Water Agency.

### Upper Putah Creek Planning Area

- Watershed Information Center & Conservancy of Napa County ([http://www.napawatersheds.org/app\\_pages/view/4312](http://www.napawatersheds.org/app_pages/view/4312))
- Solano Resource Conservation District (<http://www.solanorcd.org/>)
- Napa County Resource Conservation District (<http://www.naparcd.org.html>)
- Tuleyome (<http://www.tuleyome.org/>)
- Solano Habitat Conservation Plan ([http://www.scwa2.com/Conservation\\_Habitat\\_Docs.aspx](http://www.scwa2.com/Conservation_Habitat_Docs.aspx))
- Napa County Integrated Water Resource Planning Framework. 2011. Napa County Flood Control and Water Conservation District.
- Napa County Baseline Data Report. 2005. Napa County.

### General Resources

- California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California ([http://www.dot.ca.gov/hq/env/bio/project\\_materials.htm](http://www.dot.ca.gov/hq/env/bio/project_materials.htm))
- Department of Fish and Wildlife (<http://www.dfg.ca.gov/habcon/conplan/>)
- Vegetation Treatment Program Environmental Impact Report. Board of Forestry and Fire Protection. ([http://bofdata.fire.ca.gov/board\\_committees/resource\\_protection\\_committee/current\\_projects/vegetation\\_treatment\\_program\\_environmental\\_impact\\_report\\_\(vtpeir\)\)](http://bofdata.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_(vtpeir))))

### *Potential Information Needs*

See Attachment 1.

4. **Quantify the extent of suitable life-cycle habitat currently accessible to threatened, endangered, or imperiled (T/E/I) native fish within the Region by December 31, 2014.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

Existence of documentation of extent of suitable life-cycle habitat currently accessible to threatened, endangered, or imperiled native fish within the region.

### *Addresses Plan Goals*

3, 5, 8, and 11

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Priority

Importance = High  
Urgency = Medium

### Notes

This objective is linked to Objectives 5 and 6.

### Suggested Implementation Steps

Form a sub-committee/workgroup (potentially same sub-committee for both Objective Nos. 3 and 4) responsible for the following:

- Select the threatened, endangered, or imperiled native fish species within the Region that will be the focus of the habitat assessment.
- Establish criteria for determining “suitable habitat currently accessible” for each species through document research
- Compile mapping with known locations of suitable potential habitat
- Prepare summary of findings based on research
- Establish where and how data will be collected and saved
- Establish reporting protocol

### Data Sources

#### Upper Cache Creek Planning Area

- Department of Fish and Wildlife –Clear Lake Hitch Petition Evaluation (<http://www.dfg.ca.gov/serp.html?q=clear+lake+hitch&cx=001779225245372747843%3A3y4rnp6j9ny&cof=FORID%3A10&ie=UTF-8>)
- Robinson Rancheria – Hitch Adaptive Management Plan (currently under development)<http://www.robinsonrancheria.org/environmental/water.htm>
- Petition to List the Clear Lake Hitch (*Lavinia exilicauda* chi) as Endangered or Threatened under the Endangered Species Act. 2012. Center for Biological Diversity.

#### Valley Floor Planning Area

- Bay Delta Conservation Plan (currently under development)(<http://baydeltaconservationplan.com/Home.aspx>)
- Yolo National Heritage Program Plan Document (currently under development) (<http://www.yoloconservationplan.org/enviro-portal.html>).
- Solano Habitat Conservation Plan (currently under development) ([http://www.scwa2.com/Conservation\\_Habitat\\_Docs.aspx](http://www.scwa2.com/Conservation_Habitat_Docs.aspx))
- Lower Putah Creek Watershed Management Action Plan. Lower Putah Creek Coordinating Committee
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County.
- Yolo County Resource Conservation District (<http://www.yolorcd.org/>) – Recently involved in creation of on-farm habitat for species of special concern Sacramento Perch worked with Dr. Peter Moyle at UC Davis.
- Dr. Peter Moyle, UCD

## **Attachment 2 – Data Sources and Suggested Implementation Steps**

- Patrick Crain, Fish Biologist
- Yolo County Natural Resources Manager – Cindy Tuttle

### Upper Putah Creek Planning Area

- Napa County Resource Conservation District (<http://www.naparcd.org.html>)
- Napa County Flood Control and Water Conservation District (<http://www.countyofnapa.org/FloodDistrict/>)

### General Resources

- California Wilderness Coalition Missing Linkages: Restoring Connectivity to the California Landscape (<http://www.calwild.org/linkages/index.html>)
- California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California ([http://www.dot.ca.gov/hq/env/bio/project\\_materials.htm](http://www.dot.ca.gov/hq/env/bio/project_materials.htm))
- Department of Fish and Wildlife – General information regarding natural community conservation planning (<http://www.dfg.ca.gov/habcon/conplan/>)

### *Potential Information Needs*

See Attachment 1.

- 5. Prioritize, plan, and schedule improvements in suitable life-cycle habitat accessible to threatened, endangered, or imperiled native fish within the Region by December 31, 2015.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

The existence of a document with planned, prioritized, and scheduled improvements.

### *Addresses Plan Goals*

3, 5, 8, and 11

### *Priority*

Importance = High  
Urgency = Medium

### *Notes*

This objective is linked to Objectives 4 and 6.

### *Suggested Implementation Steps*

Linked to Objective No. 4

### *Data Sources*

Linked to Objective No. 4

## Attachment 2 – Data Sources and Suggested Implementation Steps

### *Potential Information Needs*

Linked to Objective No. 4

- 6. Increase availability of suitable life-cycle habitat for threatened, endangered, or imperiled native fish as designated in result of Objective 5.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

Change in the area of suitable life-cycle habitat that is accessible to target species.

### *Addresses Plan Goals*

5, 8, and 13

### *Priority*

Importance = High

Urgency = Medium

### *Notes*

This objective is linked to Objectives 4 and 5.

### *Suggested Implementation Steps*

Linked to Objective No. 4 and 5

### *Data Sources*

Linked to Objective No. 4 and 5

### *Potential Information Needs*

See Attachment 1.

## Invasive Species Focus

- 7. Prevent colonization of any regional water body by Quagga mussels or Zebra mussels and eliminate or prevent the spread of New Zealand mud snails from Putah Creek during the planning period.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

Presence (or absence) of target invasive species by location within the Region.

## Attachment 2 – Data Sources and Suggested Implementation Steps

### *Addresses Plan Goals*

5, 8, 9, and 12

### *Priority*

Importance = High

Urgency = High

### *Notes*

A number of aquatic invertebrate prevention programs are operational within the Region now.

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Review of existing invasive mussels management and monitoring program and activities and recommend how to prepare an appropriate regional plan
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- Lake County Water Resources is responsible for monitoring presence/absence of mussels more information can be obtained at Lake County Invasive Prevention Mussel Program (<http://www.nomussels.com/>)
- Clear Lake Watershed Sanitary Survey. Updated 2013. Clear Lake Water Utilities.

#### Valley Floor Planning Area

- No information found.

#### Upper Putah Creek Planning Area

- U.S. Bureau of Reclamation (Lake Berryessa) (<http://www.usbr.gov/mussels/>)
- Napa County Resource Conservation District (<http://www.naparcd.org.html>)
- Tuleyome (<http://www.tuleyome.org/>)

#### General Resources

- U.S. Bureau of Reclamation (<http://www.usbr.gov/mussels/> and <http://websearch.usbr.gov/searchblox/servlet/SearchServlet?col=5&query=Invasive+Species>)
- U.S. Geological Survey (<http://nas.er.usgs.gov/taxgroup/mollusks/zebramusel>)
- California Department of Fish and Wildlife (<http://www.dfg.ca.gov/Invasives/>)
- The 100th Meridian Initiative (<http://100thmeridian.org>)

### *Potential Information Needs*

See Attachment 1.

## Attachment 2 – Data Sources and Suggested Implementation Steps

8. **Establish an invasive plant management plan (including specific and measurable targeted outcomes for species of concern and a schedule to accomplish target outcomes) for the entire Region by December 31, 2015.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

Existence of an invasive plant management plan for the Region or integration of existing plans.

### *Addresses Plan Goals*

3, 5, 8, 10, 11, and 13

### *Priority*

Importance = Medium

Urgency = Medium

### *Notes*

- Lake County has a countywide plan that could be integrated with other plans or serve as a basis for a region-wide plan.
- This objective is linked to Objective No. 9.

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup (same sub-committee for both Objective Nos. 8 and 9) responsible for the following:

- Review of existing invasive plant management plan(s) to ensure consistent geographic and species coverage throughout the Region
- Determine if a new plan should be created or use combination of existing plans for implementation
  - ensure plan has targeted outcomes
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- Clear Lake Integrated Aquatic Plant Management Plan. August 2004. Lake County Department of Public Works Water Resources Division. ([http://www.co.lake.ca.us/Government/Directory/Water\\_Resources/Aquatic\\_Plant\\_Management/Aquatic\\_Plant\\_Management\\_Plan.htm](http://www.co.lake.ca.us/Government/Directory/Water_Resources/Aquatic_Plant_Management/Aquatic_Plant_Management_Plan.htm)).
- Clear Lake Watershed Sanitary Survey. Updated 2013. Clear Lake Water Utilities.

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Valley Floor Planning Area

- Cache Creek Watershed Weed Management Plan, Yolo County Resource Conservation District (<http://www.yolorcd.org/documents/CacheCreekWatershedWeedManagementPlan.pdf>)
- Yolo County Resource Conservation District (<http://www.yolorcd.org/nodes/programs/invasives.htm>)
- Lower Putah Creek Watershed Management Action Plan. Lower Putah Creek Coordinating Committee
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County

### Upper Putah Creek Planning Area

- Napa County Resource Conservation District (<http://www.naparcd.org.html>)
- Napa County Flood Control and Water Conservation District (<http://www.countyofnapa.org/FloodDistrict/>)
- Tuleyome (<http://www.tuleyome.org/>)

### General Resources

- California Invasive Plant Council (<http://www.cal-ipc.org/>)
- US Geological Survey, Ecosystems - Invasive Species Program ([http://www.usgs.gov/ecosystems/invasive\\_species](http://www.usgs.gov/ecosystems/invasive_species)).
- Vegetation Treatment Program Environmental Impact Report. Board of Forestry and Fire Protection. ([http://bofdata.fire.ca.gov/board\\_committees/resource\\_protection\\_committee/current\\_projects/vegetation\\_treatment\\_program\\_environmental\\_impact\\_report\\_\(vtpeir\)](http://bofdata.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_(vtpeir)))

### *Potential Information Needs*

See Attachment 1.

9. **Implement programs and projects to meet the designated outcomes defined in the Invasive Plan Management Plan developed in Objective 8 (according to the schedule provided in that Plan).**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

Measures appropriate to the targeted outcomes designated in the Invasive Plant Management Plan created according to Objective 8.

### *Addresses Plan Goals*

5, 8, 10, and 13

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Priority

Importance = Medium  
Urgency = Medium

### Notes

This objective is linked to Objective 8.

### Suggested Implementation Steps:

Form a sub-committee/workgroup (same sub-committee for both Objective Nos. 8 and 9) responsible for the following:

- Determine who will track projects implemented and how results will be measured.
- Establish where and how data will be collected and saved
- Establish reporting protocol

### Data Sources

This objective is linked to Objective 8.

### Potential Information Needs

This objective is linked to Objective 8.

## Infrastructure Focus

- 10. Create an Asset Management Plan for key water management infrastructure within the region consistent with the guidance provided in the *International Infrastructure Management Manual* by December 31, 2015.**

### Qualitative Measurement

None

### Quantitative Measurement

Existence of Asset Management Plan

### Addresses Plan Goals

2, 3, 6, 9, 10, 11, and 12

### Priority

Importance = Medium  
Urgency = Low

### Notes

The California Emergency Management Agency “critical infrastructure protection” criteria and the work done for existing Natural Hazard Mitigation Plans may be a reasonable place to start to identify key water management infrastructure within the Region and to set priorities for investment.



## Attachment 2 – Data Sources and Suggested Implementation Steps

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Define key water management infrastructure for the Region and what facilities would be considered in the regional Asset Management Plan
- Review existing infrastructure plans to determine:
  - geographic coverage,
  - how to incorporate into a regional asset management plan using key metrics from IIMM, and
  - if Asset management plan should be compilation of existing infrastructure planning documents from local agencies or created specifically for the Region
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- No information found.

#### Valley Floor Planning Area

- City of Davis Water Distribution System Optimization Plan. 2011.
- City of Winters Water Master Plan.
- City of Vacaville Infrastructure, Facilities and Services Status Report (<http://www.cityofvacaville.com/index.aspx?page=66>). 2007.
- City of Vacaville Municipal Services Review and Comprehensive Annexation Plan. 2004.
- City of Vacaville Northeast Sector Sewer Master Plan. 2009.
- City of Winters Municipal Services Review. 2008.
- City of Winters Water Master Plan. 2006.
- City of Dixon Municipal Services Review. 2005.
- City of Rio Vista Municipal Services Review. 2005.

#### Upper Putah Creek Planning Area

- No information found

#### General Resources

- International Infrastructure Management Manual  
<http://www.ipwea.org.au/bookshop/iimm/>
- California Emergency Management Agency, Critical Infrastructure Protection Program  
(<http://www.calema.ca.gov/InfrastructureProtection/Pages/Infrastructure-Protection.aspx>)

### *Potential Information Needs*

See Attachment 1.

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Reasonable Use Focus

#### 11. Meet 20% by 2020 statewide water conservation targets by December 31, 2020.

##### *Qualitative Measurement*

None

##### *Quantitative Measurement*

Water conservation measured in gallons per capita day as defined by the Water Conservation Act of 2009 and DWR guidance methodologies. Use UWMPs to measure progress. The 2015 interim and 2020 compliance targets for each urban water supplier are summarized in the following table:

Urban Water Supplier	Baseline (gpcd)	2015 Interim Target	2020 Compliance Target
City of Vacaville	172	169	166
City of Rio Vista <sup>(a)</sup>	320	---	256
City of Davis	203	204	167
City of Dixon	166	168	164
City of West Sacramento	305	275	244
City of Woodland	289	260	231

Note: Rio Vista 2010 UWMP did not include a 2015 Interim Target.

##### *Addresses Plan Goals*

7, 9, and 12

##### *Priority*

Importance = Medium

Urgency = Medium

##### *Notes*

- The UWMP compliance targets are subject to review and revision during the 2015 UWMP development cycle. Water use efficiency is critical to all water agencies, but is particularly important to those agencies that use imported water diverted from the Sacramento River as meeting this objective will be key to reducing the Region's dependence on the Delta for water supply.
- Portions of the Region are not required to prepare an Urban Water Management Plan; however there are multiple conservation programs and regional conservation is encouraged.

##### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Collect data and review program implementation, progress, and trends since 2010 UWMPs.
- Compile results from 2015 UWMPs to measure performance and provide recommended program adjustments, if necessary.

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- No information found.

#### Valley Floor Planning Area

- City of Davis 2010 Urban Water Management Plan
- City of Rio Vista Urban Water Management Plan 2010
- City of Vacaville 2010 Urban Water Management plan Update Draft
- City of West Sacramento 2010 Urban Water Management Plan
- City of Woodland 2010 Urban Water Management Plan
- California Water Service Company, 2010 Urban Water Management Plan Dixon District

#### Upper Putah Creek Planning Area

- No information found

#### General Resources

- California Department of Water Resources Urban Water Management Programs (<http://www.water.ca.gov/urbanwatermanagement/>)

### *Potential Information Needs*

See Attachment 1.

## 12. Increase adoption of locally cost effective agricultural best management practices (BMPs) throughout the planning period.

### *Qualitative Measurement*

None

### *Quantitative Measurement*

- Compliance with Senate Bill SBX7-7, the Water Conservation Act of 2009 (<http://www.water.ca.gov/wateruseefficiency/sb7/>).
- Number of required Efficient Water Management Practices (EWMPs) adopted
- Number of optional EWMPs adopted.
- Number of other Best Management Practices (BMPs) adopted (beyond EWMPs).

### *Addresses Plan Goals*

6, 7, 9, 12, and 13

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Priority

Importance = Medium  
Urgency = Medium

### Notes

- EWMPs are a subset of all potential BMPs.
- A list of EWMPs can be found in California Water Code §10608.48(c).
- Other agricultural BMPs include actions to protect or improve water quality, to improve soil conservation, or to reduce impacts on habitat.
- Since agricultural water users can divert up to 600,000 AFY from the Sacramento River, use of EWMPs is critical to reducing the Region's dependence on the Delta for water supply.

### Suggested Implementation Steps:

Form a sub-committee/workgroup responsible for the following:

- Review 2012 Agriculture Water Management Plans and compile number of BMPs and EWMPs currently adopted by each supplier
- Survey agriculture water suppliers who are not required or have not completed AWMPs to obtain information regarding implementation of BMPs and EWMPs.
- Establish where and how data will be collected and saved
- Establish reporting protocol

### Data Sources

#### Upper Cache Creek Planning Area

- No information found

#### Valley Floor Planning Area

- No information found

#### Upper Putah Creek Planning Area

- No information found

#### General Resources

- California Farm Bureau Federation (<http://www.cfbf.com/>)
- Natural Resources Conservation Service (<http://www.ca.nrcs.usda.gov/>)
- Agricultural Water Council (<http://www.agwatercouncil.org/>)
- Department of Water Resources Agricultural Water Management Guidebook (<http://www.water.ca.gov/wateruseefficiency/sb7/committees/ag/a6/>)

### Potential Information Needs

See Attachment 1.

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Recreation Focus

#### 13. Maintain and increase water-related recreational opportunities within the Region throughout the planning period.

##### *Qualitative Measurement*

None

##### *Quantitative Measurement*

- Describe maintenance activities that benefit water-related recreation performed annually.
- Describe additional or enhanced water-related recreational opportunities provided annually.

##### *Addresses Plan Goals*

5 and 12

##### *Priority*

Importance = Medium

Urgency = Low

##### *Notes*

Some areas within the Region rely more heavily on water-related recreational opportunities as part of the local economy than other areas and so actions designed to maintain water-related recreation may hold a higher priority for those areas (e.g., communities surrounding Clearlake).

##### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Determine targeted recreational areas/parks/facilities around the Region.
- Establish contact with existing programs listed below and obtain:
  - Estimated number of people who visit recreation area
  - Description of maintenance activities performed
  - Description of additional or enhanced recreational opportunities that could be provided
- Establish where and how data will be collected and saved
- Establish reporting protocol

##### *Data Sources*

###### Upper Cache Creek Planning Area

- Bureau of Land Management - Cache Creek Coordinated Resource Management Plan ([http://www.blm.gov/ca/st/en/fo/ukiah/cache\\_creek\\_crmp.html](http://www.blm.gov/ca/st/en/fo/ukiah/cache_creek_crmp.html))

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Lake County Visitor Information Center  
(<http://www.visitredwoodcoast.com/content/lake-county-visitor-information-center/ncoDF96B4298D3288B8A>)
- Chamber of Commerce (<http://www.lakeportchamber.com/>)

### Valley Floor Planning Area

- Cache Creek Conservancy – provides creek side access to visitors can provide estimates (<https://sites.google.com/site/cccppractice2/>)

### Upper Putah Creek Planning Area

- Napa County Regional Park and Open Space District  
(<http://www.napaoutdoors.org/>)
- Watershed Information Center & Conservancy of Napa County  
([http://www.napawatersheds.org/app\\_pages/view/4312](http://www.napawatersheds.org/app_pages/view/4312))

### General Resources

- Bureau of Reclamation – (<http://www.usbr.gov/main/regions.html>)
- Bureau of Land Management – (<http://www.blm.gov/ca/st/en.html>)
- California Department of Parks and Recreation (<http://www.parks.ca.gov/>)

### *Potential Information Needs*

See Attachment 1.

Recreation areas that are non-fee; do not have a means to track the number of people.

## Risk Management Focus

### **14. Provide adequate flood protection for all urban and rural areas within the region by December 31, 2050.**

#### *Qualitative Measurement*

None

#### *Quantitative Measurement*

- Change in calculated level of flood protection.
  - Targets: Provide flood protection consistent with the Central Valley Flood Protection Plan; for urban and urbanizing areas meet the urban level of flood protection; for other developed areas meet the FEMA standard of flood protection; for rural areas provide the level of protection warranted for the assets subject to damage.

#### *Addresses Plan Goals*

4, 10, 12, and 13

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Priority

Importance = High  
Urgency = Medium

### Notes

While the completion date for this objective is 2050, projects that contribute toward meeting this objective are expected to be implemented within the current planning horizon of 2035.

### Suggested Implementation Steps:

Form a sub-committee/workgroup responsible for the following:

- Compile mapping to show the current and targeted levels of flood protection for the Region
- Establish contact with agencies to collect information regarding planned projects to comply with flood protection levels if not in compliance
- Establish where and how data will be collected and saved
- Establish reporting protocol

### Data Sources

#### Upper Cache Creek Planning Area

- Lake Flood Management  
[http://www.co.lake.ca.us/Government/Directory/Water\\_Resources/Department\\_Programs/Flood\\_Management.htm](http://www.co.lake.ca.us/Government/Directory/Water_Resources/Department_Programs/Flood_Management.htm)
- Lake County Flood Insurance Study. 2011.
- Lake County Floodplain Management Plan. 2009.

#### Valley Floor Planning Area

- Yolo County Flood Control and Water Conservation District  
(<http://www.yfcwcd.org/>)
- FloodSAFE Yolo Pilot Program - <http://www.yfcwcd.org/floodsafeyolo.html>
- Central Valley Flood Protection Plan. 2012. FloodSAFE.
- Flood Control Systems Status Report. 2011. FloodSAFE.
- Flood Insurance Study, Solano County. 2009. FEMA.
- Flood Insurance Study, Yolo County. 2010. FEMA.

#### Upper Putah Creek Planning Area

- Napa County Flood Control and Water Conservation District  
(<http://www.countyofnapa.org/FloodDistrict/>)

#### General Resources

- California Department of Water Resources Flood Management  
(<http://www.water.ca.gov/floodmgmt/>)
- California Emergency Management Agency Flood Preparedness  
(<http://www.calema.ca.gov/PlanningandPreparedness/Pages/Floods.aspx>)

## Attachment 2 – Data Sources and Suggested Implementation Steps

### *Potential Information Needs*

See attachment 1.

### **15. Manage watershed activities and conditions to reduce the risk of large erosion events that could increase undesirable sediment loading to water bodies throughout the planning period.**

#### *Qualitative Measurement*

None

#### *Quantitative Measurement*

- Number of large erosion events documented each year.
- Number of preventive measures taken and repairs made to reduce large erosion events.

#### *Addresses Plan Goals*

5, 6, 7, 10, and 13

#### *Priority*

Importance = Medium

Urgency = Medium

#### *Notes*

Tracking progress on this objective will require establishing a definition of (and possibly criteria to identify) a “large erosion event” including consideration of wildfires, landslides, and construction-related discharges.

#### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Define “large erosion event” and criteria used to identify such an event
- Evaluate available documents and contact agencies as needed to document preventative measures, programs and activities undertaken to prevent large erosion events
- Establish where and how data will be collected and saved
- Establish reporting protocol

#### *Data Sources*

##### Upper Cache Creek Planning Area

- No information found.

##### Valley Floor Planning Area

- No information found.

##### Upper Putah Creek Planning Area

- Napa County Roads Department



## Attachment 2 – Data Sources and Suggested Implementation Steps

### General Resources

- Bureau of Land Management Resource Management Plans for California's Public Lands  
(<http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pa/planning.Par.25515.File.dat/RMP.pdf>)
- United States Department of Agriculture Forest Service Pacific Southwest Region Land and Resource Management Plan Mendocino National Forest  
([http://www.fs.usda.gov/detailfull/mendocino/landmanagement/?cid=FSBDEV3\\_004518&width=full](http://www.fs.usda.gov/detailfull/mendocino/landmanagement/?cid=FSBDEV3_004518&width=full))
- United States Department of Agriculture Natural Resources Conservation Service  
(<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/>)
- Vegetation Treatment Program Environmental Impact Report. Board of Forestry and Fire Protection.  
([http://bofdata.fire.ca.gov/board\\_committees/resource\\_protection\\_committee/current\\_projects/vegetation\\_treatment\\_program\\_environmental\\_impact\\_report\\_\(vtpeir\)](http://bofdata.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_(vtpeir)))

### *Potential Information Needs*

See Attachment 1.

## **16. Monitor planning of state and federal water related projects and programs in the Delta and estimate potential local impacts throughout the planning period.**

### *Qualitative Measurement*

- Scientific information and studies available that characterize potential impacts to region.
- Active participation and engagement in specifically identified state and federal water resources planning and projects.

### *Quantitative Measurement*

None

### *Addresses Plan Goals*

3 and 11

### *Priority*

Importance = Medium  
Urgency = High

### *Notes*

None

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Define active participation and/or targeted programs of interest

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Determine who monitors programs and how participation will occur in representation of the Westside Region.
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- No information found.

#### Valley Floor Planning Area

- No information found.

#### Upper Putah Creek Planning Area

- Napa County Public Works Water Resources Division

#### General Resources

- (many general state and federal programs could be listed here)

### *Potential Information Needs*

See attachment 1.

## **17. Monitor conditions and improve understanding to support sustainable use of groundwater basins within the Region as an important part of the Region's water supply throughout the planning period.**

### *Qualitative Measurement*

- Information to understand and predict status of aquifer functions over the long-term
- Understand opportunities to improve regional water supply portfolio through conjunctive management

### *Quantitative Measurement*

Prevent long-term declines in groundwater levels and quality throughout the region.

### *Addresses Plan Goals*

3, 6, 9, 11, and 12

### *Priority*

Importance = High  
Urgency = Low

### *Notes*

- Potential long-term declines of groundwater levels can be assessed by computing and reporting a 10-year moving average of groundwater levels at key

## Attachment 2 – Data Sources and Suggested Implementation Steps

locations for active aquifers each year within the Region. Comparing a 10-year moving average each year should filter out most effects of annual variability in local precipitation, groundwater use and recharge.

- Potential long-term declines in water quality can be assessed by computing an annual average for key constituents from select groundwater wells in active aquifers. The list of aquifers and constituents to be tracked for each aquifer needs to be identified.

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup (potentially same sub-committee for both Objective Nos. 17 and 24) responsible for the following:

- Identifying monitoring wells and data (level and quality) collected within groundwater basins
- Establishing Reporting protocol and criteria – such as groundwater basin management objectives
- Determining key locations to collect monitoring data and groundwater levels/constituents to be monitored
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- Lake County Watershed Protection District, Monitoring Plan Lake County California Statewide Groundwater Elevation Monitoring System. March 2012.
- Lake County Groundwater Management Plan.
- Big Valley Groundwater Management Plan.

#### Valley Floor Planning Area

- YCFC&WCD 2006 Groundwater Management Plan
- YCFC&WCD Groundwater Monitoring Program Report
- City of Davis/UC Davis Groundwater Management Plan
- City of Vacaville Groundwater Management Plan
- City of Woodland Groundwater Management Plan
- Colusa County Groundwater Management Plan
- Solano Irrigation District 2010 Groundwater Status Report – Water Levels and Quality
- Solano Irrigation District Groundwater Management Plan Upgrade
- Yolo County IGSM Report

#### Upper Putah Creek Planning Area

- Napa County Groundwater Monitoring Plan 2013
- Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Final Report

## Attachment 2 – Data Sources and Suggested Implementation Steps

### General Resources

- Department of Water Resources - Bulletin 118  
(<http://www.water.ca.gov/publications/browse.cfm>).
- California Statewide Groundwater Elevation Monitoring (CASGEM)  
(<http://www.water.ca.gov/groundwater/casgem>)– The following are designated monitoring entities as of January 1, 2013:
  - Lake County Watershed Protection District
  - Water Resources Association of Yolo County
  - Napa County

### *Potential Information Needs*

See attachment 1.

## **18. Maintain and enhance monitoring network and information sharing to support management of watersheds and natural resources within the Region throughout the planning period.**

### *Qualitative Measurement*

- Availability of important information
- Ease of access to data and information across agency boundaries

### *Quantitative Measurement*

None

### *Addresses Plan Goals*

2, 3, 6, 9, 10, 11, and 12

### *Priority*

Importance = High  
Urgency = Medium

### *Notes*

See Section 10 for more details related to data collection and management.

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Evaluate current monitoring network and information sharing mechanisms provided throughout the Region.
- Develop recommendations for areas where additional information could be shared; identify the potential benefits and costs of the increased capacity.

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Data Sources

#### Upper Cache Creek Planning Area

- Lake County Watershed Protection District, Monitoring Plan Lake County California Statewide Groundwater Elevation Monitoring System. March 2012.

#### Valley Floor Planning Area

- Yolo County Groundwater Monitoring Program  
<http://www.ycfcwcd.org/groundwatermonitoring.html>

#### Upper Putah Creek Planning Area

- Napa County Groundwater Monitoring Plan 2013
- Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Final Report

#### General Resources

- California Statewide Groundwater Elevation Monitoring (CASGEM) (<http://www.water.ca.gov/groundwater/casgem>)– The following are designated monitoring entities as of January 1, 2013:
  - Lake County Watershed Protection District
  - Water Resources Association of Yolo County
  - Napa County
- California State Water Resources Control Board, California Integrated Water Quality System Project (CIWIQS) (<http://www.waterboards.ca.gov/ciwqs/publicreports.shtml>)
- Joint Task Force for California Watershed Management (<http://resources.ca.gov/watershedtaskforce>)

### Potential Information Needs

See Attachment 1.

## Water Quality Focus

- 19. Address pollutant sources in order to meet runoff standards and satisfy targets as described in specific Total Maximum Daily Loads (TMDLs) within the Region throughout the planning period.**

#### *Qualitative Measurement*

Actions taken to address pollutant sources

#### *Quantitative Measurement*

- Compliance with runoff standards as described in stormwater permits
- Progress toward meeting targets identified in specific TMDLs within the Region

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Addresses Plan Goals

4, 5, 6, and 8

### Priority

Importance = High  
 Urgency = Medium

### Notes

The following table presents a summary of the TMDLs existing within the Westside Region:

Water Body	Pollutant	Resolution No.	Target	Compliance Date
Clear Lake	Nutrients	R5-2006-0060	87,100 kg Average annual (five year rolling average)	By ten years after approval by OAL (Office of Administrative law)
Clear Lake	Mercury	R5-2002-0207	Methylmercury concentration in fish tissue shall not exceed 0.09 and 0.19 methylmercury/kg wet weight of tissue in trophic level 3 and 4 fish, respectively.	Regional Water Board will review the progress toward meeting the fish tissue objectives for Clear Lake every five years.
Cache Creek, North Fork Cache Creek, and Bear Creek	Mercury	2005-0146	Average methylmercury concentration shall not exceed 0.12 and 0.23 mg methylmercury/kg wet weight of muscle tissue in trophic level 3 and 4 fish, respectively.	Regional Water Board will review the progress toward meeting the water quality objectives and the Basin Plan requirements at least every five years.

There are currently no TMDLs on Putah Creek watershed.

### Suggested Implementation Steps:

Form a sub-committee/workgroup responsible for the following:

- Establish communication with state and federal regulatory agencies to monitor progress towards compliance with TMDLs including actions taken
- Review existing stormwater permit for compliance challenges, if any
- Determine if Regional stakeholders can take action(s) to help achieve TMDL targets
- Establish where and how data will be collected and saved
- Establish reporting protocol

### Data Sources

#### Upper Cache Creek Planning Area

- Central Valley Regional Water Quality Control Board – Clear Lake Mercury TMDL  
 ([http://www.waterboards.ca.gov/rwqcb5/water\\_issues/tmdl/central\\_valley\\_projects/clear\\_lake\\_hg/index.shtml](http://www.waterboards.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/clear_lake_hg/index.shtml)).

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Central Valley Regional Water Quality Control Board – Clear Lake Nutrient TMDL ([http://www.waterboards.ca.gov/rwqcb5/water\\_issues/tmdl/central\\_valley\\_projects/clear\\_lake\\_nutrients/index.shtml](http://www.waterboards.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/clear_lake_nutrients/index.shtml)).
- Clear Lake Watershed TMDL Monitoring Program. 2009. Lake County Watershed Protection District.
- Monitoring and Implementation Plan Clear Lake Mercury and Nutrient TMDLs. 2008.
- Central Valley Regional Water Quality Control Board – Cache Creek, Bear Creek, Sulphur Creek and Harley Gulch Mercury TMDL ([http://www.waterboards.ca.gov/rwqcb5/water\\_issues/tmdl/central\\_valley\\_projects/cache\\_sulphur\\_creek/index.shtml](http://www.waterboards.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/cache_sulphur_creek/index.shtml))
- Department of Water Resources samples Clear Lake six times per year for nutrients and chlorophyll-a
- US EPA pilot capping project to cap contaminated sediments in Clear Lake.

### Valley Floor Planning Area

- No information found

### Upper Putah Creek Planning Area

- No information found

### General Resources

- No information found

### *Potential Information Needs*

See Attachment 1.

## **20. Minimize accidental spillage/discharges of wastewater to receiving waters throughout the planning period.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

- Number of spills reported per year
- Volume of wastewater spilled that reached receiving waters
  - Target: Zero spills per year of wastewater that reaches receiving waters

### *Addresses Plan Goals*

4, 5, 6, 8, and 12

### *Priority*

Importance = Medium

Urgency = Medium

### *Notes*

## Attachment 2 – Data Sources and Suggested Implementation Steps

None

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Track number and cause of spills, locations, and quantity that reached receiving waters based on query from CIWQS
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- Big Valley Tribe EPA Office – has available map of spills adjacent to Clear Lake

#### Valley Floor Planning Area

- No information found

#### Upper Putah Creek Planning Area

- Lake Berryessa Resort Improvement District, Napa County
- Napa Berryessa Resort Improvement District, Napa County

#### General Resources

- California State Water Resources Control Board, California Integrated Water Quality System Project (CIWQS) can be used to query data by Agency such as violations (i.e. sewer spills, exceedance in effluent limits) and enforcement actions (<http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/publicReportFacilityAtGlanceCriteria.jsp>)
- Central Valley Regional Water Quality Control Board Executive Officer quarterly reports (<http://www.swrcb.ca.gov/rwqcb5/>)

### *Potential Information Needs*

See Attachment 1.

## **21. Reduce public health risks by reducing contaminants of concern in drinking water sources throughout the planning period.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

- Improvements in source water quality for constituents of concern
- Cost savings for meeting quality standards for drinking water at point of delivery
- Reductions in concentration of constituents of concern in drinking water point of delivery



## Attachment 2 – Data Sources and Suggested Implementation Steps

### *Addresses Plan Goals*

3, 6, 9, and 12

### *Priority*

Importance = Medium

Urgency = Medium

### *Notes*

This objective highlights that there are multiple ways within a watershed to meet drinking water standards and that cleaner sources of water can provide lower levels of public health risk.

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following

- Identify constituents of concern in drinking water sources, start with review of Watershed Sanitary Surveys.
- Establish communication with water suppliers and track projects implemented to improve source water quality including the following parameters:
  - Cost savings for meeting quality standards
  - Reductions in concentrations of constituents
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- Clear Lake Watershed Sanitary Survey. Updated 2013. Clear Lake Water Utilities

#### Valley Floor Planning Area

- Solano Project – Watershed Sanitary Survey Below Monticello Dam. 2006. Solano County Water Agency.

#### Upper Putah Creek Planning Area

- Lake Berryessa Resort Improvement District, Napa County
- Napa Berryessa Resort Improvement District, Napa County

#### General Resources

- California Department of Public Health provides a list of contaminants and respective MCLs for public water systems also provides information for emerging contaminants (<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx>)
- Sacramento Valley Water Quality Coalition Monitoring and Reporting Program Plan ([http://www.svwqc.org/pdf/SVWQC\\_2009\\_AMR\\_2010-03-01\\_FINAL.PDF](http://www.svwqc.org/pdf/SVWQC_2009_AMR_2010-03-01_FINAL.PDF))

## Attachment 2 – Data Sources and Suggested Implementation Steps

- California Department of Public Health “Blue-Green Algae”  
(<http://www.cdph.ca.gov/HealthInfo/environhealth/water/Pages/Bluegreenalgae.aspx>)

### *Potential Information Needs*

See Attachment 1.

## **22. Meet all drinking water, and wastewater discharge standards within the region throughout the planning period.**

### *Qualitative Measurement*

None

### *Quantitative Measurement*

Compliance with all relevant quality standards

### *Addresses Plan Goals*

4, 5, 6, 8, and 12

### *Priority*

Importance = High

Urgency = High

### *Notes*

- Basin Plans consist of a designation or establishment for the waters within a specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives. The Basin Plans containing the water quality standards for the Central Valley Region are:
  - Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin.
  - Water Quality Control Plan for the Tulare Lake Basin.
- State Implementation Policy (SIP) establishes a standardized approach for permitting discharge of toxic pollutants to non-ocean surface waters in a consistent manner.
  - Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California. State Water Resources Control Board California Environmental Protection Agency, 2005.
- The U.S. Environmental Protection Agency (EPA) promulgated numeric water quality criteria for priority toxic pollutants and other water quality standard provisions to be applied to waters of the State of California to protect human health and the environment.
  - California Toxics Rule (CTR)

## Attachment 2 – Data Sources and Suggested Implementation Steps

- The California Safe Drinking Water Act authorizes the California Department of Public Health to protect the public from contaminants in drinking water by establishing maximum contaminant levels (MCLs) that are at least as stringent as those developed by the U.S. EPA.
  - Title 22, California Code of Regulations Division 4. Environmental Health Chapter 15. Domestic Water Quality and Monitoring Article 4. Primary Standards A—Maximum contaminant levels

### **Suggested Implementation Steps:**

Form a sub-committee/workgroup responsible for the following:

- Identify agencies that will be tracking drinking water and wastewater discharge permit requirements
- Track identified agency's compliance through CIWQS and CDPH drinking water database or through request to individual agencies
- Establish where and how data will be collected and saved
- Establish reporting protocol

### **Data Sources**

#### Upper Cache Creek Planning Area

- No information found

#### Valley Floor Planning Area

- No information found

#### Upper Putah Creek Planning Area

- Napa County Planning, Building and Environmental Services (<http://www.countyofnapa.org/PBES/>)
- Lake Berryessa Resort Improvement District, Napa County
- Napa Berryessa Resort Improvement District, Napa County

#### General Resources

- California State Water Resources Control Board, California Integrated Water Quality System Project (CIWQS) can be used to query data by Agency such as violations (i.e. sewer spills, exceedance in effluent limits) and enforcement actions (<http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/publicReportFacilityAtGlanceCriteria.jsp>)
- California Department of Public Health – Produces Annual Compliance Reports for Public Water Systems which includes summary of violations by contaminant category, individual contaminant and by violation category in each county (<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Publications.aspx>)

### **Potential Information Needs**

See Attachment 1.

## Attachment 2 – Data Sources and Suggested Implementation Steps

### Water Supply Focus

- 23. Provide 100% reliability of municipal and industrial (M&I) water supplies of appropriate quality to meet forecasted demands<sup>1</sup> within the Region throughout the planning period.**

#### *Qualitative Measurement*

None

#### *Quantitative Measurement*

- Number of days in reporting year that M&I water suppliers invoke drought ordinances
- Number of days rationing is required in reporting year
  - Target: Zero days of rationing per year

#### *Addresses Plan Goals*

1, 6, 9 and 12

#### *Priority*

Importance = High

Urgency = Medium

#### *Notes*

- Meeting this objective can be accomplished through a variety of approaches such as increased supplies, conjunctive management, water transfers, long-term demand management, water rationing, etc.
- Satisfaction of this objective should include consideration of availability of alternate supplies should a drinking water source become contaminated or otherwise disrupted.

#### *Suggested Implementation Steps:*

Form a sub-committee/workgroup responsible for the following:

- Establish contact with water suppliers to collect the following information
  - Existing drought water use reduction ordinances, policies and procedures
  - number of days rationing required and impacts to municipal and industrial customers
  - alternative supply options in the event of contamination or other disruption
- Establish where and how data will be collected and saved
- Establish reporting protocol

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<sup>1</sup> “Forecasted demands” include the amount of water estimated to be necessary to satisfy fire suppression needs.

## Attachment 2 – Data Sources and Suggested Implementation Steps

### *Data Sources*

#### Upper Cache Creek Planning Area

- No information found.

#### Valley Floor Planning Area

- No information found.

#### Upper Putah Creek Planning Area

- No information found.

#### General Resources

- No information found.

### *Potential Information Needs*

See Attachment 1.

## **24. Provide agricultural water supplies of appropriate quality to support a robust agricultural industry within the Region throughout the planning period.**

### *Qualitative Measurement*

Changes in agricultural outputs within the Region over time

### *Quantitative Measurement*

- Groundwater levels and quality throughout the Region
  - Target: Prevent long-term declines in groundwater levels and quality throughout the Region
- Annual surface water deliveries for agricultural use as compared to contracted amounts.
  - Target: Provide 100% reliability for contracted annual deliveries by Solano County Water Agency

### *Addresses Plan Goals*

1, 9, and 12

### *Priority*

Importance = High  
Urgency = Medium

### *Notes*

- This objective is written differently than Objective 23 for M&I water supplies primarily because there are no “forecasted demands” for agriculture within the Region.
- While it is true that “a robust agricultural industry within the Region” relies on many factors, a consistent water supply of appropriate quality is a major factor.

## Attachment 2 – Data Sources and Suggested Implementation Steps

- Groundwater level monitoring linked to Objective 17.

### *Suggested Implementation Steps:*

Form a sub-committee/workgroup (potentially same sub-committee for both Objective Nos. 17 and 24) responsible for the following:

- Define the term “robust agricultural industry”
- Identifying monitoring wells and data collected at each site within groundwater basins
- Determining key locations to collect monitoring data and constituents to be monitored
- Obtain annual surface water deliveries for agricultural use compared to contracted amounts from water suppliers
- Review respective County Crop reports for annual agricultural production monitoring
- Establish where and how data will be collected and saved
- Establish reporting protocol

### *Data Sources*

#### Upper Cache Creek Planning Area

- No information found.

#### Valley Floor Planning Area

- No information found.

#### Upper Putah Creek Planning Area

- No information found.

#### General Resources

- California Department of Food and Agriculture – As a performance measure can obtain annual crop reports by county (<http://www.cdfa.ca.gov/exec/county/countymap/>)
- California Statewide Groundwater Elevation Monitoring (CASGEM) (<http://www.water.ca.gov/groundwater/casgem>)– The following are designated monitoring entities as of January 1, 2013:
  - Lake County Watershed Protection District
  - Water Resources Association of Yolo County
  - Napa County
- Agricultural Water Management Plans

### *Potential Information Needs*

See Attachment 1.

## Attachment 3

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Summary of RWMG Members Who Provided Information  
and Potential Sources by Plan Objective

### Attachment 3 – Summary of RWMG Members Who Provided Information and Potential Sources by Plan Objective

Plan Objective No.	Contacts that Provided Feedback
1	Jeanette Wrynski – Yolo County RCD Lynelle Pollock – Cache Creek Conservancy Tom Smythe – Lake County Water Resources Libby Earthman – Putah Creek Council Jeff Sharp – Watershed Information Center & Conservancy of Napa County Bob Schneider – Tuleyome, Inc. Greg Dills - Eastlake & Westlake Resource Conservation District (contact efforts underway will include feedback for the final)
2	Jeanette Wrynski – Yolo County RCD Lynelle Pollock – Cache Creek Conservancy Tom Smythe – Lake County Water Resources Libby Earthman – Putah Creek Council Jeff Sharp – Watershed Information Center & Conservancy of Napa County Bob Schneider – Tuleyome, Inc. Chris Lee – Solano County Water Agency Greg Dills - Eastlake & Westlake Resource Conservation District (contact efforts underway will include feedback for the final)
3	Jeanette Wrynski – Yolo County RCD Lynelle Pollock – Cache Creek Conservancy Tom Smythe – Lake County Water Resources Libby Earthman – Putah Creek Council Jeff Sharp – Watershed Information Center & Conservancy of Napa County Larry Ray – Scotts Valley Band of Pomo Indians Bob Schneider – Tuleyome, Inc. Chris Lee – Solano County Water Agency
4	Jeanette Wrynski – Yolo County RCD Lynelle Pollock – Cache Creek Conservancy Tom Smythe – Lake County Water Resources Libby Earthman – Putah Creek Council Jeff Sharp – Watershed Information Center & Conservancy of Napa County Larry Ray – Scotts Valley Band of Pomo Indians Bob Schneider – Tuleyome, Inc. Chris Lee – Solano County Water Agency
5	Not Applicable – Linked to Objective No. 4
6	Not Applicable – Linked to Objective No. 4 and 5
7	Tom Smythe – Lake County Water Resources Jeff Sharp – Watershed Information Center & Conservancy of Napa County Chris Lee – Solano County Water Agency
8	Jeanette Wrynski – Yolo County RCD Jeff Sharp – Watershed Information Center & Conservancy of Napa County
9	Not Applicable – Linked to Objective No. 8
10	Tom Smythe – Lake County Water Resources Jeff Sharp – Watershed Information Center & Conservancy of Napa County Chris Lee – Solano County Water Agency Max Stevenson – Yolo County Flood Control and Water Conservation District
11	Jeff Sharp – Watershed Information Center & Conservancy of Napa County



### Attachment 3 – Summary of RWMG Members Who Provided Information and Potential Sources by Plan Objective

Plan Objective No.	Contacts that Provided Feedback
12	Chris Lee – Solano County Water Agency Jeff Sharp – Watershed Information Center & Conservancy of Napa County Max Stevenson – Yolo County Flood Control and Water Conservation District
13	Tom Smythe – Lake County Water Resources Jeff Sharp – Watershed Information Center & Conservancy of Napa County Max Stevenson – Yolo County Flood Control and Water Conservation District
14	Jeff Sharp – Watershed Information Center & Conservancy of Napa County
15	Jeanette Wrynski – Yolo County RCD Bob Schneider – Tuleyome, Inc. Jeff Sharp – Watershed Information Center & Conservancy of Napa County Greg Dills - Eastlake & Westlake Resource Conservation District (contact efforts underway will include feedback for the final)
16	Chris Lee – Solano County Water Agency Jeff Sharp – Watershed Information Center & Conservancy of Napa County
17	Tom Smythe – Lake County Water Resources Jeff Sharp – Watershed Information Center & Conservancy of Napa County Chris Lee – Solano County Water Agency Max Stevenson – Yolo County Flood Control and Water Conservation District
18	Jeff Sharp – Watershed Information Center & Conservancy of Napa County
19	Tom Smythe – Lake County Water Resources Bob Schneider – Tuleyome, Inc.
20	Jeff Sharp – Watershed Information Center & Conservancy of Napa County
21	Jeff Sharp – Watershed Information Center & Conservancy of Napa County
22	Jeff Sharp – Watershed Information Center & Conservancy of Napa County
23	Tom Smythe – Lake County Water Resources
24	Max Stevenson – Yolo County Flood Control and Water Conservation District