

Tulare Lake Hydrologic Region

Tulare Lake Hydrologic Region Summary and Recommendations

Summary

This subsection contains a discussion of the following topics.

- Highlights from regional report leading up to resource management strategies and policies.

Resource Management Strategies and Policies

This subsection contains a discussion of the following topics. (Primary authors may be Regional Office staff, coordinating with design teams and regional forum participants with an emphasis on local integrated regional water management [IRWM] managers.)

- Implementation recommendations (and priorities where possible).

Sources for this information may be IRWM plans, the Senate Bill x7-7 process, urban water management plans, agricultural water management plans, groundwater management plans, water elements of general plans, floodplain management plans, stormwater plans, Regional Water Quality Control Board basin plans and water quality reports, watershed management plans, habitat conservation plans, multi-species conservation plans, etc.

Considerations for this subsection:

- This section will directly support funding recommendations in the Update 2013 finance plan (within Volume 1).
- Priorities will be regionally driven and can vary from specific regionally preferred projects to entire IRWM or other plans.
- Priorities can be expressed by IRWM, county, or another geopolitical subdivision.

Finance

This subsection contains a discussion of the following topics.

- An estimate of total funding proposals within the region.
- Public benefits of local and regional proposals (eligible for State funding).
- Cost-sharing criteria.

Considerations for this subsection:

- This section will directly support funding recommendations in the Update 2013 finance plan.
- Same sources and authors referenced under “Resource Management Strategies and Policies,” above.
- Identify incentives, funding sources, and State actions to support regional strategies.

Water Planning and Governance

This subsection contains a discussion of the following topics.

- Institutional improvements, expansion of IRWM partnerships (e.g., tribal) and alternatives to IRWM where appropriate.

Considerations for this subsection:

- This section will take a critical look at IRWM as it pertains to each region.

Current State of the Region

[Note: Align with region description in IRWM standards.]

Setting

This subsection contains a discussion of the following topics. (Regional Office staff to be primary authors.)

- An overview of background factors that affect water availability, uses, quality, flood management, and ecosystems in the region and unique subregions.
- IRWM plans, basin plans, land use surveys, Department of Finance population data, conservancy reports, regional studies, climate programs, etc.

Considerations for this subsection:

- Develop brief descriptions of tribal communities in the hydrologic region or overlay region.
- Update background information about watershed topography, geology, rivers, and ecosystems.
- Update climate overview and identify trends.
- Update population and land use information and trends.
- Provide links to detailed information in the reference guide (Volume 4 of Update 2013).

Watersheds

Describe the major or significant watersheds of the region. This should also include a description of existing interregional or interstate ties that the watersheds may have.

Groundwater Aquifers

Describe major or significant groundwater basins found in this region. Description could include major agricultural and municipal areas served and trends in the use of groundwater, such as more reliance.

Ecosystems

Describe major or significant ecosystems found in the region.

Climate

Describe the typical climate for the region — snowpack, seasonality of rainfall, evaporation rates, etc.

Demographics

Describe the demographics for the region from the last census data available. Describe the locations and extents of disadvantaged communities in the region.

Land Use Patterns

Describe the amount of land dedicated to urban, agricultural, and environmental uses and trends. Include a description of the density or intensity of urban and agricultural use of the lands, such as triple cropping, or the number of dwelling units per acre planned for the region. Sources for this information could be general plans.

Tribal Communities

Describe tribal communities that exist in the region.

Regional Resource Management Conditions

This subsection contains a discussion of the following topics. (Primary authors are regional entities who wish to partner with Regional Office staff, the water supply and balances work team, the integrated flood management work team, and the ecosystem planning work team.)

- A characterization of environmental water use and demands.
- Water portfolios (1998-2009).
- Change in groundwater storage.
- An updated write-up from the Update 2009 regional report flood appendix.

(Sources of this information may be IRWM plans, statewide flood management planning report, groundwater enhancements, local agency, and portfolio data; Bulletin 118, State Water Resources Control Board, and Department of Public Health data; U.S. Army Corps of Engineers, Division of Flood Management, Federal Emergency Management Agency, Federal Energy Regulatory Commission [FERC], National Marine Fisheries Service, and operations criteria and plan [OCAP] reports; and FERC licenses.)

Considerations for this subsection:

- Quantify water supplies, uses, quality, imports, and exports.
- Estimate uses by source, uses by sector, and other subcategories based on documented assumptions.
- If possible, indicate the level of uncertainty for reported data.
- Identify wild and scenic rivers, instream flow and Delta outflow requirements, etc.
- Describe water supply sources (groundwater, surface, recycling, desalination, regional imports, etc.) and water rights.
- Summarize agricultural, urban, and managed wetland water use.
- Compare water use and supply parameters to show effects on water availability for beneficial uses (change over time, relative fractions of total, use rates for each region, and correlated factors).
- Summarize water quality conditions.
- Describe flood management systems, risks, procedures, and responsibilities.
- Summarize key operational criteria for large regional water projects.
- Governance summary: Identify responsibility of local governments, tribal government, agencies, and institutions for managing water resources, flood protection, and wastewater.
- Provide links to detailed information in the reference guide.
- Describe tribal participation in regional resource management.

Water in the Environment

A description of the water that remains in the environment for support of ecosystem health, such as fisheries, riparian habitat, wetlands, etc.

Water Governance

Describe the existing water governance that exists for the region. This could be a description of the major

water wholesalers, major municipal and agricultural water agencies, flood institutions, and any other governance structure that has influence on how water is managed in the region.

Water Supplies

Describe where the majority of water supplies come from in the region and from interregional and interstate sources.

Water Uses

The quantities of water uses would be provided in the water portfolios; however, a narrative to bring forward the story this data provides would be included here.

Project Operations

Major water supply project operations could be described here, along with challenges faced in the operations. Include a description of how reservoirs and facilities are operated to meet the varied and changing demands.

Surface Water Quality

Describe major issues faced in the region related to surface water quality. Discuss any initiatives that have been undertaken to face these issues.

Groundwater Quality

Describe major issues with groundwater quality for the region. To the extent possible, this should include the constituent of concern and the extent of impacts from this constituent.

Aquifer Conditions and Issues

Describe the aquifer conditions, such as overdraft, loss of recharge areas, and issues that may be occurring with relationship to the available supply of water in the aquifer, including threats such as contaminant plumes. This section could potentially be combined with groundwater quality, above, at the author's discretion.

Near Coastal Issues

[This heading/discussion should be included in the South Coast, Central Coast, and North Coast reports only.]

Describe the near-coastal issues that relate to water supply in the region. This could include a description of planned or anticipated desalinization plants, land use plans that could affect near-coastal ecosystems, sediment issues, fisheries issues, etc.

Flood Management

Risk Characterization

This would be a summary of the risk characterization for the region. Sources for this information would be out of the efforts from Statewide Flood Management section of DWR's Strategic Planning Branch.

Historic Floods

Describe the historic flood events that had occurred in this region.

Damage Reduction Measures

Describe the existing damage reduction measures in place. These include structural and non-structural measures (flood control dams and reservoir operations, levees, bypass structures, local flood mitigation measures, etc.).

Current Relationships with Other Regions and States

This subsection contains a discussion of the following topics.

- The status and magnitude of current relationships.

Considerations for this subsection:

- Water imports/exports.
- Flood management.
- Recreation/tourism.

Implementation Activities (2009-2013)

This subsection contains a discussion of the actions that have been taken since the last California Water Plan update to meet the water challenges in the region.

Considerations for this subsection:

- The efforts we will be doing for the progress report format should provide some content for this section. We should not, however, be limited to the progress report if significant activities have occurred in the region since the last update.

Drought Contingency Plans

Include a description of drought-related contingency planning that has occurred since the last California Water Plan update.

Resource Management Strategies

Provide a description of any initiative or action that has taken place to implement any of the more than 27 resource management strategies during the period of this California Water Plan update (2009-2013).

Water Governance

Describe any changes made to the water governance in the region since the last California Water Plan update. This would include any joint powers agreements and IRWM groups formed.

State Funding Received

Describe the State funding received to implement water-related infrastructure, coordination, or planning in the region.

Local Investment

Describe the local investment made to implement water-related infrastructure, coordination, or planning

in the region.

Water Conservation Act of 2009 (SB x7-7) Implementation Status and Issues

Provide a discussion of the status and major issues with implementation of the Water Conservation Act of 2009 for both urban and agricultural water conservation.

Interregional and Interstate Activities

Describe those interregional and interstate activities that have occurred since the last California Water Plan update.

Looking to the Future

[Notes: (1) Although the regional forums may seek consensus on objectives for the entire hydrologic region, this section will likely be a compilation of the IRWM and other local plan objectives. (2) Reference statewide priorities or IRWM guidelines to ensure consistency. (3) Because no single resource management strategy can meet the broad set of resource management objectives, this section is meant to shift planning approach/discussions from focusing on specific types of resource management strategies (e.g., desalination vs. conservation vs. storage, etc.) to an objectives-based planning approach.]

Future Conditions

Future Scenarios

This subsection contains a discussion of the following topic. (Primary authors would be from the analytical data and tools work team.)

- Water demand by sector for future scenarios.

Considerations for this subsection:

- How do the three future scenarios relate to regionally derived future plans/visions? This might be the best place to examine compatibilities and contrasts of local and state objectives.
- Regional estimates regarding future agricultural, urban, and environmental water demands; economic development; flood management; land use; etc.

Climate Change

Describe the potential future conditions related to water due to climate change.

Considerations for this subsection:

- Discuss regional effects of drought and climate change.

Interregional and Interstate Planning Activities

This subsection contains a discussion of the following topics.

- A summary of relevant planning or implementation activities that will affect this region.
- Regional stake in process.
- Strategies for regional self-sufficiency: Define goals and purpose of self-sufficiency.

Considerations for this subsection:

- Consider listing Update 2009 objectives to reflect statewide objectives/vision:

- Reduce Water Demand.
- Improve Operational Efficiency and Transfers.
- Increase Water Supply.
- Improve Water Quality.
- Practice Resource Stewardship.
- Improve Flood Management.

Flood Risk Characterization

This subsection contains a discussion of the following topics.

- Statewide flood planning risk characterization by region (primary authors would be Statewide Flood Management Planning Program staff).

Future Vision

Regional Future Vision

This subsection would describe the desired future condition that the local stakeholders have for this region. Concepts such as regional water self-sufficiency, flood protection from a 100-year flood, conservation goals, and land use goals could be described here.

Tribal Objectives/Vision

Objectives and vision of the tribal interests in the region would be described here.

Relevant Statewide Interests and Objectives

Describe statewide interests and objectives and how they might influence or affect the region. State government initiatives would be discussed in relation to the region.

Regional Water Planning and Management

This subsection contains a discussion of the following topics.

- Discussion of (1) status of IRWM or other regional plans, highlighting key challenges and accomplishments; and (2) regional response strategies for meeting future water demands and quality standards, adapting to climate change, and achieving sustainability.

(Information sources may be IRWM plans, urban water management plans, agricultural water management plans, groundwater management plans, water elements of general plans, floodplain management plans, stormwater plans, RWQCB basin plans and water quality reports, watershed management plans, habitat conservation plans, multi-species conservation plans, etc.)

Considerations for this subsection:

- Review IRWM and other regional plan coverage, quality, level of integration, and next steps toward implementation.
- Identify needed improvements in IRWM plan coverage, participation, and integration across resource areas, institutions, watersheds, and methods.
- Showcase successful regional projects from IRWM plans.
- Summarize FloodSAFE's regional flood management plans and describe challenges and recommendations.

- Summarize RWQCB regional water quality plans and describe challenges and recommendations.
- Describe intraregional planning and management, challenges, and benefits.
- Review drought preparedness based on region and local plans.

Integrated Regional Water Management Coordination and Planning

- Review IRWM and other regional plan coverage, quality, level of integration, and next steps toward implementation.
- Identify needed improvements in IRWM plan coverage, participation, and integration across resource areas, institutions, watersheds, and methods.

Accomplishments

Provide a description of the accomplishments related to the section “Regional Water Planning and Management.” These accomplishments could be in the form of measureable changes or in improvements to the process of water management.

Challenges

Provide a discussion of the challenges faced in the section “Regional Water Planning and Management.”

Drought and Flood Planning

Highlight discussion of the areas of water planning and management related to the extremes, drought and flood.

Resource Management Strategies

[Note: (1) Align with resource management strategy impacts and benefits of IRWM standards. (2) Information for this section will be regionally derived. The “statewide” strategies (i.e., the updated text from Volume 2 of Update 2009) will be published in a separate volume, not in these regional reports.]

Strategy Availability

This subsection contains a discussion of the following topics.

- Subset of 27 strategies that are potentially applicable within each region.
- Estimate of benefits that could be achieved considering all constraints (e.g., institutional regulatory, finance, local opposition, technology, conveyance, local land use, etc.).

Considerations for this subsection:

- Estimation of resource management strategy potential of the 27 strategies detailed in Volume 2 of Update 2009.
- Water Evaluation and Planning (WEAP) results for the Sacramento, San Joaquin, and Tulare Lake Hydrologic Regions.

Regional Strategies

This subsection contains a discussion of the following topics.

- Regional response packages for managing future water supply, managing flood risk, managing water quality, adapting to climate change, and achieving sustainability.

Considerations for this subsection:

- Highlight response strategies important to the region.
- This section will inform the strategy and policy recommendations in Volume 1 of the Update 2013 as themes become evident.
- Number of accepted plans.

References

This section contains the list of end references supporting the narrative. Use the subheadings below and see the guidance on in-text citations and end references within *California Water Plan Update 2013 Publications Process and Style Guide*. Also available is a tool called “Click-and-Type References.”

Considerations:

- Document sources of chapter text.
- Link to documentation of data sources for portfolios.
- Link to other water management plans and elements.

References Cited

List references here.

Additional References

List references here.

Personal Communications

List references here.

The text below is for publications staff use only. This text will not appear in the final version of this document.

Publications staff: Acronyms and abbreviations will be presented for each chapter individually. References for citations will appear within each chapter, as well. Use the lists below to create acronym tables for each chapter, generate tables of contents, and crosscheck information within the text.

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