
PART III: WATER RESOURCE PLANNING**5.1 RELATIONSHIP OF MASTER WATER PLAN TO EXISTING DOCUMENTS**

This chapter describes the relationship between the Master Water Plan and the different State, County, and local agency water related documents, programs, or policies that guide water resource management decisions. In addition, this chapter also suggests coordination efforts that should occur in future updates to the Master Water Plan that would promote consistency between the documents listed below.

5.1.1 California Water Plan**5.1.1.1 Description**

The California Water Plan (CWP) provides a framework for water managers, legislators, other decision makers, and the public to consider options and make decisions regarding California's water future. The CWP, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The CWP also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs.

The State's goal for the CWP is to meet Water Code requirements (Sections 10004 through 10013), receive broad support among those participating in California's water planning, and be a useful document for the public, water planners throughout the state, legislators and other decision-makers.

5.1.1.2 Relationship to Master Water Plan (MWP)

This Master Water Plan (MWP) utilized the California Water Plan for definitions of and information on water management strategies to consider in the County. To some extent, the MWP utilized the CWP's methodology of developing a range of future demands rather than one predicted demand value.

5.1.1.3 Timing

The CWP is on a schedule to release a 2013 update in March 2014, four years after the release of the 2009 Update. Since the requirement is to complete the updates every five years, the timing for a subsequent update is unclear. This MWP will assume the State follows this pattern for release every 4 years as a conservative approach.

5.1.1.4 Issues Related to Coordination

The CWP provides an opportunity for using consistent methodologies to develop water supply and demand estimates. However, it is important to evaluate the appropriateness of utilizing methodologies in the CWP locally. Items to consider include the data available versus the data needed, willingness and resources of individual agencies and groups that manage their water resources, resources of the District and County for future MWP updates, and various local issues that often are not accounted for adequately in State-wide templates.

5.1.1.5 Recommendations for Coordination

- Determine the appropriateness of utilizing CWP methodologies in future MWP updates
- Consider the timing of CWP updates in developing a schedule for updating the MWP

5.1.2 Integrated Regional Water Management Plan

5.1.2.1 Description

In November of 2002, Proposition 50 was passed by California voters, approving Chapter 8 (Water Code 79560 to 79565) and the Integrated Regional Water Management (IRWM) Program. To participate and be eligible for water resources planning and project grant funding, water agencies were asked to form a region when their jurisdictional boundaries overlap the same or connected watersheds and/or groundwater basins, and involve appropriate stakeholders to integrate water supply, water quality, ecosystem, and flood control issues into their water resources planning and projects. Associated grant program guidelines require the development and adoption of an IRWM Plan for the region prior to applying for grant funding.

The District, in cooperation with the Water Resources Advisory Committee (WRAC), has developed an IRWM Plan for the region defined as the County boundary. The San Luis Obispo County Region's IRWM Plan integrates all of the programs, plans and projects lead by entities within the region into water supply, water quality, ecosystem preservation and restoration, groundwater monitoring and management, and flood management programs. Depending on grant program funding criteria, projects within the IRWM Plan can be submitted by the District via the grant application process to the appropriate State agency for consideration. Additional State grant programs that utilize the IRWM Program include components of Propositions 84 and 1E.

5.1.2.2 Relationship to MWP

State guidelines require certain information be included in IRWM Plans, including a description of the region, water supply and demand information, and water resources projects and programs. The MWP is incorporated into appropriate sections of the IRWM Plan in accordance with the guidelines. The IRWM Plan also contains goals and objectives

for water resources management that are utilized in the MWP for evaluating strategies to address water supply and demand discrepancies,

5.1.2.3 Timing

There is no set requirement for updating IRWM Plans. However, release of new guidelines for new grant opportunities and grant requirements can drive and/or set timelines. For example, the San Luis Obispo County Region's 2007 IRWM Plan will be updated in 2011-2012. This will be done in order to either meet current guidelines prior to the next round of grant funding, or to comply with a potential grant opportunity for 2011 that requires update of an IRWM Plan to current guidelines within 2 years of executing a grant agreement.

5.1.2.4 Issues related to coordination

Since the District is currently the lead agency in developing both the IRWM Plan and MWP in coordination with the WRAC, the main issue with coordination is limited to availability of District resources to manage both documents.

5.1.2.5 Recommendations for coordination

Via the WRAC, consider modifying the governance structure for IRWM Plan development and implementation to diversify resources for IRWM Plan development and implementation, to ensure it is a stakeholder-driven effort and to free up District resources for implementation of MWP recommendations. Incorporate climate change considerations included in future IRWM Plans into future drafts of the MWP.

5.1.3 County General Plan

California law requires every city and county in the state to prepare and adopt a comprehensive long-range General Plan for the physical development of the jurisdiction (California Government Code §65300). Each General Plan must include seven mandatory elements: land use, circulation, housing, conservation, open space, safety, and noise. General Plans may include other optional elements as desired. Any discussions of water in the General Plan must also be prepared in coordination with water suppliers (3,000 connections or more) and include any information on water supply and demand prepared pursuant to §65352.5 (CA Government Code). The following section discusses the components of the County's General Plan that are relevant to the MWP.

5.1.3.1 Conservation and Open Space Element

5.1.3.1.1 *Description*

San Luis Obispo County has an abundance of natural resources and open space features that are fundamental to our quality of life. These features include majestic natural landmarks, outstanding scenic vistas, important wildlife habitats, diverse natural communities, unique historic and cultural resources, vibrant lakes and creek corridors,

dynamic coastal and marine environments, clean air, and bountiful soils. However, the County's special character is vulnerable to development pressure that can incrementally degrade biodiversity and threaten ecologic, historic, scenic, and other natural resources.

The Conservation and Open Space Element (COSE) is a tool to protect and preserve these unique community resources. Conservation is the planned management, preservation, and wise utilization of natural resources and landscapes to ensure their availability when needed. Conservation means using efficient technologies and changing wasteful habits. Conserving, renewing, and restoring natural resources will assure their greatest ecologic, economic, or social benefit over time. This is necessary in order to enjoy scenic beauty and recreation, eliminate or minimize premature and unnecessary conversion of open space to urban uses, maintain public health and safety, and support a vital economy.

The state requires conservation elements to address water issues with regard to the conservation, development, and utilization of this resource. The COSE contains goals, policies, and policy implementation strategies to this effect for the unincorporated areas of the County.

5.1.3.1.2 *Relationship to MWP*

This MWP was developed with consideration of COSE policies, goals and implementation strategies to project supply and demand and to evaluate and recommend strategies to address discrepancies in supply and demand projections. It is anticipated that implementation of recommendations in the MWP will accomplish certain water resources policy implementation strategies in the COSE and vice versa.

5.1.3.1.3 *Timing*

The County's COSE was updated in 2010. There is no set schedule for COSE updates; however, individual policy implementation strategies are anticipated to be initiated over time.

5.1.3.1.4 *Issues related to Coordination*

Since the COSE and this MWP were developed utilizing IRWM Plan goals and objectives, the two efforts are well aligned.

5.1.3.1.5 *Recommendations for Coordination*

Coordinate between County Departments as appropriate and in conjunction with the WRAC on the implementation of MWP recommendations and COSE policy implementation strategies related to water resources.

5.1.3.2 Land Use and Circulation Element

5.1.3.2.1 Description

The Land Use and Circulation Element (LUCE) of the General Plan contains policies that govern the way land is used and the way people move around in the unincorporated areas of San Luis Obispo County. The LUCE update (currently underway) is a consolidation and revision of the current LUCE for the rural areas of the county. The update will focus on planning at a regional level in order to protect agriculture and other important resources, and planning for expected growth through the year 2035, including economic development and a wider range of housing opportunities.

The LUCE will confront challenges within San Luis Obispo County such as long-term water resources, increased cost of infrastructure, effects of increasing rural development, and rural growth and the effects on agriculture, as well as traffic volumes and congestion. Addressing these issues will help to assure a sustainable and growing economy.

Objectives of the LUCE include, but are not limited to:

- Consolidating 15 planning areas into fewer areas (using watersheds and groundwater basins as boundaries),
- Implementing the County's strategic growth policies and state legislation (Senate Bill 375) by shifting inappropriate rural growth potential away from rural areas and protecting agricultural and natural resources,
- Planning for growth based on sustainable resources,
- Engaging in a high level of collaboration with communities, mutual water companies, community services districts, and cities.

5.1.3.2.2 Relationship to MWP

Both the LUCE and the MWP contain land-use based water demand projections for the unincorporated rural and agricultural areas of the County and coordinate with appropriate water providers for water resources planning information within urban and village reserve lines. One of the major themes for the LUCE update is planning so that future growth is in keeping with resources such as water supply so that both are sustainable. The MWP also seeks to understand the effect of allowable land use on water resources.

5.1.3.2.3 Timing

An update to the LUCE started in January 2010 and is anticipated to be completed in August of 2012.

5.1.3.2.4 Issues related to Coordination

The main issues are related to timing and planning area designations. Since the LUCE is being updated after the majority of the analysis in this MWP had been completed, water

demand estimates will likely be different. While both were based on allowable land uses according to the current General Plan, the analysis for the LUCE update will be even more refined and on a parcel-specific basis. In selecting planning area designations, the MWP was free to utilize watersheds and groundwater basins, with consideration of local/sub-regional water resources-related jurisdictions, while the LUCE will likely use the Coastal Zone boundary in the formation of its planning area designations in order to address different land use requirements in the Coastal Zone versus the inland areas. Other than the Coastal Zone boundary, however, the planning area designations for the MWP and the LUCE are anticipated to be very consistent.

5.1.3.2.5 Recommendations for Coordination

- Utilize the land use analyses conducted for the LUCE in future MWP updates which will aid in demonstrating the effect on water resource demands between allowable land uses in the current General Plan versus land uses that are recommended based on implementation of strategic growth principles. Understanding this difference will aid the County, and potentially others, in determining effective land use based strategies to sustain water resources,
- Maintain a GIS-based system for updates to both efforts in the future.

5.1.3.3 County Resource Management System

5.1.3.3.1 Description

The Resource Management System (RMS) component of the General Plan focuses on collecting data in order to avoid and correct resource deficiencies with regard to six essential resources: water supply, water systems, wastewater treatment systems, schools, roads, and air quality. This information historically has been compiled in an Annual Resource Summary Report (ASR) that guides decisions about balancing development with the resources necessary to sustain such development. It focuses on collecting data, identifying resource problems, and recommending solutions. The RMS contains “triggers” to implement certain actions such as conservation or supplemental water development measures to avoid or correct resource deficiencies. These triggers are designated as Levels of Severity I, II, and III, and are tied to time frames to implement improvements or to enhance declining resources.

When an ASR identifies a level of severity for an area, the Board typically directs staff to prepare a Resource Capacity Study (RCS) for that area. The RCS is to provide a more detailed analysis and determination of the level of severity prior to certifying the level of severity and taking action to address the deficiency. An RCS draws from existing studies and information to confirm the level of severity determination and recommends actions for the Board to take within its authority to address the resource issue.

5.1.3.3.2 Relationship to MWP

There is an opportunity for MWP updates to utilize data collected on an annual basis by the RMS to document and analyze current and historical trends of supply and demand, compare actual water demands to the predicted range of future demands, and assist water resource management efforts. The RMS and RCSs can monitor the implementation of MWP recommendations to track and provide updates on water resource management strategies that are being implemented throughout the County. Recommendations for improved monitoring throughout the County were adopted by the Board in 2009 that when implemented, will benefit both the RMS and MWP updates by providing better data to assess water supply and demand.

5.1.3.3.3 Timing

The ASRs for the RMS are based on the water year, July 1st to June 30th, and are generally reviewed and approved by the Board early the following calendar year. RCSs are developed upon direction by the Board.

5.1.3.3.4 Issues Related to Coordination

Historically, the RMS has collected and reported on actual pumping and delivery data from water providers throughout the County that are willing to provide the information on an annual basis. This may not be reflective of the demand factors water providers, and consequently the MWP, utilize for planning purposes to assess the amount of supply needed to meet demand. For example, a common methodology for determining the water demand for planning is a ten-year running average, to account for fluctuations in demand year to year. Efforts are underway to refine the approach to presenting data in the ASRs for the RMS with regard to this issue.

Rural and agricultural demand data are lacking in a majority of the County, making it challenging for both the RMS and the MWP to assess whether a certain water resource is being used at or beyond its capacity. While implementation of the recommendations from the 2009 RMS ASR, along with other voluntary efforts to provide data, will go a long way, data collected over a longer time frame is most useful for planning purposes.

The MWP covers the whole County while the RMS is generally limited to population centers. Therefore, the annual mechanism for data collection is also limited to population centers. The County should consider expanding the RMS to include all areas of the County,

5.1.3.3.5 Recommendations for Coordination

- Continue to consider the RMS's contribution to other efforts like the MWP and others listed in this chapter in refining the approach to periodic reports and Level of Severity definitions.
- Refine data collection efforts with consideration of ultimately utilizing the data to assess resource capacity and conditions.

5.1.3.4 Agricultural Element

5.1.3.4.1 Description

The Agriculture Element focuses on wisely managing and protecting agricultural land-use resources in San Luis Obispo County. The mission of the Agriculture Element is to identify those areas of the county with productive farms, ranches and soils, and establish goals, policies and implementation measures that will enable their long-term stability and productivity. Key policies that relate to water resources are included below:

AG Policy 10: Water Conservation.

- a. Encourage water conservation through feasible and appropriate “best management practices.” Emphasize efficient water application techniques; the use of properly designed irrigation systems; and the control of runoff from croplands, rangelands, and agricultural roads.
- b. Encourage the U.C. Cooperative Extension to continue its public information and research program describing water conservation techniques that may be appropriate for agricultural practices in this county. Encourage landowners to participate in programs that conserve water.

AG Policy 11: Agricultural Water Supplies.

- a. Maintain water resources for production agriculture, both in quality and quantity, so as to prevent the loss of agriculture due to competition for water with urban and suburban development.
- b. Do not approve proposed general plan amendments or rezonings that result in increased residential density or urban expansion if the subsequent development would adversely affect: (1) water supplies and quality, or (2) groundwater recharge capability needed for agricultural use.
- c. Do not approve facilities to move groundwater from areas of overdraft to any other area, as determined by the Resource Management System in the Land Use Element.

Other Related Policies

Several other policies speak to land use preferences and environmental protection that, when implemented, help to protect water resources and/or preserve water resources for agricultural uses,

5.1.3.4.2 Relationship to MWP

Recommendations in the MWP are consistent with the policies in the Agriculture Element with respect to promotion of conservation and best management practices, understanding the condition of County water resources and optimizing use of surface water supplies for urban areas and/or to relieve pressure on groundwater basins as a source of supply.

5.1.3.4.3 Timing

The Agriculture Element is not anticipated to be updated in the foreseeable future.

5.1.3.4.4 *Issues Related to Coordination*

Given the prevalence of agricultural operations in the County, and that they are largely independently owned and operated, evaluating agricultural water demand on a land use basis and applying the various land use policies within the General Plan could result in a range of water demand forecasts. The wide variety of crop production systems and irrigation amounts contribute to the range of demand forecasts. Conversely, defunding of the Williamson Act could result in major efforts to develop land currently in agriculture—with unanticipated impacts on water resources.

5.1.3.4.5 *Recommendations for Coordination*

- Ensure agricultural processing facilities are included in agricultural demand calculations as appropriate and in accordance with the Agriculture Element.
- Consider the effect of land use policies when evaluating future demand scenarios.
- Track how implementation of MWP recommendations also implements Agriculture Element policies.

5.1.4 Sub-Regional/Area Water Resources Planning Documents

5.1.4.1 Description

Water suppliers that provide water directly, or treated water indirectly, to 3,000 connections or more, or in an amount of 3,000 AFY or more, are required to submit Urban Water Management Plans (UWMPs) to the State every five years (years ending in 00 or 05). For urban water purveyors, the UWMP is possibly the most critical and current source of information for updating the Master Water Plan. These UWMPs document:

- Water supply source descriptions
- Historical water demands and demand projections
- Implementation of demand management measures
- Water shortage contingency plans
- Other water resources management strategies

Other water suppliers may from time to time develop water system master plans that contain similar information, but focus primarily on water distribution infrastructure and not water supply.

On a sub-regional basis, there are groundwater basin management groups that have been formed, as a result of court proceedings or voluntarily, that conduct and report on groundwater basin supply, demands, conditions, and management efforts.

On a regional basis, the San Luis Obispo Council of Governments (SLOCOG) has produced Community 2050, a Blueprint for Tomorrow's Growth, which is a collaborative

planning effort that utilizes scenario planning to study long-range regional growth. Together, public officials and community participants compared different growth scenarios using performance indicators such as traffic congestion, farmland conversion, housing production and economic benefit. Information derived from Community 2050 was presented in a regional vision to aid local jurisdictions in making improved investment decisions. Community 2050 includes water management principles and implementation strategies utilizing the region's 2007 IRWM Plan.

5.1.4.2 Relationship to MWP

These local, sub-regional and regional documents provide important supply and demand information and guidance on water management strategy evaluations for this MWP. Future updates to the water demand and supply sections of the MWP will be based primarily on these documents.

5.1.4.3 Timing

UWMPs are generally due to the State in years ending in 0 and 5. As a result of new legislation and changes to the Water Code, the deadline was extended to July 1, 2011, for 2010 UWMPs. Since UWMPs are prepared on a set schedule, updates to the MWP could be coordinated with the completion of these reports. Water System Master Plans are developed as needed by individual water suppliers. Reports from groundwater basin management groups are generally produced annually, with special studies released as needed. The draft Community 2050 document was released in December of 2008.

5.1.4.4 Issues related to coordination

Since there are so many individual water suppliers/management groups in the County, with various approaches to water resources planning, time-tables for completing or updating their documents, and levels of resources to participate in the development of the MWP, obtaining a consistent "snapshot" of supply and demand analyses can be a significant and challenging effort. Also, many of the water purveyors do not meet the water supply or service connection threshold for preparing an UWMP.

5.1.4.5 Recommendations for Coordination

- Develop a consolidated, coordinated mechanism for gathering County-wide water supply and demand information to avoid redundancy and ensure consistency.
- Consider the timing of release of local and sub-regional documents in developing a schedule for updating the MWP.
- Consider the analyses conducted to develop Community 2050 when updating the land use-based water demand analysis in the MWP.

5.2 RECOMMENDATIONS FOR FUTURE MASTER WATER PLAN UPDATES

One option is to update the MWP on a five year cycle, following the completion of UWMPs. Most water purveyors completed their 2010 UWMPs in June 2011. Unfortunately, this MWP update was initiated prior to the start of the 2010 UWMP cycle. The next cycle of UWMPs will be prepared in 2015 and the MWP could be updated in 2016 to have the most current urban water demand and supply information,

Other documents like the California Water Plan, the County General Plan, and IRWM Plan are not as predictable with their scheduled updates, so linking future MWP updates to these documents would not promote a consistent assessment of County-wide demands and supply,

Since UWMPs are updated in years ending in 0 or 5, the MWP could be updated in years ending in 1 or 6 (i.e. 2016, 2021, 2026, 2031...).

5.2.1 Areas of Improvement and Data Limitations

Certain areas discussed in this MWP update lacked sufficient data or the data was antiquated and did not reflect current conditions. Below is a brief list of areas where increased investigation or collection of current data would be useful in the long term planning needs of the County and future MWP updates,

- The description of hydrologic conditions of several groundwater basins are over 50 years old and should be updated.
- Future updates should gather groundwater supply information for undefined groundwater basins or fractured rock formations. Sufficient water supply appears to exist to support rural and commercial agricultural operations outside of defined basins and a better understanding of these supplies is needed,
- The agricultural demand assessment relied on the County Agriculture Commissioner's GIS pesticide database. The pesticide use permits provide the most accurate information available regarding the location of planned commercial agricultural production during the year, but in some instances may not be entirely accurate. Occasionally sites which obtain permits are not planted for a variety of reasons, and many vegetable crop sites may be planted with more than one crop rotation during a year (Isensee, 2009). More detailed investigation should be invested to assess the demands from these irrigated pastures that are not reported to the Agriculture Commissioner. The District could also consider completing a separate study that focused entirely on the County's agricultural demands and developing accurate irrigation rates by water planning area.

- The rural water demand assessment will need to be revised to match the County Planning Department's update on rural development and subdivision potential in unincorporated areas of the County,
- The current approach for evaluating the County's demands by water planning area should be refined to investigate the demand versus supply on a groundwater basin or watershed basis. The water planning areas could be maintained, but the understanding between demand and source of supply would be improved if the investigation looked more closely than the water planning area level.
- Environmental water demand planning-level assessments such as this one do not take the complexity of natural systems into consideration. Site- and project-specific instream flow requirements need to be completed to be able to determine a water balance that accounted for environmental water demand on a water planning area basis in future Master Water Plans. This would allow the environmental water demand to be quantified and represented on a sub-watershed or creek basis. The first steps in this effort are establishing appropriate data collection sites, identifying opportunities for coordination with appropriate entities on the effort and prioritizing locations to study first.