

## **Chapter 1**

### **INTRODUCTION**

#### **1.1 Urban Water Management Planning Act**

This report has been prepared by the City of Santa Cruz Water Department in response to the Urban Water Management Planning Act. The Act, which became part of the California Water Code with the passage of Assembly Bill 797 in 1983, requires that every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually prepare and adopt an Urban Water Management Plan, and to update it every five years.

The Act requires water agencies to evaluate and describe their water resource supplies and projected needs over a twenty-year planning horizon, and to address a number of related subjects including water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events.

The Act recognizes that water is a limited and renewable resource subject to ever-increasing demands and that conservation and efficient use of urban water supplies is a statewide concern. The Act also states that a long-term reliable supply of water is essential to protect the productivity of California's businesses and economic climate and, as part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years.

The purpose, required contents, and process for preparing and adopting Urban Water Management Plans are specified in Water Code sections 10608 and 10610 – 10656 (Appendix A). The overall goal is to provide water suppliers throughout the state a framework for carrying out their long-term planning responsibilities and for reporting their strategies to meet future water challenges to both state government and the communities they serve.

#### **1.2 Legislation, 2005 to Present**

The Act has been amended numerous times by the Legislature over the years. The most significant legislative change since the City last updated its plan in 2005 resulted

from the passage of SBX7-7, also known as the Water Conservation Bill of 2009 (Appendix B). This legislation mandates urban per capita water use be reduced 20 percent by the year 2020. Under the law, each urban water supplier is required to determine its baseline daily per capita water use and to calculate future water use targets in accordance with technical methodologies developed by the California Department of Water Resources, and to include this information beginning in its 2010 Urban Water Management Plan. Progress towards decreasing daily per capita water use and achieving future water use targets is then to be documented in subsequent plans over the next two five-year submittal cycles.

Other new provisions to the Act require:

- Eligibility of state-funded grants and loans to be conditioned on the implementation of the 14 demand management measures listed in Water Code section 10631.
- Water agencies to grant a priority in the provision of water service to housing units affordable to lower income households.
- Indirect potable reuse to be considered as an option for a potential use of recycled water.

### **1.3 Uses of an Urban Water Management Plan**

Urban Water Management Plans serve a variety of purposes and are intended to be consistent with and support other local, regional, and statewide plans and processes. Information about water use and supplies reported by water agencies is collected and used by the state in updating the California Water Plan every five years, next scheduled for 2013. They provide a common basis for cooperative water resource management through preparation of Integrated Regional Water Management Programs, such as one now being implemented in Santa Cruz County, of which the City of Santa Cruz is a project partner. Land use agencies rely on a water agency's Urban Water Management Plan as a long-range planning document to aid in updating city and county General Plans and for preparation of environmental documents under the California Environmental Quality Act (CEQA). They also serve as a detailed source of information to coordinate local water supply availability and certain land use decisions made by cities and counties under Senate Bills 610 and 221 of 2001.

## 1.4 City of Santa Cruz' 2010 Urban Water Management Plan

This document constitutes the fifth update of the City's Urban Water Management Plan. The first version was adopted by City Council in 1986. The plan was most recently updated in 2005 and adopted in early 2006.

There are multiple approaches that may be taken to prepare an Urban Water Management Plan. For this submittal cycle, the City has elected to maintain the same basic structure and organization as the 2005 plan, while updating each section with more recent information and expanding portions to address new requirements.

Besides fulfilling its statutory obligations, a primary goal in updating this plan is to evaluate and assess the many changes to supply and demand conditions that have occurred in the intervening years. About five years ago, the City Council unanimously adopted a separate Integrated Water Plan or "IWP" that set forth a preferred strategy to address the City's current and future water needs and its vulnerability to water shortage. Since then, circumstances and events have evolved in a way that was difficult to foresee only a few short years ago. Some of the factors that have changed in the last five years include the following:

- **Effects of Water Shortage.** For the first time since the early 1990's, local water resources were stressed by three years of below normal rainfall and runoff, forcing the City to declare a water shortage and to enact water restrictions in 2009.
- **Reduced Surface Water Diversions Due to Endangered Species Regulation.** The City faces losing a portion of its long-established surface water resources to satisfy federal and state endangered species regulations. Interim flow releases began in 2007, increasing in 2008. What was an uncertain prospect five years ago now looms large in the form of much greater instream flow releases going forward.
- **Decreased Groundwater Availability.** There is a growing acknowledgement today that the sustainable production capability of the groundwater basin from which the City and other users draw is substantially less than previously assumed.
- **Aging Infrastructure.** Key components of the City water system, including Bay Street Reservoir and North Coast System, have reached the end of their useful life and are now in the process of reconstruction, adding pressure on limited financial resources.

- **Changing Shape of Demand.** Instead of stabilizing and rising gradually over time as projected five years ago, water use in the City's service area dropped off substantially compared to prior years. A combination of factors, including changes in pricing and overall water rates, ongoing water conservation efforts, temporary water restrictions, unseasonable weather conditions, housing market collapse, local business closures, and economic recession have all contributed to this trend.

As elsewhere in California, the circumstances surrounding water supply and demand in the central coast region are dynamic. This plan acknowledges that the future is both variable and uncertain, and that change will continue to occur.

## 1.5 Development Process of the 2010 Plan

The normal submittal cycle requires that Urban Water Management Plans be prepared and submitted in December of years ending in five and zero. However, because of recent changes to State law, the deadline for the plan due in 2010 was extended to July 2011.

The process of updating the City's Urban Water Management Plan actually has been a continuous activity since the previous version was adopted in 2006. The top recommendation in the earlier plan was to better prepare for the possibility of future water shortages. Over a three-year period beginning in 2006, the City conducted a comprehensive update of its Water Shortage Contingency Plan through a collaborative, open, and public process involving the City Water Department staff, the City's Water Commission, City Council, stakeholders, and the general public. This plan was formally adopted by City Council as an amendment to the City's 2005 Urban Water Management Plan in March 2009. An accompanying ordinance establishing updated water shortage regulations and restrictions was adopted in April 2009 and revised in May 2010.

Analysis and data collection has also been an ongoing activity. The City updated its water demand models 2009/10. New 20-year water demand forecast scenarios were developed in late 2010 in conjunction with a water supply assessment that served to support a comprehensive update of the City's General Plan 2030. Beginning in 2009, data have been collected and organized to support accurate representation of the City's per capita water use, consistent with the statewide 20x2020 Water Conservation Plan, updating of the California Urban Water Conservation Council MOU, and SB7.

Early in 2011, the City participated in a planning workshop and various webinars sponsored by the California Department of Water Resources (DWR). In March 2010,

the City hosted and led a coordination meeting with other major public water agencies and land use agencies in Santa Cruz County. This meeting was attended by representatives of DWR and the Association of Monterey Bay Area Governments (AMBAG).

Water Department staff prepared the draft water management plan in spring and summer of 2011. Development of this plan was coordinated with neighboring water agencies, city and county land use agencies within the service area, as well as the staff from the City's wastewater treatment facilities, City of Scotts Valley, and the Santa Cruz County Sanitation District in accordance with section 10620(d)(2) of the Act. Written notice regarding the plan review and update was sent to both the City of Capitola and the County of Santa Cruz in May 2011, more than 60 days prior to the public hearing, in accordance with Section 10621(b) of the Act. Preparation of the plan was facilitated by the state's *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (DWR, 2011).

The draft document was made available for public inspection, review, and comment on the City's web site, at the Water Department office, and at the City's Central Library beginning in late September 2011. The draft plan was also circulated in October 2011, along with notice of the time and place of the public hearing, to the County of Santa Cruz, the City of Capitola, AMBAG, local elected officials, the Santa Cruz Local Agency Formation Commission, and to all major public water utilities in Santa Cruz County, including the following:

- Soquel Creek Water District
- San Lorenzo Valley Water District
- Scotts Valley Water District
- Central Water District
- City of Watsonville

The City Water Commission early in May 2011 received a report on per capita water use calculations, and then reviewed the draft plan at two separate meetings on October 3 and November 7, 2011. These Water Commission meetings served to encourage active involvement and participation of diverse groups and individuals prior to and during the preparation of the plan, in accordance with section 10642 of the Act. In the process of reviewing the plan, and in response public input, the Water Commission recommended several changes and additions be made to the draft plan.

The City Council held a public hearing on the plan in accordance with Water Code section 10642 on November 22, 2011. Notice of the time and place of the hearing published pursuant to Section 6066 of the Government Code prior to the hearing. This public hearing also served to satisfy the requirements of Water Code section 10608.26(a) relating to urban per capita water use reduction and allowing community input on the City's plan for complying with this requirement. At the public hearing, Council made certain suggestions and directed that the changes recommended by the Water Commission be incorporated into the final plan.

City Council adopted the plan as modified on December 13, 2011. The resolution adopting the plan is included in Appendix C. Copies of City Council meeting minutes, staff reports, public hearing notices, written input received on the plan, notification letters, and the initial coordination meeting agenda are all included as Appendix D. The final plan was then submitted to the California Department of Water Resources and the California State Library, and transmitted to all jurisdictions receiving water service from the City of Santa Cruz in January 2012, in accordance with sections 10644(a) and 10635(b) of the Act. The final plan was also made available for ongoing public review in accordance with section 10645 of the Act by posting it on the City's web site.

## 1.6 Report Format

The report is organized in accordance with the specific provisions of the Act as follows:

**Chapter 2 – Profile of Service Area and Water Department (10631(a)):** describes the City's water service area including population, climate, and other demographic factors affecting the City's water management planning.

**Chapter 3 – Water Supply System (10631(b)):** describes the City's water supply system, explains how the system is operated, and presents information on water production levels. It also presents information about the groundwater basin that the City relies on for part of its supply, and the current conditions, trends, and concerns related to ongoing groundwater production in the basin.

**Chapter 4 – Past, Current, and Projected Water Use (10631(e)):** explains the City's customer classification system, discusses the water use characteristics of the different customer groups, and discusses past, current, and projected water use by category of use. It also provides information about the City's baseline per capita water use and urban water use targets in accordance with Water Code section 10608.

**Chapter 5 – Water Supply Reliability** (10635(a) and 10631(c)): characterizes the reliability of the City water supply system, provides an updated assessment of the system reliability under differing hydrologic conditions, and describes the overall approach and the status of programs and projects the City is pursuing to improve its water supply reliability.

**Chapter 6 – Water Demand Management Program** (10631(f)): describes the water demand management measures currently being implemented by the City and discusses the planning process underway to guide water conservation activities in future years.

**Chapter 7 – Water Recycling** (10633(a)–(g)): describes the City’s wastewater collection, treatment, and disposal system, and provides information on recycled water and its potential for use as a supplemental source of water supply in the service area.

**Chapter 8 – Water Shortage Contingency Plan** (0632(a)-(i)): summarizes the City’s recently updated Water Shortage Contingency Plan and presents information about how the City manages the water system in a declared water shortage. It also describes actions that would be undertaken in response to a catastrophic interruption of water supplies, including a regional power outage, earthquake, or other emergency situation.

**Chapter 9 – Planning for Climate Change:** presents information about potential water supply and demand effects related to climate change, the risks they impose, and planning efforts underway to reduce these risks and exposure to these hazards in the future.

**Chapter 10 – Goals and Policies for Managing the Santa Cruz Water System:** presents long-term goals, polices, and actions to guide management of the water system through the year 2030 and ensure that the water supply continues to meet the needs of the community well into the future.