SUNNY SLOPE WATER COMPANY

Urban Water Management Plan 2010

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CHAPTER 1

INTRODUCTION [SECTION 10620]

(a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

1.1 URBAN WATER MANAGEMENT PLAN [SECTION 10617]

"Urban Water Supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

This report was prepared in accordance with the California Urban Water Management Planning Act (Act)[1] which became effective on January 1, 1985 (Appendix A). The Act requires each urban water supplier, providing water to more than 3,000 customers or supplying more than 3,000 acre-feet of water per year, to prepare and adopt an Urban Water Management Plan (hereinafter Plan or UWMP). In addition, the Act requires the Plan to be reviewed and updated every five years. The primary objective of the Plan is to achieve conservation and efficient use of urban water supplies and to ensure sufficient water supplies will be available for future beneficial use. This Plan is an update of Sunny Slope Water Company's (SSWC) 2005 Urban Water Management Plan and reviews the activities of SSWC as a retail water supplier.

[1] Water Code Sections 10610 through 10657

1.2 AGENCY COORDINATION [SECTION 10620 (d)(2)]

Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

SSWC has coordinated the preparation of the 2010 Urban Water Management Plan with its water management agencies, public agencies, cities and county within its service area. SSWC's water management agencies consist of Main San Gabriel Basin Watermaster, Raymond Basin Management Board and Upper San Gabriel Valley Municipal Water District (Upper District). SSWC serves water in the cities of Arcadia, San Gabriel, San Marino, Temple City and unincorporated portions of the County of Los Angeles. SSWC has invited water management agencies, public agencies, cities and county to participate in the development of the Plan. Copies of the notification memorandum are located in Appendix B. No comments to the UWMP were received by SSWC. SSWC does not receive treated imported water from a wholesaler and therefore is not required to provide Upper District with water use projections. However, water use projections will be made available to Upper District.

SSWC made the draft 2010 Plan available for a 2-week public review period and a public hearing was held on June 15, 2011. SSWC posted notice of its public hearing in the newspaper and sent notices, as shown in Appendix B. Public notification of the hearing is required pursuant to Section 6066 of the Government Code. No agencies attended the public hearing. SSWC did not receive comments on its draft 2010 Plan. Upon completion of the public hearing, SSWC adopted the Draft Plan, including any modifications resulted from the public hearing, as its 2010 UWMP. Within 30 days of adoption of the Plan by SSWC, a copy of the Plan will be filed with the State of California, Department of Water Resources, the California State Library, and with the cities located within SSWC's service area. Copies of the letters to DWR, the State Library and the Cities of Arcadia, San Gabriel, San Marino, Temple City, and the County of Los Angeles are located in Appendix B. A copy of SSWC's resolution adopting the UWMP is located in Appendix C. A copy of the final 2010 Plan is available for public review in SSWC's office.

1.3 WATER MANAGEMENT TOOLS [Section 10620 (f)]

Section 10620
(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

This Plan describes the management tools and options used by SSWC to maximize local resources and minimize the need to import water. The management tools and options used by SSWC include groundwater management (Chapter 3),

Demand Management Measures (Chapter 5), Future Water Supply Projects (Chapter 6) and Recycled Water Use (Chapter 8).

1.4 CHANGES TO THE PLAN [SECTION 10621]

(a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

There have been many amendments added to the Plan and some reorganization of the water code sections since SSWC's last UWMP update in 2005. The additions and changes are as follows:

1) Senate Bill 1087, Requires Reporting of Water Use Projections for Lower Income Households
2) Assembly Bill 1376, Requires 60 days notice of a public hearing on an UWMP
3) Assembly Bill 1420, Conditions State Funding
4) Senate Bill 7, Requires 20 Percent Reduction in Use by 2020

In accordance with Water Code Section 10621, SSWC has reviewed its 2010 UWMP and appropriate changes were included. Included in this Plan is a checklist in Appendix C, organized by CWC Section, which summarizes response to requirements of the CWC.

CHAPTER 2

DESCRIPTION OF SERVICE AREA [SECTION 10631]

A plan shall be adopted in accordance with this chapter and shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

2.1 BACKGROUND

SSWC owns and operates a water distribution system serving portions of the cities of San Gabriel, San Marino, Temple City, Arcadia, and unincorporated portions of Los Angeles County. In 1861, L.J. Rose purchased the most westerly portion of Rancho Santa Anita, located in the current service area of SSWC. About that time, he began subdividing the ranch and developed a water system. In 1887, L.J. Rose and Company, Limited purchased the water system from L.J. Rose. In 1895, L.J. Rose and Company organized SSWC, a mutual water company, to take over the water system to serve water. SSWC delivers water to its shareholders in proportion of their shares in the corporation.

2.2 DESCRIPTION OF THE SERVICE AREA

SSWC's service area consists of about 1,892 acres and is located in the westerly part of the San Gabriel Valley in Los Angeles County, as shown on Plate 1. SSWC provides water to retail residential and commercial customers. There are about 6,180 service connections within the SSWC system, of which about 90 percent are domestic meters and about 10 percent are service connections for commercial meters.

The SSWC's service area is separated into three pressure zones as shown on Plate 2. Zone III, the lowest, is served by gravity from reservoirs and supplemented by water delivered directly into the system from local wells. The upper two pressure zones, Zones I and II, are served by booster pumps drawing water from reservoirs in the highest zone, Zone I, and from the transmission main in the middle zone, Zone II.

All of the water supplied by SSWC is obtained from two local groundwater basins: the Raymond Basin and the Main San Gabriel Basin (Main Basin).

2.3 REGIONAL SETTING

The Main Basin and the Raymond Basin collectively underlie most of the San Gabriel Valley and are separated by the Raymond Fault located in the westerly part of

the San Gabriel Valley (Valley), as shown on Plate 1. The Main Basin and Raymond Basin are separated from the coastal plain of Los Angeles County by Whittier Narrows, a natural topographic divide and subsurface outlet for the movement of groundwater from the Valley to the coastal plain. SSWC is located within the San Gabriel Valley, which is bounded by the San Gabriel Mountains to the north, San Jose Hills to the east, Puente Hills to the south, and by series of hills to the west.

2.4 CLIMATE

The service area and location of SSWC in the San Gabriel Valley has a dry climate and summers which can reach temperatures in the high 90s. The historic rainfall in San Gabriel Valley since water year 1958-59 is shown in Table 1A. The annual rainfall is 17.8 inches, the average annual temperature is 63.8^{o}F and the annual evapotranspiration is 55.1 inches in the San Gabriel Valley as shown in Table 1B. The annual rainfall in San Gabriel Valley in 2008-09 was 14.0 inches, which was about 80 percent of the normal conditions for the area. Typically outdoor water uses, including irrigation, account for about 50 percent of residential use. Although changes in climatic conditions will have an impact, the projected water supply demands will be based on average year, single dry year and multiple dry-years.

2.5 OTHER DEMOGRAPHIC FACTORS

There are no other demographic factors affecting SSWC's water management planning.

2.6 CURRENT AND PROJECTED POPULATION

SSWC service area consists predominantly of single family residential areas, with few multi-family residential areas and a small number of commercial centers. It Is estimated, SSWC serves about 1 percent of the City of Arcadia, about 5 percent of the City of San Gabriel, about 3 percent of the City of San Marino, about 60 percent of Temple City and less than 1 percent of the unincorporated areas of Los Angeles County. Based on the Southern California Association of Governments (SGAG) and the portions of the cities served by SSWC, SSWC estimates the population served in 2010 is about 30,531 people. SSWC's service area is located in a fully developed residential area, therefore, SSWC estimates minimal population growth is expected in the next twenty years. The following tabulation presents the projected population of SSWC.

Year	Population	Source
2010	30,500	SCAG
2015	30,700	SCAG
2020	30,800	SCAG
2025	30,900	SCAG
2030	31,000	SCAG

CHAPTER 3

WATER SUPPLY [SECTION 10631(b) (c) and (d)]

Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

3.1 EXISTING AND PLANNED SOURCES OF WATER SUPPLY

SSWC is a retail water company serving portions of the Cities of San Gabriel, San Marino, Temple City, Arcadia, and unincorporated territory of Los Angeles County. SSWC depends on groundwater supplies as its existing and planned source of water supply. SSWC has adjudicated water rights from Raymond Basin and Main Basin. In addition, SSWC can purchase untreated imported water from the Upper District to offset demands in excess of SSWC's water rights. Upper District is a wholesaler which supplies supplemental imported water from Metropolitan Water District of Southern California (MWD) to its sub-agencies, including SSWC. More information on SSWC's groundwater rights and supplemental water is provided later in this Chapter.

SSWC's water supply comes from two groundwater basins; the Main Basin and the Raymond Basin. The historic groundwater supplies from the Main Basin and the Raymond Basin are shown on Table 2. Because SSWC is located in an area that is built out, the projected maximum water supply of 4,800 acre-feet for SSWC is not expected to change in the next 20 years.

SSWC pumps groundwater Raymond Basin and the Main Basin from four active wells, which are discussed further in Section 3.1.1 and 3.1.2. The groundwater pumped from these wells is stored in three reservoir facilities in Zone I (Plate 2) of SSWC's service area. SSWC's wells, shown on Plate 2, range in depth from 800 feet to 1,200 feet with maximum pumping capabilities ranging from 1,709 gallons per minute (gpm) to 1,925 gpm. The total capacity of SSWC's wells is about 9,133 GPM. Well and pump data of the SSWC's wells are shown on Table 3.

3.1.1 RAYMOND BASIN

SSWC has two wells, Wells No. 11 and 12, located in the Pasadena Sub-area of the Raymond Basin. Well No. 11 is currently inactive due to 1,2,3-Trichloropropane (1,2,3-TCP) concentrations. Well No. 12 produces water but is blended in an onsite reservoir with Main Basin well water. SSWC plans to construct a Liquid Phase Granular Activated Carbon (LGAC) Treatment Facility at to treat 1,2,3-TCP from Wells No. 11 and 12 which will pump additional groundwater from the Raymond Basin, and shift groundwater production away from the Main Basin. The proposed LGAC Treatment Facility will have a capacity of about 2,000 gpm. The locations of these wells are shown

on Plate 2. SSWC historical groundwater use in the Raymond Basin from 2000 through 2009 is shown on Table 2. Groundwater production during Fiscal Year 2009-10 from the Raymond Basin was about 700 acre-feet. The projected water demand for the next 20 years is about 4,800 acre-feet for both the Raymond Basin and the Main Basin, as shown on Table 2.

3.1.2 MAIN SAN GABRIEL BASIN

In the Main Basin, SSWC produces groundwater through its three active wells. These wells are Wells No. 8, No. 9, and No. 13, as shown on Plate 2. SSWC's historical production from the Main Basin, from 2000 through 2009 is shown on Table 2, along with the projected water demand for 2010 through 2030, which will remain constant.

Both groundwater basins (Main Basin and Raymond Basin) utilized by SSWC have been adjudicated and are well-managed. In addition, the Department of Water Resources (DWR) Bulletin 118 does **not** identify the Main Basin or the Raymond Basin as being in overdraft.

3.2 GROUNDWATER MANAGEMENT PLAN [SECTION 10631(b)]

If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

1) *A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.*
2) *For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court of the board and a description of the amount of groundwater the urban water*

3.2.1 RAYMOND BASIN GROUNDWATER MANAGEMENT

Management of the water resources of the Raymond Basin is based on the Raymond Basin Judgment[2]. SSWC was a defendant in the Raymond Basin Judgment.

3.2.1.1 Raymond Basin Judgment

In 1937, the City of Pasadena filed suit to adjudicate water rights of the Raymond Basin. A copy of the Raymond Basin adjudication is located in Appendix D. The State of California Division of Water Resources (DWR) was retained to prepare a Report of Referee which described the geology and hydrogeology of the Raymond Basin and identified the Safe Yield of the Raymond Basin as 21,900 acre-feet. In 1950, the City of Pasadena requested the Safe Yield of the Raymond Basin to be re-determined. Subsequently, the Court issued a Modification of Judgment on April 29, 1955 increasing

[2] City of Pasadena vs. City of Alhambra, et al, Los Angeles County Case No. Pasadena C-1323, Judgment entered December 23, 1944, modified April 29, 1955.

the Safe Yield of the Raymond Basin to 30,622 acre-feet. This is referred to as the "Decreed Right of 1955" and water rights for all parties are shown in Appendix D. Due to the decrease in the groundwater elevations (see Appendix I), the Raymond Basin Management Board has phased in a 30 percent reduction, over five years, for all Decreed Rights in the Pasadena subarea from which SSWC produces.

As a result of the Raymond Basin Judgment, participating Parties, including SSWC, were allowed to exceed their water right by no more than 10 percent. (That exceedance is deducted from the following year's water right.) The water rights are fixed each year and do not vary. Water demands in excess of a party's water right must be met by purchasing imported water or using other water sources. The Raymond Basin Judgment is administered by the Raymond Basin Management Board.

SSWC has a Decreed Right of 1,558 acre-feet of water per year from the Raymond Basin. However, as the result of the action previously taken by the Raymond Basin Management Board, that Decreed Right will be reduced to 1,090.6 acre-feet by fiscal year 2014-15. The remaining SSWC's production requirements are pumped from the Main Basin.

3.2.2 GROUNDWATER MANAGEMENT IN THE MAIN SAN GABRIEL BASIN

Management of the water resources in the Main Basin is based upon Watermaster Services under two Court Judgments: San Gabriel River Watermaster (River Watermaster)[3] and Main San Gabriel Basin Watermaster (Main Basin Watermaster)[4]. SSWC was a defendant in Long Beach Judgment and Main Basin Judgment and as such had participation. SSWC also participates in the Main Basin management described in the Main Basin Watermaster document entitled "Five-Year Water Quality and Supply Plan". These three basin management documents are described in the following sections.

3.2.2.1 Long Beach Judgment

On May 12, 1959, the Board of Water Commissioners of the City of Long Beach, Central Basin Municipal Water District (Central Basin Municipal), and the City of Compton, as plaintiffs, filed an action against the San Gabriel Valley Water Company and 24 other producers of groundwater from the San Gabriel Valley, including SSWC, as a defendant. This action sought a determination of the rights of the defendants in and to the waters of the San Gabriel River system and to restrain the defendants from an

[3] Board of Water Commissioners of the City of Long Beach, et al, v. San Gabriel Valley Water Company, et al, Los Angeles County Case No. 722647, Judgment entered September 24, 1965.

[4] Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al, Los Angeles County Case No. 924128, Judgment entered January 4, 1973.

alleged interference with the rights of plaintiffs and persons represented by the Central Basin Municipal in such waters. After six years of study and negotiation a Stipulation for Judgment was filed on February 10, 1965, and Judgment (Long Beach Judgment) was entered on September 24, 1965. Under the terms of the Long Beach Judgment, the water supply of the San Gabriel River system was divided at Whittier Narrows, the boundary between San Gabriel Valley upstream and the coastal plain of Los Angeles County downstream. A copy of the Long Beach judgment is located in Appendix E.

Under the terms of the Long Beach Judgment, the area downstream from Whittier Narrows (Lower Area), the plaintiffs and those they represent, are to receive a quantity of usable water annually from the San Gabriel River system comprised of usable surface flow, subsurface flow at Whittier Narrows and water exported to the Lower Area. This annual entitlement is guaranteed by the area upstream of Whittier Narrows (Upper Area), the defendants, and provision is made for the supply of Make-up Water by the Upper Area for years in which the guaranteed entitlement is not received by the Lower Area.

Make-up water is imported water purchased by the Main San Gabriel Basin Watermaster (Main Basin Watermaster) and delivered to agencies in Central Basin Municipal to satisfy obligations under the Long Beach Judgment. The entitlement of the Lower Area varies annually, dependent upon the 10-year average annual rainfall in the Valley for the 10 years ending with the year for which entitlement is calculated.

The detailed operations described in the Long Beach Judgment are complex and require continuous compilation of data so that annual determinations can be made to assure compliance with the Long Beach Judgment. In order to do this, a three-member Watermaster was appointed by the Court, one representing the Upper Area parties, including SSWC, nominated by and through Upper District, one representing the Lower Area parties nominated by and through Central Basin Municipal, and one jointly nominated by Upper District and Central Basin Municipal. This three-member board is known as the San Gabriel River Watermaster (River Watermaster).

The River Watermaster meets periodically during the year to adopt a budget, to review activities affecting water supply in the San Gabriel River system area, to compile and review data, to make its determinations of usable water received by the Lower Area, and to prepare its annual report to the Court and to the parties. The River Watermaster has rendered annual reports for the water years 1963-64 through 2008-09 and operations of the river system under Long Beach Judgment and through the administration by the River Watermaster have been very satisfactory since its inception.

One major result of the Long Beach Judgment was to leave the Main Basin free to manage its water resources as long as it meets its downstream obligation to the Lower Area under the terms of the Long Beach Judgment. SSWC, as a member of the Upper District intervened in the Long Beach case as a defendant in order to enforce the

provisions of a Reimbursement Contract which was incorporated into the Long Beach Judgment to assure that any Make-up Water obligations under the terms of the Long Beach Judgment would be satisfied.

3.2.2.2 Main Basin Judgment

The Upper Area then turned to the task of developing a water resources management plan to optimize the conservation of the natural water supplies of the area. Studies were made of various methods of management of the Main Basin as an adjudicated area and a report thereon was prepared for the Upper San Gabriel Valley Water Association, an association of water producers in the Main Basin, including SSWC. After consideration by the Association membership, Upper District was requested to file as plaintiff, and did file, an action on January 2, 1968, seeking an adjudication of the water rights of the Main Basin and its relevant Watershed. In addition, SSWC was included as a defendant. After several years of study (including verification of annual water production) and negotiations, a stipulation for entry of Judgment was approved by a majority of the parties, by both the number of parties and the quantity of rights to be adjudicated. Trial was held in late 1972 and Judgment (Main Basin Judgment) was entered on January 4, 1973. A copy of the Main Basin Judgment is located in Appendix F.

Under the terms of the Main Basin Judgment all rights to the diversion of surface water and production of groundwater within the Main Basin and its relevant Watershed were adjudicated. The Main Basin Judgment provides for the administration of the provisions of the Main Basin Judgment by a nine-member Watermaster. Six of those members are nominated by water producers (producer members) and three members (public members) are nominated by Upper District and the San Gabriel Valley Municipal Water District which overlie most of the Main Basin. The nine-member board employs a staff, an attorney and a consulting engineer. The Main Basin Watermaster holds public meetings on a regular monthly basis through the year. A copy of the Main San Gabriel Basin Watermaster's Rules and Regulations is located in Appendix G.

The Main Basin Judgment does not restrict the quantity of water which Parties may extract from the Main Basin. Rather, it provides a means for replacing with Supplemental Water all annual extractions in excess of a Party's annual right to extract water. The Main Basin Watermaster annually establishes an Operating Safe Yield for the Main Basin which is then used to allocate to each Party its portion of the Operating Safe Yield which can be produced free of a Replacement Water Assessment.

SSWC's adjudicated right in the Main Basin is 2,228.72 acre-feet. If SSWC extracts water in excess of its right under the annual Operating Safe Yield, it must pay an assessment for Replacement Water which is sufficient to purchase one acre-foot of Supplemental Water to be spread in the Main Basin for each acre-foot of excess production.

In addition to Replacement Water Assessments, the Main Basin Watermaster levies an Administration Assessment to fund the administration of the Main Basin management program under the Main Basin Judgment and a Make-up Obligation Assessment in order to fulfill the requirements for any Make-up Obligation under the Long Beach Judgment and to supply fifty percent of the administration costs of the River Watermaster service. The Main Basin Watermaster levies an In-lieu Assessment and may levy special Administration Assessments.

Water rights under the Main Basin Judgment are transferable by lease or purchase as long as such transfers meet the requirements of the Main Basin Judgment. There is also provision for Cyclic Storage Agreements by which Parties and non-parties may store imported supplemental water in the Main Basin under such agreements with the Main Basin Watermaster pursuant to uniform rules and conditions and Court approval.

The Main Basin Judgment requires that the Main Basin Watermaster will not allow imported water to be spread in the main part of the Main Basin when the ground-water elevation at the Baldwin Park Key Well (Key Well) exceeds 250 feet; and that the Main Basin Watermaster will, insofar as practicable, spread imported water in the Main Basin to maintain the ground-water elevation at the Key Well above 200 feet. One of the principal reasons for the limitation on spreading imported water when the Key Well elevation exceeds 250 feet is to reserve ample storage space in the Main Basin to capture native surface water runoff when it occurs and to optimize the conservation of such local water. Under the terms of the Long Beach Judgment, any excess surface flows that pass through the Main Basin at Whittier Narrows to the Lower Area (which is then conserved in the Lower Area through percolation to groundwater storage) is credited to the Upper Area as Usable Surface Flow.

3.2.2.3 Imported Water in the Main Basin

Through the Long Beach Judgment and the Main Basin Judgment, operations of the Main Basin are optimized to conserve local water to meet the needs of the parties of the Main Basin Judgment.

Typically, water producers within the Upper District rely upon groundwater from the Main Basin for their water supply. Imported water for groundwater replenishment is delivered to the flood control channels and diverted and spread at spreading grounds through Main Basin Watermaster's agreement with the Los Angeles County Department of Public Works (DPW). Groundwater replenishment, utilizing imported water, is Replacement Water under the terms of the Main Basin Judgment. It can be stored in the Main Basin through Cyclic Storage agreements, authorized by terms of the Main Basin Judgment, but such stored water may be used only to supply Supplemental Water to the Main Basin Watermaster.

The Main Basin Watermaster has entered into a Cyclic Storage Agreement with each of the three municipal water districts. One is with the MWD and the Upper District, which permits MWD to deliver and store imported water in the Main Basin in an amount not to exceed 100,000 acre-feet for future Replacement Water use. The second Cyclic Storage Agreement is with Three Valleys Municipal Water District and permits MWD to deliver and store 40,000 acre-feet for future Replacement Water use. The third is with San Gabriel Valley Municipal Water District and contains generally the same conditions as the agreement with MWD except that the stored quantity is not to exceed 40,000 acre-feet. In addition, SSWC has a Cyclic Storage account and is allowed to store a maximum of 300 acre-feet at any given time. As of September 30, 2010 SSWC had 0.00 acre-feet in its Cyclic Storage account.

Imported Make-up Water is often delivered to lined stream channels and conveyed to the Lower Area. Make-up Water is required to be delivered to the Lower Area by the Upper Area when the Lower Area entitlement under the Long Beach Judgment exceeds the usable water received by the Lower Area. Imported water is used to fulfill the Make-up Water Obligation when the amount of Make-up Water cannot be fulfilled by reimbursing the Lower Area interests for their purchase of recycled water. The amount of recycled water for which reimbursement may be made as a delivery of Make-up Water is limited by the terms of the Long Beach Judgment to the annual deficiency in Lower Area Entitlement water or to 14,735 acre-feet, whichever is the lesser quantity.

3.2.2.4 Five-Year Water Quality and Supply Plan

The Main Basin Watermaster was created in 1973 to resolve water issues that had arisen among water users in the San Gabriel Valley. Watermaster's mission was to generally manage the water supply of the Main Basin. During the last 1970s and early 1980s, significant groundwater contamination was discovered in the Main Basin. The contamination was caused in part by past practices of local industries that had carelessly disposed of industrial solvents, referred to as Volatile Organic Compounds (VOCs), as well as by agricultural operations that infiltrated nitrates into the groundwater. Cleanup efforts were undertaken at the local, state, and federal level.

By 1989, local water agencies, including SSWC, adopted a joint resolution regarding water quality issues that stated that Main Basin Watermaster should coordinate local activities aimed at preserving and restoring the quality of groundwater in the Main Basin. The joint resolution also called for a cleanup plan. In 1991, the Court granted Main Basin Watermaster the authority to control pumping for water quality purposes. Accordingly, Main Basin Watermaster added Section 28 to its Rules and Regulations regarding water quality management. The new responsibilities included development of a Five-Year Water Quality and Supply Plan, updating it annually, submitting it to the California Regional Water Quality Control Board, Los Angeles

Region, and making it available for public review by November 1 of each year. A copy of the most recent "Five-Year Water Quality and Supply Plan" is located in Appendix H.

The Main Basin Watermaster prepares and annually updates the Five-Year Water Quality and Supply Plan in accordance with the requirements of Section 28 of its Rules and Regulations. The objective is to coordinate groundwater-related activities so that both water supply and water quality in the Main Basin are protected and improved. Many important issues are detailed in the Five-Year Plan, including how the Main Basin Watermaster plans to:

1. Monitor groundwater supply and quality;
2. Develop projections of future groundwater supply and quality;
3. Review and cooperate on cleanup projects, and provide technical assistance to other agencies;
4. Assure that pumping does not lead to further degradation of water quality in the Main Basin;
5. Address Perchlorate, N-nitrosodimethylamine (NDMA), and other emerging contaminants in the Main Basin;
6. Develop a cleanup and water supply program consistent with the U.S. Environmental Protection Agency (USEPA) plans for its San Gabriel Basin Superfund sites; and
7. Coordinate and manage the design, permitting, construction, and performance evaluation of the Baldwin Park Operable Unit (BPOU) cleanup and water supply plan.

The Main Basin Watermaster, in coordination with the Upper District, has worked with state and federal regulators, along with local water companies to clean up water supplies. Section 28 of the Main Basin Watermaster's Rules and Regulations require all producers (including SSWC) to submit an application to 1) construct a new well, 2) modify an existing well, 3) destroy a well, or 4) construct a treatment facility. Main Basin Watermaster prepares a report on the implications of the proposed activity. As a party to the Main Basin Judgment, SSWC reviews a copy of these reports and is provided the opportunity to submit comments on the proposed activity before Main Basin Watermaster Board takes its final action.

3.3 DESCRIPTION OF GROUNDWATER BASINS [SECTION 10630 (b)]

2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.

3.3.1 RAYMOND BASIN

3.3.1.1 BACKGROUND

The Raymond Basin is located in Los Angeles County about 10 miles north-easterly of downtown Los Angeles. Raymond Basin is a wedge in the northwesterly portion of the San Gabriel Valley and is bounded on the north by the San Gabriel Mountains, on the west by the San Rafael Hills and is separated from the Main San Gabriel Basin on the southeast by the Raymond Fault. The Raymond Basin is divided into an eastern unit, which is the Santa Anita sub-area, and the Western unit which is the Pasadena sub-area and the Monk Hill Basin. The location of the Raymond Basin and the subareas, as shown on Plate 3, the surface area of Raymond Basin is about 40.9 square miles. SSWC produces water from the Pasadena subarea.

The principal streams in the Raymond Basin are the Arroyo Seco, Eaton Wash and Santa Anita Wash. The Arroyo Seco drains to the Los Angeles River, while Eaton Wash and Santa Anita Wash drain to the Rio Hondo, a distributary of the San Gabriel River.

3.3.1.2 GEOLOGY

The geology of the Raymond Basin is described in details in the “Report of Referee” prepared in 1943 by the State of California Division of Water Resources and is summarized below.

The Raymond Basin is roughly triangular in shape. Its northern boundary, about twelve miles in length, is formed by a portion of the southerly front of the San Gabriel Mountains. The western boundary of the Raymond Basin is about eight miles long and is also composed chiefly of the same Basement Complex rocks which form the mountains and which are continuous at depth, together with a small area of marine Tertiary sediment at the southern end. Raymond Fault, the southern boundary of the triangle, crosses the Valley floor for a distance of about nine miles, connecting a granitic spur from the mountains at the eastern end of the Raymond Basin with Tertiary sediments outcropping in its southwestern corner.

The Raymond Fault separates Raymond Basin from the Main Basin. The fault zone is not impervious and groundwater can flow across this boundary into the Main Basin. The source of natural groundwater supply to the Raymond Basin is direct rainfall, percolation from surface runoff from the northern and western sides, and

presumably some underground percolation of water from the mountain mass to the alluvium.

3.3.1.3 HYDROGEOLOGY

DWR describes the hydrogeology of the Raymond Basin in its Bulletin 118. According to the report, the water-bearing materials of the Raymond Basin are dominated by unconsolidated Quaternary alluvial gravel, sand, and silt deposited by streams flowing out of the San Gabriel Mountains. Younger alluvium typically follows active streambeds and reaches a maximum thickness of about 150 feet. Older alluvium generally thickens southward from the mountain front, reaching a maximum of about 1,140 feet near Pasadena, then thins to about 200 feet near the Raymond Fault. However, confined groundwater conditions have existed locally in the Raymond Basin, particularly along the Raymond Fault near Raymond Hill where layers of finer grained sediments become more abundant.

The Raymond Fault trends east-northeast and acts as a groundwater barrier along the southern boundary of the Raymond Basin. This fault acts as a complete barrier along its western end and becomes a less effective barrier eastward. East of Santa Anita Wash, this fault ceases to be an effective barrier and the flow of groundwater southward into the Main Basin becomes essentially unrestricted. A north-trending divide paralleling the Eaton Wash separates both surface and subsurface water flow in the eastern portion of the Raymond Basin. The water level is higher on the eastern side of this divide, ranging from 300 feet higher in the north to about 50 feet higher in the south. Monk Hill, an emergent mound of consolidated bedrock within the Raymond Basin, causes groundwater to flow around it, but does not appreciably change the regional flow pattern. Groundwater contour maps for the Raymond Basin (prepared for the Raymond Basin Annual Report) are included in Appendix I.

Natural recharge to the Raymond Basin is mainly from direct percolation of precipitation and percolation of ephemeral stream flow from the San Gabriel Mountains in the north. The principal streams bringing surface inflow are the Arroyo Seco, Eaton Creek and Santa Anita Creek. Some stream runoff is diverted into spreading grounds and some is impounded behind small dams allowing the water to infiltrate and contribute to groundwater recharge of the Raymond Basin. An unknown amount of underflow enters the Raymond Basin from the San Gabriel Mountains through fracture systems.

Water levels in the Raymond Basin have varied through time but generally have decreased over time in the Pasadena subarea, as shown in Appendix I.

No estimates of available groundwater storage have been made recently in the Raymond Basin. DWR (1971) study estimated the available stored water to be 1,000,000 acre-feet in 1970, leaving about 450,000 acre-feet of storage space available.

3.3.2 MAIN SAN GABRIEL BASIN

3.3.2.1 BACKGROUND

The San Gabriel Valley is located in southeastern Los Angeles County and is bounded on the north by the San Gabriel Mountains; on the west by the San Rafael and Merced Hills, on the south by the Puente Hills and the San Jose Hills, and on the east by a low divide between the San Gabriel River system and the Upper Santa Ana River system, as shown on Plate 4.

The San Gabriel River and its distributary, the Rio Hondo, drain an area of about 490 square miles upstream of Whittier Narrows. Whittier Narrows is a low gap between the Merced and Puente Hills, just northwest of the City of Whittier, through which the San Gabriel River and the Rio Hondo flow to the coastal plan of Los Angeles County. Whittier Narrows is a natural topographic divide and a subsurface restriction to the movement of groundwater between the Main San Gabriel Basin and the Coastal Plain. Of the approximately 490 square miles of drainage area upstream of Whittier Narrows, about 167 square miles are valley lands, and about 323 square miles are mountains and foothills.

The Main Basin includes essentially all of the valley floor of San Gabriel Valley with the exception of the Raymond Basin and Puente Basin. The boundaries of the Main Basin are the Raymond Basin on the northwest, the base of the San Gabriel Mountains on the north, the groundwater divide between San Dimas and La Verne and the lower boundary of the Puente Basin on the east, and the common boundaries between Upper District and Central Basin Municipal through Whittier Narrows on the southwest. The common water supply of the Main Basin does not include the Raymond Basin, the area northerly of Raymond Hill Fault, which was adjudicated in the Pasadena v. Alhambra case, described above. The Puente Basin, although tributary to the Main Basin, is not included in the Main Basin administered by the Main Basin Watermaster.

The Main Basin is a large groundwater basin replenished by stream runoff from the adjacent mountains and hills, by rainfall directly on the surface of the Valley floor, subsurface inflow from the Raymond Basin and Puente Basin, and by return flow from water applied for overlying uses. Additionally, the Main Basin is replenished with imported water. The Main Basin serves as a natural storage reservoir, transmission system and filtering medium for wells constructed therein.

Urbanization of the San Gabriel Valley began in the early part of the twentieth century, but until the 1940's, agricultural land use occupied more area than residential and commercial land use. After World War II agricultural areas reduced rapidly and are now less than two thousand acres. The agricultural areas tend to be located in the easterly portion of the Main Basin and along power transmission rights of way adjacent to the San Gabriel River. Agricultural plots are discontinuous and relatively small. There are several major industrial areas adjacent to the San Gabriel River and within

other portions of the Valley. The greatest area of land use in the Valley is for residential and commercial purposes.

3.3.2.2 Geology

The Main Basin consists of a roughly bowl-shaped depression in the bedrock, filled over millions of years with alluvial deposits. This bowl-shaped depression is relatively deep; the elevation of the base of the groundwater reservoir declines from about 800 feet above mean sea level (MSL) in the vicinity of San Dimas at the northeast corner of the Main Basin to about 2,200 feet below MSL in the vicinity of South El Monte *(California Department of Water Resources, 1966)*.

Most of the alluvium deposited within this depression is debris from the San Gabriel Mountains, washed and blown from the side of the mountains over time. This process has also resulted in the materials within the Main Basin varying in size from relatively coarse gravel nearer the mountains to fine and medium-grained sand containing silt and clay as the distance from the mountains increases. The principal water-bearing formations of the Main Basin are unconsolidated and semi-consolidated sediments which vary in size from coarse gravel to fine-grained sands. The interstices between these alluvial particles throughout the Main Basin fill with water and transmit water readily to wells. The thickness of the water-bearing materials in the Main Basin ranges from 200 to 300 feet in the northeastern portion of the Main Basin near the mountains to nearly 4,000 feet in the South El Monte area *(California Department of Water Resources, 1966)*.

The soils overlying the Main Basin average about six feet in depth. Soil depths are generally greater at the perimeter of the Valley and decrease toward the center along the San Gabriel River. These soils are residual, formed in place through chemical, mechanical and plant weathering processes. The infiltration rates of these soils are greater along the natural channels and their adjacent flood plains. Lower infiltration rates are found in the perimeter areas of the Valley. Since the Valley is mostly urbanized, a significant portion of its area has been paved and many miles of stream channel have been lined for flood control purposes, thus decreasing infiltration of water through streambeds. More detailed Main Basin geology is discussed in the report entitled “Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology” (*California Department of Water Resources, 1966*).

3.3.2.3. Hydrogeology

The total fresh water storage capacity of the Main Basin is estimated to be about 9.5 million acre-feet. Of that, about 1,000,000 acre-feet has been used historically in Main Basin operations. The change in groundwater elevation at the Baldwin Park Key Well (Key Well) is representative of changes in groundwater in the Main Basin. One foot of elevation change at the Key Well is roughly the equivalent of about 8,000 acre-feet of water storage. The location of the Key Well is shown on Plate 4 and hydrograph of the Key Well is shown on Plate 5. The historic high groundwater elevation was

recorded at over 329.1 feet in April 1916, at which time Main Basin storage was estimated to be about 8,700,000 acre-feet. The historic low was recorded in December 2009 at 189.2 feet, at which time Main Basin storage was estimated to be about 7,600,000 acre-feet. The Key Well hydrograph shown on Plate 5 illustrates the cyclic nature of Main Basin recharge and depletion. The hydrograph also illustrates the dramatic recharge capability of the Main Basin during wet periods.

Generally, water movement in the Main Basin is from the San Gabriel Mountains on the north to Whittier Narrows to the southwest. The most recent groundwater contour map is shown on Plate 6. Groundwater movement in the northern and northeastern regions of the Main Basin is affected by faulting. The Raymond Fault located in the north westerly portion of the Main Basin separates the Raymond Basin from the Main Basin, for example.

The Main Basin is an unconfined aquifer. Although clay deposits appear mixed with the soils in several locations in the Main Basin and there are various clay lenses throughout the Main Basin, they do not coalesce to form a single impermeable barrier to the movement of subsurface water. The Main Basin therefore operates as a single, unconfined aquifer. As previously mentioned, a thorough discussion of Main Basin hydrogeology is contained in the report "Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology" (*California Department of Water Resources, 1966*).

Within the Main Basin there are a number of identified sub-basins. These include the Upper San Gabriel Canyon Basin, Lower San Gabriel Canyon Basin, Glendora Basin, Foothill Basin, Way Hill Basin and San Dimas Basin. In addition, the Puente Basin is tributary to the Main Basin from the southeast, between the San Jose and Puente Hills. Plate 7 shows the location of the sub-basins within the Main Basin.

3.3.2.4 Hydrology

The major sources of recharge to the Main Basin are direct penetration of rainfall on the Valley floor, percolation of runoff from the mountains, percolation of imported water and return flow from applied water. Table 1 shows historic annual rainfall in the San Gabriel Valley. Rainfall occurs predominantly in the winter months and is more intense at higher elevations and closer to the San Gabriel Mountains. Rainfall is also highly variable from year to year, as shown on Table 1. In water year 2006-07 the total rainfall (four station average) was less than five inches, while in 2004-05 the total rainfall (four station average) was nearly 46 inches.

The magnitude of annual recharge from direct penetration of local rainfall and return flow from applied water is not easily quantifiable. Percolation of runoff from the mountains and valley floor along with percolation of imported water has been estimated

by River Watermaster. The DPW maintains records on the amount of local and imported water conserved in water spreading facilities and stream channels.

The Main Basin is bisected by the San Gabriel River. The San Gabriel River originates at the confluence of its west and east forks in the San Gabriel Mountains. It flows through the San Gabriel Canyon and enters the Main Basin at the mouth of the canyon north of the City of Azusa (see Plate 4). The San Gabriel River flows southwesterly across the Valley to Whittier Narrows, a distance of about 15 miles. It exits the Valley at Whittier Narrows, and transverses the Coastal Plan in a southerly direction to reach the Pacific Ocean at Alamitos Bay near the City of Long Beach.

The San Gabriel River is joined and fed by tributary creeks and washes. In the Main Basin these include: Big Dalton Wash, which originates in the San Gabriel Mountains; Walnut Creek, which originates at the northeast end of the San Jose Hills; and San Jose Creek, which originates in the San Gabriel Mountains, but which travels around the southerly side of the San Jose Hills through the Puente Narrows before joining the San Gabriel River just above Whittier Narrows.

The channel of the San Gabriel River bifurcates in the upper middle portion of the Main Basin, forming a channel to the west of and parallel to the San Gabriel River, known as the Rio Hondo. The Rio Hondo is fed by tributaries draining the westerly portion of the Main Basin, including Sawpit Wash, Santa Anita Wash, Eaton Canyon Wash, Rubio Wash and Alhambra Wash, all of which originate in the San Gabriel Mountains or the foothills. The Santa Anita Wash, Eaton Canyon Wash, Rubio Wash and Alhambra Wash all cross the Raymond Basin area before entering the Main Basin. The channel of the Rio Hondo passes through Whittier Narrows westerly of the San Gabriel River, and then flows southwesterly to join the Los Angeles River on the Coastal Plain.

To protect residents of the San Gabriel Valley from flooding that can result during periods of intensive rainfall, the DPW and the U.S. Army Corps of Engineers (Corps of Engineers) have constructed an extensive system of dams, debris basins, reservoirs and flood control channels. The dams and reservoirs also operate as water conservation facilities. The dams and reservoirs that control the flow of the San Gabriel River and the Rio Hondo include: Cogswell Reservoir on the west fork of the San Gabriel River, San Gabriel Reservoir at the confluence of the west and east forks of the San Gabriel River, Morris Reservoir near the mouth of the San Gabriel Canyon, Santa Fe Reservoir in the northerly portion of the Basin and Whittier Narrows Reservoir at the southwestern end of the Valley.

Many of the stream channels tributary to the San Gabriel River have been improved with concrete banks (walls) and concrete-lined bottoms. These stream channel improvements have significantly reduced the area of previous stream channels and reduced Main Basin recharge. A number of off-stream groundwater replenishment

facilities have been established along these stream channels to offset such reductions in recharge. The locations of these water spreading facilities are shown on Plate 4. Some of these facilities are accessible to imported water supplies, while some facilities receive only local runoff.

The paths of the surface streams are mirrored in the soils and in the direction of groundwater movement in the Main Basin. The tributary creeks and washes, carrying smaller amounts of water, generally flow toward the center of the Valley, while the direction of flow of the major streams, the San Gabriel River and the Rio Hondo, is from the mountains in the north to Whittier Narrows in the southwest. In similar fashion, the primary direction of groundwater movement in the Main Basin is from the north to the southwest, with contributing movement generally from the east and west toward the center of the Main Basin as shown on Plate 6. The greatest infiltration and transmissivity rates of soils in the Main Basin are from north to south, with the maximum rates found in the center of the Valley along the stream channels. Generally, the Main Basin directs groundwater to the southwest through Whittier Narrows.

3.4 PAST AND PROJECTED LOCATION, AMOUNT AND SUFFICIENCY OF GROUNDWATER [SECTION 10631 (b)]

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

3.4.1 GROUNDWATER SOURCES IN RAYMOND BASIN

SSWC produces groundwater from the Pasadena Subarea of the Raymond Basin. Location of the Raymond Basin wells (Wells No. 11 and No. 12) is shown on Plate 2. SSWC historical groundwater use in the Raymond Basin over the past five years is shown on Table 2. According to the Raymond Basin Judgment, SSWC could produce up to 1,558 acre-feet each year from the Raymond Basin, but that amount will be gradually reduced to 1,090.6 acre-feet by fiscal year 2014-15.

As discussed in Section 3.2.1, the Raymond Basin has been adjudicated and is managed. Water levels in Pasadena Subarea have generally decreased, resulting in the reduction of Decreed Rights. Although SSWC's historical production from Raymond Basin has decreased in recent years due to water quality, SSWC has developed a blending plan to restore partial use of its water rights. Furthermore, SSWC is developing a Volatile Organic Compound treatment facility using liquid-phase Granular Activated Carbon (LGAC) to remove 1,2,3-Trichloropropane (1,2,3-TCP) found in Wells

11 and 12. Raymond Basin is a well managed basin and should have sufficient groundwater supply over the next 20 years under single and multiple droughts.

3.4.2 GROUNDWATER SOURCES IN MAIN SAN GABRIEL BASIN

SSWC also produces groundwater through its three active wells in the Main Basin. The groundwater supply from the Main Basin is pumped to the reservoir storage facilities and then delivered to SSWC's customers.

As noted in Section 3.2, the Main Basin is managed by the Main Basin Watermaster. Section 42 of the Main Basin Judgment (Basin Operating Criteria) states in part "*…Watermaster shall not spread Replacement Water when the water level at the Key Well exceeds Elevation two hundred fifty (250), and Watermaster shall spread Replacement Water, insofar as practicable, to maintain the water level at the Key Well above Elevation two hundred (200).*" Plate 5 shows the historic fluctuation of the Key Well since the Main Basin was adjudicated in 1973 and demonstrates that the Main Basin was generally operated between elevation 250 feet and 200 feet above msl. Furthermore, at elevation 200 feet msl at the Key Well, the Main Basin has about 7,600,000 acre-feet of available storage. During the period of management under the Main Basin Judgment, significant drought events have occurred from 1969 to 1977, 1983 to 1991, 1998 to 2004, and 2006 to present. In each drought cycle the Main Basin was managed to maintain its water levels and SSWC was able to meet its demands, as shown in Table 2. **Therefore, based on historic management practices, SSWC will have adequate groundwater supply from the Main Basin over the next 20 years under single and multiple droughts.**

3.4.3 PROJECTED GROUNDWATER SUPPLY

SSWC does not expect any population growth within its service area, as discussed in Chapter 2. Therefore, SSWC's water demands will not change significantly within the next 20 years. As shown on Table 2, the maximum groundwater production for the last five years was 4,816 acre-feet. The projected amount of groundwater to be pumped over the next 20 years is not expected to exceed 5,021 acre-feet per year (Table 2). As noted earlier, the Raymond Basin and Main Basin are managed to maintain adequate future supplies.

3.5 RELIABILITY OF WATER SUPPLY TO CLIMATE [SECTION 10631 (C) (1)-(3)]

Section 10631

c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

1) An average water year.

2) A single dry water year.

3) Multiple dry water years.

For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or

replace that source with alternative sources or water demand management measures, to the extent practicable.

SSWC produces water from both the Raymond Basin and the Main Basin. As a result of the Raymond Basin and the Main Basin management, SSWC has not experienced water supply deficiencies. The Management of both basins is based on their adjudications, which are described in Section 3.2. Information regarding the reliability of the groundwater supplies for SSWC is based on the 51-year annual rainfall data within the San Gabriel Valley (Table 1A). Table 1A summarizes the rainfall within San Gabriel Valley from 1958-59 through 2008-09. According to the rainfall data on Table 1A, the 51-year average rainfall within SSWC's service area is about 17.8 inches. Therefore, fiscal year 2005-06 represents an average water year for SSWC in which the total amount of rainfall was about 16.8 inches. A single dry year for SSWC was experienced in 2006-07 in which the total amount of rainfall was about 4.9 inches. A multiple dry year sequence for SSWC is represented from fiscal year 2006-07 to fiscal year 2008-09. During those years, the total amount of rainfall was about 4.9, 16.4, and 14.0 inches respectively. Table 5 shows that during an average year, and multiple dry years, SSWC supplies were in surplus compared to its customer's demands.

3.6 EXCHANGES AND TRANSFERS [SECTION 10631]

d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

3.6.1 RAYMOND BASIN LONG-TERM OPPORTUNITIES

SSWC is involved with the Long Term Storage Program in the Raymond Basin, which allows SSWC to store a maximum of 4,700 acre-feet of water in the Pasadena Subarea. As of June 30, 2010, SSWC has 3,437 acre-feet in its Long Term Storage Account.

3.6.2 RAYMOND BASIN SHORT-TERM OPPORTUNITIES

In addition, SSWC has separate connections with East Pasadena Water Company and City of Arcadia designed to provide emergency potable water. These emergency connections are available in the event of a system failure. Arrangements with both cities provide water flow in both directions based on need. Both interconnections have capacities of about 1,500 gpm.

3.6.3 MAIN BASIN LONG-TERM OPPORTUNITIES

As discussed in Section 3.2.2.3, there is a provision for Cyclic Storage Agreements by which SSWC may store imported supplemental water in the Main Basin. SSWC has a Cyclic Storage account and is allowed to store a maximum of 300 acre-feet at any given time. As of June 30, 2010 SSWC had 0.00 acre-feet in its Cyclic Storage account.

CHAPTER 4

PAST, CURRENT AND PROJECTED WATER USE [SECTION 10631 (e)]

(e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:

(A) Single-family residential;
(B) Multifamily;
(C) Commercial;
(D) Industrial;
(E) Institutional and governmental;
(F) Landscape;
(G) Sales to other agencies;
(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; and
(I) Agricultural.

(2) The water use projections shall be in the same 5-year increments to 20 years or as far as data is available.

4.1 PAST AND CURRENT WATER USE

SSWC's service area has been fully developed since 1964; therefore, there has been little change in population and water usage. Fluctuation of water usage within the SSWC's service area occurred mainly due to variations in climate conditions.

SSWC's records indicate there was a total of 5,662 metered accounts for Single-Family (SF) and Multi-Family (MF) water use and 457 metered accounts for the commercial water use in 2000, a total of 5,707 metered accounts for SF and MF water use and 456 metered accounts for the commercial water use in 2005, and a total of 5,579 metered accounts for SF and MF water use and 461 metered accounts for commercial water use in 2010, as shown in Table 4A. There were no unmetered accounts for any water use sectors in the SSWC's service area in 2000, 2005, and 2010. SSWC does not have low-income housing within its service area.

The historical annual water demand and sales from fiscal year 1999-00 through fiscal year 2008-09 are shown on Table 4B. Records of annual water demand and sales for SSWC indicate water demand has remained relatively stable over the years.

4.2 PROJECTED WATER USE

SSWC estimated there will be a total of 5,810 metered accounts for SF and MF water use and 470 metered accounts for commercial water use in 2015, a total of 5,860

metered accounts for SF and MF water use and 480 metered accounts for commercial water use in 2020, a total of 5,910 metered accounts for SF and MF water use and 490 metered accounts for commercial water use in 2025, and a total of 5,960 metered accounts for SF and MF water use and 500 commercial water use in 2030, as shown in Table 4A. SSWC estimated there will not be any unmetered accounts in SSWC's service area in 2015, 2020, 2025, and 2030. SSWC does not have low-income housing within its service area.

The projected water use is calculated based on the urban per capita water use target developed per SB 7 (Chapter 10) and population projections. As discussed in Chapter 2, SSWC's service area is built out and SSWC estimates minimal population change within the next 20 years. Therefore, the water demand will also remain constant. The projected water demand for SSWC's service area for the next 20 years is estimated to be a maximum of about 5020 acre-feet per year, as shown on Table 4B.

CHAPTER 5

CURRENT CONSERVATION MEASURES [SECTION 10631 (f) and (g)]

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A) Water survey programs for single-family residential and multi-family residential customers;

(B) Residential plumbing retrofit;

(C) System water audits, leak detection, and repair;

(D) Metering with commodity rebates for all new connections and retrofit of existing connections;

(E) Large landscape conservation programs and incentives;

(F) High-efficiency washing machine rebate programs;

(G) Public information programs;

(H) School education programs;

(I) Conservation programs for commercial, industrial and institutional accounts;

(J) Wholesale agency programs;

(K) Conservation pricing;

(L) Water conservation coordinator;

(M) Water waste prohibition;

(N) Residential ultra-low-flush toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or a combination or measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and non-economic factors, including environmental, social, health, customer impact, and technological factors.

(2) Include a cost-benefit analysis, identifying total benefits and total costs.

(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

5.1 DEMAND MANAGEMENT MEASURES

SSWC is not a member of the California Urban Water Conservation Council (CUWCC). However, SSWC is a member agency of Upper District, which has been a member of the CUWCC since 1992. Upper District's commitment to water conservation is upheld through the continuation of projects that conserve water and increase the public's awareness of conservation and other water-related issues. SSWC recognizes that water conservation and demand management measures are important for the reliability of water sources. SSWC has made continued efforts to address and comply with all Demand Management Measures (DMM). This chapter addresses DMM implemented by SSWC and Upper District.

5.1.1 WATER SURVEY PROGRAMS FOR SINGLE-FAMILY RESIDENTIAL AND MULTI-FAMILY RESIDENTIAL CUSTOMERS (10631 (f)(1)(A))

Currently SSWC does not have a water survey program for residential customers. SSWC estimated the cost of hiring an employee to conduct water surveys for its customers would be about $70,000 per year, including salary and benefits. SSWC has approximately 6,000 service connections (customers) within its distribution system. SSWC estimates it would take about four hours a day per customer to complete a water survey, including driving to a location, on-site work, and writing a report. On average an employee could perform two water surveys a day, or about 400 surveys per year. Using a rate of about$850 per acre-foot compared to the cost of new employee ($70,000), SSWC would need to save about 80 acre-feet per year, above other DMMs described in the following sections, to make hiring a new staff member viable. Although implementation of water survey programs is an important part of water conservation measures, it is not economically feasible at the present time. However, SSWC anticipates implementing this DMM within the next 20 years. During that time SSWC will evaluate item (3) and (4).

5.1.2 RESIDENTIAL PLUMBING RETROFIT (10631 (f)(1)(B))

The residential plumbing retrofit program is available to SSWC's customers through Upper District. Upper District has annually provided residential plumbing retrofit programs to assist its retailers throughout its service area that includes SSWC, in cooperation with Metropolitan. Upper District's residential plumbing retrofit programs consist of rebate programs for high-efficiency clothes washer, high-efficiency toilets, rotating nozzles for sprinklers, weather-based irrigation controllers, and synthetic turf. Information and water conservation savings regarding these programs are also located in Metropolitan's 2010 Regional Plan, which is incorporated by reference.

No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made.

5.1.3 SYSTEM WATER AUDITS, LEAK DETECTION, AND REPAIR (10631 (f)(1)(C))

SSWC conducts a monthly check of water production records to determine any losses within its water system. If losses are found to be continued and excessive, a system-wide leak detection is performed.

In addition, the SSWC assists residents in auditing their water use and in identifying and locating water leaks on their property. SSWC's service representatives are trained to determine if a leak exists in the customer's property. If the problem is determined to exist in the customer's property, the service representative will make the customer aware of the unusual high or low water demand. If the customer makes a request, the service representative will inspect the customer's property and will make recommendations about repairing or replacing faulty or inefficient equipment.

No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made.

5.1.4 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS (10631 (f)(1)(D))

SSWC provides commodity rates for all metered customers based on different meter sizes, class of service, and water use, as shown in Appendix J. SSWC estimated the 2010 total of metered accounts is about 6,220 and indicated no unmetered accounts in SSWC's service area. Meters are installed on any new service connections, which are partially covered by the new service connection fees. However, as described in Chapter 2, the SSWC's service area is fully developed and only a few new service connections are expected to be installed within the next twenty years. No evaluation of the effectiveness of this DMM has been performed, and water conservation savings are not available for this DMM.

5.1.5 LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES (10631 (f)(1)(E))

SSWC has predominantly residential and commercial customers in its service area. SSWC has no current landscape accounts in its service area. However, MWD in partnership with Upper District continues to promote a public outreach campaign targeting outdoor water use. The campaign includes funding for the promotion of efficient residential watering through irrigation controllers, a watering index to assist in estimating efficient watering times, and a native and California-friendly plant program. More information on the MWD large landscape conservation program can be found in its 2010 draft RUWMP incorporated by reference.

In addition, Upper District has a large landscape conservation program which includes the Synthetic Turf Grant School Program. The goal of the Synthetic Turf Grant School Program is to assist schools with funding for retrofitting large landscaped areas with synthetic turf. Through this program, Upper District offers grants of up to $75,000 per site to assist with the cost of installing synthetic turf. The program started in fiscal year 2005-06.

No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made.

5.1.6 HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS (10631 (f)(1)(F))

The high-efficiency washing machine rebate program is available to SSWC's customers through Upper District's partnership with Metropolitan, DWR, CALFED Bay Delta Program, and the U.S. Bureau of Reclamation. The program offers a residential high-efficiency clothes washer rebate program. No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made

In addition, residential dwellings (single-family homes, condominiums, townhouses, apartments or mobile homes) that are located within Upper District's service area can install a high-efficiency washing machine in place of standard-efficiency washing machine for a rebate. Residences that install a high-efficiency washing machine could receive a rebate of $200 per washer as of 2008-09. The program began in fiscal year 2002-03. Since the program began, a total of 6,656 rebates have been provided. Metropolitan states that this program saves about 10,000 gallons per year per washer over a conventional top loading washer. Based on an estimated service life of 15 years for each washer, the total annual water savings for 6,656 washers is estimated at 160 acre-feet. Additional information on the high-efficiency washing machine rebate program can be found in Upper District's 2010 UWMP, incorporated by reference.

5.1.7 PUBLIC INFORMATION PROGRAMS (10631 (f)(1)(G))

SSWC has provided public information programs to educate and inform the general public about the role water plays, either directly or indirectly, within the community. These include: working with social groups, notifying public about any arising water issues, responding promptly to requests for information, and organizing a water awareness festivals and social events.

SSWC conducts educational tours of its plant. The plant is located on an historical site containing areas planted in water conserving foliage. An original water tower has been placed on the site in cooperation with the Pasadena Historic Society. The original dam built in 1821 has been preserved and continues to retain surface runoff for percolation.

SSWC notifies consumers of the need for water conservation. SSWC print water conservation messages and tips on water bills to inform customers. SSWC started this program in April 2008. In addition, SSWC's customers are also encouraged to participate in other social events and programs hosted by Upper District. Upper District offers conservation brochures and posters, activity booklets, public outreach displays, oral presentations, and workshops to inform the public of conservation efforts. Upper District also raises awareness about water conservation through paid advertising, press releases, news advertisements, media events, and through the Speaker's Bureau. Upper District hosts an annual water awareness festival (Water Fest) to raise public awareness about water conservation, water quality, and other water-related issues. Additional information regarding Upper District's public information programs can be found on Upper District's internet website. No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made.

5.1.8 SCHOOL EDUCATION PROGRAMS (10631 (f)(1)(H))

The school education programs are available to SSWC's customers through Upper District. Upper District directly offers school education programs in an effort to raise awareness of water issues. Upper District started its school education programs in September 1992 and the materials and presentations meet state education framework requirements.

The following is a list of Upper District's school educational programs. More information about these programs is available in Upper District's 2010 Regional Plan, which is incorporated by reference.

- Water Awareness Art Contests
- Solar Cup Competition
- Water Education Grant Program
- Annual Art Poster Contest for grades K through 3,rd and 4th through 6th
- T-shirt Art Contest for grades 7th through12th
- Water Educational Posters
- Water Resource Library

Upper District also participates in additional educational school programs through Metropolitan, which has extensive educational programs that includes schools within Upper District's boundaries. Metropolitan's educational programs meet State education framework requirements. A list of Metropolitan's school education programs and water

conservation savings is included in Metropolitan's 2010 Regional Plan, which is incorporated by reference.

No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made.

5.1.9 CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL ACCOUNTS (10631 (f)(1)(I))

The conservation programs for commercial, industrial, and institutional accounts are available to SSWC's customers through Upper District. Upper District offers a conservation program for commercial, industrial, and institutional facilities (CII). Upper District's program offers commercial, industrial, and institutional facilities rebates for retrofitting existing high water-use fixtures with efficient water-use fixtures. The CII program has included the following fixtures:

1. Commercial High Efficiency Toilet (includes flushometer, tank, and dual flash)
2. Commercial High Efficiency Toilet (new construction)
3. Ultra Low Water Urinal (less than 0.25 gallons per flush (gpf) and Zero Water Urinals
4. Ultra Low Water Urinal and Zero Water Urinals Upgrade or New Construction
5. Water Broom
6. Connectionless Food Steamer
7. Ice Making Machine Tier III standard
8. Dry Vacuum Pump
9. Cooling Tower Conductivity Controller
10. pH Cooling Tower Controller
11. Weather-Base Irrigation Controller and Central Computer Irrigation Controller
12. Rotating Nozzles for Pop-up Spray Head Retrofits
13. Large Rotary Nozzles

The program began in fiscal year 2000-01. A total of 10,568 rebates have been received through this program. Based on an estimated weighted service life of 19 years for CII rebate programs items, the total annual water savings for the 10,568 rebate program items is estimated at 490 acre-feet. As described in Chapter 2, SSWC's commercial and industrial accounts comprise only about 10 percent of all SSWC's service connections. SSWC's customers are encouraged to participate in a

conservation program offered by Upper District to commercial, industrial, and institutional facilities located within service area.

Additional information regarding Upper District's CII program can be found in its 2010 UWMP which is incorporated by reference.

5.1.10 WHOLESALE AGENCY PROGRAMS (10631 (f)(1)(J))

SSWC is a retail agency and therefore cannot implement wholesale agency programs.

5.1.11 CONSERVATION PRICING (10631 (f)(1)(K))

SSWC's water rate consists of two components: the commodity charge and the service charge. Effective July 2010, both the commodity charge and service charge are scheduled to increase (see Appendix J).

The service charge is a fixed charge based on the size of the connection, and is included in each water bill. As the meter size increases so does the amount charged (see rate schedule in Appendix J).

Under SSWC's commodity charge, there is a discount given to customers who use less than 800 cubic feet of water per month. Every unit of water used in excess of 800 cubic feet, costs about $0.77 more per hundred cubic feet effective July 2010, as shown on Appendix J.

SSWC does not provide sewer service to customers in its service area.

No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made.

5.1.12 WATER CONSERVATION COORDINATOR (10631 (f)(1)(L))

Customers of SSWC can participate in conservation programs promoted by Upper District's water conservation coordinator. Upper District employs a Conservation Coordinator to promote water conservation issues and programs. The Conservation Coordinator position was created in September 1992 as a full-time position. Additional information about Upper District's Conservation Coordinator can be found in Upper District's 2010 Regional Plan, which is incorporated by reference.

No evaluation of the effectiveness of this DMM has been performed, and no estimate of water savings has been made.

5.1.13 WATER WASTE PROHIBITION (10631 (f)(1)(M))

As a member agency of Upper District, SSWC can implement this DMM through Upper District. Upper District passed Resolution 6-90-266 in 1990 to reduce water demands within Upper District's service area. In addition, Upper District has prepared a draft Urban Water Shortage Contingency Resolution that may be adopted in case of an emergency which will require mandatory reductions in water use within Upper District's service area. Water conservation savings is not available for this BMP. No evaluation of the effectiveness of this DMM has been performed.

In addition, SSWC uses various methods to inform its customers about the importance of water conservation as described in Section 5.1.7. In addition, SSWC has a tiered rate program that imposes financial disincentives.

5.1.14 RESIDENTIAL ULTRA-LOW-FLUSH TOILET REPLACEMENT PROGRAMS (10631 (f)(1)(N))

The residential ultra-low-flush toilet replacement programs are available to SSWC's customer through Upper District. High-Efficiency Toilets (HET) is a program implemented by Upper District. HETs are distributed for free to qualifying residents. The cost of the HET is funded by Upper District and MWD. A total of 26,960 HETs/ULFTs have been provided through this program since in first began in fiscal year 1992-93. Based on an estimated service life of 20 years for each HET, the total annual savings for the 26,960 HETs/ULFTs is estimated at 1,005 acre-feet. More information regarding the residential ultra-low-flush toilet replacement program is located in MWD's 2010 RUWMP, which is incorporated by reference. No evaluation of the effectiveness of this DMM has been performed and no estimate of water savings has been made.

CHAPTER 6

WATER SUPPLY OPPORTUNITIES [SECTION 10631]

(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of water supply available to the urban water supplier in average, single dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

6.1 FUTURE SUPPLY OPPORTUNITIES

SSWC has established a long-term reliable supply from both the Raymond Basin and the Main Basin. In addition to its existing reliable supply, SSWC has approved blending plans, including the use of automated systems to optimize the use of its Raymond Basin water rights. Although this does not increase supply opportunity, it will reduce the cost of producing water that in turn will be reflected in future rates to customers. SSWC has also modified its system, whereby its wells pump to reservoirs, where water can be blended, instead of pumping directly to the distribution system. This modification has enhanced SSWC's ability to manage its water supplies. In the event of an unforeseen catastrophic loss of supply, SSWC would have an additional source of supply until such time the primary source of supply from its wells is restored.

In addition as stated in Chapter 3, SSWC is planning to construct two pairs of liquid-phase granular activated carbon (LGAC) vessels for treatment of 1,2,3-TCP in SSWC Wells No. 11 and No. 12. The proposed 1,2,3-TCP Treatment Facility will have a capacity of about 2,000 gpm. As shown in Table 2, SSWC mostly pumps groundwater from the Main Basin. With the new treatment facility, SSWC will begin pumping more groundwater from the Raymond Basin and will shift groundwater production from the Main Basin. Therefore, SSWC will have more pumping capability from the Raymond Basin but total demand from SSWC's customers will still remain the same.

6.2 DESALINATED WATER [SECTION 10631]

(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

SSWC does not have opportunities to incorporate desalinated water into its water supply. Groundwater produced from both the Main Basin and Raymond Basin is low in Total Dissolved Solids (TDS) and does not require desalination. The average TDS value for the SSWC Main Basin wells is about 300 milligrams per liter (mg/l) and the average TDS value for the SSWC Raymond Basin wells is about 550 mg/l. The California Department of Health Services (CDPH) recommended level for TDS is 500 mg/l and water for long term domestic use can have TDS concentrations up to 1,000 mg/l. Therefore, SSWC does not have the need to desalinate water at this time. However, SSWC is looking for new sources of water supply and is receptive in coordinating with other agencies that have ocean water desalination programs.

6.3 WATER USE PROJECTIONS [SECTION 10631]

> *(k) Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).*

A copy of water use projections for the next 20 years provided by SSWC to the Upper District is presented in Appendix K. SSWC notified Upper District of the development of its 2010 UWMP and made a copy of its draft 2010 UWMP including its water use projections available to Upper District who in turn provided SSWC with a copy of its draft 2010 UWMP, which is incorporated as a reference in this Plan.

CHAPTER 7

URBAN WATER SHORTAGE CONTINGENCY ANALYSIS [SECTION 10632]

The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:

(a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

(b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.

(c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

(d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

(f) Penalties or charges for excessive use, where applicable.

(g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

(h) A draft water shortage contingency resolution or ordinance.

(i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

7.1 STAGES OF ACTION DURING WATER SUPPLY SHORTAGES (10632 (a))

SSWC depends on groundwater for its current and future supplies. SSWC's water supply comes from two groundwater basins, the Main Basin and Raymond Basin, which are carefully managed by the Main Basin Watermaster and Raymond Basin Management Board, respectively, as discussed in Chapter 3. Drought events have occurred from 1969 to 1977, 1983 to 1991, 1998 to 2004 and 2006 to present. In each drought cycle, water levels in the Main Basin and Raymond Basin were maintained and sufficient water supply was available for the retail water agencies. As shown on Table 5, multiple dry years did not increase SSWC's water demands, nor compromise SSWC's ability to reliably supply water to its customers.

Based on historical management practices and no projected increased water demands, there will be no water shortages in the Main Basin or Raymond Basin. SSWC will have adequate groundwater supplies under single and multiple year drought events.

7.2 ESTIMATE OF MINIMUM SUPPLY FOR NEXT THREE YEARS [10632 (b)]

SSWC's three-year drought sequence was fiscal years 2006-07, 2007-08 and 2008-09. During those fiscal years, SSWC had adequate water supply to meet its demands, as shown on Table 5. SSWC did not experience water supply problems to meet customer's demands. It is anticipated SSWC will be able to provide adequate water to its customers in the next three-year period.

7.3 CATASTROPHIC SUPPLY INTERRUPTION PLAN [10632 (c)]

SSWC prepared a catastrophic supply interruption plan, which describes the actions that SSWC will take during a catastrophic interruption of water supplies including, a seismic event, a regional power outage, reservoir failures, water contamination threat, Supervisory Control and Data Acquisition (SCADA) system failure, and major water main breaks. A copy of SSWC's catastrophic supply interruption plan is included in Appendix L.

SSWC's office and field personnel have had training and are aware of their duties and responsibilities in the event of an emergency. In addition, emergency training is conducted every year. The office and field personnel also perform workshops, mock exercises, and group discussions on a regular basis that demonstrate the entire system's operation and steps that would be required in various types of emergencies that can occur. SSWC's operation managers are also trained in the Standard Emergency Management System (SEMS) to coordinate with the local water agencies, fire and police departments, as well as with surrounding agencies in the event of any major disaster.

In the event of system failure, SSWC has two emergency water interconnections within the SSWC's system. One is with East Pasadena Water Company and the other is with the City of Arcadia Water Department. These interconnections are manually activated and can supply water between each water supplier in the event that one or the other water agency may need additional water due to a power failure or other disaster.

7.4 PROHIBITIONS, PENALTIES AND CONSUMPTION REDUCTION METHODS [10632 (d), (e), (f)]

SSWC does not have any mandatory prohibitions or penalties against excessive water use at this time. However, SSWC notifies its consumers of the need for water conservation by enclosing water conservation messages and tips on the water bills.

SSWC also conducts a monthly check of water production/sales records to determine any unusual losses on demands within its water system. If the trend continues and is excessive (more than 10 percent), SSWC will perform a system wide leak detection and repair to minimize water losses.

7.5 REVENUE AND EXPENDITURE IMPACTS DURING WATER SHORTAGES [10632 (g)]

SSWC does not expect any water shortages in the next 20 years. However, if SSWC hypothetically receives up to a 50 percent reduction in water supplies, SSWC's water rate structure is designed to provide adequate reserves to allow operation of the system during periods of low consumption due to water shortages as discussed below.

A water supply reduction of up to 50 percent, will have no significant impact on SSWC. Although revenue may be decreased by 50 percent, most water operating expenses will be also reduced by 50 percent. In addition, independent of water sales, SSWC's collects about one-fourth of the total revenue in meter service charges.

7.6 WATER SHORTAGE CONTINGENCY ORDINANCE/RESOLUTION [10632 (h)]

SSWC's draft of the water shortage contingency resolution is included in Appendix M.

7.7 MECHANISMS FOR DETERMINING REDUCTIONS IN WATER USE [10632 (i)]

SSWC conducts a monthly check of water production records to determine losses within its water system. SSWC also monitors water consumption on a regular basis. SSWC takes into consideration factors that may affect consumption, such as precipitation. SSWC prepares an Annual Report that includes water production and consumption. Such reports are used to determine seasonal and annual fluctuations in water production and water use.

The total water production and supply in the Main Basin and Raymond Basin are managed by the Main Basin Watermaster and Raymond Basin Management Board, respectively. Groundwater elevation measurements, water quality monitoring results, and evaluation of water supply availability and requirements are also included in the Annual Report.

CHAPTER 8

RECYCLED WATER USE [SECTION 10633]

The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15 and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

8.1 BACKGROUND

SSWC does not currently use recycled water as a water source in SSWC's service area due to the lack of infrastructure and the cost to construct a pipeline from the treatment plants in the Whittier Narrows area, shown on Plate 8. However, reclamation of wastewater in the Main Basin has been extensively reviewed in both local and regional studies. In 1976, San Gabriel District and Upper District completed a study entitled "Potential Use of Reclaimed Water Groundwater Replenishment in the Main San Gabriel Basin." This study was updated at the request of the Main Basin Watermaster in 1980 and again in 1987. This study along with others, concluded water reuse in the Main Basin could be feasible.

8.2 WASTEWATER COLLECTION AND TREATMENT SYSTEMS [SECTION 10633 (a)]

Wastewater from SSWC's service area is collected and treated through the County Sanitation Districts of Los Angeles County (CSDLAC) facilities. The CSDLAC operates two reclamation plants in the Main Basin area: San Jose Creek Water Reclamation Plant (SJCWRP) and Whittier Narrows Water Reclamation Plant (WNWRP).

The SJCWRP, which began operation in 1973, currently has a treatment capacity of about 100 MG per day (MGD). The treatment level is coagulation, filtration and disinfection tertiary effluent. The SJCWRP has room for an expansion of an additional 25 MGD, although there is no schedule for such an expansion. The SJCWRP plant serves a population of approximately 1 million people, largely a residential population. The SJWRP produced 71.05 MGD (79,615 acre-feet per year) of coagulated, filtered, disinfected tertiary recycled water in fiscal year 2008-09. The volume of wastewater collected and treated is shown on Table 6. An average of 26.23 MGD (29,392 acre-feet per year), or 36.9 percent of the recycled water produced during fiscal year 2008-09 at the SJCWRPP was re-used for landscape irrigation, industrial, impoundment, and groundwater replenishment. The method of disposal when treated recycled water is not used (non-recycled) is discharge to the San Gabriel River and eventually flows to the ocean (see Table 7).

The WNWRP, which began operation in 1962, was the first reclamation plant built by the CSDLAC. It has a treatment capacity of about 15 MGD and provides coagulated, filtered and disinfected tertiary effluent. The WNWRP serves a population of approximately 150,000 people. The WNWRP produced 6.04 MGD (6,769 acre-feet per year) of coagulated, filtered, disinfected tertiary recycled water in fiscal year 2008-09. The volume of wastewater collected and treated is shown on Table 6. An average of 5.901 MGD (6,613 acre-feet per year), or 97.7 percent of the recycled water produced during fiscal year 2008-09 at the WNWRPP was re-used for landscape/plant irrigation and groundwater replenishment. The method of disposal when treated recycled water is not used (non-recycled) is discharge to the San Gabriel River and eventually flows to the ocean (see Table 7).

8.3 PROJECTED AND POTENTIAL USES OF RECYCLED WATER [10633 (b),(c),(d),(e)]

SSWC does not use recycled water and has no plan for recycled water use within the next 20 years due to relatively small users.

However, Upper District, Water Replenishment District of Southern California, and CSDLAC are developing the Groundwater Reliability Improvement Program (GRIP) project that will provide recycled water for replenishment of the Main Basin and Central Basin. The conceptual design for the GRIP project was completed in June 2009. The

GRIP project will produce about 12,000 acre-feet per year each for groundwater replenishment of the Main Basin and Central Basin.

8.4 OPTIMIZING USE OF RECYCLED WATER [10633 (f), (g)]

No sources of recycled water are currently available to SSWC. However, whenever recycled water becomes available in the service area, SSWC will conduct cost/benefit analysis for recycled water projects, and seek creative solutions for optimizing recycled water use.

CHAPTER 9

WATER QUALITY [SECTION 10634]

The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

9.1 WATER QUALITY OVERVIEW

SSWC supplies water to its customers from five active wells, as described in Chapter 3. SSWC's Wells No. 8, No. 9, and No. 13 are located in the Main Basin, while Wells No. 11 and No. 12 are located in the Raymond Basin.

Groundwater from SSWC's Wells No. 8, No. 9, and No. 13 meets all federal and state drinking water standards. Water from SSWC's Wells No. 11 and No. 12 contains Volatile Organic Chemicals (VOCs), 1,2,3-Trichloropropane (1,2,3-TCP), and Nitrate. The entire flow from Wells No. 8, No. 9 and No. 13 is delivered to Reservoir No. 4 for blending before distribution. Water from Wells No. 11 and No. 12 will be treated for 1,2,3-TCP and VOCs in a proposed LGAC treatment facility and then blended with water from Wells No. 8, No. 9, and/or No. 13 in a reservoir before distribution. Under the existing blending plan approved by the CDPH, all water delivered to SSWC's customers meets CDPH guidelines and is not expected to change over the next 20 years. Therefore, water quality will not affect SSWC's water supply reliability for the next 20 years.

Chapter 10

WATER SUPPLY RELIABILITY

10.1 SB 7 REQUIRED WATER USE PARAMETERS

Section 10608.20 (a)

(1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in subdivision (a) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

Section 10608.20 (e)

An urban retail water supplier shall include in its urban water management plan required pursuant to Part 2.6 (commencing with Section 10610) due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

Methodologies for calculating baseline and compliance urban per capita water use for the consistent implementation of the Water Conservation Act of 2009 have been published by DWR in its October 2010 guidance document.[1] DWR's guidance document was used by SSWC to determine the required water use parameters which are discussed below.

10.1.1 BASELINE DAILY PER CAPITA WATER USE

The Baseline Daily Per Capita Water Use is defined as the average water use, expressed in gallons per capita per day (GPCD), for a continuous, multi-year baseline period. There are two different baseline periods for calculating Baseline Daily Per Capita Water Use, as follows (CWC Sections 10608.20 and 10608.22):

- *The first baseline period is a continuous 10- to 15-year period, and is used to calculate Baseline Per Capita Water Use per CWC Section 10608.20. The first baseline period is determined as follows:*

[1] California Department of Water Resources, Division of Statewide Integrated Water Management, Water Use and Efficiency Branch. *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use*. October 1, 2010.

- *If recycled water makes up less than 10 percent of 2008 retail water delivery, use a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*
- *If recycled water makes up 10 percent or more of 2008 retail water delivery, use a continuous 10- to 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*

The SSWC's recycled water use is less than 10 percent of its 2007-08 retail water delivery. (Note: The SSWC's water use data are reported on a fiscal year basis. Therefore, fiscal year 2007-08 data are used instead of calendar year 2008, as stated in the CWC.) Consequently, the first baseline period will consist of a continuous 10-year period that can be selected between 2008-09 and 2009-10.

- *The second baseline period is a continuous five-year period, and is used to determine whether the 2020 per capita water use target meets the legislation's minimum water use reduction per CWC Section 10608.22. The continuous five-year period shall end no earlier than December 31, 2007, and no later than December 31, 2010.*

The second baseline period consisting of a continuous five-year period can be selected between 2003-04 and 2008-09.

Unless the urban water retailer's five-year Baseline Daily Per Capita Water Use per CWC Section 10608.12(b)(3) is 100 GPCD or less, Baseline Daily Per Capita Water Use must be calculated for both baseline periods.

The calculation of the Baseline Daily Per Capita Water Use entails the following four steps:

Step 1 *Calculate gross water use for each year in the baseline period using Methodology 1 in DWR's guidance document. According to Methodology 1, gross water use is a measure of water supplied to the distribution system over 12 months and adjusted for changes in distribution system storage and deliveries to other water suppliers that pass through the distribution system. Recycled water deliveries are to be excluded from the calculation of gross water use. Water delivered through the distribution system for agricultural use may be deducted from the calculation of gross water use. Under certain conditions, industrial process water use also may be deducted from gross water use.*

The calculated gross water use, based on recorded groundwater use and excluding recycled water use, for each year in the baseline period is shown on Table 8.

Step 2 *Estimate service area population for each year in the baseline period using Methodology 2 in DWR's guidance document. To obtain an accurate estimate of GPCD, water suppliers must estimate population of the areas that they actually serve, which may or may not coincide with either their jurisdictional boundaries or with the boundaries of cities. According to Methodology 2, data published by the California Department of Finance (DOF) or the U.S. Census Bureau must serve as the foundational building block for population estimates. In some instances, data published by these two sources may be directly applicable. In other instances, additional refinements may be necessary. For example, to account for distribution areas that do not match city boundaries, customers with private sources of supply, or other unique local circumstances, water suppliers may have to supplement the above sources of data with additional local data sources such as county assessor data, building permits data, and traffic analysis zone data. These refinements are acceptable as long as they are consistently applied over time, and as long as they build upon population data sources of the DOF or the U.S Census Bureau.*

The SSWC's service area population for each year in the baseline period was calculated using SCAG and U.S. Census Bureau data (see Table 8).

Step 3 *Calculate daily per capita water use for each year in the baseline period. Divide gross water use (determined in Step 1) by service area population (determined in Step 2).*

The calculated daily per capita water use for each year in the baseline period is shown on Table 8.

Step 4 *Calculate Baseline Daily Per Capita Water Use. Calculate average per capita water use by summing the values calculated in Step 3 and dividing by the number of years in the baseline period. The result is Baseline Daily Per Capita Water Use for the selected baseline period.*

The average per capita water use calculated for a continuous 10-year baseline period (first baseline period) is shown on Table 8, with the highest value of 152 GPCD.

The Baseline Daily Per Capita Water Use for SSWC was determined to be **152 GPCD**, based on the highest value calculated for a continuous 10-year period (first baseline period) between 1995-96 and 2008-09 (see Table 8).

10.1.2 URBAN WATER USE TARGET

Section 10608.20 (b)

An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) *Eighty percent of the urban retail water supplier's baseline per capita daily water use.*

(2) *The per capita daily water use that is estimated using the sum of the following performance standards:*

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) *Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.*

(4) *A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:*

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

(C) Provide flexibility to communities and regions in meeting the targets.

(D) Consider different levels of per capita water use according to plant water needs in different regions.

(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

The Urban Water Use Target is determined using one of the following methods:

Method 1: *Eighty percent of the urban retail water supplier's Baseline Per Capita Daily Water Use.*

Using this method, the Urban Water Use Target for SSWC was calculated as **122 GPCD**, based on the SSWC's Baseline Per Capita Daily Water Use of 152 GPCD.

Method 2: *Estimate using the sum of the specified three performance standards.*

Due to insufficient data, this method was not considered.

Method 3: *Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's 20x2020 Water Conservation Plan.*[2]

Based on the 20x2020 Water Conservation Plan, SSWC's service area lies in DWR Hydrologic Region 4 (South Coast), with an established Baseline Per Capita Daily Water Use of 180 GPCD and a Target Per Capita Daily Water Use of 149 GPCD. Using this method, the Urban Water Use Target for SSWC was calculated as **142 GPCD**.

Method 4: [**To be developed by DWR**]

The SSWC's Urban Water Use Target was determined to be **142 GPCD** for 2020, based on Method 3 above.

10.1.3 INTERIM URBAN WATER USE TARGET

Based on SSWC's Baseline Daily Per Capita Water Use of 152 GPCD and Urban Water Use Target of 142 GPCD, the SSWC's Interim Urban Water Use Target for 2015 was calculated as **147 GPCD** (as determined in Section 10.1.5 below).

10.1.4 COMPLIANCE DAILY PER CAPITA WATER USE

Compliance Daily Per Capita Water Use is defined as the Gross Water Use during the final year of the reporting period, and reported in GPCD. The Compliance Daily Per Capita Water Use will be reported in SSWC's 2015 Plan (interim compliance) and 2020 Plan (final compliance).

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[2] California Department of Water Resources, State Water Resources Control Board, California Bay-Delta Authority, California Energy Commission, California Department of Public Health, California Public Utilities Commission, and California Air Resources Board. *20x2020 Water Conservation Plan*. February 2010.

10.1.5 MINIMUM WATER USE REDUCTION REQUIREMENT

Section10608.22

Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

The following calculation is made because the five-year Baseline Per Capita Water Use per CWC Section 10608.12(b)(3) is greater than 100 GPCD. The calculation is used to determine whether the water supplier's 2015 and 2020 per capita water use targets meet the legislation's minimum water use reduction requirement per CWC Section 10608.22. The calculation entails three steps:

Step 1: Calculate Baseline Daily Per Capita Water Use using a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

This value was calculated as **147 GPCD** (see Table 8).

Step 2: Multiply the result from Step 1 by 0.95. The 2020 per capita water use target cannot exceed this value (unless the water supplier's five-year Baseline Per Capita Water Use is 100 GPCD or less). If the 2020 target is greater than this value, reduce the target to this value.

This value was calculated as 140 GPCD. The SSWC's 2020 Urban Water Use Target was determined using Method 3 above to be 142 GPCD, which is greater than the value calculated in this step. Therefore, SSWC's 2020 Urban Water Use Target will be reduced to **140 GPCD**.

Step 3: Set the 2015 target to mid-point between the 10- or 15-year Baseline Per Capita Water Use and the 2020 target determined in Step 2.

The SSWC's 2015 Interim Urban Water Use Target is therefore set at **146 GPCD**, which is equivalent to a 10 percent reduction in a gross based per capita by 2015.

Therefore, the SSWC's 2015 Interim Urban Water Use Target of 146 GPCD and 2020 Urban Water Use Target of 140 GPCD meet the legislation's minimum water use reduction requirement per CWC Section 10608.22.

10.2 ASSESSMENT OF THE RELIABILITY OF WATER SUPPLY

Section 10635

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry year water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

As previously discussed in Section 10.1, SSWC applied Senate Bill No. 7 to estimate the SSWC's 2015 Interim Urban Water Use Target of 146 GPCD and the City's 2020 Urban Water Use Target of 140 GPCD. These Urban Water Use Targets were then applied to estimate the City's projected normal year supplies in 2015, 2020, 2025 and 2030, as shown in Table 4B. SSWC will continue to use groundwater as its future water supplies over the next 20 years. The following sections discuss SSWC's water service reliability assessment, which compares the SSWC's supply and demand over the next 20 years during normal, dry and multiple dry years.

10.2.1 NORMAL WATER YEAR

As previously discussed, the SSWC's projected normal water year supply over the next 20 years in five-year increments was based on the SSWC's 2015 and 2020 Urban Water Use Targets of 146 GPCD and 140 GPCD, respectively. SSWC's projected demand was based on the projected supply and estimated unaccounted water losses, as shown on Table 4B. The comparison of the SSWC's projected supply and demand during a normal water year is shown on Table 9. As shown on Table 9, SSWC's supply can meet demands during a normal water year for the next 20 years.

10.2.2 SINGLE-DRY YEAR

As shown on Table 5, SSWC experienced a single-dry year during fiscal year 2006-07 and a normal water year during fiscal year 2005-06. The ratio between the normal water year and single-dry year was estimated for SSWC's supply and demand, as shown on Table 5. This ratio and the projected supply and demand during a normal water year from Table 9 was used to estimate SSWC's projected supply and demand during a single-dry year over the next 20 years in five-year increments. The comparison of SSWC's projected supply and demand during a single-dry year is shown on Table 10. As shown on Table 10, SSWC's supply can meet demands during a single-dry year for the next 20 years.

10.2.3 MULTIPLE DRY YEARS

As shown on Table 5, SSWC experienced multiple dry years during fiscal years 2006-07, 2007-08 and 2008-09. The ratio between the normal water year in 2005-06

and multiple dry years were estimated for SSWC's supply and demand, as shown on Table 5. This ratio and the projected supply and demand during a normal water year from Table 9 was used to estimate SSWC's projected supply and demand during multiple dry years over the next 20 years in five-year increments. The comparison of SSWC's projected supply and demand during multiple dry years is shown on Table 11. As shown on Table 11, the SSWC supply can meet demands during multiple dry years for the next 20 years.

10.2.4 GROUNDWATER RELIABILITY

The SSWC obtains its water supply from groundwater wells located in the Main Basin and Raymond Basin. Chapter 3 provides a description of the management of water resources in the Main Basin and Raymond Basin, as well as information on basin management. Chapter 3 also demonstrates the management structure of the Main Basin and Raymond Basin provides a reliable source of groundwater supply for SSWC in an average, single-dry and multiple-dry water years. Historical data indicate the Main Basin and Raymond Basin have been well managed for over 40 years of adjudication, resulting in a stable and reliable water supply. There are no contemplated basin management changes. Therefore, the groundwater supply in the Main Basin and Raymond Basin is deemed reliable.

10.3 RELIABILITY INFORMATION

Section 10635(b)

The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after submission of its urban water management plan.

SSWC will provide a copy of the 2010 Plan to the following cities and counties no later than 60 days after submission of the 2010 Plan to DWR:

1. City of Arcadia
2. City of San Gabriel
3. City of San Marino
4. City of Temple City
5. County of Los Angeles