

LAWS AND REGULATIONS

3.1 INTRODUCTION

The collection and treatment of wastewater and the management of treated wastewater effluent is subject to federal, state, and local regulations. Furthermore, federal and state funding for capital projects is contingent upon the fulfillment of additional regulatory requirements. This section provides a broad summary of federal, state, and local laws, regulations, and plans that must be considered when planning for wastewater treatment and effluent management facilities.

3.2 REGULATIONS GOVERNING FEDERAL AND STATE WATERS

This section discusses regulations pertaining to federal and state waters that typically impact publicly owned treatment works (POTWs). The Santa Clarita Valley Sanitation District of Los Angeles County's (SCVSD's) Saugus and Valencia Water Reclamation Plants (SWRP and VWRP, respectively) are subject to the regulations listed below because they discharge to the Santa Clara River (SCR), which is considered waters of the United States (waters of the U.S.). Waters of the U.S. are defined as all waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide. Further definition can be found in Part 328.3 of Title 33 of the Code of Federal Regulations (33 CFR Part 328.3).

3.2.1 Evolution of Federal Regulations

3.2.1.1 Refuse Act

Federal regulation of discharges to bodies of water began in 1899 with the passage of the Refuse Act, which was primarily intended to protect navigation by preventing discharges that might interfere with the use of the nation's waterways as transportation corridors.

3.2.1.2 Water Pollution Control Act

The Water Pollution Control Act of 1948 was the first federal legislation to address water quality, which had been historically regulated on state and local levels. This act reaffirmed that water pollution control was primarily a state responsibility, but did provide the federal government with the authority to conduct investigations, research, and surveys. In 1956, the Water Pollution Control Act was amended to include provisions for federal grants to support the construction of POTWs and direct federal regulation of waste discharges.

3.2.1.3 Water Quality Control Act

The Water Quality Control Act, enacted in 1965, required states to establish federally approved ambient water quality standards for interstate watercourses and to develop federally approved implementation plans for controlling pollution sufficiently to meet these standards.

3.2.2 Federal Regulations

3.2.2.1 Clean Water Act

The 1972 amendments to the federal Water Pollution Control Act marked the beginning of the current system of federal water quality regulation and increased the level of federal grant funding for municipal wastewater treatment facilities. Goals of the 1972 amendments included elimination of pollutant discharges to navigable waters of the U.S. by 1985 and protection of fishable and swimmable waters, wherever attainable, by 1983. The 1972 amendments initiated the National Pollutant Discharge Elimination System (NPDES) permit program, which required the issuance of discharge permits for all municipal and industrial point sources that discharge into waters of the U.S.

The 1972 amendments preserved the system of state-established water quality criteria promulgated under the 1965 Water Quality Control Act, but the states were additionally required to review and update these standards every three years and submit revisions to the United States Environmental Protection Agency (EPA) for approval. Water quality standards consisting of the designated uses of the navigable waters and the water quality criteria for such waters were to be established. These standards were to consider the water's use and value for public water supplies; propagation of fish and wildlife; recreational purposes; and agricultural, industrial, navigation, and other purposes. Where compliance with identified technology-based standards was not sufficient to ensure attainment of approved water quality standards, the 1972 amendments directed the permitting agency to impose water quality-based, effluent limitations in permits.

The federal Water Pollution Control Act was amended a third time in 1977, and the amended act was renamed the Clean Water Act (CWA). The 1977 amendments extended some of the deadlines identified in 1972 and more clearly delineated the manner in which conventional and toxic water pollutants were to be treated. The 1977 CWA required that toxic pollutants be managed through the effluent guidelines program for major industrial dischargers or the pretreatment program for specified industries discharging to POTWs.

The 1987 amendments to the CWA: (1) ended the construction grant program and replaced it with the state revolving fund (SRF) loan program for the construction of municipal sewerage facilities, (2) required states to promulgate water quality standards for toxic water pollutants for which advisory water quality criteria had been developed pursuant to §304(a) of the CWA, and (3) established new requirements for states to develop and implement programs to control nonpoint source pollution. To address nonpoint source pollution, the 1987 amendments also required the issuance of NPDES permits for stormwater discharges associated with municipal, industrial, and construction activities.

3.2.2.2 National Pretreatment Program

The National Pretreatment Program, established through the CWA in Part 403 of Title 40 of the CFR (40 CFR Part 403), requires the implementation of pretreatment programs for POTWs with

capacities greater than 5 million gallons per day (mgd) that receive pollutants that may interfere with POTW operations. POTWs are required to prohibit or limit discharges of pollutants from industrial facilities that could pass through the treatment processes into receiving waters, interfere with treatment plant operations, or limit biosolids management options. Smaller POTWs with significant industrial influent, treatment process problems, or violations of effluent limitations are also required to implement pretreatment programs. In addition, federal standards have been established to regulate sewer discharges from specific types of industries.

POTWs are responsible for developing, implementing, and enforcing their own pretreatment programs. If POTWs fail to properly administer pretreatment programs, they are subject to oversight by state and federal regulatory agencies including enforcement actions, penalties, fines, or other remedies provided for by the CWA.

The Sanitation Districts of Los Angeles County (Sanitation Districts) developed and implemented an industrial wastewater pretreatment program in 1972 with the adoption of the Wastewater Ordinance. Local discharge limits for industrial wastewater dischargers were adopted in 1975, and the EPA approved the Sanitation Districts' program in March 1985. Local industrial wastewater discharge limits were established to ensure compliance with NPDES and waste discharge requirements (WDRs) permit limits for each treatment plant, as well as to protect treatment plant operations and biosolids quality. The pretreatment program has been very successful in reducing the discharge of contaminants.

The existing industrial wastewater discharge limits are presented in Table 3-1. The Sanitation Districts regularly review these limits to determine if modifications are needed. Modifications to the discharge limits may be made if determined necessary to maintain biosolids quality and/or meet NPDES and WDRs permit limits.

In addition, the following numerical requirements from the Sanitation Districts' Wastewater Ordinance apply:

- The pH of the wastewater discharged shall not be below 6.0 at any time
- The dissolved sulfide concentration of the wastewater shall not exceed 0.1 milligrams per liter (mg/L) at any time
- The temperature of the wastewater shall not exceed 140 degrees Fahrenheit (°F) at any time, and shall not cause the wastewater influent to a Sanitation Districts' treatment plant to exceed 104°F

3.2.2.3 National Toxics Rule and California Toxics Rule

In 1992, EPA promulgated toxic pollutant water-quality criteria for California in the National Toxics Rule (NTR). EPA promulgated the California Toxics Rule (CTR) in response to litigation that overturned two statewide water quality control plans in 1994, the Inland Surface Waters Plan (ISWP) and the Enclosed Bays and Estuaries Plan. The CTR took effect in May 2000 and established numeric criteria for the remaining priority toxic pollutants to meet the requirements of §303(c)(2)(B) of the CWA. The NTR and CTR criteria are regulatory criteria adopted pursuant to §303(c) of the CWA that apply to inland surface waters and enclosed bays and estuaries in California that are waters of the U.S. The NTR and CTR include criteria for the protection of aquatic life and human health. Aquatic life and human health criteria (organisms

Table 3-1. SCVSD Industrial Wastewater Discharge Limits

Constituent	Instantaneous Maximum Limit (mg/L)
Arsenic	3
Cadmium	15
Chromium (Total)	10
Copper	15
Cyanide (Total)	10
Lead	40
Mercury	2
Nickel	12
Silver	5
TICH ^a	Essentially None ^b
Zinc	25

mg/L = milligrams per liter

^a Total Identifiable Chlorinated Hydrocarbons (TICH) include pesticides such as aldrin, dieldrin, chlordane, dichlorodiphenyltrichloroethane (DDT), endrin, hexachloro-cyclohexane, toxaphene, and polychlorinated biphenyls (PCBs).

^b TICH must be maintained below detection levels.

only) apply to all inland surface waters and enclosed bays and estuaries, while human health criteria (water and organisms) apply to all waters with a municipal and domestic water supply (MUN) Beneficial Use (BU) designation as indicated in regional basin plans. In translating these criteria to effluent limitations in permits, California Regional Water Quality Control Boards (RWQCBs) determine which designated BUs apply to the receiving waters and base permit limits on the most stringent applicable criterion.

3.2.2.4 Clean Water Act §404 and §401 Permits

§404 of the CWA established a permit program for regulation of the discharge of dredged material or fill into waters of the U.S. The permit program is administered by the Secretary of the Army, acting through the United States Army Corps of Engineers (Corps). §404 authorizes the EPA to regulate the discharge of any dredged material or fill that can cause adverse effects on municipal water supplies, recreational areas, wildlife, fisheries, or shellfish beds.

§401 of the CWA provided the authority for the state-operated 401 Certification Programs. The 401 Certification process is used by the state to regulate hydrologic modification projects that require §404 permits.

3.2.3 State Regulations

3.2.3.1 The Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 (PCA) established the current legal framework for water quality regulation in California. The PCA requires the California State Water Resources Control Board (SWRCB) to adopt water quality control plans and policies for the protection of water quality. The PCA also established nine RWQCBs to develop regional water quality control plans and implement water quality protection programs at the local level. A water quality control plan must:

- Identify the BUs of the waters to be protected
- Establish water quality objectives for the reasonable protection of those BUs
- Establish an implementation program for achieving water quality objectives

The SWRCB is the primary agency responsible for formulating policies to protect surface waters and groundwater supplies within the State of California. The SWRCB has delegated authority for the day-to-day administration and enforcement of the PCA to the regional level. Each RWQCB develops a water quality control plan that identifies important water resources within its region and specifies the BUs for each of these resources. Each water quality control plan must be approved by the SWRCB, the Office of Administrative Law (OAL), and the EPA. Water quality control plans are generally reviewed and updated every three years.

The SCVSD's facilities are under the jurisdiction of the RWQCB-Los Angeles Region (RWQCB-LA). The RWQCB-LA is responsible for administering and enforcing the regional water quality control plans, NPDES permits, WDRs, and pretreatment programs within the Los Angeles basin.

The PCA authorizes RWQCBs to regulate all discharges to water and/or land to protect water quality. RWQCBs issue WDRs to all dischargers in accordance with §13263 of the California Water Code (CWC) and are authorized to review WDRs periodically. These WDRs also serve as NPDES permits for discharge from the SCVSD facilities (see Section 3.4.2 for more information on NPDES permits). Authority delegated to RWQCBs includes the issuance of WDRs, review of self-monitoring reports submitted by dischargers, performance of independent compliance checks, and enforcement for non-compliance. Enforcement actions, which may be taken by RWQCBs under the authority provided by the PCA, range from orders requiring relatively simple corrective actions to monetary penalties levied for failure to comply with permit provisions.

The RWQCBs have also been delegated responsibilities associated with administering and enforcing the provisions of the CWA. When discharges are made to waters of the U.S., NPDES/WDRs for point source discharges are issued. Under Chapter 5.5 of the PCA, WDRs are deemed equivalent to NPDES permits issued under the CWA. Thus, NPDES permits are generally issued as both federal and state permits in California and generally have both a State Order Number and an NPDES permit number.

3.2.3.2 California Water Code §1211

Water Code §1211 states that before a wastewater treatment plant owner may make “any change in the point of discharge, place of use, or purpose of use of treated wastewater, the owner of any wastewater treatment plant shall obtain approval of the [State Water Resources Control] [B]oard for that change.” §1211 applies when this change results in a decreased flow to any portion of a watercourse (CWC§1211[b]). If the proposed change is expected to have an adverse impact to biological resources, the applicant must include mitigation measures, which may include a minimum discharge rate.

3.2.3.3 Statewide Implementation Policy

In March 2000, the SWRCB adopted a policy establishing provisions to implement the priority toxic pollutant criteria in the CTR and NTR and implement priority pollutant objectives in the basin plans of each RWQCB. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (also known as the Statewide

Implementation Policy) establishes provisions for translating CTR criteria, NTR criteria, and basin plan water quality objectives for toxic pollutants into:

- NPDES permit effluent limits
- Compliance determinations
- Monitoring for 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin equivalents
- Chronic toxicity control
- Initiating site-specific objective development
- Granting exceptions

3.2.4 Local Regulations

3.2.4.1 Water Quality Control Plan-Los Angeles Region

The Water Quality Control Plan-Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) was adopted by RWQCB-LA on June 13, 1994. Chapters 2 and 7 of the Basin Plan were updated in November 2011 and September 2011, respectively. The Basin Plan provides the basis for the RWQCB-LA's regulatory program by designating BUs for all surface and groundwater bodies and setting forth narrative and numerical water quality objectives that must be maintained or attained to protect these BUs. The Basin Plan also identifies general types of water quality problems that can threaten BUs of water resources in the basin and identifies required or recommended control measures for these problems. RWQCB-LA orders are based on applicable water quality objectives and/or prohibitions specified in the Basin Plan. The Basin Plan is reviewed and updated every 3 years or as necessary (CWA §303[c]). The most recent Triennial Review began in 2011 and was completed in February 2012. The findings of the Triennial Review are summarized in Resolution No. R12-001.

Basin Plan Amendments Related to the Santa Clara River

There have been several Basin Plan Amendments that affect the SCR watershed WRPs since the 1994 adoption of the Basin Plan. The majority of these amendments have concerned attainment of BUs.

Water bodies that do not meet basin plan requirements are considered "impaired." Impaired water bodies are identified in a published list of Water Quality Limited Segments (CWA §303[d] List) and are evaluated through a prescribed study approach to: (1) characterize the sources and degree of impairment, (2) determine total maximum daily loadings (TMDLs) of the pollutants of concern to meet water quality objectives (WQOs) and obtain BUs, and (3) allocate pollutant loadings among the identified sources as Waste Load Allocations (WLAs). After adoption by the RWQCB-LA, SWRCB, State OAL, and the EPA, TMDLs become amendments to the Basin Plan.

The SCR has been divided into sections, called reaches, that exhibit consistent hydrological, water quality, or adjacent land use characteristics. Several of these reaches are listed/impaired and have defined TMDLs for nutrients (nitrogen compounds) and chloride that impact the SWRP and VWRP (see Figure 3-1). The Basin Plan amendments that impact the SCR watershed are shown in Table 3-2.



Figure 3-1
Santa Clara River Reaches

Table 3-2. Basin Plan Amendments for the Santa Clara Valley Since 1994

Resolution No.	Focus	Resolution Description	Status
02-018	Salts (Chloride)	Upper Santa Clara River Chloride TMDL	TMDL in Effect October 24, 2002
03-008	Salts (Chloride)	Upper Santa Clara River Chloride TMDL	TMDL in Effect July 10, 2003
03-011	Nutrients (N)	Santa Clara River Nutrient TMDL	TMDL in Effect March 23, 2004
04-004	Salts (Chloride)	Upper Santa Clara River Chloride TMDL	TMDL in Effect May 4, 2005
R4-2006-016	Salts (Chloride)	Upper Santa Clara River Chloride TMDL Implementation Plan Reconsideration	TMDL in Effect June 12, 2008
R4-2007-018	Revision	Subdivision of Santa Clara River Reach 4	WQS in Effect May 18, 2009
R4-2008-012	Chloride	Reconsideration of the Upper Santa Clara River Chloride TMDL Implementation Plan and Revise Chloride Water Quality Objectives	TMDL in Effect April 6, 2010

WQS = Water Quality Standard
Source: RWQCB-LA January 2009.

Beneficial Uses

The portion of the SCR most impacted by the SCVSD facilities generally coincides with Reach 5, which is the SCR reach west of Soledad Canyon and east of the Los Angeles-Ventura County line. Discharged effluent flows downstream into Reaches 5 to 1.

The Basin Plan identifies existing BUs for surface waters in these reaches as industrial service supply (IND), industrial process supply (PRO), agricultural water supply (AGR), groundwater recharge (GWR), freshwater replenishment (FRSH), water contact recreation (REC1), non-contact water recreation (REC2), warm freshwater habitat (WARM), wildlife habitat (WILD), preservation of rare and endangered species (RARE), and wetland habitat (WET). A potential BU is MUN, which currently has no regulatory impact. The designated BUs for Santa Clara Basin groundwater are MUN, IND, and ARG.

WQOs have been established in the Basin Plan to ensure that a water body can support its designated BUs. WQOs are stated as numeric and/or narrative limits for water quality constituents. Current numeric WQOs in the Basin Plan for selected constituents in the SCR reaches immediately affected by SWRP and VWRP discharges are presented in Table 3-3. Note that for the SCR, conditional site specific objectives (SSOs) for chloride have been adopted, but only apply if certain requirements are met.

Table 3-3. Selected Numeric Surface Water Quality Objectives for Santa Clara River Reaches 4 Through 6

Reach	TDS (mg/L)	Sulfate (mg/L)	Chloride ^a (mg/L)	Boron (mg/L)	Nitrogen (mg/L)
Reach 6. Between Bouquet Canyon Road Bridge and West Pier Highway 99	1,000	300	100	1.6	10
Reach 5. Between West Pier Highway 99 and Blue Cut gauging station	1,000	400	100	1.5	5
Reach 4A. Between Piru Creek and A Street Bridge, Fillmore	1,300	600	100	1.5	5
Reach 4B. Between Blue Cut gauging station and Piru Creek	1,300	600	100	1.5	5

^a In 2010, conditional SSOs of 150 mg/L, 150 mg/L, and 117/130 mg/L were adopted for chloride in Reaches 6, 5, and 4B, respectively, if certain requirements are met.

Source: RWQCB-LA, Basin Plan.

3.3 TMDLs FOR THE SANTA CLARA RIVER

A TMDL is a written, quantitative assessment of water quality problems and contributing pollutant sources. A TMDL identifies one or more numeric targets based on applicable WQO's; specifies the maximum amount of a pollutant that can be discharged (or the amount of a pollutant that needs to be reduced) to meet WQO's; allocates pollutant loads among sources in the watershed; and provides a basis for taking actions needed to meet the numeric target(s) and implement water quality standards. More than 500 water bodies or segments have been identified as needing TMDLs in California, many for multiple pollutants. TMDLs for nutrients (nitrogen compounds), bacteria, and chloride are in place for the SCR along reaches that affect the SWRP and the VWRP.

3.3.1 Nitrogen Compounds TMDL

On August 7, 2003, the RWQCB-LA adopted Resolution No. 03-011, the Santa Clara River Nitrogen Compounds TMDL (Nitrogen Compounds TMDL) which limits nitrate, nitrite, and ammonia. The associated TMDL implementation schedule required the SCVSD to develop a work plan to monitor and assess surface water quality in the SCR and evaluate the effectiveness in meeting nitrogen WLAs. On March 23, 2005, the SCVSD submitted the required work plan, which specified collection of ambient water quality and biological data from the upper SCR (USCR) watershed. The work plan was supplemented with a detailed sampling and analysis plan that was finalized on May 31, 2006. On December 27, 2007, a report on the results was submitted. The results indicated that current TMDL objectives for nitrate, nitrite, and ammonia were achieved in the USCR; that WLAs were being met by the SWRP and VWRP; and that the relevant portions of the river were not impaired for nutrients. The USCR was subsequently delisted for nitrate, nitrite, and ammonia.

3.3.2 Indicator Bacteria TMDL

On July 8, 2010, the RWQCB-LA adopted Resolution No. R10-006, the Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL (Indicator Bacteria TMDL), which limits indicator bacteria densities. The SWRP and VWRP were assigned WLAs for indicator

bacteria, but no action was necessary on the part of these WRPs because they were already in compliance with the WLAs.

3.3.3 Upper Santa Clara River Chloride TMDL Development

In 1990, the RWQCB-LA adopted a Drought Policy (Resolution No. 90-04) in response to drought conditions persisting since 1987 providing a variance to the applicable chloride WQO. During this drought period, most of the wastewater treatment plants in the Los Angeles Region could not comply with their discharge limits for chloride, primarily as a result of increased chloride concentration in imported water supplies. Interim chloride objectives for the SCR of 190 mg/L were set in 1997 and RWQCB-LA staff were directed to conduct a 3-year study to determine appropriate chloride objectives that would protect salt-sensitive crops and address the costs and environmental tradeoffs that could occur if end-of-pipe treatment were required at wastewater treatment plants.

During the 3-year study, the RWQCB-LA proposed listing several reaches of the SCR on the 303(d) list of Water Quality Limited Segments for chloride and in May 1999, EPA listed Reaches 5 and 6 of the SCR (the VWRP discharges to Reach 5 and SWRP discharges to Reach 6). The RWQCB-LA developed Chloride TMDLs for the USCR and, in 2002, adopted Resolution No. 02-018 setting a WLA of 100 mg/L for these reaches.

In 2003, the SWRCB remanded Resolution No. 02-018 back to the RWQCB-LA for reconsideration of various items including: (1) an extension of the interim effluent chloride limits, and (2) re-evaluation of the WQO accounting for the BUs to be protected, the quality of the imported water supply, and the impacts of drought periods. In response, the RWQCB-LA adopted Resolution No. 03-008 setting the time frame for compliance with the Chloride TMDLs. Also in 2003, the RWQCB-LA adopted NPDES permits and Time Schedule Orders (TSOs) for the SWRP and the VWRP. The SCVSD filed petitions for review of these permits and TSOs with the SWRCB following their adoption. The petition was resolved when the RWQCB-LA and the SCVSD signed a Settlement Agreement and Stipulation Concerning Chlorides in the Upper Santa Clara River (Settlement Agreement).

After the Settlement Agreement was signed, the RWQCB-LA adopted Resolution No. 04-004 revising the interim WLA and Implementation Plan for the Chloride TMDL. The interim chloride WLAs for the SWRP and the VWRP were based on floating limits consisting of State Water Project water supply chloride levels plus an incremental loading for each plant. The Implementation Plan required completion of several special studies to characterize the sources, fate, transport, and specific impacts of chloride in the USCR, followed by the development and implementation of appropriate control measures for meeting the WQO.

3.3.3.1 Threatened and Endangered Species Chloride Threshold Study

The Threatened and Endangered Species Chloride Threshold Study (T&Es Study), completed in November 2007, determined that the 1988 EPA ambient water quality criteria for chloride for the protection of aquatic life (230 mg/L as chronic; 860 mg/L as acute) are protective of locally important threatened and endangered species (Advent-Environ 2007).

3.3.3.2 Agricultural Chloride Threshold Study

The Agricultural Chloride Threshold Study (Ag Study) was designed to support the AGR BU for the USCR. The Ag Study consisted of two parts – a Literature Review Evaluation completed in September 2005 (CH2M HILL 2005), and an evaluation of the appropriate averaging period completed in January 2008 (NewFields Agricultural and Environmental Resources 2008). The Ag Study determined that the appropriate chloride threshold for salt-sensitive agriculture (avocados, strawberries, and nursery crops) grown in the USCR watershed is in the range of 100 to 117 mg/L, with an averaging period of 3 months. The Ag Study was reviewed by an independent Technical Advisory Panel.

3.3.3.3 Groundwater-Surface Water Interaction Model Study

The Groundwater-Surface Water Interaction Model (GSWIM) Study resulted in preparation of a calibrated numerical model in March 2008 (CH2M HILL 2008) that enables evaluation of the impact of WRP recycled water discharges to the SCR on downstream surface water and groundwater quality. The GSWIM was also used to evaluate various compliance alternatives including potential SSOs.

3.3.3.4 Site-Specific Objectives and Anti-Degradation Analysis Study

The SSO and Anti-Degradation Analysis Study (SSO and ADA Study), completed in November 2008, provided the technical and regulatory basis for the RWQCB-LA to consider potential SSOs for the USCR. As part of the SSO and ADA Study, salt-sensitive agriculture was found not to be an existing or potential BU in Reaches 5 and 6.

3.3.4 Upper Santa Clara River Chloride TMDL Implementation Plan

In 2006, the TMDL Implementation Plan was amended in RWQCB-LA Resolution No. R4-2006-016, shortening the time schedule for completing the special studies and implementing control measures. After completing the special studies (T&Es Study, Ag Study, GSWIM Study, and SSO and ADA Study), and with the input of various stakeholders including the SCVSD, Ventura County Agricultural Water Quality Coalition (VCAWQC), United Water Conservation District (United Water), and the Upper Basin Water Purveyors, an alternative compliance plan known as Alternative Water Resources Management Plan (AWRM) was developed to address chloride while protecting BUs. The RWQCB-LA then adopted Resolution No. R4-2008-012 in 2008 (see Appendix 3-A) which set conditional SSOs for chloride and shortened the implementation deadline from May 4, 2016 to May 4, 2015. These conditional SSOs allow a higher (117 mg/L) chloride limit but are contingent upon implementation of the specific facilities described in the AWRM. Therefore, SSOs higher than the Ag Study range of 100 to 117 mg/L were adopted for Reaches 5 and 6.

The AWRM consisted of chloride source reduction measures and a 3-mgd advanced wastewater treatment facility, brine disposal facilities, and salt management facilities. The AWRM is further described in Section 6.

3.3.5 Basin Plan Amendment – Subdivision of Santa Clara River Reach 4

SCR Reach 4, between the Blue Cut gauging station and A Street in Fillmore, has a “Dry Gap” where surface water in the upper portion of Reach 4 infiltrates into the Piru groundwater basin and resurfaces approximately 6 miles downstream. Flow from Piru Creek, a major tributary, also infiltrates into the groundwater basin.

Initially, one WQO for chloride had been assigned to all of Reach 4 despite the changes in hydrologic conditions along its course. To allow for the development of more geographically precise SSOs and to better represent the hydraulic regime of the SCR, the RWQCB-LA adopted Resolution R4-2007-018 on November 1, 2007, which subdivided Reach 4 of the SCR into two separate reaches, Reach 4A and Reach 4B. Reach 4A now consists of the river segment between the A Street Bridge in Fillmore and the confluence of Piru Creek. Reach 4B lies between the Piru Creek confluence and the Blue Cut gauging station.

3.4 DISCHARGE REGULATIONS

3.4.1 Discharge Points and Receiving Waters

The VWRP has two discharge points to the SCR. The primary discharge point is used during normal conditions. The second is located a few feet away and is only used when the water level rises in the river to the extent that the primary discharge point is partially or completely submerged (i.e., during heavy storm events). Both discharge points are within Reach 5 of the SCR, about 3,500 feet downstream of the Interstate 5 (I-5) Freeway Bridge.

The SWRP has one discharge point just downstream of the Bouquet Canyon Road Bridge in Reach 6 of the SCR. The SCR ultimately drains to the Pacific Ocean in Ventura County, and is considered waters of the U.S., as discussed in the beginning of Section 3.2.

3.4.2 NPDES Permits

Discharges from the SCVSD WRP to the SCR are regulated by NPDES permits issued by the RWQCB-LA. Updated NPDES permits for discharge to the SCR were adopted for both the SWRP and VWRP on June 4, 2009. Permits are renewed every 5 years unless conditions change that require a permit reopening (e.g., plant capacity expansion, treatment upgrade, or change in Basin Plan). Current NPDES permits for the SWRP and VWRP are identified in Table 3-4.

Table 3-4. SWRP and VWRP Waste Discharge and Water Reuse Permits

Facility	NPDES Permit		
	Permit No.	RWQCB-LA Order No.	WRR Order No.
SWRP	CA0054313	R4-2009-0075	97-072
VWRP	CA0054216	R4-2009-0074	97-072

An NPDES permit generally contains the following components:

- **Findings:** Official description of the facility, process, type and quantity of wastes, existing requirements, enforcement actions, public notice, and applicable basin plans

- **Effluent Limitations:** Narrative and numerical limits for effluent; discharge prohibitions
- **Receiving Water Limitations:** Narrative and numerical objectives for the receiving waters
- **Provisions:** Standard provisions required by the RQWCB and by federal law; expiration date of permit
- **Compliance/Task Schedule:** Time schedules and interim reporting deadlines for compliance
- **Pretreatment Requirements:** Standard pretreatment requirements for municipal facilities

Average and daily maximum pollutant discharge limitations are presented in Table 3-5. The NPDES permits issued for the VWRP and SWRP by the RWQCB-LA in 2009 also include interim effluent limits for chloride. The chloride interim limit is equal to the sum of the State Water Project treated water supply chloride concentration plus 114 mg/L (for SWRP) or 134 mg/L (for VWRP), not to exceed a daily maximum of 230 mg/L. The interim limits apply until the Chloride TMDL compliance date.

Disinfection requirements for the VWRP and SWRP are also contained in the NPDES permits. Adequate disinfection is determined by testing for the levels of coliform bacteria present in the effluent. See Table 3-5 for coliform limits.

In addition to the discharge limitations listed in Table 3-5, the NPDES Permits for the SWRP and VWRP include the following discharge requirements.

- 86°F maximum temperature
- The pH of wastes discharged must be within the range of 6.5 and 8.5 at all times
- The wastes discharged to watercourses must be adequately disinfected at all times
- Maximum turbidity of 2 Nephelometric turbidity units (NTUs) average within a 24-hour period, 5 NTUs more than 5 percent of the time (72 minutes) during any 24-hour period, and 10 NTUs at any time
- To protect underlying ground water basins, pollutants must not be present in the wastes discharged at concentrations that pose a threat to ground water quality
- Incorporation of radioactivity limits from Title 22, *Drinking Water Standards* to protect BUs
- Acute and chronic toxicity limitations are based upon the Basin Plan
- The permit contains a narrative chronic toxicity effluent limitation with a numeric trigger of 1 Toxicity Unit (TU_c) for accelerated monitoring

3.4.2.1 Watershed-Wide Monitoring Program

The NPDES permits include the requirement that the SCVSD participate in development of an updated comprehensive Watershed-Wide Monitoring Program and develop an implementation plan for this monitoring program in conjunction with other interested stakeholders. The Watershed-Wide Monitoring Program seeks to assess impacts on water quality and ecological resources from nonpoint source runoff and aerial fallout as well as point source discharges. The stated goals of the program are to:

- Determine compliance with receiving water limits
- Monitor trends in surface water quality

Table 3-5. SWRP and VWRP NPDES Permit Discharge Limitations for Conventional, Nonconventional, and Toxic Pollutants

Constituent	Units	Discharge Limitations ^a			Basis
		30-day Avg.	7-day Avg.	Daily Max.	
BOD ₅ @ 20°C (BOD)	mg/L	20	30	45	40CFR133 ^b
TSS	mg/L	15	40	45	40CFR133
Settleable Solids	mg/L	0.1	--	0.3	Basin Plan
Oil and Grease	mg/L	10	--	15	Basin Plan
Total Residual Chlorine	mg/L	--	--	0.1	Basin Plan
Total Dissolved Solids	mg/L	1,000	--	--	Basin Plan
Sulfate	mg/L SWRP	300	--	--	Basin Plan
	mg/L VWRP	400	--	--	Basin Plan
Boron	mg/L	1.5	--	--	Basin Plan
Detergents (as MBAS)	mg/L	0.5	--	--	Basin Plan
Ammonia Nitrogen	mg/L SWRP	2.0	--	5.6	TMDL
	mg/L VWRP	1.75	--	5.2	
Nitrate + Nitrite as Nitrogen	mg/L SWRP	7.1	--	--	TMDL
	mg/L VWRP	6.8	--	--	
Nitrite as Nitrogen	mg/L	0.9	--	--	TMDL
Nitrate as Nitrogen	mg/L SWRP	7.1	--	--	TMDL
	mg/L VWRP	6.8	--	--	
Cyanide (SWRP only)	µg/L	3.9	--	9.4	Basin Plan
Perchlorate (SWRP only)	µg/L	6	--	--	Basin Plan
Antimony (SWRP only)	µg/L	6	--	--	Basin Plan
Arsenic	µg/L	10	--	--	Basin Plan
Cadmium (SWRP only)	µg/L	5	--	--	Basin Plan
Iron	µg/L	300	--	--	Basin Plan
Mercury	µg/L	0.051	--	--	Basin Plan
Selenium	µg/L	4.4	--	--	Basin Plan
Total Trihalomethanes ^c	µg/L	80	--	--	Basin Plan
Coliform Bacteria	MPN/100 mL	23	2.2	--	Basin Plan

BOD₅ = Biochemical Oxygen Demand 5-day

TSS = Total Suspended Solids

MBAS = Methylene Blue Active Substances

MPN = Most Probable Number

^a Mass emission rates (based on plant design flow rates of 21.6 mgd and 6.5 mgd for the SWRP and the VWRP, respectively), can be calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

^b CWA 40 Code of Federal Regulations Part 133.

^c Total Trihalomethanes is the sum of concentrations of the trihalomethane compounds: bromodichloromethane, bromoform, chloroform, and dibromochloromethane. This limit is based on the Basin Plan WQO incorporation of MCLs by reference.

- Ensure protection of BUs
- Provide data for modeling contaminants of concern
- Characterize water quality including seasonal variation of surface waters within the watershed
- Assess the health of the biological community
- Determine mixing dynamics of effluent and receiving waters in the estuary

3.5 REGULATIONS GOVERNING WATER REUSE

The discharge and reuse of recycled water is regulated under a number of authorities on the state and local level.

3.5.1 State Regulations

State requirements for production, discharge, distribution, and use of recycled water are contained in the following codes:

- CWC, Division 6 – Conservation, Development, and Utilization of State Water Resources, §§10610 through 10655, and Division 7 – Water Quality, §§13000 through 13633
- California Health and Safety Code, Division 6 – Sanitary Districts, §6512, and Division 104 – Environmental Health Sciences, §§116800 through 116820
- California Code of Regulations (CCR), Title 22 – Social Security, Division 4 – Environmental Health, Chapter 3 – Recycling Criteria, §§60001 through 60355
- CCR, Title 17-Public Health, Division 1 – State Department of Health, Chapter 5, Sanitation (Environmental), Subchapter 1, Engineering (Sanitary), Group 4, Drinking Water Supplies, §§7583 through 7605

In addition, guidelines for production, distribution, and use of recycled water have been prepared or endorsed by state agencies administering recycled water regulations

3.5.1.1 California Water Code

The CWC contains requirements for the production, discharge, and use of recycled water. Division 7, Chapter 7, of the CWC specifically addresses requirements for water recycling. This chapter requires California Department of Public Health (CDPH) to establish water-recycling criteria and gives the RWQCBs responsibility for prescribing specific Water Reclamation Requirements (WRRs) for water that is used or proposed to be used as recycled water. In addition, Division 7, Chapter 7, of the CWC provides for regulation of recycled water injection into the ground and requires that greenbelt areas and certain other applications use recycled water rather than potable water where recycled water is available at a cost-effective price.

The CWC (§§1210 through 1212), added in 1980, focus on the definition of property rights to recycled water and require that the owner of a wastewater treatment plant obtain approval from the SWRCB prior to making any change to the point of discharge, place of use, and/or purpose of use of recycled water.

3.5.1.2 Title 22

The CWC (§13521) requires the CDPH to establish water reclamation criteria. In 1975, the CDPH prepared Title 22 regulations to fulfill this requirement. Title 22 was subsequently revised in 1978 to conform with the 1977 amendments to the CWA and revised again in December 2000. The requirements of Title 22 regulate production and use of recycled water in California.

Title 22 establishes four categories of recycled water:

- Undisinfected Secondary Recycled Water: oxidized effluent.

- Disinfected Secondary-23 Recycled Water: oxidized and disinfected effluent that does not exceed a most probable number (MPN) of 23 total coliform bacteria per 100 milliliters (mL) median concentration in a 7-day period.
- Disinfected Secondary-2.2 Recycled Water: oxidized and disinfected effluent that does not exceed an MPN of 2.2 total coliform bacteria per 100 mL median concentration in a 7-day period.
- Disinfected Tertiary Recycled Water: oxidized, coagulated, clarified, filtered, and disinfected effluent.

Criteria for reuse of secondary and tertiary effluent in various reuse applications include limits on the maximum numbers of total coliform bacteria present within the water. A partial list of suitable uses of recycled water, as defined by Title 22, is summarized in Table 3-6.

Table 3-6. Suitable Uses of Recycled Water

Use ^a	Disinfected Tertiary Recycled Water	Disinfected Secondary-2.2 Recycled Water	Disinfected Secondary-23 Recycled Water	Undisinfected Secondary Recycled Water
Surface Irrigation				
Parks, playgrounds and School yards	Allowed	Not Allowed	Not Allowed	Not Allowed
Residential landscaping	Allowed	Not Allowed	Not Allowed	Not Allowed
Unrestricted access golf courses	Allowed	Not Allowed	Not Allowed	Not Allowed
Cemeteries and Freeway landscaping	Allowed	Allowed	Allowed	Not Allowed
Restricted access golf courses	Allowed	Allowed	Allowed	Not Allowed
Supply for Impoundments				
Nonrestricted recreational impoundment	Allowed ^b	Not Allowed	Not Allowed	Not Allowed
Restricted recreational impoundment	Allowed	Allowed	Not Allowed	Not Allowed
Other Uses				
Flushing toilets and urinals	Allowed	Not Allowed	Not Allowed	Not Allowed
Industrial process water that may contact workers	Allowed	Not Allowed	Not Allowed	Not Allowed
Structural fire fighting	Allowed	Not Allowed	Not Allowed	Not Allowed
Decorative fountains	Allowed	Not Allowed	Not Allowed	Not Allowed
Commercial laundries	Allowed	Not Allowed	Not Allowed	Not Allowed
Commercial car washes, including hand washes if water is not heated, where public is excluded from washing process	Allowed	Not Allowed	Not Allowed	Not Allowed
Industrial boiler feed	Allowed	Allowed	Allowed	Not Allowed
Nonstructural fire fighting	Allowed	Allowed	Allowed	Not Allowed
Soil compaction	Allowed	Allowed	Allowed	Not Allowed
Mixing concrete	Allowed	Allowed	Allowed	Not Allowed
Dust control on roads and streets	Allowed	Allowed	Allowed	Not Allowed
Cleaning roads, sidewalks and outdoor work areas	Allowed	Allowed	Allowed	Not Allowed
Industrial process water that may not contact workers	Allowed	Allowed	Allowed	Not Allowed

^a This list is not all inclusive.

^b With monitoring for viruses, bacteria, and protozoa cysts.

In addition to defining permitted uses of recycled water and treatment requirements, Title 22 defines sampling and analysis requirements for treatment plant effluent, requires preparation of an engineering report prior to production or use of recycled water, specifies general design criteria for treatment facilities, establishes reliability requirements, and addresses alternative methods of treatment.

Water Recycling Requirements

Use of recycled water is usually regulated by the RWQCB under WRRs (also known as reuse permits). WRRs include findings that provide an official description of the facility using the recycled water and specifications for use of the water. The SCVSD WRR Order was issued in 1987.

The reuse permit contains limits that are consistent with specific WQOs of the Basin Plan. Table 3-7 summarizes the numerical limits listed in the WRRs. The reuse permits also require that reclaimed water shall not contain trace constituents or other substances in concentrations exceeding the limits of the current CDWS.

Table 3-7. SWRP and VWRP WRR Constituent Limits

pH	TDS (mg/L)	Sulfate (mg/L)	Chloride^a (mg/L)
6.0 – 9.0	800	250	300

^a Revised WRRs may be issued at any time. It is expected that new limits would be closer to 100-150 mg/L.

3.5.1.3 SWRCB Recycled Water Policy

On February 3, 2009, the SWRCB released a recycled water policy (Resolution No. 2009-0011). The purpose of this policy is to increase the use of recycled water in a manner that implements state and federal water quality laws and provides direction to RWQCBs, proponents of recycled water projects, and the public regarding appropriate criteria to be used by the SWRCB and RWQCBs in issuing permits for recycled water projects. The policy includes language that:

- Establishes goals to increase the use of recycled water in California and clarifies the roles of the SWRCB, RWQCBs, CDPH, and the California Department of Water Resources (DWR).
- Requires development of salt and nutrient management plans for each groundwater basin by 2014.
- Establishes a “blue-ribbon” advisory panel to guide future actions relating to Emerging Constituents/Constituents of Emerging Concern (CEC).

3.5.1.4 SWRCB Recycled Water General Irrigation Permit

The California Legislature declared its intent that the state undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the state. In response, the SWRCB adopted a General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water on July 7, 2009 to streamline the regulatory process for reuse of disinfected tertiary recycled water for:

- Parks, greenbelts, and playgrounds
- School yards

- Athletic fields
- Golf courses
- Cemeteries
- Residential landscaping, common areas
- Commercial landscaping, except eating areas
- Industrial landscaping, except eating
- Freeway, highway, and street landscaping

3.5.1.5 California Department of Public Health Draft Groundwater Recharge Regulations

The CDPH issued new Draft Groundwater Replenishment Reuse Regulations on November 21, 2011. For surface spreading projects not using full advanced treated recycled water (as defined in §60320.201 of the Draft Groundwater Replenishment Reuse Regulations, November 21, 2011), the draft regulations allow an initial recycled water contribution (RWC) of 20 percent, or a 20/80 blend ratio of recycled water to dilution water. For surface spreading projects and direct injection projects using full advanced treated recycled water, the initial maximum RWC is to be determined on a case-by-case basis by CDPH. The draft regulations propose methodology whereby the RWC could be increased above the initial value, which could lead to increased groundwater recharge. In addition to the RWC requirements, the draft regulations provide requirements for recycled water treatment, pathogen removal, wastewater source control, diluent water, soil treatment process, response retention time, monitoring wells, reporting, and various water quality constituent requirements.

3.5.1.6 Title 17

The focus of Title 17 of the CCR is the protection of potable water supplies through control of cross connections with potential contaminants. Examples of potential contaminants include sewage; nonpotable water supplies such as recycled water, irrigation water, and auxiliary water supplies; fire protection systems; and hazardous substances. Title 17, Group 4, Article 2 (Protection of Water System), Table 1, specifies the minimum backflow protection required on a potable water system when there is a potential for contamination of the potable water supply. Revisions to Title 17 of the CCR are being developed, with the most current draft dated December 8, 2005.

3.5.1.7 Recycled Water Guidelines

To assist in compliance with Title 22, CDPH has prepared a number of guidelines for production, distribution, and use of recycled water. Additionally, CDPH recommends the use of recycled water distribution guidelines prepared by the California-Nevada Section of the American Water Works Association (AWWA). These guidelines include:

- Guidelines for the Preparation of an Engineering Report on the Production, Distribution, and Use of Recycled Water
- Manual of Cross-Connection Control/Procedures and Practices
- Guidelines for the Distribution of Nonpotable Water

- Guidelines for the Use of Recycled Water
- Guidelines for the Use of Recycled Water for Construction Purposes

3.5.1.8 Recycled Water Administration

In the State of California, recycling requirements are administered by the SWRCB, the RWQCB, and CDPH. The direct involvement of each agency during a water recycling project is as follows:

- The SWRCB issue loans and approves petitions for a change in place and/or purpose of use of recycled water in accordance with the CWC.
- The RWQCB (1) prepares or revises WRRs in accordance with the CWC and Title 22, (2) reviews and approves engineering reports required under Title 22, and (3) reviews and approves recharge projects using recycled water in accordance with the CWC.
- The CDPH reviews and approves (1) engineering reports, (2) final plans for cross-section control and pipeline separations in accordance with Title 17 and inspects distribution systems prior to operation, and (3) final user system plans in conjunction with local health agencies for cross-section control in accordance with Title 17 and inspects systems prior to operations.

3.5.2 Recycled Water Local Regulations

Local requirements focus on the distribution and use of recycled water and, primarily, on the user systems. Local requirements generally emphasize cross-connection control. The state regulations and guidelines discussed above are the governing requirements. The Los Angeles County Department of Public Health (County DPH) generally establishes more specific requirements for separation and construction of potable and recycled water systems, specifies guidelines for user systems, and establishes criteria for identification of recycled water facilities.

3.6 REGULATIONS GOVERNING AIR QUALITY

3.6.1 Federal Regulations

3.6.1.1 Federal Clean Air Act

The Federal Clean Air Act (FCAA), passed in 1963 and amended significantly in 1970, 1977, and 1990, requires the EPA to establish national ambient air quality standards (NAAQS) for air pollutants. The EPA has promulgated NAAQS for criteria pollutants, including carbon monoxide (CO), ozone (O₃), sulfur oxides (SO_x), nitrogen oxides (NO_x), particulate matter with an aerodynamic diameter of less than 10 microns (PM₁₀), particulate matter with an aerodynamic diameter of less than 2.5 microns (PM_{2.5}), and lead. State governments, in turn, must develop attainment plans to meet these NAAQS by a specific date. As outlined in the California Health and Safety Code (CHSC) §39602, the Air Resources Board (ARB) is designated as the air pollution control agency of the state and is responsible for developing a state implementation plan as required by the FCAA. Areas not meeting the NAAQS, referred to as nonattainment areas, are required to implement specified air pollution control measures. In California, responsibility for air pollution control measures is divided between the ARB and local air districts. A brief description of the applicable titles of the FCAA follows.

Title V

Title V of the FCAA establishes a federal operating permit program for major sources of criteria or hazardous air pollutants to be administered by states. A Title V permit consolidates different FCAA requirements into a single document. Major sources are required to obtain a Title V permit. Facilities can also be required to obtain a Title V permit if they are not otherwise major sources, but are subject to New Source Performance Standards (NSPS – Title I) or National Emission Standards for Hazardous Air Pollutants (NESHAP – Title III). Neither the SWRP nor the VWRP is considered a major source by South Coast Air Quality Management District (SCAQMD) criteria, and Title V permits are not required for any SCVSD facilities at this time.

Title III

Title III of the FCAA directs the EPA to establish technology-based standards for 187 hazardous air pollutants (HAPs) based on the use of maximum achievable control technology (MACT). POTWs that provide treatment for industrial wastewater streams to comply with any industrial MACTs are defined as industrial POTWs. For the most part, MACT emission standards are to be imposed on major sources of HAPs. Under the MACT definition, the SCVSD facilities are considered non-industrial POTWs. The SCVSD facilities are not currently, nor are they expected to be, a major source of HAPs. Therefore, the MACT standard does not apply.

3.6.2 State Regulations

3.6.2.1 California Clean Air Act

The California Clean Air Act (CCAA), which was signed into law in 1988, requires attainment of state ambient air quality standards by the earliest practicable date. The CCAA is generally more stringent than the FCAA. Vehicular sources and consumer products are the primary responsibility of the ARB, while local air districts are primarily responsible for stationary and portable sources (CHSC 39002). The ARB retains oversight authority over the local air districts.

As with the CAA, nonattainment areas that do not meet the NAAQS are required to implement specified air pollution control measures. The CCAA divides nonattainment areas, based on background pollutant levels, into categories with progressively more stringent requirements. Each air district that is located in a nonattainment area is required to submit an air quality management plan (AQMP) to the ARB.

SCVSD facilities are located within the jurisdiction of the SCAQMD, which is classified as a severe nonattainment area for ozone and nonattainment area for PM₁₀ and PM_{2.5}.

3.6.2.2 Greenhouse Gas Legislation

In June 2005, in response to the increasing body of evidence that greenhouse gases (GHGs) will affect the global climate, Governor Schwarzenegger issued executive order (EO S-3-05), which established the following GHG emission reduction targets for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. Subsequent to the Governor's issuance of EO S-3-05, on September 27, 2006, the California State Legislature adopted Assembly Bill (AB) 32, also called the Global Warming Solutions Act of 2006. AB 32 sets forth the regulatory framework to achieve the 2020 reduction in statewide emissions levels called for in EO S-3-05. AB 32 assigns

ARB responsibility for monitoring and reducing GHG emissions as well as preparing a Scoping Plan to identify how best to reach the 2020 limit.

In December 2008, the SCAQMD approved an Interim Guidance Document on how to determine whether a project's GHG emissions are significant for CEQA purposes and included a numeric significance threshold for stationary sources. SCAQMD continues to refine this guidance through a workgroup process. The interim GHG significance threshold is only a recommendation for lead agencies and not a mandatory requirement, although the threshold (10,000 metric tons of CO₂ equivalents per year) will be used by SCAQMD when SCAQMD is the lead agency.

In August 2007, Governor Schwarzenegger signed Senate Bill (SB) 97, which requires the California Office of Planning and Research (OPR) to prepare CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions and transmit these Guidelines to the Natural Resources Agency (NRA). On June 19, 2008, OPR released its Technical Advisory on CEQA and Climate Change, which was developed in cooperation with the NRA, the California Environmental Protection Agency (CalEPA), and ARB. The Technical Advisory encourages lead agencies to follow three basic steps: (1) identify and quantify the GHGs that could result from a proposed project, (2) analyze the effects of those emissions and determine whether the effect is significant, and (3) if the impact is significant, identify feasible mitigation measures or alternatives that will reduce the impact below a level of significance.

The NRA adopted amendments to the CEQA Guidelines for GHG emissions on January 1, 2010. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

3.6.3 Local Regulations

3.6.3.1 South Coast Air Quality Management District

The SCAQMD is responsible for stationary and indirect source control, air monitoring, enforcement of delegated mandates, and attainment plan preparation for Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties; and the Riverside County portions of the Salton Sea Air Basin and the Mojave Desert Air Basin. All of the SCVSD facilities are within the jurisdiction of the SCAQMD.

3.6.3.2 Air Quality Management Plan

The FCAA requires that the appropriate air quality authorities prepare air quality plans designed to achieve the federal ambient air quality standards. As mentioned above, the SCAQMD is responsible for preparing an AQMP and submitting that plan to the ARB. The ARB then reviews the AQMP and, following approval, incorporates it into the California State Implementation Plan (SIP), which includes air quality plans prepared by other local air quality control districts. The ARB then forwards the State Implementation Plan to EPA Region IX for approval. Every three years, the SCAQMD updates the AQMP. The final 2012 AQMP was adopted by the SCAQMD Governing Board on December 7, 2012.

3.6.3.3 South Coast Air Quality Management District Permit Rules

The SCAQMD regulates stationary and area-wide sources through a variety of general “prohibitory” rules. These rules limit criteria pollutants irrespective of the source’s size. The rules include source-specific Regulation XI standards, New Source Review (Regulation XIII) that requires best available control technology (BACT) and offsets for new and modified sources, and implementation of federally-delegated rules.

Similarly, the SCAQMD has promulgated technology-based rules to limit emissions of toxic air pollutants from new and existing operations. The rules apply to all permit applications for new or modified facilities and/or equipment. Some of these rules were originated by the SCAQMD and some, such as those addressing diesel particulates, were based on airborne toxic control measures (ATCM) adopted by the ARB.

3.6.3.4 Regulation XIII (New Source Review)

The SCAQMD new source review (NSR) program applies when there is a permitting action resulting in increased emissions of any nonattainment air pollutant, precursors to a nonattainment pollutant, ammonia, or ozone depleting compounds (ODCs) from a new or modified source of emissions. The main elements of NSR are BACT requirements, modeling, and offsets. Any new or modified facilities where the emissions increase is greater than the offset threshold must obtain offsets by purchasing emission reduction credits or reducing emissions elsewhere at the facility (simultaneous emissions reductions), thereby resulting in no net increase in emissions.

The SCAQMD’s NSR program has been modified several times since it was first adopted in 1976. Generally, each modification has reduced the offset requirement thresholds, which led to a concern that sufficient offsets would not be available to allow the permitting of essential public service projects, such as POTWs and landfills. Consequently, the SCAQMD created a pool of emission offsets known as the Priority Reserve to ensure offset availability for such projects. This pool can be accessed at no charge to satisfy emission offset requirements for essential public service projects. Access to the Priority Reserve does not eliminate the requirement to install BACT.

3.6.3.5 Rule 1401 (New Source Review of Toxic Air Contaminants) and Subsequent Rules

Rule 1401 is the SCAQMD’s NSR program for toxic emissions, while Rule 1402 addresses control of toxic air contaminants from existing sources and implements the state Air Toxics Hot Spot Program. Under Rule 1401, the SCAQMD reviews permit applications for new or modified sources to determine if the facility is required to submit a health risk assessment and to assess whether BACT for Toxics (T-BACT) is required. A permit application will be denied if the cancer burden is greater than 0.5 or if the maximum individual cancer risk (MICR) is greater than 1 in 1 million, or 10 in 1 million for sources that apply T-BACT. Rule 1402 requires facility-wide risk assessments for facilities notified by the SCAQMD, or under the original State Hot Spots program. Based upon the facility-wide MICR, cancer burden, or Hazard Index (HI), a facility may trigger different risk thresholds for public notification (10 in 1 million MICR or HI of 1.0), action level (25 in 1 million MICR, 0.5 cancer burden, or HI of 3.0), or significant risk (100 in 1 million MICR or HI of 5.0). The latter two triggers would require the facility to reduce risk through specified Risk Reduction Plans. Neither SCVSD facility has ever triggered a facility-based public notice threshold or a mandatory risk reduction threshold.

As a result of increased concern over environmental justice and impacts to sensitive receptors, a more restrictive toxic emissions NSR rule, Rule 1401.1, was adopted to cap risk from new or relocated facilities locating near schools.

3.6.3.6 Regulation XXVII (Climate Change)

This SCAQMD climate change regulation, developed in response to AB 32, establishes the Southern California Climate Solutions Exchange Program. Through this program, entities can purchase carbon reductions from the exchange to mitigate emissions from new projects. Participation in the program is voluntary.

3.7 REGULATIONS GOVERNING BIOSOLIDS MANAGEMENT

All solids generated within the SCVSD are processed onsite at the VWRP. The disposal of solids and beneficial reuse of biosolids are subject to federal and state regulations. Depending upon the type and level of treatment provided, solids/biosolids are placed into different classifications, which determine allowable application of these materials.

3.7.1 Federal Regulations

The EPA promulgated Standards for the Use or Disposal of Sewage Sludge, Title 40 of the Code of Federal Regulations, Part 503 (Part 503) in 1993. Part 503 is a comprehensive, risk-based regulation that protects human health and the environment from pollutants of concern that can be present in biosolids. Biosolids are sewage sludges/solids that have been treated/stabilized to a degree suitable for beneficial reuse. Part 503 specifies general requirements, pollutant limits, management practices, and operational standards for various biosolids management options such as land application, surface disposal, and incineration. It provides the basis for classifying biosolids as Class A or Class B depending on the level of pathogen reduction, the degree of vector attraction reduction, and the concentration of regulated pollutants in the biosolids. Both Class A and Class B biosolids are protective of public health and the environment.

All wastewater treatment plant solids produced in the SCVSD are processed at the VWRP, which produces Class B biosolids. Class B biosolids meet the pathogen and vector attraction reduction requirements of Part 503 and do not exceed the pollutant ceiling concentrations listed in Table 3-5. Class B biosolids may be applied in bulk to agricultural land, forest, public contact sites (e.g., public parks, ball fields, cemeteries, etc.) or a reclamation site provided either the cumulative loading rates or the pollutant concentrations listed in Table 3-7 are not exceeded and the applicable Part 503 site restrictions are maintained.

3.7.2 State Regulations

The SWRCB enacted State Water Quality Order No. 2000-10-DWQ in August 2000, which was later replaced by State Water Quality Order No. 2004-0012-DWQ to establish general WDRs for the reuse of biosolids. Table 3-8 lists pollutant limits for biosolids. The land application requirements are more restrictive than those contained in Part 503 and are designed to account for conditions specific to California soils and local environments through the issuance and oversight of General Order Permits.

3.8 REGULATIONS GOVERNING HAZARDOUS MATERIALS

The EPA is the principal federal agency regulating hazardous materials. As such, the EPA broadly defines a hazardous waste as one that is specifically listed in EPA regulations; that has been tested and meets one of the characteristics (e.g., toxicity) established by the EPA; or that has been declared hazardous by the generator based on its knowledge of the waste.

CalEPA has been granted primary responsibility by the EPA for administering and enforcing hazardous materials management plans. CalEPA defines a hazardous material more generally as a material that, because of its quantity, concentration, physical characteristics or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released (26 CCR 25501). Note that hazardous materials include chemicals used in the operation of a typical POTW.

Table 3-8. Pollutant Limits for Biosolids

Constituent	Ceiling Concentration ^a (mg/kg)	Pollutant Concentration ^a (mg/kg)	Cumulative Loading Rate (kg/ha)
Arsenic	75	41	41
Cadmium	85	39	39
Copper	4,300	1,500	1,500
Lead	840	300	300
Mercury	57	17	17
Molybdenum	75	–	–
Nickel	420	420	420
Selenium	100	100	100
Zinc	7,500	2,800	2,800

mg/kg = milligrams per kilogram

kg/ha = kilogram per hectare

^a Dry weight basis.

Source: EPA, 40 CFR 503 – Standards for the Use or Disposal of Sewage Sludge 1997.

3.9 REGULATIONS GOVERNING ENVIRONMENTAL IMPACTS

3.9.1 Federal Regulations

3.9.1.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA), enacted in 1970, came in response to a national sentiment that federal agencies should take more direct responsibility in providing greater protection for the environment. NEPA is the nation's basic charter for the protection of the environment. It establishes environmental policy for the nation, provides an interdisciplinary framework for federal agencies to prevent environmental damage, and contains procedures to ensure that federal agency decision makers take environmental factors into account (Bass, Herson, and Bogdan 1996).

Because there are no proposed federal actions under this Facilities Plan, no federal lead agency is required.

3.9.2 State Regulations

3.9.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA), enacted in 1970, was modeled after NEPA. CEQA applies to all proposed discretionary activities that will be carried out or approved by California public agencies, such as the Sanitation Districts, unless such activities are specifically exempted. Under CEQA, the “Lead Agency” is the agency with the principal responsibility to approve a project and therefore is the agency responsible for preparing a CEQA document for a proposed project. For the Facilities Plan, the SCVSD will serve as the CEQA Lead Agency.

The purpose of CEQA is to minimize environmental damage. Key objectives of CEQA are to disclose to decision makers and the public the significant environmental effects of the proposed project to enable them to understand the environmental consequences of a project and to balance the benefits of a project against the environmental costs. Major elements of CEQA include (1) disclosing environmental impacts, (2) identifying and preventing environmental damage, (3) fostering intergovernmental coordination, (4) enhancing public participation, and (5) disclosing agency decision making (Bass, Herson, and Bogdan 1996).

3.10 REGULATIONS GOVERNING ENDANGERED SPECIES

3.10.1 Federal Regulations

3.10.1.1 The Federal Endangered Species Act

The Federal Endangered Species Act (FESA) regulates the take of species listed as threatened or endangered. Take is broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

Federal Endangered Species Act §7

§7 of the FESA applies when a project involves a federal action such as issuing a federal permit or federal funding. §7 requires the federal agency to consult with the USFWS regarding the potential effect of the agency’s action on species listed as threatened or endangered.

§7 compliance applies to agencies applying for SRF loans because some of the funding is from federal sources. This consultation typically results in preparation of a biological opinion that specifies whether the proposed action is likely to jeopardize the continued existence of the listed species or result in the adverse modification of critical habitat. The biological opinion may include an “incidental take” statement if the proposed action would result in the take of a listed species incidental to the federal action.

Federal Endangered Species Act §9

§9 of FESA prohibits all persons subject to the jurisdiction of the United States from taking, importing, exporting, transporting, or selling any species of fish or wildlife listed as endangered or threatened.

Federal Endangered Species Act §10

Although §9 prohibits the take of a federally listed species, §10 of FESA is the mechanism that may allow an incidental take of such species. The USFWS may issue a take permit for any taking that is incidental to, and not for the purpose of, carrying out an otherwise lawful activity. Along with the application for an incidental take permit, the applicant must submit a conservation plan that specifies likely impacts that would result from the take, mitigation measures to minimize those impacts, funding for the mitigation, and a project alternatives analysis.

3.10.2 State Regulations

3.10.2.1 The California Endangered Species Act

Under the California Endangered Species Act (CalESA), all state Lead Agencies (as defined by CEQA) preparing Initial Studies, Negative Declarations, or environmental impact reports (EIRs) must consult with the California Department of Fish and Wildlife (CDFW) to ensure that any action authorized, funded, or carried out by that Lead Agency is not likely to jeopardize the continued existence of any endangered or threatened species. This CESA consultation requirement does not apply to local Lead Agencies, such as the SCVSD.

The CalESA prohibits any party from importing into the state, exporting out of the state, or taking, possessing, purchasing, or selling within the state any part or product of any endangered or threatened species (except as provided in the Native Plant Protection Act or California Desert Native Plants Act). Through §2081 of the CalESA, CDFW may enter into a management agreement with the project applicant to allow for an incidental take (similar to the USFWS mechanism under §10 of FESA).

3.10.2.2 California Fish and Game Code

The California Fish and Game Code (§§1601-1616) applies to any state or local government agency or any public utility that proposes to “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.” Any agency proposing such actions must apply with the CDFW for a Streambed Alteration Agreement (SAA), which is negotiated between CDFW and the applicant. The agreement may contain mitigation measures to reduce the effect of the activity on fish and wildlife resources. The agreement may also include monitoring to assess the effectiveness of the proposed mitigations.

3.10.3 Local Regulations

3.10.3.1 Significant Ecological Areas

Significant ecological areas (SEAs) were developed by the Los Angeles County Department of Regional Planning (DRP) as a way to protect biotic diversity including habitat for endangered species. Although SEAs do not preclude development or construction, they promote open space conservation. SEAs require another level of scrutiny in the CEQA review process by the Significant Ecological Areas Technical Advisory Committee (SEATAC). SEATAC reviews proposed projects to ensure consistency with SEA-recommended management practices before a SEA conditional use permit (CUP) can be issued and the project can be approved.

3.11 REGULATIONS GOVERNING CULTURAL RESOURCES

3.11.1 Federal Regulations

3.11.1.1 National Historic Preservation Act

A programmatic agreement between the SWRCB and the State Historic Preservation Officer (SHPO) requires that projects receiving federal funds administered by the SWRCB (such as SRF loan funding) comply with §106 of the National Historic Preservation Act (NHPA). Because the SCVSD intends to finance the Facilities Plan projects with SRF loan funds, compliance with §106 of the NHPA will be required.

The §106 review process uses a five-step procedure including: (1) the identification and evaluation of historic properties, (2) an assessment of the project's effects on properties that are eligible for listing on the National Register of Historic Places, (3) a consultation with the SHPO and other relevant agencies and, potentially, the development of an agreement that addresses the treatment of historic properties, (4) the receipt of comments on the agreement or consultation results from the Advisory Council on Historic Preservation, and (5) project implementation subject to conditions imposed by the consultation and any agreement.

3.11.2 State Regulations

The state requirements for cultural resources are outlined in §§5020, 5020.4, 5020.7, 5024.1, 5024.5, 5024.6, 21084, and 21084.1 of the California Public Resources Code (CPRC). In general, compliance with the requirements of §106 of the NHPA is sufficient to ensure compliance with CEQA.

Other state requirements outlined in §§7050.5-7055 of the CHSC and §5097 of the CPRC provide for the protection of Native American remains and identify special procedures to be followed when Native American burial sites are found. Compliance with the provisions of these laws is separate from the requirements of CEQA and NHPA.

3.12 OTHER APPLICABLE LAWS AND REGULATIONS

3.12.1 Federal Regulations

3.12.1.1 State Revolving Fund

Because a portion of the funding for the SRF program comes from federal sources, projects receiving SRF funds must meet a variety of federal requirements including compliance with the FESA, NHPA, and the following executive orders.

Executive Order 11988

This executive order relating to floodplain management was prepared in 1979 to avoid, to the extent possible, long- and short-term adverse impacts associated with the occupation and modification of floodplains and to avoid direct or indirect support of development in floodplains. This order requires that the agency reviewing the proposed action consider alternatives to avoid adverse effects and incompatible development in floodplains. If the only practicable alternative is to site a project in the floodplain and the reviewing agency concurs, then the action must be designed or modified to minimize potential harm to the floodplain. Further, a notice containing an explanation of why the action is proposed to be located in the floodplain must be prepared and circulated.

Executive Order 11990

This executive order was prepared to provide assistance for new construction located in wetlands if no practicable alternative exists, and to minimize the harm to wetlands that may result from the proposed use. The order requires early public review of any plans or proposals for new construction in wetlands and notification of the federal Office of Management and Budget regarding compliance with the order. The order establishes several factors that should be considered during evaluation of project effects on the survival and quality of wetlands including public health and welfare, maintenance of natural systems, and other uses of wetlands in the public interest.

Executive Order 11593

This executive order provides for the protection and enhancement of the cultural environment. Compliance with §106 of NHPA and with CEQA fulfills the requirements of this order.

Executive Order 12898

This executive order effectively expands the scope of complaints that may be filed with EPA under Title VI of the Civil Rights Act of 1964 to include issues of environmental justice. Environmental justice complaints typically allege that facilities generating adverse impacts associated with pollution and/or potential pollution are systemically sited in and/or permitted to operate in minority communities. Disproportionate adverse impacts on minority communities associated with pollution generated by facilities may constitute discrimination. Executive Order 12898 directs the EPA to address environmental justice concerns through the permitting process and applies to the permitting decisions of all agencies that receive or act as a conduit for federal monies.

The EPA's Title VI regulations apply to all programs and activities carried out by departments or agencies that receive EPA funding either directly or indirectly. The SWRCB administers a number of funding programs, including SRF, which are partially funded by federal monies. The SWRCB has delegated permitting authority to the local RWQCBs, including the RWQCB-LA. Accordingly, all of the permitting decisions of the RWQCB-LA, including the issuance, modification, or renewal of the WDRs for the SCVSD facilities, are subject to the mandates of Executive Order 12898 and the EPA guidelines implementing that order.

3.12.2 State Regulations

3.12.2.1 Worker Safety

Worker safety laws protect public health in the workplace. These laws are administered and enforced by the California Occupational Safety and Health Administration (CalOSHA). The laws apply to normal operational activities (including all provisions for standard injury and illness prevention), construction requirements, and requirements for chemical handling and infection and disease prevention.

3.12.3 Local Regulations

3.12.3.1 Construction Storm Water Program

For construction projects disturbing one or more acres of soil, a Notice of Intent (NOI) package must be submitted to the SWRCB to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). The General Permit requires the development and implementation of a storm water pollution prevention plan (SWPPP). The major objectives of an SWPPP are to help identify sources of sediment and other pollutants that affect the quality of storm water discharges and to describe and ensure implementation of best management practices (BMPs). The SWPPP emphasizes the use of appropriately installed and maintained storm water pollution reduction BMPs.

Required elements of an SWPPP include:

- Site description addressing the elements and characteristics specific to the site
- Descriptions of BMPs for erosion and sediment controls
- BMPs for construction waste handling and disposal
- Implementation of approved local plans
- Proposed post-construction controls, including description of local post-construction erosion and sediment control requirements
- Non-storm water management