# **Appendices**

This MSR Update for Wastewater Services by Solano LAFCO includes several appendices as follows:

Appendix 1	Wastewater Regulations
Appendix 2	FSSD District Brochure
Appendix 3	VSFCD Timeline
Appendix 4	Solano County Economic Forecast by Caltrans
Appendix 5	Drainage Maintenance Agreement Among the Fairfield-Suisun Sewer District, the
	City of Fairfield, and the City of Suisun City Compiled, as amended, through
	January 23, 1995

# Appendix 1: Wastewater Regulations



## REGULATIONS FOR WASTEWATER SYSTEMS

Both state and federal regulatory authority exists for the control of water quality in surface waters of California. Under the Clean Water Act (CWA), the Environmental Protection Agency (EPA) regulates municipal and industrial effluent discharges to navigable waters through the issuance of National Pollutant Discharge Elimination System (NPDES) permits. The basic approach used in both state and federal processes is 1) to designate beneficial uses to be protected, 2) to set water quality objectives that are protective of the most sensitive uses, and 3) to control municipal, industrial, and other sources to meet these objectives.

#### Federal Wastewater Treatment Regulations

#### **Clean Water Act**

The Clean Water Act (33 U.S.C. § 1251 et seq.) is the federal law that governs and authorizes water quality control activities by the EPA. Pursuant to federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations (40 CFR). The CWA regulates water pollution through two different and supplementary approaches:

- Water quality and technology-based standards; and
- Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States.

The two approaches to regulating water pollution are implemented through the use of discharge permits, which contain mass or concentration-based effluent limits for the pollutants in the permittee's wastewater. These approaches are applied to pollutant dischargers through the implementation of the national wastewater discharge permitting program set up under the CWA. The CWA established national goals to eliminate pollutant discharges to navigable waters and to assure that all navigable waters would be fishable and swimmable.

#### National Pollutant Discharge Elimination System (NPDES)

The NPDES permit system was established under section 402 of the CWA to regulate municipal and industrial discharges to surface waters of the United States. The discharge of wastewater to surface waters is prohibited unless an NPDES permit has been issued which allows that discharge. Each NPDES permit contains limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge. Under the NPDES program, dischargers are required to monitor and provide reports on compliance with their permit limits. These reports, formally titled Discharge Monitoring Reports (DMRs), are submitted to the appropriate regulatory agency, and they describe water quality data and analysis. The regulatory agency or any interested citizen can review this data to determine whether or not the discharger has complied with its NPDES permit requirements, and, if appropriate, pursue action to enforce compliance.

Stormwater: Areas within Solano County are subject to the NPDES stormwater permit regulations, and are subject to the Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008 (the "2015 Permit" or "Permit"). The 2015 Permit regulates the discharge of stormwater runoff from the municipal separate storm sewer systems ("MS4s") and other designated stormwater discharges from municipalities and flood management agencies in Alameda County, Contra Costa County, San Mateo County, Santa Clara County, and the Cities of Fairfield, Suisun City, and Vallejo and the Vallejo Sanitation and Flood Control District in Solano County. The purpose of the stormwater permitting program is to prevent pollution in local waterways. Stormwater can adversely impact avian, aquatic, and plant life in receiving waters and can cause serious human health impacts. For example, high mercury levels in the Bay make regular consumption of fish unsafe. Urban stormwater runoff is one of the largest sources of pollution in San Francisco Bay and its tributaries. On April 1, 2016, FSSD prepared a Watersheds and Management Areas Plan<sup>1</sup> for Polychlorinated Biphenyls (PCBs) and Mercury (Hg) and submitted it to the San Francisco Bay Regional Water Quality Control Board (Regional Board) by the Fairfield-Suisun Urban Runoff Management Program (FSURMP), as required by Provisions C.11.a.iii.(1) and C.12.a.iii.(1) of the Municipal Regional Stormwater NPDES Permit (MRP) (Order R2-2015-049). The Vallejo Sanitation and Flood Control District also submitted a similar plan<sup>2</sup> to the Board on April 1, 2016.

<u>Wastewater:</u> The California Regional Water Quality Control Board is responsible for implementing the NPDES permit system as it pertains to wastewater discharge. Fairfield

<sup>&</sup>lt;sup>1</sup> The entire FSSD Plan is available online at: http://www.swrcb.ca.gov/sanfranciscobay/water\_issues/programs/stormwater/Municipal/wma/C.11-12.a.iii%20Progress%20Rpt%20FSURMP.pdf

The VSFCD Mercury And PCBs Control Measures Implementation Status Report is available online at: http://www.swrcb.ca.gov/sanfranciscobay/water\_issues/programs/stormwater/Municipal/wma/C.11-12.a.iii%20Progress%20Rpt%20VSFCD\_033116.pdf

Suisun Sewer District's WWTP operates under Order No. R2-2015-0013 (NPDES No. CA0038024). Vallejo Sanitation and Flood Control District's wastewater treatment plant operates under Permit Order No. R2-2012-0017 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0037699).



Enforcement of NPDES guidelines and permits in Solano County falls within jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB) and is subject to review by the EPA Regional Administrator (EPA Region IX, San Francisco Office). In addition, the RWQCB regulates activities involving discharges to land or groundwater from diffused sources. A Report of Waste Discharge must be filed with the CVRWQCB to obtain a Waste Discharge Requirement (WDR) for these types of non-surface water discharge.

Congress amended the CWA in 1987 to include non-point source pollutants. Non-point source pollutants are often chemicals from lawns or gardens, automobile residues, urban runoff, or household cleaning agents or compounds. Non-point source pollution can also include runoff from agricultural uses. Most non-point source pollutants enter the wastewater stream and the water supply in large quantities and sudden surges, largely due to storm events. Although the EPA has established NPDES requirements for storm water, control of this type of pollution has proven to be difficult and could require upgrades to existing wastewater treatment plants. On August 12, 2015, the EPA³ approved SWRCB's Six-Year Plan (2014-2020) with Regional Water Quality Control Boards. These new regulations may further affect the wastewater agencies in Solano County, especially those with high storm water infiltration rates.<sup>4</sup>

#### Section 303(d) Impaired Waters List and TMDLs

Under Section 303(d) of the CWA, states are required to develop lists of water bodies which will not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries) (40 C.F.R. §130.7(b)(4)). For example, the EPA and RWQCB are developing a TMDL for dissolved oxygen in Suisun Marsh. See SFRWQCB website at: <a href="http://www.waterboards.ca.gov/sanfranciscobay/water\_issues/programs/TMDLs/suisunmarshtmdl.shtml">http://www.waterboards.ca.gov/sanfranciscobay/water\_issues/programs/TMDLs/suisunmarshtmdl.shtml</a> for additional details.

#### **National Toxics Rule**

The EPA established the National Toxics Rules (NTR) to create numeric criteria for priority toxic pollutants for California and 13 other states and territories that were not in complete compliance with the CWA. For California, the NTR established water quality standards for protection of aquatic life and/or human health for 36 pollutants for which water quality criteria exist, but which were not covered under California's statewide water quality regulations.

EPA's available approval letter for the Six Year Plan is on-line at: http://www.waterboards.ca.gov/water\_issues/programs/nps/docs/plans\_policies/usepa\_approval\_2014to202020.pdf State Water Resources Control Board. Nonpoint Source Pollution (NPS) Control www.waterboards.ca.gov/water\_issues/programs/nps.

#### California Toxics Rule

The Clean Water Act (33 U.S.C. § 1251 et seq.) is the federal law that governs and authorizes water quality control activities by the EPA. Pursuant to federal law, the EPA has the NTR. There are 126 constituents listed in the California Toxics Rule (CTR) criteria, which include the previously issued NTR criteria for California. Some of the key elements of the CTR include:

- Amended numeric standards for 30 toxic pollutants and added new criteria for 8 toxic pollutants to protect aquatic life and human health uses for water bodies.
- Dissolved-based standards for most trace metals and endorsement of the use of translator mechanisms for determination of local metals objectives.
- Provisions for compliance schedules to provide time for permittees to meet the new toxics standards.
- Provisions for mixing zones when calculating toxic constituent effluent limitations.
- Use of interim effluent limits to provide time for dischargers to take actions to meet final limits.

The EPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards for waters in the State of California pursuant to section 303(c)(2)(B) of the CWA if those pollutants could be reasonably expected to interfere with the designated uses of states' waters. Although California had adopted numeric criteria for priority toxic pollutants in 1992, the courts ordered California to rescind these water quality control plans in 1994 and the new water quality criteria rule, known as the California Toxics Rule (CTR), temporarily replaced the standards adopted in 1991. The CTR established:

- Ambient aquatic life criteria for 23 priority toxics;
- Ambient human health criteria for 57 priority toxics; and
- Compliance schedule provision.

Under the CTR various regional water quality control boards will issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met. Currently each basin plan, as prepared by the regional water quality control board, contains a water quality criterion that all waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This has been contested by local jurisdictions all over California since it is expected to add significantly to the cost of wastewater treatment.

EPA contends that since California is implementing EPA's current regulations, the CTR will not impose any incremental costs and that the water quality criterion does not directly create economic impacts. EPA staff notes that California has some discretion to develop mechanisms that could result in more flexibility for local areas (e.g., site-specific criteria, phased TMDL program).

For Solano County, the San Francisco RWQCB does not require a separate and specific CTR permit. The wastewater agencies that discharge to surface waters were required to complete a number (depending on whether discharger is major or minor, municipal or industrial) of rounds of sampling under the CTR. Recently written permits include effluent limitations based

on the results of the CTR samples; future permits will identify specific pollutants and limits based on current testing.

#### California Wastewater Treatment Regulations

The California Water Code is the principal state regulation governing the use of water resources within the State of California. This law controls, among other issues, water quality protection and management, and management of water-oriented agencies. Division 7 of the California Water Code, commonly referred to as the Porter-Cologne Act, is the principal mechanism for regulation of water quality and pollution issues within California. This act established a regulatory program to protect the water quality and beneficial uses of all state waters. The Porter-Cologne Act also established the State Water Resources Control Board and California Regional Water Quality Control Boards (RWQCB) as principal state agencies responsible for water quality control. The SWRCB has divided California into nine regions with Solano County located in the San Francisco Bay RWQCB.

The Porter-Cologne Act grants the SWRCB and regional offices broad powers to protect water quality and is the primary vehicle for implementation of California's responsibilities under the federal CWA. These broad powers include the authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of hazardous materials and other pollutants. The Porter-Cologne Act also includes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil/petroleum product.

The San Francisco Bay RWQCB, as with all other regional boards, must formulate and adopt a water quality plan for its region which must conform to the Porter-Cologne Act. The Porter-Cologne Act also provides that a regional office, such as the San Francisco Bay RWQCB, may include within its regional plan water discharge prohibitions applicable to local conditions, areas, and types of waste. The regional offices are also authorized to enforce discharge limitations, take actions to prevent violations, and conduct investigations about the quality of any of the waters of the state. Civil and criminal penalties are applicable to persons who violate the requirements of the Porter-Cologne Act or SWRCB/RWQCB orders.

The Porter-Cologne Act also requires local governments to notify their regional office of the filing of tentative subdivision maps of six (6) or more family units unless the development discharges waste into a community sewer system. It also requires that any person discharging or proposing to discharge waste, even individual septic systems for single-family residences, to file a report with the regional offices. For more than 20 years, the San Francisco Bay RWQCB has waived the filing of those reports for individual septic systems in Solano County since the County's Department of Environmental Health (EH) had adopted substantially similar policies and ordinances<sup>5</sup> regulating waste discharge. However, local jurisdictions in Solano County are still required to notify the San Francisco Bay RWQCB of development with six units or more.

5	Solano	County	Sewage	Standards	in	Chapter	6.3	of	the	County	Ordinance	is	available	on-line	at:
https://www.solanocounty.com/civicax/filebank/blobdload.aspx?blobid=7909															

Other state agencies with jurisdiction or involvement in water quality regulation in California include the Department of Public Health (DPH) for drinking water regulations and water reclamation criteria, the Department of Pesticide Regulation, the Department of Fish and Game, and the Office of Environmental Health and Hazard Assessment.

#### California Storm Drainage & Flood Control Regulations

SB 985 addresses Runoff recapture and requires that state and local agencies regulating stormwater diversion systems to identify opportunities for capturing that runoff -- including summer season runoff -- for some form of reuse.

#### **Local Wastewater Regulations**

The Cities of Fairfield and Suisun City have policies and procedures consistent with the San Francisco Bay RWQCB recommendation for connection to a public wastewater system in urbanized areas. Specifically, both cities generally require areas receiving sewer service to be annexed to the city.

#### **Wastewater Solids Regulations**

Solids generated at a wastewater treatment facility comprise screenings, grit, primary or raw sludge (PS) and secondary or waste activated sludge (WAS). The screenings and grit are typically dewatered and disposed in a landfill. Sludge generated by a wastewater treatment facility is defined as biosolids once beneficial use criteria, as determined by compliance with EPA regulations, have been achieved through stabilization processes. Stabilization processes are described as those that help reduce pathogens and reduce vector attraction.

Several federal, state, and local regulations are in place that influence whether biosolids from municipal wastewater treatment plants can be reused or disposed of. Increased concerns and debate over biosolids disposal and its associated environmental impacts have led to more stringent revisions and amendments for many of these regulations. Continuing changes in regulations affecting biosolids management make a flexible management program essential.

Federal, state, and local agencies are responsible for regulating biosolids beneficial reuse/disposal. The authority of each agency varies based on the beneficial reuse/disposal methods employed. However, overall guidelines are established by the EPA. These guidelines are in turn implemented by state and local governments. Many state and local agencies in California have developed additional rules, guidelines, and criteria for biosolids management.

In order to implement the long-term biosolids permitting program, required by the Water Quality Act of 1987, the EPA initiated two rule makings. The first rulemaking established requirements and procedures for including biosolids management in NPDES permits, procedures for granting state biosolids management programs primacy over federal programs, or for federal programs to implement biosolids permits if a state so chooses.

The second rulemaking proposed to regulate and control biosolids permitting was 40 CFR Part 503, Standards for the Use and Disposal of Sewage Sludge. This rule addresses three general categories of beneficial reuse/disposal of biosolids including:

Land application of sewage sludge for beneficial use of organic content;

- Surface disposal of biosolids in a monofill, surface impoundment, or other dedicated site; and
- Incineration of sewage sludge with, or without, auxiliary fuel.

#### **Future Regulatory Considerations**

This section provides insight into the future regulatory considerations that may affect County sewer systems' effluent discharges. Identifying future regulatory trends is critical for the following reasons:

- Developing treatment scenarios and alternatives;
- Planning for process and layout requirements for future regulatory compliance; and
- Making budget considerations for major design and construction projects.

Identifying future pollutants of concern (POCs), such as metals, nutrients, and/or pathogens, will help to develop alternatives that are flexible and can be easily expanded or upgraded to treat future POCs. For example, planning may include reserving space in the site layout for nutrient reduction, tertiary filtration, advanced oxidation, or an alternative disinfection method that would provide treatment of future POCs.

Nutrients, including nitrogen and phosphorus, are the leading cause of impairments to the nation's surface waters and as a result are receiving greater regulatory scrutiny regarding their contribution to the overall quality of the nation's receiving waters. Although appropriate amounts of nutrients are vital for the health and proper functioning of water bodies, excessive nutrient concentrations can cause water quality degradation.

#### Nationwide Nutrient Criteria

In November 2007, the National Resources Defense Council (NRDC) filed a petition with the EPA to require that nutrient removal be included in the definition of secondary treatment. The petition stated that "there are many [biological processes] which can achieve total phosphorus levels of 1.0 milligrams per liter (mg/L) as a monthly average, and a total nitrogen of 6 to 8 mg/L as an annual average" (NRDC et al, 2007).

In response to the petition by NRDC, the National Association of Clean Water Agencies (NACWA) wrote to the EPA in February 2008, September 2009, and June 2010 urging the EPA to deny the petition to modify the secondary treatment regulations for several legal, technical, and political reasons including but not limited to the potentially exorbitant cost to publically owned treatment works and the inappropriateness of establishing national limits for local and regional water quality issues (NACWA, 2008; NACWA, 2009). In October 2009, the EPA stated they were actively analyzing the data and information to prepare a report and preliminary response to the NRDC petition. They stated they would consider NACWA, other stakeholders, and all information carefully before taking action on the NRDC petition (U.S. EPA, 2009a).

Due to the scientific uncertainties associated with the development of numeric nutrient criteria and the magnitude of the expected costs of compliance, nutrient water quality policies are very controversial and have sparked several legal actions across the country. The State of Florida has become the initial focus of environmental groups' efforts to push the EPA to develop federal numeric nutrient criteria to be imposed on the states. The EPA has agreed to a consent decree in

the environmental suit, and has made a determination that numeric nutrient standards are necessary in Florida. Proposed criteria for total nitrogen and total phosphorus were released in January 2010. This action is possibly precedential, and may result in environmental groups suing the EPA to impose nutrient criteria in other areas of the country.

#### State of California Nutrient Numeric Endpoints

In addition to the increasingly stringent regulation of nutrients, there is a trend towards increasing regulation of emerging microconstituents and bioaccumulative pollutants in treated effluent discharges.

#### Microconstituents and Bioaccumulative Constituents

Microconstituent, also referred to as "contaminants of emerging concern" (CECs) by the EPA Office of Water, are substances that have been detected in surface waters and the environment and may potentially cause deleterious effects on aquatic life and the environment at relevant concentrations. Microconstituents include:

- Persistent organic pollutants (POPs) such as polybrominated diphenyl ethers (PBDEs; used in flame retardants, furniture foam, plastics, etc.) and other organic contaminants.
- Pharmaceuticals and personal care products (PPCPs), including a wide suite of human prescribed drugs, over-the-counter medications, bactericides, sunscreens, and synthetic musks.
- Veterinary medicines such as antimicrobials, antibiotics, anti-fungals, growth promoters, and hormones.
- Endocrine-disrupting chemicals (EDCs), including synthetic estrogens and androgens, naturally occurring estrogens, as well as many other compounds capable of modulating normal hormonal functions and steroidal synthesis in aquatic organisms.
- Nanomaterials such as carbon nanotubes or nano-scale particulate titanium dioxide.

Bioaccumulative constituents are substances that are taken up by organisms at faster rates than the organisms can remove them. As a result, these constituents accumulate in the organism and the food chain, and can remain in the environment for long periods of time. Mercury, polychlorinated biphenyls (PCBs), and dioxins are some bioaccumulative constituents that are being increasingly regulated.

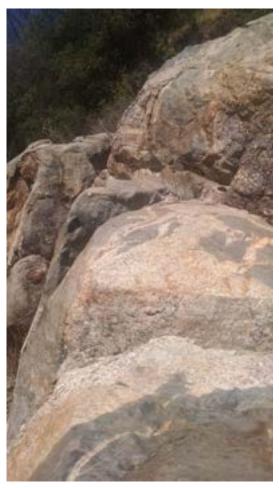
Monitoring requirements for these trace pollutants are increasing, including requirements to analyze constituents at lower detection limits. It is likely that water quality criteria followed by new effluent limits will be added to permits. Implementation of CEC standards is not expected to be imminent as the EPA is currently focused on assessing the potential impact CECs have on the environment and human health.

The State Water Resources Control Board (SWRCB) is in the process of developing statewide policies for nutrients. The SWRCB held a scoping meeting in October 2011 to seek input on

content for a proposed Nutrient Numeric Endpoint (NNE) framework and policy for inland surface waters.

#### California State Recycled Water Policy

The SWRCB adopted a Recycled Water Policy (RW Policy) in 2009 and updated in 2013 to establish more uniform requirements for water recycling throughout the State and to streamline the permit application process in most instances<sup>6</sup>. The RW Policy includes a mandate that the State increase the use of recycled water over 2002 levels by at least 200,000 acre-feet per year (AFY) by 2020 and by at least 300,000 AFY by 2030. It also includes goals for stormwater reuse and conservation and potable water offsets by recycled water. The onus for achieving these mandates and goals is placed on both recycled water purveyors and potential users. Since the recycled water project permit process is streamlined, projects will not be required to include a monitoring component. If any regulations arise from new knowledge of risks associated with CECs,



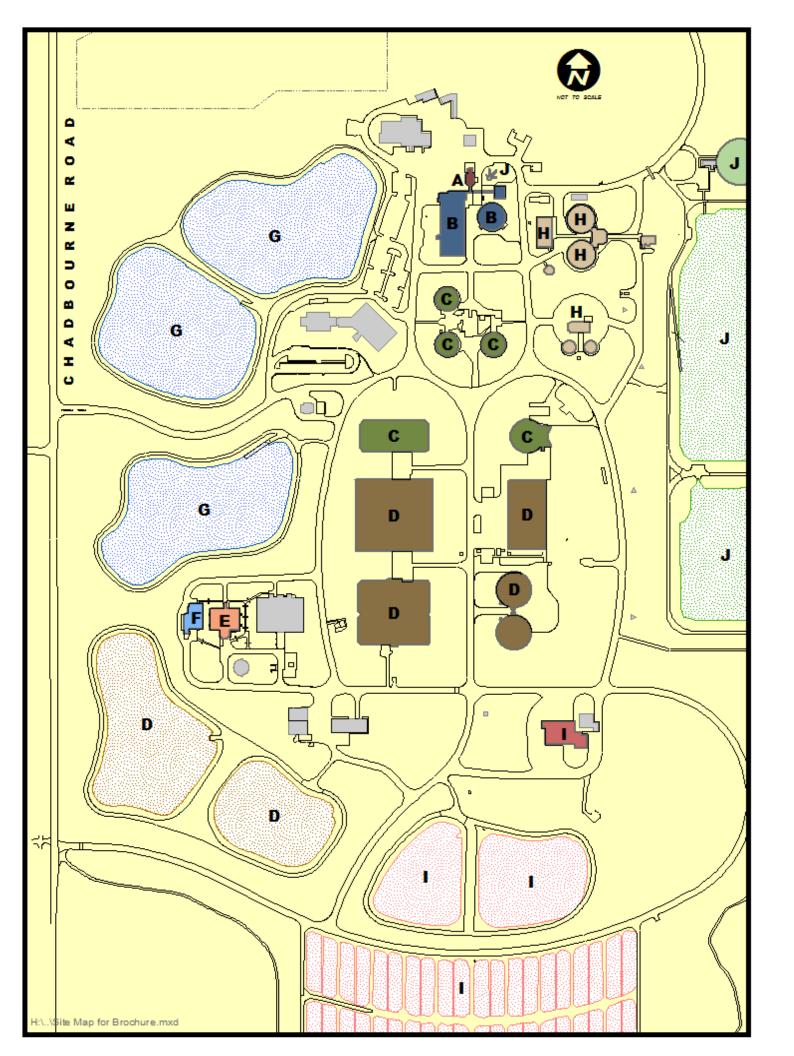
then projects will be given compliance schedules. Regulations are not expected to arise in the imminent future.

<sup>&</sup>lt;sup>6</sup> Details are at the State Water Board website at www.swrcb.ca.gov/water\_issues/programs/water\_recycling\_policy/.

#### REFERENCES

- Alameda County Water District et. al. September 2013. San Francisco Bay Area Integrated Regional Water Management Plan. 973-pages. Authored by Kennedy/Jenks Consultants in consultation with ESA, and Kearns & West. Available on-line at: <a href="http://bairwmp.org/docs/2013-bairwm-plan-update/2013-final-plan/San%20Francisco%20Bay%20Area%20IRWMP%20Final\_September%202013.pdf">http://bairwmp.org/docs/2013-bairwm-plan-update/2013-final-plan/San%20Francisco%20Bay%20Area%20IRWMP%20Final\_September%202013.pdf</a>
- City of Suisun City. Sewer System Management Plan, Feb 2014. 106-pages Available on-line at: http://www.suisun.com/wp-content/files/Elements\_1-11\_-\_Sewer\_System\_Management\_Plan\_\_\_2014.pdf.
- State Water Resources Control Board. 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report).
- State Water Resources Control Board. *Nonpoint Source Pollution (NPS) Control Program*. www.waterboards.ca.gov/water\_issues/programs/nps.

# **Fairfield-Suisun Sewer District** Appendix 2 Board of Directors: Pete Sanchez, President • Catherine Moy, Vice President Pam Bertani • Jane Day • Mike Hudson • Harry Price Mike Segala • Chuck Timm • Rick Vaccaro • Lori Wilson





A. Preliminary Treatment

Debris and grit that are harmful to downstream equipment are removed with bar screens and degritting equipment. Influent flow is measured and recorded at this location.



#### **B.** Primary Treatment

The primary clarifiers at the head of the facility remove heavier solids through settling.



#### C. Intermediate Treatment

The oxidation towers and intermediary clarifiers remove soluble organic matter.



## D. Secondary Treatment

Secondary treatment is accomplished in the aeration tanks and secondary clarifiers. Bacteria consume organic matter in the intermediate treatment effluent, generating an 'activated' sludge. To survive, bacteria need oxygen that is provided in the aeration tanks. Secondary clarifiers remove the activated sludge through settling.



#### E. Tertiary Treatment

Filters provide a polishing step to remove the few suspended particles remaining in the secondary clarifier effluent.



#### F. Ultraviolet Disinfection (UV)

UV light destroys the genetic makeup of pathogenic organisms to prevent the spread of waterborne diseases to downstream users and the environment.



#### G. Final Effluent Storage

Final effluent can be discharged directly into the Suisun Marsh, or temporarily stored in large, earthen reservoirs for later use in irrigation or utility applications.



#### H. Anaerobic Digestion

Solids removed in the clarifiers are thickened and then digested in a closed vessel. Digesters provide an environment to reduce the organic matter and disease-causing organisms. Methane is produced as the solids are digested and is used as a fuel for on-site electrical generators.



#### J. Flow Equalization

Flow equalization facilities are used to divert and temporarily store incoming flows during high flow, wet weather periods. The stored wastewater is routed back to the plant for treatment.



The digested solids are pumped to the dewatering building or solar drying beds, where excess water is removed.

#### Fairfield-Suisun Sewer District

1010 Chadbourne Road Fairfield, CA 94534 (707) 429-8930 www.fssd.com



The Fairfield-Suisun Sewer District oversees wastewater collection and treatment, water recycling, and stormwater management services in a 41-square-mile area of Solano County, California. The service area encompasses the cities of Fairfield and Suisun City as well as one of the nation's most strategically important military installations, Travis Air Force Base.

The District owns and operates a system of sanitary sewers and pumping stations that serves 135,000 residential, commercial and industrial customers and government Agencies. Major industries includes Anheuser-Busch Brewery, Travis Air Force Base, and Super Store Industries. Households, retail businesses, major food and beverage producers, light industries, manufacturers and vital military Operations depend upon this service.

The District's collection system consists of 13 pump stations and a 70-mile network of 12 to 48 inch diameter sewer pipes that collect and transport sanitary waste to a modern, efficient wastewater treatment plant. The treatment facilities, which occupy about 150 acres, replaced three older plants in 1976 and have undergone major renovation and expansion to keep pace with the region's population and economic growth, as well as technological advancements in the wastewater industry.

The District's mission is to safeguard public health and the environment. Just south of the District's boundary is the sensitive Suisun Marsh, which is the nation's largest brackish water marsh as well as the largest wetland on the Pacific Coast. This 116,000-acre region not only supports abundant plant life but also serves as a stopover for up to 1.5 million migratory birds traversing the Pacific Flyway each year. Protecting public and environmental health requires the District to ensure that discharged water meets stringent water quality standards set by Federal, State and Regional agencies.

#### FLOWS AND LOADING

Average Daily Flow: 12.2 million gallons per day

Biosolids Disposal: 10,400 wet tons annually

Suspended Solids Removed: 99.5% of incoming solids

Dry Weather Capacity: 23.7 million gallons per day

Irrigation/Utility Water Output: 193 million gallons

#### **POWER**

Consumed: 11,642 MWh annually

Sources:

PG&E, solar, wind and methane co-generation



#### Wind Turbine Power

Wastewater treatment is an energy-intensive process. The District's wastewater treatment facilities are the first in California to be powered by wind turbines. The four are rated at 50 kw and became operational in early 2010.



#### Solar Power

The District's property is host for the solar system owned and operated by SunEdison. The solar system has the capacity to deliver 1 MW of power to the treatment plant at 12 KV and produces approximately 20% of electricity used each year.

## **VALLEJO SANITATION & FLOOD CONTROL DISTRICT**

1970
VSFCD created by
a special act of
the California
legislature.

1970
California's Porter-Cologne Water Quality Act
requires sewage treatment plants to keep
water clean, balancing economic
considerations with environmental goals.

1977 VSFCD begins more advanced treatment. 1987
Clean Water Act amendments shift focus to polluted runoff, and the District creates its first Storm Drain Master Plan.

1990
VSFCD wins national first place award from the U.S. EPA for innovative and beneficial application of biosolids to farmland in Sonoma County.

2005
Treatment plant
completes major
odor reduction
project.

2006
VSFCD completes \$60
million project designed
to eliminate sewer overflows in Vallejo.

District wins two major statewide awards:
Wastewater Plant of the Year and Safety
Plant of the Year from the California
Water Environment Association.

1959
Wastewater
treatment plant
begins treating
Vallejo's sewage.

1972
Clean Water Act established, initial focus on reducing polluted effluent from industrial and sewage treatment facilities.

1983
District purchases Tubbs
Island farm for the
beneficial reuse of biosolids.

1988
District improves secondary facility to provide better service.

1991 Treatment plant capacity is increased from 30 to 60 million gallons per day. 2002
VSFCD wins Governors
Environmental Economic
Leadership Award for Energy
Conservation

2008
VSFCD wins Governors Environmental Economic
Leadership Award for Energy Conservation; major
modifications to the plant includes building a 8.5
million gallon storage tank to prevent overflows.

CELEBRATING 60 YEARS OF SERVICE 1952 - 2012



# Appendix 4

# Solano County Economic Forecast

Solano County is located on the Northeast edge of the San Francisco Bay, approximately halfway between San Francisco and Sacramento. Solano County has a population of 427,700 people and a total of 129,900 wage and salary jobs. The per capita income in Solano County is \$43,319 and the average salary per worker is \$67,135.

In 2014, employment in Northern California increased by 3.4 percent, whereas employment in the greater Bay Area grew by 4.0 percent. In Solano County, a total of 2,700 wage and salary jobs were created, representing an increase of 2.1 percent. The unemployment rate improved significantly, falling from 9.0 percent in 2013 to 7.4 percent in 2014.

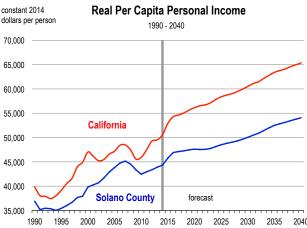
Most major sectors gained jobs in 2014. The largest increases were observed in manufacturing (+630 jobs), leisure and hospitality (+600 jobs), education and healthcare (+550 jobs), and wholesale and retail trade (+420 jobs). The largest losses occurred in construction (-190 jobs) and financial activities (-190 jobs).

From 2009 to 2014, the Solano County population increased at an annual average rate of 0.7 percent. This growth was due largely to the natural increase (new births), as net migration was low.

## FORECAST HIGHLIGHTS

- In 2015, total employment will increase by 2.6 percent. Between 2015 and 2020, the annual growth rate is expected to average 1.6 percent.
- Average salaries in Solano County are virtually identical to the California state average. Between 2015 and 2020, inflationadjusted salaries are projected to increase by 0.7 percent per year in Solano County, compared to 0.6 percent per year across the state.
- Between 2015 and 2020, the largest employment increases will
  occur in education and healthcare (+2,600 jobs), construction
  (+1,800 jobs), leisure and hospitality (+1,700 jobs), and
  professional services (+1,500 jobs). Together, these sectors will
  account for 68 percent of net job creation in the county.
- The population is expected to grow by 1.2 percent in 2015.
   Annual growth in the 2015 to 2020 period is forecast to average 1.1 percent.



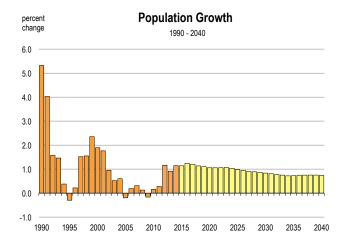


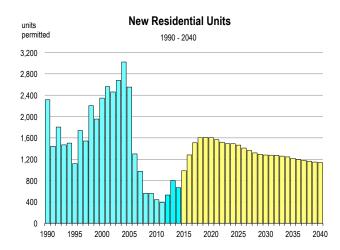
- Net migration will remain positive over the forecast period. From 2015 to 2020, an average of 2,800 net migrants will enter the county each year.
- Real per capita income is forecast to rise by 3.3 percent in 2015.
   Between 2015 and 2020, real per capita income will grow at an average rate of 0.8 percent per year.
- Total taxable sales, adjusted for inflation, are expected to increase by an average of 1.7 percent per year during the 2015-2020 period.
- Industrial production is expected to increase by 4.8 percent in 2015. Between 2015 and 2020, the growth rate is forecasted to average 3.1 percent per year.

This Forecast was prepared by Caltrans, Economic Analysis Branch. Available on-line at: http://www.dot.ca.gov/hq/tpp/offices/eab/socio\_economic\_files/2015/Final%20Forecasts/Solano.pdf

# Solano County Economic Forecast 2006-2014 History, 2015-2040 Forecast

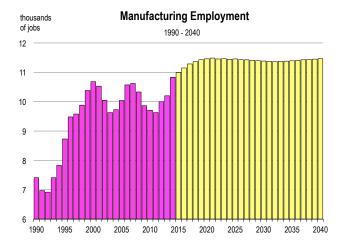
	Population (people)	Net Migration (people)	Registered Vehicles (thousands)	Households (thousands)	New Homes Permitted (homes)	Total Taxable Sales (billions)	Personal Income (billions)	Real Per Capita Income (dollars)	Inflation Rate (% change in CPI)	Real Farm Crop Value (millions)	Real Industrial Production (billions)	Unemploy- ment Rate (percent)
2006	411,351	-2,268	380	140.0	1,300	\$6.5	\$15.3	\$44,748	3.2	281.6	2.9	4.9
2007	412,636	-1,836	375	140.5	973	\$6.3	\$16.0	\$45,157	3.4	312.7	3.0	5.3
2008	413,167	-2,468	371	141.1	562	\$6.0	\$16.2	\$44,527	2.9	331.5	3.2	6.9
2009	412,488	-3,558	372	140.9	559	\$5.3	\$15.9	\$43,359	0.8	282.9	3.0	10.6
2010	413,129	-1,769	371	141.8	441	\$5.2	\$15.8	\$42,448	1.3	287.5	2.9	12.5
2011	414,268	-1,198	365	142.4	388	\$5.8	\$16.5	\$42,971	2.7	314.9	2.8	12.1
2012	419,064	2,605	368	142.8	529	\$6.0	\$17.3	\$43,358	2.7	360.4	2.9	10.6
2013	422,899	1,619	381	143.3	800	\$6.4	\$18.1	\$43,914	2.3	358.1	2.9	9.0
2014	427,743	2,559	389	143.9	666	\$6.8	\$19.0	\$44,319	2.8	358.7	3.2	7.4
2015	432,611	2,622	395	144.5	983	\$7.1	\$20.0	\$45,765	1.2	359.9	3.3	6.5
2016	437,971	3,122	400	145.4	1,280	\$7.6	\$21.4	\$46,907	3.2	362.2	3.5	5.6
2017	443,249	3,021	404	146.6	1,508	\$8.0	\$22.5	\$47,132	3.2	366.5	3.6	5.3
2018	448,274	2,746	408	148.0	1,603	\$8.4	\$23.5	\$47,259	3.0	371.0	3.7	5.2
2019	453,218	2,638	411	149.5	1,610	\$8.7	\$24.6	\$47,474	2.8	375.4	3.8	5.1
2020	458,006	2,458	414	150.9	1,605	\$9.0	\$25.6	\$47,608	2.9	376.7	3.9	5.1
2021	462,840	2,506	416	152.4	1,565	\$9.3	\$26.7	\$47,548	3.0	378.9	4.0	5.1
2022	467,732	2,566	418	153.9	1,519	\$9.6	\$27.8	\$47,568	3.1	380.5	4.1	5.1
2023	472,718	2,654	420	155.3	1,492	\$9.9	\$28.9	\$47,740	2.7	381.4	4.2	5.0
2024	477,616	2,572	421	156.6	1,491	\$10.3	\$30.2	\$48,139	2.6	382.8	4.3	5.0
2025	482,301	2,376	423	158.0	1,464	\$10.6	\$31.6	\$48,515	2.8	384.3	4.4	5.0
2026	486,879	2,281	425	159.3	1,409	\$11.0	\$33.0	\$48,790	2.8	385.8	4.5	5.0
2027	491,269	2,107	427	160.6	1,363	\$11.4	\$34.4	\$49,023	2.8	387.2	4.7	5.0
2028	495,635	2,111	429	161.9	1,319	\$11.9	\$35.9	\$49,301	2.7	388.7	4.8	5.0
2029	499,928	2,048	432	163.1	1,293	\$12.4	\$37.3	\$49,640	2.5	389.7	5.0	5.0
2030	504,098	1,943	434	164.3	1,278	\$13.0	\$38.8	\$50,042	2.4	391.6	5.1	5.0
2031	508,164	1,841	436	165.5	1,276	\$13.6	\$40.4	\$50,488	2.3	393.5	5.2	5.0
2032	512,107	1,719	439	166.6	1,274	\$14.3	\$42.0	\$50,870	2.5	395.4	5.4	5.0
2033	515,951	1,609	441	167.8	1,258	\$14.9	\$43.7	\$51,444	2.1	397.3	5.6	5.0
2034	519,667	1,485	443	169.0	1,243	\$15.6	\$45.5	\$51,997	2.3	399.3	5.8	5.0
2035	523,433	1,555	446	170.1	1,216	\$16.2	\$47.4	\$52,512	2.4	401.3	5.9	5.0
2036	527,344	1,702	448	171.2	1,195	\$16.9	\$49.4	\$52,831	2.8	403.2	6.1	5.0
2037	531,302	1,773	450	172.3	1,180	\$17.5	\$51.4	\$53,117	2.8	405.2	6.3	5.0
2038	535,303	1,839	452	173.4	1,163	\$18.1	\$53.5	\$53,469	2.7	407.2	6.5	5.0
2039	539,331	1,895	454	174.5	1,147	\$18.8	\$55.8	\$53,760	2.8	409.3	6.7	5.0
2040	543,311	1,856	455	175.5	1,137	\$19.4	\$58.1	\$54,076	2.8	411.3	6.9	5.0

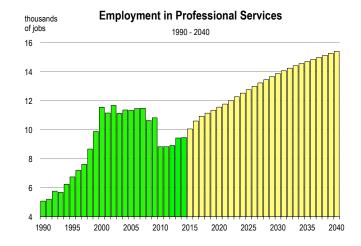




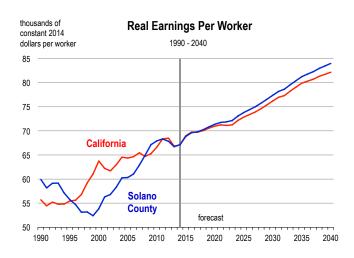
# **Solano County Employment Forecast** 2006-2014 History, 2015-2040 Forecast

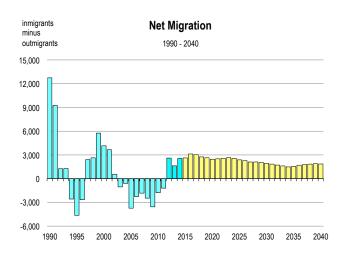
	Total Wage & Salary	Farm	Construction	Manufac- turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
	employment (thousands of jobs)											
2006	133.2	1.73	12.6	10.6	4.2	23.0	6.2	11.5	1.6	17.9	13.5	26.0
2007	131.6	1.55	10.7	10.6	4.5	22.4	5.6	11.5	1.6	18.6	13.7	26.6
2008	129.0	1.60	9.2	10.3	4.6	21.8	5.1	10.6	1.5	19.2	13.9	26.9
2009	124.7	1.56	7.4	9.9	4.6	20.3	5.1	10.8	1.3	19.8	13.8	26.1
2010	120.9	1.39	7.2	9.7	4.2	20.6	5.2	8.8	1.3	20.2	13.7	24.9
2011	120.6	1.41	7.8	9.6	3.7	20.5	5.1	8.8	1.1	20.4	13.9	24.3
2012	123.1	1.49	8.1	10.0	3.7	21.2	5.0	8.9	1.1	21.2	14.2	24.1
2013	127.2	1.67	8.6	10.2	3.9	21.4	5.1	9.4	1.1	23.0	14.6	24.0
2014	129.9	1.88	8.4	10.8	4.1	21.8	4.9	9.5	1.1	23.6	15.2	24.3
2015	133.3	1.88	8.8	11.0	4.3	22.2	4.9	10.1	1.1	24.4	15.9	24.4
2016	136.7	1.89	9.1	11.1	4.4	22.6	5.0	10.6	1.1	25.0	16.6	25.0
2017	139.6	1.91	9.8	11.3	4.5	22.8	5.1	10.9	1.1	25.4	17.1	25.3
2018	141.4	1.92	10.1	11.4	4.5	23.0	5.1	11.1	1.1	26.0	17.4	25.4
2019	143.0	1.94	10.4	11.4	4.6	23.2	5.1	11.3	1.1	26.5	17.6	25.5
2020	144.6	1.94	10.5	11.5	4.6	23.3	5.1	11.6	1.1	27.0	17.7	25.9
2021	145.3	1.95	10.6	11.5	4.6	23.4	5.1	11.8	1.1	27.6	17.7	25.6
2022	146.4	1.95	10.7	11.5	4.6	23.5	5.1	12.0	1.1	28.1	17.7	25.6
2023	147.5	1.96	10.7	11.5	4.6	23.6	5.1	12.3	1.1	28.7	17.7	25.7
2024	148.4	1.96	10.7	11.4	4.7	23.7	5.1	12.5	1.1	29.2	17.7	25.8
2025	149.3	1.97	10.7	11.5	4.7	23.8	5.1	12.8	1.1	29.6	17.7	25.9
2026	150.2	1.97	10.7	11.4	4.7	23.9	5.1	13.0	1.1	30.1	17.8	26.1
2027	151.2	1.98	10.6	11.4	4.7	24.0	5.1	13.2	1.1	30.5	17.9	26.3
2028	152.3	1.98	10.6	11.4	4.7	24.1	5.1	13.5	1.1	30.9	17.9	26.6
2029	153.5	1.98	10.5	11.4	4.7	24.2	5.1	13.7	1.1	31.4	18.1	26.9
2030	154.9	1.99	10.5	11.4	4.7	24.3	5.1	13.9	1.1	31.8	18.2	27.3
2031	156.2	2.00	10.5	11.4	4.7	24.4	5.1	14.1	1.1	32.3	18.3	27.8
2032	157.7	2.00	10.5	11.4	4.7	24.5	5.1	14.2	1.1	32.8	18.5	28.4
2033	159.1	2.01	10.5	11.4	4.8	24.6	5.1	14.4	1.1	33.2	18.6	28.9
2034	160.4	2.02	10.5	11.4	4.8	24.7	5.1	14.6	1.1	33.7	18.8	29.4
2035	161.6	2.02	10.4	11.4	4.8	24.8	5.1	14.7	1.2	34.1	18.9	29.7
2036	162.7	2.03	10.4	11.4	4.8	24.9	5.1	14.8	1.2	34.6	19.1	30.0
2037	163.8	2.03	10.4	11.4	4.8	24.9	5.1	15.0	1.2	35.1	19.2	30.3
2038	164.9	2.04	10.4	11.4	4.8	25.0	5.1	15.1	1.2	35.5	19.4	30.5
2039	165.9	2.05	10.3	11.5	4.8	25.0	5.1	15.3	1.2	36.0	19.5	30.7
2040	166.9	2.06	10.3	11.5	4.8	25.1	5.1	15.4	1.2	36.4	19.7	30.8

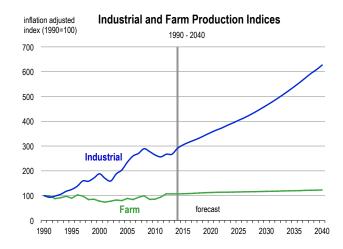












# **County Economic and Demographic Indicators**

#### **Projected Economic Growth (2015-2020)**

Expected retail sales growth:	6.7%
Expected job growth:	8.5%
Fastest growing jobs sector:	Construction
Expected personal income growth:	10.1%

Expected population growth:	5.9%
Net migration to account for:	<u>55.1%</u>
Expected growth in number of vehicles:	4.8%

#### **Demographics (2015)**

Unemployment rate (March 2015):	6.3%
County rank* in California (58 counties):	20th
Working age (16-64) population:	66.1%

Population with B.A. or higher:	24.0%
Median home selling price (2014):	\$300,000
Median household income:	\$64.618

#### **Quality of Life**

Violent crime rate (2013):	<u>4/3 per</u>	<u>100,000 persons</u>
County rank* in California (58	counties):	41th
Average commute time to work	(2015):	31.1 minutes

High School drop out rate (2014):	<u> 10.6%</u>
Households at/below poverty line (2015):	10.4%

<sup>\*</sup> The county ranked 1st corresponds to the lowest rate in California

# Appendix 5

Drainage Maintenance Agreement Among the Fairfield-Suisun Sewer District, the City of Fairfield, and the City of Suisun City Compiled, as amended, through January 23, 1995

DRAINAGE MAINTENANCE AGREEMENT

THIS AGREEMENT MADE AND ENTERED INTO ON THIS FIRST DAY OF MARCH, 1988, BY AND BETWEEN

FAIRFIELD-SUISUN SEWER DISTRICT, a public corporation, hereinafter referred to as "DISTRICT,"

**AND** 

CITY OF FAIRFIELD, a municipal corporation, hereinafter referred to as "FAIRFIELD,"

AND

CITY OF SUISUN CITY, a municipal corporation, hereinafter referred to as "SUISUN CITY,"

#### **RECITALS**

- 1. The U.S. Army Corps of Engineers is constructing the modified Fairfield Vicinity Streams Project on land owned by the State of California and FAIRFIELD and SUISUN CITY.
- 2. FAIRFIELD and SUISUN CITY have agreed with the United States and the State of California to operate and maintain the drainage facilities constructed as part of the Fairfield Vicinity Streams Project.
- 3. DISTRICT has completed a drainage maintenance feasibility study and additional analyses which demonstrated advantages to regionalizing the maintenance management of certain storm water drainage facilities including the federal Fairfield Vicinity Streams Project.
- 4. FAIRFIELD and SUISUN CITY are desirous of DISTRICT, through exercise of its statutory authority, assuming limited responsibility for maintenance of drainage facilities.
- 5. DISTRICT is amenable to assuming such limited responsibility.

NOW, THEREFORE, in consideration of the covenants and conditions herein contained, the parties hereto agree as follows:

#### **SECTION I**

#### **DEFINITIONS**

- 1. CITIES collective reference to FAIRFIELD and SUISUN CITY acting as individual parties to this agreement.
- 2. District Engineer The General Manager/District Engineer of the DISTRICT or such other person as may be designated to act on behalf of DISTRICT by the Board of Directors.
- 3. Director of Public Works The Director of Public Works or such other person as may be designated to act on behalf of the city by the city council.
- 4. Local Facilities those storm drainage facilities for which DISTRICT provides supplemental maintenance funding only under the terms of this agreement but for which CITIES retain direct operation and maintenance responsibility.
- 5. Regional Facilities those storm drainage facilities for which DISTRICT accepts limited maintenance responsibility under the terms of this agreement.
- 6. Natural Creeks open drainage channels which have not been materially altered in either channel shape or alignment from their natural state.
- 7. Improved Channels open drainage channels which have been altered from their natural state in order to improve their capacity to carry water.

#### **SECTION II**

#### **DISTRICT AGREES:**

- 1. Regional Facilities To assume responsibility for the following maintenance activities on Regional Facilities owned by or under the control of CITIES:
  - A. Storm Water Pumping Stations
    - 1) perform all required preventive and corrective maintenance of existing and future pumping stations which are turned over to the DISTRICT in acceptable structural and mechanical condition.
    - 2) make recommendations for station improvements to increase reliability and/or capacity.

- 3) make no modifications or improvements to facilities which would adversely affect pumping capacity or reliability without the express written consent of the Director of Public Works of the city in which the facility is located.
- 4) inspect for operational readiness during dry weather conditions.
- 5) monitor operational status during wet weather conditions and make reasonable efforts to keep the station in operation.
- 6) maintain written records of work performed and make such records available for inspection by the Director of Public Works during normal business hours.
- B. Other Facilities provide periodic inspection, cleaning and repair of Regional Facilities including pipelines, improved channels, natural creeks, detention basins, bridge foundations, sloughs, culverts and appurtenant structures as required to maintain design hydraulic capacity in accordance with this agreement, but not including maintenance of fences, gates, guardrails, barricades or other devices intended to limit public access or contact with the maintained facilities.
- C. Replace equipment and structures that fail, provided that the District's obligation shall not exceed \$50,000 per fiscal year.
- D. Prepare and submit such reports on maintenance activity as may be required by non-city agencies. CITIES shall provide data to DISTRICT for preparation of said reports for those facilities maintained by CITIES.
- E. Act as Lead Agency for purposes of obtaining permits, licenses, easements or other instruments that may be necessary to carry out DISTRICT responsibilities.
- F. Regional Facility Inventory implement and maintain a computerized data base inventory of regional drainage facilities and make summary reports and data available to CITIES as requested.
- G. Act as Lead Agency for the purpose of dealing with the Regional Water Quality Control Board, EPA and other agencies promulgating non-point source pollution control regulations.
- H. Insurance require DISTRICT contractors or other parties working on any activities associated with this contract to indemnify and hold harmless CITIES, and to name CITIES as additional insureds.

Section II.I. is added 01/23/1995

- 2. Local Facilities Provide supplemental funding to CITIES at levels set by the DISTRICT in accordance with procedures established herein.
- 3. Enterprise Fund establish a separate enterprise fund to account for revenues and expenditures related to drainage maintenance activities of the DISTRICT. Revenues shall include drainage maintenance fees, interest income and grants-in-aid related to activities under this agreement.
  - A. Restrictions to make no transfers into or out of the enterprise fund unless authorized by the DISTRICT Board of Directors.
  - B. Annual Financial Report to prepare an annual financial report of the enterprise fund audited by an independent Certified Public Accountant. The report shall be prepared in accordance with generally accepted accounting principles and standards and submitted to the DISTRICT Board of Directors within six months of the close of each fiscal year.
  - C. Budget to prepare an annual budget for the activities covered by this agreement, including estimated revenues, fees, and maintenance and capital expenses and allocation to and status of reserves.

#### **SECTION III**

#### CITIES AGREE:

- 1. to allow DISTRICT and its contractors and agents free and unencumbered access to facilities for the purpose of performing its obligations under this agreement.
- 2. to furnish DISTRICT with all available spare parts, construction drawings, maintenance manuals, maintenance records, operational records, equipment guarantees, financial records and related materials for each facility for which DISTRICT assumes limited maintenance responsibility.
- 3. to warrant the overall structural and mechanical integrity of the facilities as of the effective date of this agreement and make such repairs as may be required by DISTRICT to bring existing facilities up to acceptable structural and mechanical condition. Work shall be completed before the effective date of this agreement.
- 4. fund and construct such capital improvements to increase reliability and/or hydraulic capacity as may be recommended by DISTRICT and determined to be financially feasible by CITIES.

- 5. that new storm water pumping stations will be designed and constructed to conform with minimum engineering standards established by DISTRICT.
- 6. submit to District on or before May 1 each year an annual report on maintenance activities completed during the prior calendar year.

#### **SECTION IV**

#### THE PARTIES MUTUALLY AGREE:

1. Maintenance Planning Committee – there shall be established a Maintenance Planning Committee, hereinafter COMMITTEE, consisting of the District Engineer of DISTRICT, the Director of Public Works of FAIRFIELD and the Director of Public Works of SUISUN CITY, or their respective designees. The COMMITTEE shall meet on a regular basis, but not less than once each calendar year, to review and plan regional maintenance priorities for the upcoming year, and make recommendations to DISTRICT for consideration in preparation of the annual budget.

#### 2. Local Facility Maintenance

Section IV.2.A amended 06/27/1994 & 01/23/1995

- A. Enterprise Fund Accounts CITIES shall each establish a separate enterprise fund account within their respective financial accounting systems to account for revenues and expenditures directly related to maintenance of local facilities under the terms of this agreement. Revenues include the annual DISTRICT funding and other revenues such as interest earnings or grants-in-aid related to activities under this agreement.
  - 1) Eligible Expenditures Eligible expenditures shall be limited to the following:
    - a. Direct expenses related directly to the maintenance and rehabilitation of such facilities including salaries, employee fringe benefits, equipment costs, materials, and supplies.
    - b. Indirect expenses may be charged to the enterprise fund but not exceeding 15% of the eligible direct expenses.
    - c. Capital improvements to the drainage system which have been budgeted and approved by the DISTRICT.
  - 2) Interfund Transfers and Loans No interfund transfer of funds into or out of the enterprise fund shall be made unless authorized by the DISTRICT.
  - 3) Annual Financial Report CITIES shall prepare an annual financial report of the enterprise fund for the fiscal year which shall be audited by

- an independent certified public accountant. The report shall be prepared in accordance with generally-accepted accounting principles and standards and submitted within six months of the close of the fiscal year.
- 4) Reserve Account CITIES shall create a reserve account within the enterprise fund for major maintenance and replacement of local facilities. Any funds not spent during the fiscal year shall be deposited to this reserve account. The minimum fund balance shall be maintained at no less than twenty-five percent (25%) of the average annual revenues allocated to CITY by DISTRICT.
- Disaster Relief Funds In the event of a flooding emergency for which CITIES apply and receive state and/or federal relief funds, that portion of said relief funds related to repayment of enterprise fund expenditures associated with the emergency shall be deposited in the enterprise fund to offset eligible expenses incurred during the emergency. The CITIES are responsible for providing documentation of the eligible emergency expenses and shall be responsible for responding to the state or federal audits of said funds and expenses.
- B. Facility Inventory CITIES and DISTRICT agree to jointly develop a computerized data base inventory of drainage maintenance facilities within their jurisdictions. The inventory shall be in a format approved by the District Engineer and, as a minimum, contain information on location, type of facility, size, materials of construction, date installed and maintenance history. CITIES shall submit to DISTRICT on or before May 1 each calendar year a printed report listing all facilities within their respective jurisdictions by type and size and an updated copy of the complete inventory on magnetic media. This report shall include all new facilities placed in service during the previous calendar year as well as all previouslyinventoried facilities. This inventory shall subdivide facilities into Local and Regional categories for purposes of this agreement. Pipelines under 36" in diameter and appurtenant structures shall be included as local facilities. Designation of larger facilities as local shall be at discretion of CITIES, but local facilities inventory for facilities larger than 33" diameter may not be increased or decreased more than 10 percent in any fiscal year as measured by effect on total supplemental funding by DISTRICT unless authorized by DISTRICT Board.
- C. Maintenance Cost Allowance DISTRICT shall annually remit to CITIES for deposit to each city's enterprise fund an amount of money which shall be calculated on the basis of Unit Maintenance Cost Allowances and number of units maintained in accordance with procedures established herein. Unit Maintenance Cost Allowances shall be established annually by the DISTRICT by incorporation into the annual budget.

The amount to be deposited by DISTRICT shall be determined by multiplying the number of units of each type of facility in each city's Local Facility Inventory by the Unit Maintenance Cost Allowance for that type of facility and subtracting the city's local contribution to the fund as shown in the example attached as EXHIBIT A.

- D. Neither DISTRICT nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or omitted to be done by FAIRFIELD under or in connection with any work, authority or jurisdiction not delegated to DISTRICT under this agreement. It is also agreed that, pursuant to Government Code § 895.4, FAIRFIELD shall fully indemnify and hold DISTRICT harmless from any liability imposed for injury (as defined by Government Code § 810.8) occurring by reason of anything done or omitted to be done by FAIRFIELD under or in connection with any work, authority or jurisdiction not delegated to DISTRICT under this agreement.
- E. Neither FAIRFIELD nor any officer or employee thereof, is responsible for any damage or liability occurring by reason of anything done or omitted to be done by DISTRICT under or in connection with any work, authority or jurisdiction delegated to DISTRICT under this agreement. It is also agreed that, pursuant to Government Code § 895.4, DISTRICT shall fully indemnify and hold FAIRFIELD harmless from any liability imposed for injury (as defined by Government Code § 810.8) occurring by reason of anything done or omitted to be done by DISTRICT under or in connection with any work, authority, or jurisdiction delegated to DISTRICT under this agreement.
- F. Neither DISTRICT nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or omitted to be done by SUISUN CITY under or in connection with any work, authority or jurisdiction not delegated to DISTRICT under this agreement. It is also agreed that, pursuant to Government Code § 895.4, SUISUN CITY shall fully indemnify and hold DISTRICT harmless from any liability imposed for injury (as defined by Government Code § 810.8) occurring by reason of anything done or omitted to be done by SUISUN CITY under or in connection with any work, authority or jurisdiction not delegated to DISTRICT under this agreement.
- G. Neither SUISUN CITY nor any officer or employee thereof, is responsible for any damage or liability occurring by reason of anything done or omitted to be done by DISTRICT under or in connection with any work, authority or jurisdiction delegated to DISTRICT under this agreement. It is also agreed that, pursuant to Government Code § 895.4, DISTRICT shall fully indemnify and hold SUISUN CITY harmless from any liability imposed for injury (as defined by Government Code § 810.8) occurring by reason of anything done

or omitted to be done by DISTRICT under or in connection with any work, authority, or jurisdiction delegated to DISTRICT under this agreement.

- 3. Termination Either CITY may terminate its participation in this agreement by giving written notice to the DISTRICT no later than May 31 of any year. Such termination shall be effective on July 1 of that year. The DISTRICT may terminate its participation in this agreement with respect to either CITY by giving written notice no later than March 1 of any year. Such termination shall be effective on July 1 of that year.
- 4. FAIRFIELD agrees to provide supplemental financial management services to DISTRICT for Drainage Maintenance activities in accordance with the provisions of the existing financial management agreement between DISTRICT and FAIRFIELD. As compensation for these supplemental services, DISTRICT agrees to pay \$2500 per year in addition to compensation provided under existing agreement. Supplemental compensation shall be adjusted annually by the mechanism provided under existing agreement.
- 5. Mutual Aid DISTRICT and CITIES agree to provide mutual aid and assistance for drainage maintenance when requested during emergency situations, and agree to reimburse each other for expenses related to said aid and assistance.
- 6. Effective Date the effective date of this agreement shall be 12:01 A.M. July 1, 1988.

IN WITNESS the parties hereto have executed this Agreement on the day first above-written.

EXHIBIT A

Example Calculation of Local Facilities Maintenance Cost Allowance

Facility Inv	entory		Unit Maintenance		Total	
Type of Facility	<u>Units</u> <u>No. of Units</u>		<u>its</u>	Cost Allowance		<b>Allowance</b>
Storm drain pipes less than 33"	L.F.	200,000	X	\$0.20	=	\$40,000
Storm drain pipes greater than 33"	L.F.	15,000	X	0.20	=	3,000
Box culvert drains	L.F.	1,000	X	0.35	=	350
Improved Earth Channel	L.F.	15,000	X	2.50	=	37,500
Natural Creek	L.F.	25,000	X	2.00	=	50,000
				Total		130,850
			Le	ess local contribution	<u>-50,000</u>	
				District contribution		\$80,850