California Regional Water Quality Control Board
San Francisco Bay Region

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Arnold Schwarzenegger
Governor

TO: Laura Drabandt, Staff Council, Office of Enforcement, SWRCB

FROM: Michael Chee, WRCE, NPDES Enforcement, SFBRWQCB

DATE: July 7, 2010

SUBJECT: Staff Report for Enforcement of Sanitary Sewer Overflows Occurring in Sonoma Valley County Sanitation District

Introduction:
This action would be an enforcement of 77 sanitary sewer overflow (SSO) events that occurred from December 2004 through January 2010 from Sonoma Valley County Sanitation District's collection system. The total volume discharged and not recovered due to these SSOs is 1.93 MG. The majority of SSOs (47 or 61%) is due to insufficient collection system capacity which accounted for 98.8% (or 1.91 MG) of the total volume discharged and not recovered. The other causes of the SSOs were due to root, grease and debris blockages and infrastructure failure. From January 31, 2007, through January 31, 2010, 37 of the 77 SSOs (totaling 930,077 gallons) discharged to waters of the State and United States

The District owns, and the Sonoma County Water Agency operates, the Sonoma Valley Sanitation District Wastewater Treatment Plant (WWTP) and sanitary sewer collection system. The WWTP provides secondary treatment for domestic and commercial wastewater from the City of Sonoma and the unincorporated areas of Glen Ellen, Agua Caliente, Boyes Hot Springs and El Verano in the Sonoma Valley area. The collection system consists of 135 miles of pipeline and two lift stations. The District serves approximately 16,452 equivalent single-family dwelling units (based on 2002 data).

References
The information contained in this staff report is based on various sources including the San Francisco Bay Regional Water Board SSO eReporting database, State Water Resources Control Board's California Integrated Water Quality System SSO database, the District's Wet Weather Overflow Study (January 2002), the District's Annual SSO Reports, the District's Sewer System Management Plan, and various e-mails from District staff sent to Regional Water Board prosecution staff. All of these materials are available in the public file for Sonoma Valley County Sanitation District.

Authority:

For the period, December 1, 2004, to December 1, 2008

Discharge Prohibition A.3 of Order No. R2-2002-0046 (NPDES Permit No. CA0037800) prohibits the overflow of untreated wastewater to waters of the **State** from the collection system. This Order was to expire February 28, 2007. However, the 2002 Order was administratively extended by letter dated October 23, 2006, until December 1, 2008, when a reissued permit superseded its requirements.

Provision D.1. Treatment Reliability of Attachment Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits (August 1993) requires the District, at all times, to properly operate and maintain all facilities and systems of treatment disposal and control (and related appurtenances)…

For the period, December 1, 2008, to the present

Discharge Prohibition III.E of Order No. R2-2008-0090 (NPDES Permit No. CA0037800) prohibits SSOs that result in a discharge of untreated wastewater to waters of the **United States**. The 2008 Order became effective on December 1, 2008.

Provision I.D. Proper Operation and Maintenance of Attachment D Federal Standard Provisions requires the District, at all times, to properly operate and maintain all facilities and systems of treatment disposal and control (and related appurtenances)…

Additional discharge prohibition that was not used….

Prohibition C.1 of Statewide General Waste Discharge Requirements (General WDR), Order No. 2006-0003 DWQ, prohibits SSOs that result in a discharge of untreated wastewater to waters of the United States. The effective date of the General WDR is October 16, 2006.

Facts:
The District has had 77 SSO events that occurred from December 1, 2004, through January 31, 2010. See Tables 1 and 2. The total volume of raw sewage discharged and not recovered due to these SSOs is 1.93 MG. The majority of SSOs (47 or 61%) is due to insufficient collection system capacity which accounted for 98.8% (or 1.91 MG) of the total volume discharged and not recovered. The other causes of the SSOs were due to root, grease and debris blockages and infrastructure failure. A majority of the SSOs discharged to Sonoma Creek or its tributaries (including Nathanson and Agua Caliente Creeks), and ultimately to San Pablo Bay, all waters of the State and United States.

Violations:
The SSOs (60) occurring from December 1, 2004, through November 30, 2008, resulted in the discharge of untreated wastewater to waters of the State in violation of Discharge Prohibition A.3 of Order No. R2-2002-0046 and Discharge Prohibition A.6 of Order No. R2-2002-0046. A portion or all of the SSOs that were reported to have reached “yard/land” were not recovered nor

cleaned up and are presumed to have seeped through the soil to groundwater, a water of the State.

The SSOs (60) occurring from December 2004 through November 30, 2008, were caused by the District's failure to properly operate and maintain its collection system, in violation of Provision D.1 of Standard Provisions. Of the 60 SSOs, 30 occurred from January 31, 2007, through November 30, 2008.

The SSOs (17) occurring after December 1, 2008, resulted in the discharge of untreated wastewater to waters of the United States, in violation of Discharge Prohibition III.E of Order No. R2-2008-0090. Because the District's storm drains ultimately drain to the San Francisco Bay (water of the United States), SSOs that were reported by the District to the "storm drain," "street/curb and gutter," and "paved surfaces," as shown in Table 1, are presumed to discharge into waters of the United States.

The SSOs (17) occurring after December 1, 2008, were caused by the District's failure to properly operate and maintain its collection system, in violation of Section I.D. of the Federal Standard Provisions in Attachment D of Order No. R2-2008-0090.

<u>Maximum liability:</u>
The maximum liability pursuant to California Water Code section 13385(a)(5) for each individual violation is contained in Tables 1 and 2.

<u>Consideration of Factors:</u>

The nature, circumstances, extent, and gravity of the violation or violations

There were 77 SSOs that occurred from December 1, 2004, through January 31, 2010, that total 1,961,132 gallons with 1,930,589 gallons not recovered. The cause and final spill destinations of all SSOs are summarized in Tables 1 and 2.

The two most common causes of the District's SSOs are insufficient capacity (47 of the 77 SSOs or 61 percent) and root blockages (10 of the 77 SSOs or 13 percent). The rest of the SSOs were caused by grease (8 SSOs or 10 percent) and debris blockages (7 SSOS or 8 percent), infrastructure failure (4 SSOs or 5 percent) and one SSO with an unknown cause. The insufficient capacity-related SSOs total 1,929,736 gallons (or 98.4 percent) of the total sewage discharged.

Between the period of January 31, 2007, through January 31, 2010, the District had 27 insufficient capacity-related SSOs occurring on 9 separate days and 20 blockage-related SSOs. Furthermore, all 27 capacity-related SSOs and 10 of the 20 blockage-related SSOs discharged to waters of the State and United States.

The most common cause of the SSOs was the result of the Discharger's collection system having inflow and infiltration (I&I) problems that render it incapable of handling rain received during significant and/or sustained storm events.

The gravity of the insufficient capacity-related SSOs is moderately significant because the combined volume of about 1.93MG is large. However, the impact to beneficial uses of Sonoma Creek and its tributaries is minor because this type of SSO usually occurs during cold weather when human use is minimal and waste is diluted both with I&I and high flows in the receiving water. SSOs are discharges of raw untreated sewage, so they are a nuisance and adversely impact public health. The discharges threatened public health because, by its nature, raw sewage, even in diluted form, contains high concentrations of bacteria and viruses.

Although the effects of the actual beneficial uses were not observed, the District conducted an evaluation of the impacts of WWOs on the beneficial uses of Sonoma Creek and tributaries and San Pablo Bay. This evaluation was included in the WWO study. The study concluded that the chemical, conventional, and microbiological constituents, as well as physical parameters of wastewater from WWOs could damage sensitive habitat and adversely affect necessary survival functions such as growth, reproduction, and migration.

The blockage-related SSOs especially those occurring on warm weather days impacted the contact and non-contact water recreation beneficial uses of Sonoma Creek and its tributaries. Examples of contact water recreation are wading or swimming. Additionally, examples of non-contact water recreation are picnicking, sunbathing, hiking, sightseeing, and aesthetic enjoyment. Since the District has posted health warning signs along the affected water areas as a result of the SSOs (capacity-related and some blockage-related) discharging to the creeks, the beneficial uses have been impacted as the public's use has been limited after SSO events.

Whether the discharge is susceptible to cleanup or abatement
Insufficient capacity wet weather related SSOs may not be amenable to cleanup or containment because the storm drains and creeks are also flowing full at the time. However, for non-capacity related (or blockage-related) SSOs, either all or a portion of the SSO, can be contained and returned to the sanitary sewer for treatment. The District's response time for blockage-related SSOs has gradually improved from 61 minutes in 2007, to 30 minutes in 2008, and to 21 minutes in 2009. (This response time information is derived from certified SSO reports entered into State Water Board's California Integrated Water Quality System (CWIQS). In addition, the District recovered a little more than half of these blockage-related SSOs (about 57 percent by volume). The District also had an SSO on December 29, 2005, due to a broken sewer line. In the report for this SSO, the District indicated that it had been "raining for several days." Despite the weather conditions, the District recovered 28,000 gallons of the 38,000 total gallons spilled.

The degree of toxicity of the discharge
For all the SSOs, the degree of toxicity of raw untreated sewage cannot be accurately quantified. The SSOs would be expected to have a deleterious effect on the environment. Raw sewage typically has elevated concentrations of biochemical oxygen demand, total suspended solids, oil and grease, ammonia, high levels of viruses and bacteria, trash and toxic pollutants (such as heavy metals, pesticides, personal care products, and pharmaceuticals). These pollutants exert varying levels of impact on water quality, and as such, will adversely affect beneficial uses of receiving waters to different extents.

Since storm related SSOs are diluted with storm water, they would not pose the same level of toxicity or impact as an equal volume of raw sewage during non-storm conditions. However, any large SSOs that occurred during dry weather are very significant because they are full strength and received no dilution although they are generally much smaller in volume than storm related SSOs. The District's largest dry weather SSO was of 4,200 gallons due to a grease blockage on February 15, 2009. None of this SSO was recovered.

The ability to pay and the effect on ability to continue in business
The District has an annual operating budget of $34.9 Million for fiscal year 2009/2010. Regional Water Board prosecution staff believes the proposed civil liability will not affect the District's ability to continue its operation and maintenance of its collection system and treatment plant.

Any voluntary cleanup efforts undertaken
Of the total 1,961,132 gallons spilled, the District recovered 30,543 gallons. Approximately 1.93 million gallons were not recovered.

Any prior history of violations
In 1999, the Regional Water Board issued a Notice of Violation (NOV) to the District for SSOs occurring on February 6 through 9, 1999, that totaled 355,000 gallons at generally four primary locations in the Boyes Hot Springs and City of Sonoma areas: 598 Bokman Place, 18579 Happy Lane, and 17324 and 18880 Sonoma Highway. As a result of the NOV the District completed a Wet Weather Overflow (WWO) Prevention Study in January 2002.

Degree of culpability
The District is culpable for the violations because it is responsible for the proper operation and maintenance of its collection system. However, the SSOs were not caused by negligence or intentional. As noted earlier, the two most common causes of the District's SSOs are insufficient capacity and root blockages. Both of these causes can be prevented with system upgrades and more aggressive sewer system management and maintenance practices.

<u>Insufficient capacity:</u> The District is culpable for the capacity-related SSOs, however, this type of SSO was not caused by negligence or intentional. Of the 47 insufficient capacity related SSOs, 23 (or almost half) occurred either on Bokman Place (10 SSOs), Happy Lane (9 SSOs) or the Sonoma Highway (4 SSOs). Bokman Place and Happy Lane are streets located in Boyes Hot Springs, an unincorporated area north of the City of Sonoma. The Sonoma Highway SSOs have occurred at various locations within the District from Agua Caliente (the northern-most location on the Sonoma Highway) to the northern portion of the City of Sonoma (the southern-most part on the Sonoma Highway). The District has known about these problem areas/locations at least since 1999 as they were cited in the NOV. These SSOs total 1,075,626 gallons (582,246 gallons on Bokman Place, 427,380 gallons on Happy Lane and 81,600 gallons on the Sonoma Highway) which accounts for more than half of the total volume of the capacity-related SSOs.

The WWO study concluded that most of the District's collection system has adequate capacity to convey wet weather flows for up to a 20-year design storm event with a few areas of exceptions. These localized areas within the collection system have hydraulic constraints where excessive

I&I cause capacity-related SSOs. The WWO study concluded that excessive I&I occurred under certain conditions. These conditions are 1) above average annual rainfall that increases the groundwater table levels to sewer pipeline elevations, and 2) large and sustained storm events which temporarily increases the groundwater elevation. When these two conditions are met SSOs occur due to the temporarily increased I&I into the sewer pipes. These capacity-related SSOs generally occur later in the rainy season as groundwater levels rise. The localized areas include the Sonoma Highway and central part of the city of Sonoma.

Since the 1999 NOV, the District has solved the capacity-related SSOs on Bokman Place but has not relieved or addressed the problem areas on Happy Lane or the Sonoma Highway. The District was not able to prevent the capacity-related SSOs on Bokman Place until 2009. After the 1999 NOV, the District surveyed and inspected manholes and videoed the collection system around Bokman Place in order to find a way to prevent the SSOs. However, despite these attempts, the District was not able to figure out a solution to preventing the Bokman Place SSOs.

In 2008, the District installed flow meters in and around Bokman Place which finally led to a solution. The District collected data which illustrated that during wet weather events the main trunk sewer line became surcharged, and caused the collection system on Bokman Place to backup. Based on this data, the District bolted down the lowest elevation manhole on Bokman Place, installed a shutoff valve that separated the collection system on Bokman Place from the main trunk line and installed a new manhole upstream of the valve. The District completed construction in October 2009. Thus, when collection system flows are conducive to surcharge conditions in the main sewer near Bokman Place, the District closes the valve. Now during wet weather events, the District pumps the sewage flow from the new manhole into the main trunk line eliminating SSOs on Bokman Place. This engineering solution was successful as the large storm that produced other capacity-related SSOs on January 20, 2010, in the city of Sonoma and many other locations in the Bay Area did not result in SSOs on Bokman Place.

However, the capacity-related SSOs on Happy Lane and various locations on the Sonoma Highway continue to occur. The most recent Happy Lane SSO (29,250 gallons) and Sonoma Highway SSO in Agua Caliente (15,600 gallons) both occurred on January 20, 2010. The District has not yet reached these areas of its collection system as it progresses with its sewer system upgrades.

The District is currently designing the next trunk main replacement project. This project is located in the northern part of the City of Sonoma working northward towards the Boyes Hot Springs area. The replacement project is broken into three phases. The first phase is from 6th Street West south at Studley Street to Ramon Street, the second phase is from Ramon Street to Agua Caliente Creek Crossing, and the third phase is from Agua Caliente Creek Crossing to Happy Lane. Each phase is approximately 4,600 feet and $4.5 Million to complete. The District anticipates the design of the first phase to be completed in 2010 and construction completed in 2011/2012, depending upon funding availability. The remaining two phase design and construction is dependent upon future funding availability.

The third phase of the collection system improvement project as discussed above will not reach the problem area on Happy Lane until another several years. In addition, neither this project nor

any of the other completed projects have specifically targeted the various problem areas along the Sonoma Highway. The District has followed the recommendations of its WWO study which is to integrate relieving the hydraulic constraints in the main trunk sewers into its existing ongoing sewer rehabilitation program. Thus, the District has completed its collection system rehabilitation nearer its WWTP in the city of Sonoma and then is proceeding upstream into its sewershed. These areas in the city of Sonoma were identified by the District as having high I/I due to aging sewer pipes with many defects. The District chose not to initially address the SSOs related to Happy Lane and Sonoma Highway as they are located upstream of the collection area that has been rehabilitated. Had the District addressed the Happy Lane and Sonoma Highway SSOs first, the SSOs would have just occurred further downstream.

Root blockages:
The District is culpable for root blockage caused SSOs. However, this type of SSO was not caused by negligence or intentional. The District has averaged two root blockage SSOs over the last five years, however, eight of them have occurred most recently with 4 SSOs occurring each in 2008 and 2009. The District uses the standard equipment in its root control program: rodding machines, hydraulic cleaners (jet trucks), cutting tools, and chemicals. Where a root blockage SSO occurs, the District will place that sewer pipe segment on a higher cleaning frequency. In addition, the District started performing outreach to plumbers in the area in 2009 to provide information on stoppages in private laterals. The District has asked that if a plumber encounters a blockage (roots, grease, etc.) within a lateral, to call the District before removing the blockage. The District reports that this outreach has led to the reduction of SSOs caused by root mass, i.e., cut roots moving downstream in the collection system and causing a blockage in another location.

Other blockages:
The District is of culpable for the remaining non-root blockage-related SSOs. However, these types of SSOs were not caused by negligence or intentional. The remaining causes of the District's SSOs were blockages due to grease, debris and infrastructure failure. The District has a FOG control program to address and prevent grease blockages. All commercial establishments are required to install appropriately-sized grease interceptors. For sewer pipes located in areas serving several restaurants, the District performs monthly cleaning to prevent grease blockages. The District also televises these sewer pipe segments at least on an annual basis. In addition, the District controls residential grease by educating through informational brochures.

The economic benefit or savings
The District has not had any economic benefit or savings from the SSOs occurring as it relates to its schedule of implementation of its collection system capital improvement projects. (Note however the issue of whether the District's schedule was aggressive enough is not considered in this analysis because of the lack of Regional Water Board paper trail for past oversight of the District's activities.) The District was on schedule with implementing the recommendations of its WWO Prevention Study into its ongoing sewer rehabilitation program up until the construction delay of the Watmaugh Road East to treatment plant collection system improvement. The District is not the main cause of the construction delay rather the District is awaiting a funding commitment from the State Water Board's State Revolving Fund (SRF). An

SRF application was submitted on July 2, 2009, whereby State Water Board was scheduled to take six months to get a funding commitment. The primary reason for the delay is due to the review of the District's environmental documents.

However, the District did have some economic benefit in not aggressively pursuing a solution to its SSOs occurring on Bokman Place. Had the District conducted the flow monitoring around Bokman Place in 2002 instead of in 2008, the District could have learned why the SSOs were occurring and come up with its solution earlier. Thus, the 10 Bokman Place capacity-related SSOs would have been prevented or significantly reduced in volume. The construction costs associated with the October 2009 Bokman Place improvement was $21,515. The cost savings of not constructing the Bokman Place improvement in 2003 instead of 2009 is about $6,400 (assuming an interest rate of 6 percent and a 6 year delay in construction).

Other such matters as justice may require

Matters considered that increased the administrative civil liability amount.
The Regional Board Prosecution Team to prepare this memo and supporting evidence is estimated to be 110 hours. Based on an average cost to the State of $150 per hour, the staff cost thus far is $16,500.

Matters considered that did not increase or decrease the administrative civil liability amount.

- In response to the 1999 NOV, the District devised a plan to address the capacity-related SSOs by implementing projects identified in its Wet Weather Overflow (WWO) Prevention Study completed in January 2002. The study identified areas within the District's collection system where repair and/or replacement projects were most needed. The study identified $45 Million worth of trunk main and collection system projects,. The District has implemented a capital replacement program with the long-term intent of replacing these pipeline sections. In total approximately 16,100 feet of pipeline has either been replaced or constructed over the last several years. As described in the following, the completed projects and those currently being planned will ultimately provide significant improvements to the District's collection system.

  In 2005, the District completed the Fifth Street West Trunk Main Replacement, which rehabilitated a portion of the District's trunk main system in City of Sonoma. The project included the construction and upsizing of approximately 8,800 feet of pipe from 6-inch to 24-inch diameter pipes (at a cost of $2.9 M).

  In 2006, the District completed the Leveroni to Watmaugh Road Trunk Main Replacement, which rehabilitated a portion of the District's trunk main system in the City of Sonoma. The project included construction of approximately 5,500 feet of 30-inch sewer main, 1,400 feet of 9-inch sewer main (at a cost of $2.9 M).

  Currently, the District is in the process of improving its collection system between Watmaugh Road East to the treatment plant in the City of Sonoma. The work includes replacing approximately 5,800 feet of existing sewer trunk main with new PVC sewer pipe ranging in size from 30- to 42-inches in diameter and installation of a 60 inch steel cylinder

encasement under Schell Creek. The work together with a recycled water project will have an estimated cost of $4.3 M. The District has been delayed in proceeding with this project due to State Revolving Fund loan review process. The District expects funding to be available in spring 2010 and construction to be complete in spring 2011.

- The District attempted to use the same repairs at Bokman Place at Happy Lane. However, due to Happy Lane being on the main trunk line, the District determined that the solution at Bokman Place would not work at Happy Lane. In 2009, the District attempted to bolt down the manhole at Happy Lane to prevent SSOs. However, the bolted manhole just pushed the SSOs downstream of the Happy Lane manhole. Subsequently, the District removed the bolted lids. Since that attempt the District has implemented a temporary solution by purchasing "SmartCovers." The SmartCover manhole lid has electronics attached to the underside and replaces the normal manhole lid. When sewage levels rise beyond normal levels, or if the manhole lid is opened, alarms are generated and sent to the District. This system allows the District to respond quickly to avert or reduce an SSO. The District will monitor the Happy Lane site to determine the effectiveness of these new covers. The District anticipates this system will remain in place until the main trunk line is replaced. The cost of installing the SmartCover system is approximately $5,000 with a $300 annual service fee.

- In addition to its main collection system improvement projects (see above), the District has identified and repaired areas of its collection system where high infiltration and capacity-related SSOs had been occurring. In 2009, the District replaced five cast iron sections of sewer pipe (near East Spain Street and Moll Court located in the city of Sonoma) where private laterals connected to the trunk line. These sections of pipe had deteriorated over time and were allowing high infiltration into the collection system. Each section of pipe cost the District $8,000 to replace for a total of $40,000. In addition, in the earlier part of this year, the District videoed and found two sections of pipe (north of the intersection of 4th Street East and East Spain Street in the city of Sonoma) had deteriorated, thereby allowing infiltration. The District repaired these sections of pipe for a total cost of $40,000.

- In 2007, the District upgraded its sewer cleaning program from paper tracking to one based upon a geographical information system (GIS). This upgraded program has allowed the District to identify hot spots and prioritize maintenance.

- Over the past several years, the District has demonstrated its commitment to improving its collection system. The District has steadily increased its sewer rates every year (almost six percent annually) since fiscal year (FY) 2004-05 to raise needed funds to implement its collection system capital improvement plan. In fact, by FY 2010-11, the District's sewer rates increased by a total of 43% since FY 2004-05 (the monthly sewer rate of $40.50 in FY 2004-05 has increased to $57.83 in FY 2010-11). The FY 2010-11 sewer rate increase includes partial funding for the three phase trunk main replacement project to Happy Lane. In addition, the District is planning to continue the sewer rate increases for the next two FYs at approximately five percent per year to continue to aid in the funding of three phase trunk main replacement project.

The median monthly sewer rate of collection systems in Sonoma County is $58.75 and the District's monthly sewer rate is comparable at $57.83. (These sewer rates are based on a database maintained by the City of Redwood City as of April 30, 2010.) In addition, based on the United States 2000 Census Bureau data, the District's sewer rate is 0.095 percent of the median household incomes within the District's service area. Meanwhile, the county-wide collection system median monthly sewer rate is 0.078 percent of the county median household income. This data demonstrates that the District's customers pay a slightly higher percentage of their household incomes for sewer service as compared to all residents of Sonoma County.

- Regional Water Board Resolution No. R2-2005-0059 declares support of local programs that inspect and rehabilitate private sewer laterals, and states that the Regional Water Board will consider the existence of such programs, especially those experiencing significant I&I from private sewer laterals, as an important factor when considering enforcement actions for sanitary sewer overflows. The District does not currently have a program that inspects and rehabilitates private sewer laterals.

Proposed Civil Liability:
Based upon consideration of the factors in CWC Section 13385, the Assistant Executive Officer proposes civil liability be imposed upon the District in the amount of $348,400.

HARM FACTORS

Category	Harm Factor	Reason
Harm or Potential Harm to Beneficial Uses	1 2	For capacity-related SSOs the impact is minor because SSOs occur during cold wet weather when human use is minimal and waste is diluted both with I&I and high flows in the receiving water; For blockage-related SSOs as these types of SSOs are a below moderate threat to beneficial uses – public health warning signs not necessarily posted
Physical, Chemical, Biological, or Thermal Characteristics (Degree of Toxicity)	3 3	For capacity-related SSOs poses a direct threat to potential receptors because, though diluted by I&I, SSOs are not at all treated and would contain bacteria at levels exceeding human health standards and potentially toxic to aquatic organisms; For blockage-related SSOs as the toxicity of these types of SSOs pose an above moderate risk due to its full strength chemical makeup.
Susceptibility to Cleanup or Abatement	1 0	For capacity-related SSOs as these type of SSOs may not be amenable to cleanup or containment because the storm drains and creeks are also flowing full at the time; For blockage-related SSOs as the District response time is good and the SSO recovery percentage is

		more than 50 percent.
Final Potential to Harm Score	5 5	For capacity-related SSOs; for blockage-related SSOs

VIOLATOR'S CONDUCT FACTORS

Factor	Adjustment Factor	Reason
Culpability	1	culpable but not negligent/intentional
Cleanup and Cooperation	1	some cleanup performed for non-capacity related SSOs
History of Violations	1.1	There is a history of SSOs in the same location.
Other factors that justice may require: • Overall issues	1.0 overall neutral	Over the past several years, the District has demonstrated its commitment to improving its collection system through its completed CIPs. Capacity-related SSOs are continuing in some of the areas cited in the 1999 NOV. The logical way to repair these capacity-related issues is to work from the problem areas closer to the treatment plant and work upwards into the sewershed. Unfortunately, the problem areas are located in the "upper" part of the collection system and it takes time to complete CIPs in an orderly fashion to reach these areas.
• Increased sewer rates	neutral	The District has demonstrated its commitment to improving its collection system by steadily raising its sewer rates (6 percent annually) by a total of 43 percent since 2004. The District plans to continue to increase its sewer rates by 5 percent each year for the next couple of years. These sewer rate increases have made the District's sewer rate on par with the other collection systems' sewer rates in Sonoma County.
• Staff costs	increase	110 hours of staff time at $150 per hour for a total cost of $16,500.
• Economic Benefit	increase	The cost savings of not constructing the Bokman Place improvement in 2003 instead of 2009 is about $6,400 (assuming an interest rate of 6 percent and a 6 year delay in construction).