Attachment B

Stipulated Order No. R1-2016-0022
Specific Factors Considered
Sonoma County Water Agency and
Russian River County Sanitation District

Each factor of the Enforcement Policy and its corresponding score for each violation are presented below:

1. **Violation No. 1 (Mandatory Minimum Penalties occurring during the period June 1, 2009 through November 30, 2014):** The $135,000 in liability being recommended for the effluent limit exceedances alleged (see Attachment A) are Mandatory Minimum Penalties (MMPs) statutorily required under Water Code section 13385(h) and (i). No discretionary liability is proposed for those violations and, therefore, the consideration of liability factors under Water Code section 13385 and the methodology for assessing such liability are not applicable.

2. **Violation No. 2 (May 23, 2010 discharge violation):** An unauthorized discharge of 300,000 gallons of disinfected, treated and dechlorinated wastewater in violation of Waste Discharge Requirements (WDRs) Order No. R1-2009-0003 occurred on May 23, 2010. This violation is subject to discretionary administrative civil liability pursuant to Water Code section 13385(a)(2) and (c). Each factor of the Enforcement Policy and its corresponding score is presented below:

   Step 1. Potential for Harm for Discharge Violations
   The Potential for Harm is **3**. This is determined by the sum of the factors for a) the potential for harm to beneficial uses; b) the physical, chemical, biological or thermal characteristics of the discharge; and the susceptibility for cleanup or abatement.

   a) Factor 1: Harm or Potential Harm to Beneficial Uses (1 = Minor)

   The Regional Water Board's *Water Quality Control Plan for the North Coast Region* (hereinafter the Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes a policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Existing beneficial uses applicable to the Russian River include: Municipal & Domestic Supply; Agricultural Supply; Industrial Service Supply; Groundwater Recharge; Freshwater Replenishment; Navigation; Water Contact Recreation; Non-Contact Water Recreation; Commercial & Sport Fishing; Warm Freshwater Habitat; Cold Freshwater Habitat; Wildlife Habitat; Rare, Threatened or Endangered Species; Migration of Aquatic Organisms; Spawning, Reproduction and/or Early Development; and Estuarine Habitat.

Potential beneficial uses applicable to the Russian River include: Industrial Process Supply, Hydropower Generation, Shellfish Harvesting, and Aquaculture.

The discharged effluent was dechlorinated disinfected tertiary treated wastewater, a substance that may have concentrations of copper and dichlorobromomethane that exceed the California Toxics Rule standards. Such effluent may also contain coliform. At the time of this discharge event, the coliform levels in the treated effluent were reportedly just above lab detection levels, indicating that the coliform levels were not detrimental to human health. The Dischargers reported that on the day of the release, the instream flowrate in the Russian River measured near the point of discharge was 823 cubic feet per second. The Dischargers indicate that the highest measured discharge rate for the release was 3,116 gallons per minute, or 6.94 cubic feet per second, about 0.8 percent of the flowrate in the Russian River. The waste discharge flow was therefore less than one percent of the receiving stream's flow, which is consistent with the requirements for permitted discharges occurring between October 1 and May 14. The Prosecution Team finds that given the circumstances, the harm or potential harm to beneficial uses resulting from this discharge was likely minor.

b) Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge (1 = minor risk or threat to potential receptors)

As noted above, the effluent discharged was dechlorinated disinfected tertiary treated wastewater, a substance which would be permissible for surface water discharge at this location during the period October 1 through May 14. While the treated effluent from this facility may have concentrations of copper and dichlorobromomethane that exceed the California Toxics Rule, the threat to potential receptors was likely low, posing only a minor risk to human, environmental and ecosystem health exposure pathways.

c) Factor 3: Susceptibility to Cleanup or Abatement (1 = less than 50% of the discharge is susceptible to cleanup or abatement)

There was no way to retrieve the discharged effluent after it entered the river. Therefore, because less than 50% of the discharge was susceptible to cleanup or abatement, this factor was assessed a score of 1.

Final Score – Potential for Harm **is 3.**

Step 2. Assessments for Discharge Violations

This violation resulted in a large total volume of treated wastewater spilled within a short duration. Pursuant to California Water Code section 13385, liability is proposed both on a per gallon and a per day basis.

***d) Per Day Assessments for Discharge Violation:* 0.02**

Using Table 2 of the Enforcement Policy, the per day factor based on the Potential for Harm (3) and Deviation from Requirement (major) is 0.02.

The Regional Water Board determines initial liability for discharge violations on a per day basis using the Potential for Harm and Deviation from Requirement factors. The Deviation from Requirement is major.
The Dischargers' WDRs prohibit the discharge of treated waste from anywhere within the Dischargers' collection system. Prohibition C.1 of State Water Resources Control Board Order No. 2006-003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*, prohibits any sanitary sewer overflow that results in a discharge of untreated or partially treated wastewater to waters of the United States. Section 301 of the Clean Water Act (33 U.S.C. § 1311) prohibits the discharge of pollutants to surface waters except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The violation resulted in a discharge of treated wastewater to Russian River or its tributaries, rendering these prohibitions ineffective.

***e) Per Gallon Factor for Discharge Violation:* 0.02**

In accordance with Table 1 of the Enforcement Policy a multiplier of 0.02 is assessed because the Potential for Harm score is 3 and the Deviation from Requirement is major. The Deviation from Requirement is major because the prohibition from discharging was rendered ineffective when the Dischargers discharged 300,000 gallons of wastewater in violation of its WDRs.

***f) High Volume Discharges:* $1 per gallon**

The Water Quality Enforcement Policy allows for a reduction of the maximum per gallon penalty amount for certain types of high volume spills, including those associated with spills of sewage and recycled wastewater. Specifically, the Enforcement Policy recommends, when appropriate, applying a maximum amount of $1.00 per gallon for releases of recycled water that has been treated for reuse. Consistent with the Enforcement Policy, a liability of $1 per gallon was applied.

***g) Initial Liability Amount:* $6,180**

The initial liability amount for the discharge violation calculated on a per-gallon and per-day basis is as follows:

Per Day Liability: 0.02 (per day factor) x $10,000 (maximum per day) x 1(number of days) = $200

Per Gallon Liability: 299,000 (300,000 gallons discharged – 1,000 gallons) x 0.02 (per gallon factor) x $1 (per gallon) = $5,980

Total Initial Liability: $200 (per day liability) + $5,980 (per gallon liability) = **$6,180**

Step 3. Per Day Assessment for Non-Discharge Violations
This step in the penalty calculator is not applicable to this discharge violation.

Step 4. Adjustment Factors
There are three additional factors to be considered for modification of the amount of initial liability: the violator's culpability, efforts to clean up or cooperate with regulatory authority, and the violator's compliance history.

***h) Culpability:* 1.3**

Higher liabilities should result from intentional and negligent violations as opposed to accidental violations. A multiplier between 0.5 and 1.5 is to be used, with a higher multiplier for negligent behavior. The Dischargers were given a multiplier value of 1.3.

The Sonoma County Water Agency coordinator reported that he had provided specific instructions to the plant operator. However, the plant operator did not follow those instructions. The operator, instead, performed the assigned task several days later than he had been instructed to do so, and failed to perform the task in the manner directed. Furthermore, the operator left the area while the task was underway and, although notified of a problem, failed to correct the problem for nearly 1.5 hours. It is unclear whether the operator had a previous history of failing to follow supervisory directions or whether he needed additional training. Ultimately, the Dischargers are responsible for ensuring compliance with its permit. Staff recommends a multiplier of 1.3 for this incident because the Dischargers' actions, as carried out by the plant operator, appear to be carried out knowingly or, at the least, below the due standard of care.

***i) Cleanup and Cooperation:* 1.0**

This factor reflects the extent to which a discharger voluntarily cooperated in returning to compliance and correcting environmental damage. A multiplier between 0.75 and 1.5 is to be used, with a higher multiplier when there is a lack of cooperation.

The Dischargers report that the high flow alarm was triggered at approximately the time that the operator reported starting the task. Dischargers' staff stationed in Santa Rosa identified the alarm and called the operator about 20 minutes later. The operator corrected the problem approximately 1.5 hours after being notified. The Dischargers' alarm, response, and notification system demonstrates an intention and effort to identify and address potential violations rapidly. However, the operator's delayed response demonstrates a lack of cooperation in addressing and correcting the violation. Therefore, staff recommends assigning a score of 1.0 for this factor to reflect that the Dischargers' cleanup and cooperation efforts in this case were reasonable.

j) History of Violations: **1.1**

The Dischargers have had Sanitary Sewer Overflows (SSOs) and unauthorized discharges in the past. The Enforcement Policy provides that where there is a history of repeat violations, a minimum multiplier of 1.1 should be imposed.

Step 5. Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Potential for Harm determined in Step 2.

k) Total Base Liability Amount: **$8,837**

$6,180 x 1.3 (culpability) x 1.0 (cleanup and cooperation) x 1.1 (history of violations) = $8,837

Steps 6 through 10 are applied to the combined total base liability amount for the sum of all violations, and are discussed following the total base liability recommendations for each violation.

3. **Violation No. 3 (February 13 and 14, 2014 SSO discharge violation):** An unauthorized discharge of 132,000 gallons of raw sewage in violation of Waste Discharge Requirements (WDRs), Order No. R1-2009-0003 occurred in February of 2014. This violation is subject to discretionary administrative civil liability pursuant to Water Code section 13385(a)(2) and (c). Each factor of the Enforcement Policy and its corresponding score is presented below:

Step 1. Potential for Harm for Discharge Violations

The Potential for Harm is **7**. This is determined by the sum of the factors for a) the potential for harm to beneficial uses; b) the physical, chemical, biological or thermal characteristics of the discharge; and c) the susceptibility for cleanup or abatement.

a) Factor 1: Harm or Potential Harm to Beneficial Uses (3 =Moderate)

The Regional Water Board's *Water Quality Control Plan for the North Coast Region* (hereinafter the Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Existing beneficial uses applicable to the portion of the Russian River watershed in which this spill occurred include: Municipal & Domestic Supply; Agricultural Supply; Industrial Service Supply; Groundwater Recharge; Freshwater Replenishment; Navigation; Water Contact Recreation; Non-Contact Water Recreation; Commercial & Sport Fishing; Warm Freshwater Habitat; Cold Freshwater Habitat; Wildlife Habitat; Rare, Threatened, or Endangered Species; Migration of Aquatic Organisms; Spawning, Reproduction, and/or Early Development; and Estuarine Habitat. Potential beneficial uses applicable to the Russian River include: Industrial Process Supply, Hydropower Generation, Shellfish Harvesting and Aquaculture.

Raw sewage contains high levels of suspended solids, pathogenic organisms, nutrients, oxygen-demanding organic compounds, oil and grease, and other pollutants that have the potential to adversely impact aquatic organisms and public health. Increased nutrients cause increased algal and macrophyte growth, increased turbidity, larger dissolved oxygen swings, and potential for increased sediment oxygen demand, all of which reduce the cold water fish and aquatic survival rates, and therefore impact many of the fisheries aquatic habitat beneficial uses.
Nutrient and pathogen discharges can cause closure of public beaches and affect contact and non-contact recreation beneficial uses.

b) Factor 2: Physical, Chemical, Biological or Thermal Characteristics of the Discharge (3 = Discharged material poses an above-moderate risk or a direct threat to potential receptors)

Raw, undiluted sewage, as compared to treated and/or diluted wastewater, typically has about ten times the concentrations of biochemical oxygen demand, trash, total suspended solids, oil and grease, ammonia, and thousands of times the levels of viruses and bacteria. These pollutants exert varying levels of impact on water quality and, as such, will adversely affect beneficial uses of receiving waters to different extents.
The toxicity of the raw sewage discharged in this event is not specifically known; however, raw sewage is generally toxic to aquatic organisms unless highly diluted.

Some possible adverse effects on water quality and beneficial uses as a result of a sanitary sewer overflow include:

Adverse impact to fish and other aquatic biota caused by bio-solid deposition, oil and grease, and toxic pollutants common in sewage (such as heavy metals, pesticides, personal care products, and pharmaceuticals); creation of a localized toxic environment in the water column as a result of the discharge of oxygen-demanding pollutants that lower dissolved oxygen, and elevated ammonia concentration, which is a demonstrated fish toxicant; adverse impact to water contact recreation and non-contact water recreation and harm to fish and wildlife as a result of elevated bacteria levels including pathogens; and adverse impact to municipal and domestic supply.

c) Factor 3: Susceptibility to Cleanup or Abatement (1 = less than 50% of the discharge is susceptible to cleanup or abatement)

There was no way to retrieve the discharged effluent after it entered the river. Therefore, because less than 50% of the discharge was susceptible to cleanup or abatement, this factor was assessed a score of 1.

Final Score – Potential for Harm is 7.

Step 2. Assessment for Discharge Violations

The violation resulted in a large total volume of sewage spilled within a short duration. Thus, liability is proposed both on a per gallon and a per day basis.

d) Per Day Factor for Discharge Violation: **0.31**

For discharge violations, the Regional Water Board determines an initial liability amount on a per day basis using the Potential for Harm (7) and Deviation from Requirement factors. The Deviation from Requirement is "major" because the discharge prohibition was rendered ineffective when the SSO resulted in a discharge of 132,000 gallons of raw sewage into the Russian River in violation of the WDRs. Therefore, in accordance with Table 2 of the Enforcement Policy, a multiplier of 0.31 was assigned.

e) Per Gallon Factor for Discharge Violation: **0.31**

As noted above, the Deviation from Requirements is major. Therefore, in accordance with Table 1 of the Enforcement Policy, a multiplier of 0.31 was assigned.

f) High Volume Discharge: **$2 per gallon**

Consistent with the guidance in the Enforcement Policy regarding high volume discharges, a per gallon assessment of $2.00 is appropriate for this sewage discharge.

g) Initial Liability Amount: **$87,420**

The initial liability amount for the violation calculated on a per gallon and a per day basis are as follows:

Per Gallon Liability: 131,000 (132,000 gallons discharged - 1,000 gallons) x 0.31 (per gallon factor) x $2.00 (amount per gallon) = $81,220

Per Day Liability: 0.31 (per day factor) x $10,000 (maximum per day) x 2 (days of discharge) = $6,200

Total Initial Liability: $81,220 (per gallon liability) + $6,200 (per day liability) **= $87,420**

Step 3. Per Day Assessments For Non-Discharge Violations
This step in the penalty calculator is not applicable to this discharge violation.

Step 4. Adjustment Factors

h) Culpability: **1.2**

The initial leak reported on February 12, 2014, which ultimately led to the discharge of 132,000 gallons of raw sewage, was caused by the rupture of a corroded underground pipe. While the pipe's location underground made certain types of maintenance or inspection difficult, there are reasonable actions that the Dischargers should have taken to prevent the discharge. For example, the Dischargers could have developed a condition assessment strategy for the force main, instituted a periodic maintenance program for the force main and air relief valves, kept maps of the system up to date and accurate, and implemented a cathodic protection system for the steel sections of pipe. These types of preventative actions are commonly employed by other dischargers with collection systems throughout the state, and while it is unknown whether any one of these activities could have prevented the discharge, they would have significantly reduced the likelihood of occurrence. Accordingly, the Dischargers have been assigned a score of 1.2, which increases the penalty.

i) Cleanup and Cooperation**: 1.1**

Regional Water Board staff visited the scene of the incident both on February 13 and 14. During the February 13 site visit, staff spoke with several of the Dischargers' representatives, who provided details about the pipe rupture and response, including efforts to control and minimize the sewage discharge and to notify downstream water users. After speaking with Dischargers' representatives, staff learned that flows from the Main Lift Station were being kept from reaching the failed force main pipe by pumping the raw sewage into septic hauling trucks for transport to the wastewater treatment plant. Staff visited the Main Lift Station as part of the investigation and observed a 6-inch hose conveying raw sewage from the lift station to the Russian River. Dischargers' representatives had not informed staff of this hose, or of the intentional discharge of sewage from this hose. Personnel in the vicinity of the lift station were not forthcoming in providing information about the hose or its use, or in providing access to staff to follow the hose to the Russian River. During staff's February 14, 2014 visit, Dischargers' representatives explained that the 6-inch hose was set up at the Main Lift Station as a contingency in the event that the septic hauling trucks could not keep up with the flows coming through the Main Lift Station. In post-incident reporting, the Dischargers provided details about this hose and the sewage discharge from the hose. The Dischargers cooperated in performing the work needed to address the cause of the spill by making steady progress toward repair of the rupture pipeline and taking steps necessary to minimize the volume of raw sewage discharged from the initial spill site. However, the failure to disclose this discharge and the lack of cooperation in providing information or assistance to staff in discovering and investigating this discharge at the time of the incident warrant assigning a value of 1.1 for cleanup and cooperation.

***j) History of Violations*: 1.1**

The Dischargers have had Sanitary Sewer Overflows (SSOs) and unauthorized discharges in the past. The Enforcement Policy provides that where there is a history of repeat violations, a minimum multiplier of 1.1 should be imposed. As stated in the discussion for Violation No. 2, above, a score of 1.1 is warranted.

Step 5. Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Potential for Harm determined in Step 2.

***k) Total Base Liability Amount:* $126,934**

$87,420 x 1.2 (culpability) x 1.1 (cleanup and cooperation) x 1.1 (history of violations) = $126,934

COMBINED TOTAL BASE LIABILITY APPLIED TO VIOLATIONS NO. 2 AND NO. 3

The Combined Total Base Liability Amount for the discretionary violations is **$135,771 =** $8,837 (Violation No. 2) +$126,934 (Violation No. 3)

Step 6. Ability to Pay and Continue in Business

Adjusted Combined Total Base Liability Amount:

The Russian River County Sanitation District is a unit of the Sonoma County Water Agency, which is a component unit of the County of Sonoma. Since the Sonoma County Water Agency and the Russian River County Sanitation District are component units of the County, the sanitation district and the Water Agency are considered related parties.[1] The County of Sonoma has the ability to pay the proposed penalty amount and continue on in business based on, but not limited to, the fact that it is a government body, which is able to levy taxes and raise revenue. In addition, the Russian River County Sanitation District received $2,282,054 in cash payments from the Sonoma County Water Agency in the fiscal year ending June 30, 2013.[2]

Step 7. Other Factors as Justice May Require

Adjusted Combined Total Base Liability Amount: $135,771 + $5,000 (staff costs) = **$140,771**

The Regional Board finds that it is appropriate to increase the Total Base Liability Amount by $5,000 in consideration of investigation and enforcement costs incurred in prosecuting this matter. Increasing the Total Base Liability Amount in this manner serves to create a more appropriate deterrent against future violations.

Step 8. Economic Benefit

Water Code section 13385 requires that, at a minimum, liability be assessed at a level that recovers the economic benefit derived from the act or omission that constitutes a violation.

[1] See "Note M," page 59 of Sonoma County Water Agency Independent Auditor's Reports, Management's Discussion and Analysis, Basic Financial Statements, Required Supplementary Information, and Supplementary Information for the Fiscal year Ended June 30, 2013, available at http://www.scwa.ca.gov/files/docs/finance/financial-statements/2013/SCWA%20Financial%20Statements%2012-13.pdf accessed on October 23, 2014.
[2] Id.

The Enforcement Policy (pages 20-21) requires that the adjusted Total Base Liability Amount be at least 10 percent higher than any economic benefit realized by the discharger.

The Enforcement Policy requires that the economic benefit of noncompliance be calculated using the United States Environmental Protection Agency's (US EPA) Economic Benefit Model (BEN) penalty and financial modeling program. BEN calculates a discharger's monetary interest earned from delaying or avoiding compliance with environmental statutes. Economic benefit was calculated using BEN version 5.4.0.

The Dischargers did not derive an economic benefit in association with Violation No. 2. The Dischargers had an appropriate alarm and response system that resulted in prompt detection and notification of the discharge. The discharge was caused by the error of an operator who was appropriately certified, trained, and qualified to perform the duties to which he was assigned.

The Dischargers did derive an economic benefit in regard to Violation No. 3. In that instance, the violation was caused by the rupture of a corroded force main. The Dischargers derived a monetary gain from postponing system improvements, failing to implement proper maintenance and inspection activities, and keeping maps of the system accurate and up-to-date. Specifically, the Dischargers derived an economic benefit from the delayed costs of developing a condition assessment strategy for the force main, and the avoided costs associated with instituting a periodic maintenance program for air relief valves. The economic benefit of noncompliance associated with those avoided and delayed costs total $79,989.

Step 9. Maximum and Minimum Liability Amounts

Minimum Liability Amount: $87,987

The Enforcement Policy requires that the minimum liability amount imposed not be below the economic benefit plus ten percent. As discussed above, the Regional Water Board Prosecution Team's estimate if the Discharger's economic benefit obtained from the violations cited is $79,989.

Maximum Liability Amount: $3,000,000

The Enforcement Policy requires that the maximum liability amount be determined for comparison to the amount being proposed.

Max. Penalty for Violation No. 2: $10,000 (1 day x $10,000 per day) + $2,990,000 ((300,000 gallons – 1,000 gallons) x $10 (per gallon)) = $3,000,000

Max. Penalty for Violation No. 3: $20,000 (2 days x $10,000 per day) + $1,310,000 ((132,000 gallons – 1,000 gallons) x $10 (per gallon)) = $1,330,000

Total Max. Penalty for Violations 1 and 2 = **$4,330,000**

The proposed liability falls within these maximum and minimum liability amounts.

Step 10. Final Liability Amount

The final liability amounts proposed for Violation Nos. 2 and 3 is $140,771. Adding the mandatory minimum penalty for Violation No. 1 to the final liability amounts proposed for Violation Nos.2 and 3 results in a final liability amount of **two hundred seventy-five thousand seven hundred and seventy-one dollars ($275,771)** for all three violations alleged**.**