

ATTACHMENT A ADMINISTRATIVE CIVIL LIABILITY METHODOLOGY (PROPOSED)

Administrative civil liability may be imposed pursuant to the procedures described in California Water Code section 13323. The Complaint alleges the acts or failures to act that constitutes a violation of law, the provision of law authorizing civil liability to be imposed, and the proposed civil liability.

Pursuant to Water Code section 13385, subdivision (c), civil liability may be imposed administratively by the Lahontan Regional Water Quality Control Board (Lahontan Water Board) in an amount not to exceed the sum of both of the following:

- (1) Ten thousand dollars (\$10,000) for each day in which the violation occurs; and
- (2) Where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) multiplied by the number of gallons by which the volume discharged, but not cleaned up, exceeds 1,000 gallons.

Water Code section 13385, subdivision (e) requires the Lahontan Water Board to consider several factors when determining the amount of civil liability to impose. These factors include:

...the nature, circumstances, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue its business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters that justice may require. At a minimum, liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation.

On November 17, 2009, the State Water Resources Control Board (State Water Board) adopted Resolution No. 2009-0083 amending the Water Quality Enforcement Policy (Enforcement Policy). The Enforcement Policy provides a calculation methodology for determining administrative civil liability. The calculation methodology includes an analysis of the factors in Water Code section 13385, subdivision (e), and it enables fair and consistent implementation of the Water Code's liability provisions.

The Lahontan Regional Water Quality Control Board (Water Board) Prosecution Team prepared this methodology and the Penalty Worksheet in Attachment B to Administrative Civil Liability Complaint No. R6V-2016-0042 (ACL Complaint or the Complaint) consistent with the Enforcement Policy's administrative civil liability calculation methodology.

The City of Victorville (Discharger or City) violations alleged in the Complaint (Violations 1 through 8) are a combination of discharge and non-discharge violations of State Water Resources Control Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge

Requirements for Sanitary Sewer Systems, and its amendment, Order No. WQ 2013-0058-EXEC (Permit), and of the *Water Quality Control Plan for the Lahontan Region* (Basin Plan).

Violations 1 through 6 and Violations 9 through 11 (not included in the Complaint) are discharges resulting from unauthorized Sanitary Sewer Overflows (SSOs) of untreated wastewater (raw sewage) on various dates from March 5, 2014 through June 13, 2017 (see Table 1, below). The associated analysis for each of these discharge violations omits Step No. 3 of the Enforcement Policy's administrative civil liability methodology, which addresses non-discharge violations.

Violations 7 and 8 from the Complaint have been dismissed in the Settlement Agreement and Stipulation for Entry of Order; Proposed Order No. R6V-2020-0001 (Stipulated Order). The violations cited non-compliance with permit conditions that do not include discharges. These violations are therefore not subject to liability under Water Code section 13385.

Violations 9 through 11 have been added in the Stipulated Order. These violations occurred after the Complaint was issued. The violations are discharges resulting from unauthorized SSOs of raw sewage on January 26, 2017 (Violation 9), February 9, 2017 (Violation 10), and June 12-13, 2017 (Violation 11).

Methodology Step Nos. 6 through 10 apply to the Combined Total Initial Base Liability amount for all nine violations. These steps are discussed after the Total Base Liability amounts are discussed for each violation.

Table 1, below, lists the violations alleged in the Complaint and Stipulated Order along with their respective Initial Base Liability amounts (Methodology Step Nos. 1 through Step 5). The final recommended liability amount is provided in Methodology Step Nos. 7 and 10.

Table 1. Violations and Initial Base Liability

Violation No.	Description	Date of Violation	Days of Violation	Total Base Liability
1	SSO discharge of 89,075 gallons from Manhole No. 149 in undeveloped easement area of Karen Drive, south of Hook Boulevard.	March 5-10, 2014	6	\$206,965.00
2	SSO discharge of 211,450 gallons from Manhole No. 110 in the dirt easement approximately 350 feet east of Grant Street and Lambert Lane.	March 26, 2015	1	\$665,221.70
3	SSO discharge of 11,686,149 gallons from GIS Manhole No. 143 (Sewer Atlas Book Manhole No. 120) in sewer easement located in Turner Wash.	September 6-14, 2015	9	\$9,454,500.09
4	SSO discharge of 73,200 gallons from Manhole No. 131 within the sewer easement west of 16711 Chalon Road.	November 20-25, 2015	6	\$269,223.24
5	SSO discharge of five (5) gallons from an air release valve located on an 8-inch force main under a private railroad trestle and above the Mojave River. Latitude 34.56066, Longitude - 117.29904.	December 9, 2015	1	\$3,080.00
6	SSO discharge of 28,925 gallons from Manhole No. 127, on Yates Road approximately 100 feet east of Cypress Avenue.	May 11, 2016	1	\$76,362.00

Violation No.	Description	Date of Violation	Days of Violation	Total Base Liability
7	Failure to cleanup waste and debris within Turner Wash from the September 6-14, 2015 SSO event.	September 14, 2015 through March 8, 2016	4	\$0.00
8	Failure to properly manage, operate, and maintain all parts of the sanitary sewer system	March 5, 2014 through December 9, 2015	465	\$0.00
9	SSO discharge of 68,750 gallons from Manhole Nos. 001123 (west of Lambert Lane and Grant Street) and 04426 and 005241 (760 and 1,470 feet east of Hesperia Road, respectively, on Coad Road).	January 26, 2017	1	\$199,485.00
10	SSO discharge of 780 gallons from Cleanout No. 000719 within the former Pearl Arbor Terrace easement, approximately 775 feet upgradient from Manhole No. 007021 near D Street.	February 9, 2017	1	\$2,640.00
11	SSO discharge of 393,000 gallons from Manhole No. 005570 within the easement north of Ottawa Street and west of Santa Fe channel.	June 12-13, 2017	2	\$866,800.00
TOTAL				\$11,744,277.03

Violation No. 1 SSO Discharge of 89,075 Gallons

Synopsis

Based on the City's March 11, 2014 Mainline Stoppage Report, on March 5 through March 10, 2014, an SSO occurred from the City's Manhole No. 149, located within an undeveloped easement area of Karen Drive, south of Hook Boulevard. This synopsis is based on that report.

91,875 gallons of raw sewage were discharged during the event. Of this amount, 2,800 gallons were bermed, recovered, and returned back to the sewer system. The remaining 89,075 gallons flowed across the land surface and into a concrete-lined drainage channel. The channel is tributary to the Mojave River, a water of the United States. The channel did not carry surface water flows at the time of the SSO discharge event.

The City received a report of sewage odors in the area of concern on Thursday, March 6, 2014. City staff investigated the area on March 6, 2014. City staff did not detect any odors or evidence of an SSO. City staff then attempted to contact the complainant later that day and left a voice mail message.

City staff returned to the area four days later on Monday, March 10, 2014 and observed the SSO at 8:30 a.m. City staff constructed a berm to contain the discharge until the discharge could be stopped. It was determined that the SSO was caused by a blockage formed by non-dispersible wipe towels/rags. The blockage was cleared by 8:50 a.m. on March 10, 2014. 2,800 gallons were recovered from the bermed area and from catchment basins, and the affected catchment basins and concrete drainage channel were disinfected.

The City estimates that the SSO event began approximately 24 hours prior to the time of day the reporting party detected the odor (7:00 a.m.). Based on this assumption, the City calculated the total discharge quantity based upon an average flow rate of 245 gallons per day per unit for the 75 residential units serviced by this segment of sewer main pipe.

Step 1: Potential for Harm for Discharge Violations

Actual or threatened impacts to beneficial uses are determined using a three-factor scoring system. The three factors include: (a) the harm or potential harm to beneficial uses; (b) the physical, chemical, biological, or thermal characteristics of the discharge; and (c) the susceptibility to cleanup or abatement of the discharge(s). A numeric score is determined for each of the three factors. These scores are then added together to determine a final Potential for Harm score. Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

This factor evaluates direct or indirect harm or potential for harm to beneficial uses that may result from exposure to the pollutants or contaminants in the unauthorized discharge of raw sewage. A score between 0 (negligible) and 5 (major) is assigned in accordance with the statutory factors of the nature, circumstances, extent and gravity of the violation.

The Basin Plan was adopted pursuant to Water Code section 13243 on March 31, 1995 and was most recently amended on January 14, 2016. Chapter 2 of the Basin Plan (Table 2.1, Pages 2-38 and 2-39) lists the designated beneficial uses for the Mojave River and its tributaries. The designated beneficial uses of the Mojave River and its tributaries that could be impacted by the unauthorized discharge include municipal and domestic supply, agricultural supply, groundwater recharge, water contact recreation (swimming, water skiing, wading, and fishing), non-contact recreation (picnicking, sunbathing, hiking, boating, kayaking, sightseeing, aesthetic enjoyment), commercial and sportfishing, warm and cold freshwater habitats, and wildlife habitat.

As noted in Finding No. 2 of the Permit, domestic wastewater, as well as industrial and commercial wastewater, "...often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants." Discharges of raw sewage, "...may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation." Discharges of raw sewage can also, "...pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters."

The discharge of raw sewage occurred within an unlined catchment area and in a concrete-lined drainage channel. The channel is tributary to the Mojave River. The drainage channel was dry at the time of the raw sewage discharge, and a portion of the discharge infiltrated into the unlined catchment basin. It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses. The Water Board is not aware of any complaints or other evidence of impact to such uses resulting from the spill. However, the infiltration of raw sewage could reasonably be expected to have locally impacted groundwater resources due to the significant discharge volume, but staff has no evidence of such impacts.

The discharge of 89,075 gallons of raw sewage on March 5-10, 2014 resulted in below moderate harm to the beneficial uses of the Mojave River and its tributary areas. The Enforcement Policy defines below moderate as:

Below Moderate – less than moderate threat to beneficial uses (i.e., impacts are observed or reasonably expected, harm to beneficial uses is minor).

Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

This factor evaluates the degree of toxicity of the discharge by evaluating the physical, chemical, biological, and/or thermal nature of the discharge. Toxicity is the degree to which a substance can damage a living or non-living organism. Toxicity can refer to the effect on a whole organism, such as an animal, bacterium, or plant, as well as the effect on a substructure of the organism, such as a cell or an organ. A score between 0 (negligible risk) and 4 (significant risk) is assigned based on a determination of the risk or threat of the discharged material on potential receptors. Potential receptors are those identified considering human, environmental, and ecosystem health exposure pathways.

Raw sewage typically has elevated concentrations of biochemical oxygen demand (BOD), total suspended solids, high levels of pathogens (e.g., viruses and bacteria), and toxic pollutants (e.g., heavy metals, pesticides, personal care products, and pharmaceuticals). These pollutants exert varying levels of impact on water quality and beneficial uses of receiving waters. High BOD reduces the amount of dissolved oxygen available for fish habitat. Just one virus, bacterium, or worm can reproduce to cause a serious infection, especially in individuals with impaired immune systems. These considerations suggest a potential significant risk for this factor.

The high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. The Enforcement Policy defines above-moderate as:

Discharged material poses an above-moderate risk or a direct threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceed known risk factors and/or there is substantial concern regarding receptor protection).

Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

Pursuant to the Enforcement Policy a score of 0 is assigned for this factor if 50 percent or more of the discharge is susceptible to cleanup or abatement. A score of one is assigned if less than 50 percent or more of the discharge is susceptible to cleanup or abatement.

The City was able to recover 2,800 gallons (approximately three (3) percent) of the 91,875 gallons initially discharged. Because less than 50 percent of this SSO discharge was susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

The Enforcement Policy provides that the initial liability amount shall be determined on a per day and a per gallon basis per Water Code section 13385, subdivision (c), using the Potential for Harm score from Step 1 in conjunction with the Extent of Deviation from the Requirement of the violation. (See Enforcement Policy, Tables 1 and 2.)

A. Extent of Deviation from the Requirement

Permit Order No. C.1 prohibits, "Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States..."

The Basin Plan prohibits, "The discharge of untreated sewage, garbage, or other solid wastes into surface waters of the Region ..." (Basin Plan, page 4.1-1.)

Section 301 of the Clean Water Act (Federal Water Pollution Control Act, 33 U.S.C. § 1311) prohibits the discharge of pollutants to waters of the United States except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit.

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated.

The Enforcement Policy defines a major deviation as,

The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The Initial Base Liability amount for the discharge is calculated by multiplying and adding:

[(per gallon factor) x (gallons discharged but not cleaned up over 1,000 gallons) x (maximum per gallon liability)] + [(per day factor) x (days of violation) x (maximum per day liability)] = Initial Base Liability

[(0.22) x (88,075 gallons) x (\$10/gallon)] + [(0.22) x (6 days) x (\$10,000/day)] = **\$206,965.00**

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

The Enforcement Policy describes three factors related to the discharger's conduct that should be considered for modification of the amount of initial liability: the discharger's culpability, the discharger's efforts to clean up or cooperate with regulatory authorities after the violation, and the discharger's compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

A. Adjustment for Culpability

For culpability, the Enforcement Policy suggests an adjustment resulting in a multiplier between 0.5 to 1.5, with the lower multiplier for accidental incidents, and the higher multiplier for intentional or negligent behavior. In this case, a neutral culpability multiplier of **1.0** has been selected. Water Board staff acknowledges that blockages caused by wipes occur in even the most well-maintained systems. The City, therefore, has no heightened culpability for the March 2014 SSO event.

B. Adjustment for Cleanup and Cooperation

For cleanup and cooperation, the Enforcement Policy suggests an adjustment should result in a multiplier between 0.75 and 1.5. A lower multiplier is for situations where there is a high degree of cleanup and/or cooperation and a higher multiplier is for situations where cleanup and/or cooperation is minimal or absent. In this case, a neutral Cleanup and Cooperation multiplier of **1.0** has been selected.

Lower values are typically reserved for dischargers who immediately identify a discharge and implement exceptional cleanup measures, abatement, or mitigation beyond what is expected. As noted in the synopsis discussion, while the City initially responded to the call received regarding potential odors, the City failed to adequately follow up with the caller and identify the active discharge until four days later. Once identified, the City then stopped the discharge and cleaned up what it could recover.

C. Adjustment for History of Violations

The Enforcement Policy suggests that where there is a history of repeat violations, a minimum multiplier of 1.1 should be used for this factor. There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability amount of **\$206,965.00** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} (\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) &= \text{Total Base Liability } (\$206,965.00) \\ &\times (1.0) \times (1.0) \times (1.0) = \$206,965.00 \end{aligned}$$

Violation No. 2 SSO Discharge of 211,450 Gallons

Synopsis

On March 26, 2015, an SSO occurred from the City's Manhole No. 110, located within an undeveloped easement area east of the intersection of Grant Street and Lambert Lane. 214,450 gallons of raw sewage were discharged into a wash during the event. The City constructed three dirt berms in the wash to contain the raw sewage discharge. 3,000 gallons were collected behind the berms and returned back to the sewer system. The remaining 211,450 gallons infiltrated into the ground surface of the wash. Based upon a GIS Map of the effluent flow provided by the City, the raw sewage flowed over more than 4,500 feet of the wash's bed. The wash is tributary to the Mojave River, but it did not carry surface water flows at the time of the SSO discharge event. (City of Victorville – SSO Technical Report, CIWQS Spill Event ID No. 814130.)

A City employee initially observed the discharge on Thursday, March 26, 2015 at approximately 9:30 a.m. The employee observed water flowing on Coad Road. The employee thought the water was from a meter flushing or from the City's Water Department and did not report the observed discharge until after the SSO event had been resolved. (Mainline Stoppage Report, March 26, 2015, and Tom Morales, Employee Statement, March 31, 2015.)

Another City employee directly observed the discharge occurring at approximately 3:00 p.m. on Thursday, March 26, 2015 in the earthen drainage channel east of Grant Street and Lambert Lane, along Coad Road. City cleanup crews arrived at the scene at approximately 3:20 p.m. A front-end loader was brought to the scene at approximately 3:45 p.m. to install dirt berms at three locations within the wash. The discharge ended at approximately 4:00 p.m., when the blockage was removed from the sewer system downgradient from the point of discharge. The raw sewage that had been collected behind the constructed berms was recovered by a vacuum truck and directed back into the City's sewer collection system. (Mainline Stoppage Report, March 26, 2015.)

City crews returned on Friday, March 27, 2015 at 6:30 a.m. to continue the cleanup and disinfection process. Solids were raked, collected, and properly disposed at the Victor Valley Wastewater Reclamation Authority (VWRA) treatment plant. Disinfectant was applied to all remote spill areas throughout the flow path of the discharge. The constructed berms were removed from the drainage channels, and the soil was scarified. Sewer manholes that were surcharged from the SSO event were rinsed down and cleaned up. (Mainline Stoppage Report, March 26, 2015.)

The City determined the cause of the SSO event to be a buildup of fats, oils, and greases. This was determined based upon the City's observation of grease and debris on the shelves of the downstream sewer manholes (Nos. 116 and 117) that were surcharged during the event. (Mainline Stoppage Report, March 26, 2015.)

The City calculated the spill volume based upon an electronic meter that had been installed downgradient from the point of discharge. The City has a total of six locations where the City's

sanitary sewer system connects to VVWRA's trunk line. These connection points are continuously metered. The City, as a member of the Joint Powers Authority of VVWRA, has access to each of these electronic metering stations. The diurnal graphs plotted from the metering station identify the discharge start and end times on March 26, 2015. Comparing the flow data from March 26, 2015 to typical flows that occur during the time of day that the SSO event occurred, the City calculated a total loss of 214,450 gallons of raw sewage during the SSO event. (Final Technical Report - Grant Street and Lambert, January 21, 2016.)

In its Final Technical Report for this discharge, the City states on page 5, "...not knowing an overflow was occurring was the biggest deficiency." The report goes on to state that City staff has met with VVWRA staff and their flow meter vendor to implement an alarm system to alert the City of unusually low flow or high-level readings from the continuous-read flow meters.

The City did not report the SSO event to the Lahontan Water Board until April 7, 2015, 12 days after the event occurred. Additionally, the City failed to report the SSO event to the California Office of Emergency Services (CAL-OES) until December 21, 2015, almost nine months after the SSO event. A City employee did make two attempts to call Cal-OES twice on March 26, 2015, but the employee reported that there was no answer when he placed the calls¹. (Mainline Stoppage Report, March 26, 2015.)

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The discharge of raw sewage occurred over an approximately 4,500-foot length of earthen wash, which is tributary to the Mojave River. The wash was dry at the time of the raw sewage discharge and all but 3,000 gallons of the 214,450-gallon discharge infiltrated into the earthen wash.

It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses. Water Board staff is not aware of any complaints or other evidence of impact to such uses resulting from the spill. However, the infiltration of raw sewage could reasonably be expected to have locally impacted groundwater resources due to the significant discharge volume, but staff has no evidence of such impacts. Further, impacts to wildlife resources from the discharge of the raw sewage along the 4,500-foot length of its flow path within the earthen wash may be reasonably expected.

¹ These delayed reports also violate the Permit subject to Water Code section 13267. In light of the already significant penalties associated with the alleged violations, the Prosecution Team is exercising its discretion in not seeking administrative civil liability for the reporting violations. The Water Board reserves the right to take any enforcement action authorized by law.

The discharge of 211,450 gallons of raw sewage on March 26, 2015 resulted in **below moderate harm** to the beneficial uses of the Mojave River and its tributary areas. The Enforcement Policy defines below moderate as:

Below Moderate – less than moderate threat to beneficial uses (i.e., impacts are observed or reasonably expected, harm to beneficial uses is minor).

Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

The City was able to recover 3,000 gallons (approximately one percent) of the 214,450 gallons initially discharged. Because less than 50 percent of this SSO discharge was susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The Initial Base Liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1,000 gallons}) \times (\text{maximum per gallon liability})] + [(\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.22) \times (210,450 \text{ gallons}) \times (\$10/\text{gallon})] + [(0.22) \times (1 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$465,190.00}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

In this case, a culpability multiplier of **1.3** has been selected.

The City commissioned a Gap Analysis for its sewer collection system and associated infrastructure facilities, which was completed on September 30, 2014 (Gap Analysis for Waste Discharge Requirements Compliance (Final Report) prepared by Hall & Foreman, Inc.). The purpose of the Gap Analysis was to examine systemic factors that have contributed to, or caused, a gap between the current state of the system and the future and desired state outlined by the Permit compliance requirements. The Gap Analysis identified several areas that the City needed to address in order to come into compliance with the Permit.

The Gap Analysis indicated the City had failed to properly manage, operate, and maintain all parts of the collection system since 2009. The City's failure to manage and maintain its system likely contributed to this SSO event. Adequately maintaining a sewer collection system, including routine system cleaning, is critical to preventing SSO events caused by accumulating fats, oils, and greases, such as the March 26, 2015 SSO event.

The Gap Analysis noted (page 28) that the City had adopted an Operations and Maintenance (O&M) Plan pursuant to its 2009 Sewer System Management Plan (SSMP), more than five (5) years prior to this SSO event. The O&M Plan stipulated the cleaning and inspection of all sewer segments within a seven (7)-year cycle. However, the Gap Analysis stated that **the City does not own the necessary cleaning and inspection equipment**. The City only conducts the required maintenance, cleaning, and inspections, "...when there is a specific need to do so."

Additionally, the Gap Analysis identified the need for the City to develop and implement an effective FOG (fats, oils, greases) program based on the requirements described in the Permit and in accordance with the City's own ordinances (pages 38-39). The Gap Analysis recommended the City to inventory and characterize potential FOG sources, develop legal authority to impose FOG program requirements, and to develop and implement an associated monitoring and enforcement program.

Upon completion of the Gap Analysis, the City immediately effectuated a contract to update the Sewer Master Plan in November 2014 (City of Victorville Letter, May 4, 2017). The Sewer Master Plan was scheduled to be completed in July 2015, at which time, the City would have identified capital improvement projects to be implemented. However, the Sewer Master Plan was not completed until December 2016 due to consultant staff turnover beyond the control of the City. This delay resulted in a subsequent delay in the City's ability to effectively identify and implement capital improvement projects. (City of Victorville Letter, May 4, 2017.)

Regional and State Water Board staff conducted a compliance inspection of the City's sewer collection system on December 9, 2015. The inspection included an audit of the City's procedures and documents for complying with the Permit. It was not until after the Water Board issued the December 2015 Compliance Inspection Report that the City reassured Water

Board staff in its response letter received May 23, 2016 that significant investments and program changes would be made in the near future.

Permit Order No. D.8 requires the City to, "...properly manage, operate, and maintain all parts of the sanitary sewer system..." Observations during the December 2015 inspection, and findings regarding documents provided by the City, indicate an ongoing failure to comply with this permit requirement.

To maintain compliance with Permit Order No. D.8, it is expected that the City have an adequate SSMP that is effectively implemented and managed. Specifically, the SSMP is required to meet the minimum subparts described in Permit Order No. D.13. During the December 2015 inspection, Regional and State Water Board staff found the City's SSMP to be outdated and ineffective. The 2009 SSMP provided by the City was found to be significantly deficient in the following areas:

- Operation and Maintenance Program
- Rehabilitation and Replacement Plan (Capital Improvement Plan)
- Overflow Emergency Response Plan
- System Evaluation and Capacity Assurance Plan (SECAP)
- Communication Program

As noted, the 2009 SSMP stipulates an inspection and cleaning cycle for the entire collection system to be once every seven years. During the inspection, City staff described the cleaning cycle to be longer, approximately once every 10 years. Water Board staff learned during the inspection that, due to limited staff resources, cleaning was focused primarily on "hot spots," or areas previously identified as problematic. This prioritized scheduling combined with limited staff resources may have resulted in significantly longer cleaning cycles for those pipe segments that have not experienced any historical issues. For example, the pipe segment containing Manhole No. 106 located on Coad Road was reportedly cleaned in November 2003 and May 2015, with nearly 12 years between cleaning events. The City indicated during the audit that changes to this schedule (e.g. increased frequency of cleaning) do not occur unless a problem is identified in a line segment (e.g. SSO is observed).

The 2009 SSMP also failed to adequately describe routine preventative operation and maintenance activities. No specific details were provided as to maintenance practices at the seven lift stations owned and operated by the City. Although the City explained during the December 2015 inspection that staff inspect the stations at least once per week, maintenance records only documented the weekly visits, with no additional information/documentation regarding the activities performed during each visit. Additionally, Water Board staff observed solids accumulation in the lift station wet wells, indicative of a lack of maintenance.

The Rehabilitation and Replacement Plan is required as part of the Operation and Maintenance Program of the SSMP (Permit Order No. D.13.(iv)(c) on page 11 of 20). The Plan

is required to address the identification and prioritization of system deficiencies through regular visual and video inspection. At the time of the December 2015 inspection, the City had yet to complete a condition assessment of the collection system since at least 2007. Although the 2009 SSMP described an inspection goal of once every seven years for the system, the City had only inspected approximately 25 miles (less than four percent of entire collection system) of pipe via closed-circuit television at the time of the December 2015 inspection. As a result, a detailed plan for short and long-term rehabilitation actions had not been prepared, and capital improvement projects related to structural deficiencies were only being completed on an “as-identified” basis at the time of the inspection.

Failing to accurately budget and undertake capital improvement projects is an illustration of the City’s failure to properly manage the collection system. For example, only \$40,000 was spent on capital improvements in the fiscal year preceding the December 2015 inspection, and the City admitted during the inspection that it was likely the \$1.7 million capital improvements budget for the current fiscal year also would not be fully spent.

However, the City did begin implementing a seven-year cleaning cycle in Fiscal Year 2013/14. During the three-year period covering Fiscal Years 2013/14, 2014/15, and 2015/16, the City cleaned over 188 miles of the City’s 441 miles of gravity sewer main. Additionally, the City has completed a collection system video inspection and condition assessment program, under which, nearly the City’s entire gravity main collection system was video inspected and assessed as of March 2018 at an expense of approximately \$4.2 million. (City Email, December 20, 2017.) The results of this program identified pipe segments with structural deficiencies, prioritized rehabilitation projects, and provided planning-level construction cost estimates. Based upon the program’s results, the City prepared a five-year Capital Improvement Program that was used in the City’s Sewer Rate Study, supporting the City’s rate increase program starting with the 2018/2019 fiscal year. (City Email, May 6, 2019.)

The System Evaluation and Capacity Assurance Plan (SECAP) is also required as part of the SSMP (Permit Order D.13.(viii) on page 13 of 20). As a part of the SECAP, the City initially developed a Sewer Master Plan in 2008 that identified capacity-enhancing projects to meet projected system demands for 2014 and 2030 with a proposed budget of \$43 million. (December 2015 Compliance Inspection Report, February 19, 2016, page 3.) The City contended that as a result of economic downturn, the Master Plan was no longer relevant or necessary; however, the most recent capital improvement projects were related to capacity enhancement.

At the time of the December 2015 inspection, the City did not have an effective SECAP in place, as no flow monitoring had been conducted since the 2008 Sewer Master Plan was prepared, and was instead addressing capacity issues on an as-needed and as-identified basis. Additional monitoring was necessary to more accurately determine the City’s capacity issues.

The City did complete its updated Sewer Master Plan/System Evaluation and Capacity Assurance Plan in December 2016. The updated plan was based upon new flow monitoring data, modeling sewer flows and identifying capacity deficiencies for existing conditions (2016)

and for future conditions through 2040. The updated plan also identified specific capital improvement projects for existing and future conditions.

The City's failure to implement an acceptable and current SSMP likely caused or contributed to more frequent, high-volume SSOs. Internal performance metrics such as cleaning and inspection frequencies, capital improvements, and condition assessment actions developed by the City consistently went unfulfilled. The City made few changes to the program until the Gap Analysis was prepared in 2014, which identified critical deficiencies in the collection system program and proposed significant investments in both the City's operations and maintenance program, as well as a system-wide condition assessment program. Modifications to the SSMP should have also been completed in 2014, as part of the required five-year update.

Prior to the March 26, 2015 SSO event, the City also had the ability to collect data from the continuous-read flow meters installed at their connection points to the VVWRA trunk line. As discussed above, the City did review the flow data after the March 26, 2015 SSO event to determine the spill volume. However, the City failed to develop an appropriate communication system with VVWRA to implement an alarm system to alert City staff of unusually low flow or high-level readings from the flow meters. The City did not begin to explore this option until after the March 26, 2015 SSO event occurred, as noted in the associated Final Technical Report prepared by the City. Although the City had voluntarily installed smart manhole covers at key locations to detect high water levels and alert City staff, this effort did not reduce the need to develop an effective flow meter communication alert system with VVWRA. Doing so would have increased the City's ability to more quickly identify and respond to SSOs across a greater percentage of its service area, further reducing the extent and impacts of such events.

The City's failure to (1) properly maintain its sewer collection system in accordance with the Permit and in accordance with its own plans and procedures, (2) to implement an effective FOG program in accordance with the Permit and the City's own ordinances, and (3) the City's failure to recognize that a spill was occurring resulting in a much larger discharge volume, justifies a culpability factor that is higher than neutral.

B. Adjustment for Cleanup and Cooperation

In this case, a Cleanup and Cooperation multiplier of **1.1** has been selected.

As noted in the synopsis discussion, City crews quickly implemented appropriate containment, cleanup, and corrective measures once the SSO had been identified as an SSO. Unfortunately, the SSO was identified approximately six hours after a City employee first observed the discharge, but failed to recognize the discharge as an SSO. With some additional investigation, the City employee would have likely discovered that the running water he observed was originating from a sewer manhole and the discharge volume could have been greatly reduced.

The City also did not report the SSO event to the Water Board until April 7, 2015, twelve days after the event occurred. Additionally, the City did not report the SSO event to the California Office of Emergency Services (CAL-OES) until December 21, 2015, almost nine months after the SSO event.

The City's failure to recognize that a spill was occurring directly resulted in a much larger discharge volume. The City's failure to properly notify the Water Board and Cal-OES also increased the risk of receptor exposure and violated Permit notification requirements.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability amount of **\$665,221.70** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} (\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) &= \text{Total Base Liability } (\$465,190.00) \\ &\times (1.3) \times (1.1) \times (1.0) = \$665,221.70 \end{aligned}$$

Violation No. 3

SSO Discharge of 11,686,149 Gallons

Synopsis

Based on the City of Victorville – SSO Report (CIWQS Spill Event ID No. 818116), on September 6 through 14, 2015, an SSO occurred from the City's Manhole No. 143 (identified via Victorville City GIS Sewer Manhole System, and this is also known as Manhole No. 120 in the Victorville Sewer Atlas Book), located approximately 240 feet northwest from the intersection of Happy Valley Lane and Royston Street. 11,688,149 gallons of raw sewage were discharged into Turner Wash during the event. The City constructed two dirt berms in the wash to contain the raw sewage discharge. 2,000 gallons were collected behind the berms and returned back to the sewer system. The remaining 11,686,149 gallons infiltrated into the ground surface of the wash. Based upon a GIS Map of the effluent flow provided by the City, the raw sewage flowed across more than 3,000 feet of the wash bed. Turner Wash is a direct tributary to the Mojave River, but it did not carry surface water flows at the time of the SSO discharge event.

City Public Works Supervisor, Sam Arvizu, directly observed flowing water in a portion of Turner Wash on Monday morning at approximately 9:45 a.m., September 14, 2015. Mr. Arvizu followed the water stream in the otherwise dry wash bed, and he observed raw sewage discharging from a sewer manhole. He immediately contacted other City staff at 9:58 a.m. City crews arrived on site at 10:10 a.m., and they were able to stop the discharge by 11:55 a.m.

City crews observed that the sewer manhole was vandalized. The frame and cover had been removed, and debris was deposited in the manhole. Upon arrival, City crew members found an auto tire on top of the riser cone, along with a length of four-inch diameter PVC or SDR 35 pipe protruding from the overflowing manhole. While removing the debris, City crews found a second length of four-inch diameter pipe standing upright in the overflowing manhole, along with a small tire and wheel that was lodged in the channel.

A temporary earthen berm was constructed in the immediate vicinity of the overflowing sewer manhole to stop the flow of raw sewage from continuing to flow down Turner Wash. A second earthen berm was constructed at the far northerly edge of the raw sewage flow (approximately 3,000 feet downgradient from the overflowing manhole) to curtail further downstream impacts.

Heavy equipment used to flush the sewer pipe could not maneuver the sandy soil of Turner Wash until a temporary access road could be constructed. Once access was provided, the equipment began removing debris from the sewer pipe by 11:00 a.m.

The City immediately initiated cleanup activity, and initially reported that cleanup was completed by September 17, 2015. Additionally, the City scarified the site and applied a fourth round of disinfectant on September 29, 2015, as a precautionary measure. Additional debris entrained in the berms was removed as it became exposed.

The City determined that the discharge began at approximately 11:00 a.m. on September 6, 2015. This is based upon a review of the diurnal graphs plotted from the metering station that had previously been installed at the City's sewer line connection to VVWRA's trunk line,

downstream from the point of discharge. Using this same chart, the City calculated the total spill volume to be 11,688,149 gallons.

In its SSO Technical Report for this discharge, the City states on page 4, "...not knowing an overflow was occurring was the biggest deficiency." The report goes on to state that City staff had met with VVWRA staff and their flow meter vendor to implement an alarm system to alert the City of unusually low-flow or high-level readings from the continuous-read flow meters. However, this section of the SSO Technical Report for this SSO event repeats, verbatim, the language stated in the SSO Technical Report for the March 26, 2015 SSO event. (CIWQS Spill Event ID No. 814130.)

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **7** (seven) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The raw sewage discharge flowed across a 3,000-foot segment of Turner Wash, which is tributary to the Mojave River. Turner Wash was dry at the time of the raw sewage discharge, and all but 2,000 gallons of the discharge infiltrated into the sandy soils of the wash.

It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses. Water Board staff is not aware of any complaints or other evidence of impact to such uses resulting from the spill. However, the discharge of over eleven (11) million gallons of raw sewage over a nine-day period could adversely impact local groundwater resources, especially given the discharge volume, sandy soils, and close proximity to groundwater. Based upon the GeoTracker database, a drinking water well is located approximately 1,000 feet downgradient from the point of discharge. Further, impacts to wildlife resources from the discharge of the raw sewage along the 3,000-foot length of its flow path within the earthen wash may be reasonably expected. The site of the discharge also occurred in an area where any member of the public may be present (walking, bicycling, etc.), creating a potentially significant health hazard.

At a minimum, the discharge of 11,686,149 gallons of raw sewage that occurred September 6 through 14, 2015 resulted in **moderate harm** to the beneficial uses of the Mojave River and its tributary areas. The Enforcement Policy defines below moderate as:

Moderate –moderate threat to beneficial uses (i.e., impacts are observed or reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects).

Based on the circumstances described, above, a score of **3** (three) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation No. 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

The City was able to recover 2,000 gallons (approximately 0.02 percent) of the 11,688,149 gallons discharged. Because less than 50 percent of this SSO discharge was susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

Water Code section 13385, subdivision (c), allows civil liability to be assessed on a daily basis and on a per gallon basis for any amount discharged but not cleaned up in excess of 1,000 gallons. Civil liability may be assessed in an amount up to \$10,000 per day of violation, and up to \$10 per gallon discharged but not cleaned up in excess of 1,000 gallons.

Lahontan Water Board staff considers this discharge event to be a high-volume discharge. Pursuant to the Enforcement Policy, a maximum amount of \$2.00 per gallon is recommended for determining the per gallon amount of the initial liability.

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 7 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.31**.

B. Initial Amount of ACL

The Initial Base Liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1000 gallons})] \times [(\text{maximum per gallon liability}) + (\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.31) \times (11,685,149 \text{ gallons}) \times (\$2/\text{gallon})] + [(0.31) \times (9 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$7,272,692.38}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

In this case, a culpability multiplier of **1.3** has been selected.

Similar to this factor analysis for Violation 2, the City's failure to implement an acceptable and current SSMP, in addition to the City's failure to adequately coordinate with the VVWRA prior to the SSO to develop an alarm notification system from the installed continuous-read flow meters, likely caused or contributed to more frequent, high volume SSOs, such as the September 2015 SSO event.

Additionally, the Gap Analysis identifies the need for the City to include easement right-of-way surface inspections to monitor for, among other items, vandalism (page 30). Repeated SSO events from 2007 to present indicate the City had knowledge of ongoing issues related to vandalism and inadequate maintenance. At the time of this SSO event, the City had no formal plan to resolve the ongoing issues in place, and its reaction to vandalism incidences was limited in scope and effectiveness.

The City is ultimately responsible for operational aspects of its sewer collection system. The circumstances described above justifies, at a minimum, a culpability factor that is above neutral for the City's failure to properly operate and maintain its sewer collection system and for the City's failure to effectively respond to chronic vandalism of its more vulnerable collection system locations.

B. Adjustment for Cleanup and Cooperation

In this case, a Cleanup and Cooperation multiplier of **1.0** has been selected.

The City appropriately and promptly implemented containment, cleanup, and corrective measures following the September 2015 SSO event.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability amount of **\$9,454,500.09** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} &(\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) = \text{Total Base Liability} \\ &(\$7,272,692.38) \times (1.3) \times (1.0) \times (1.0) = \$9,454,500.09. \end{aligned}$$

Violation No. 4 SSO Discharge of 73,445 Gallons

Synopsis

On November 20-25, 2015, an SSO occurred from the City's Manhole No. 131, located west of an apartment complex at 16711 Chalon Road. 73,500 gallons of raw sewage were discharged into an earthen wash during the event. The City was able to recover 55 gallons of the amount that was discharged and returned that volume back to the sewer system. The remaining 73,445 gallons infiltrated into the ground surface of the wash. Based upon a GIS Map of the effluent flow provided by the City, the raw sewage flowed across a 1,500-foot section of the wash. The wash is tributary to the Mojave River and is a water of the United States, but it did not carry surface water flows at the time of the SSO discharge event. (Report of Unauthorized Waste Discharge Information Form, December 9, 2015.)

The City initially received a call of standing water and sewer odors in the area of the SSO event at 10:20 a.m. on Wednesday, November 25, 2015. The reporting party stated that he had noticed the odors for five or six days prior to reporting the incident, indicating the SSO likely began on or around November 20, 2015. A City staff person arrived on site at approximately 11:10 a.m. and discovered the overflowing manhole at approximately 11:25 a.m. City crews arrived at the site at approximately 11:40 a.m. The discharge was temporarily stopped between 12:30 p.m. and 12:55 p.m. when the blockage was partially cleared, and it was completely stopped by 1:45 p.m. (CIWQS Spill ID Form 819880 Version 2.3, December 16, 2015; Report of Unauthorized Waste Discharge Information Form, December 9, 2015; and Updated Mainline Stoppage Report, December 16, 2015.)

The cause of the SSO discharge was determined to be from vandalism and from accumulated fats, oils, and grease (FOG). Several plastic bags of garbage, a bread toaster, a rubber ball, and other debris were manually removed from the manhole. A total of 100 pounds of debris were removed manually, and 75 pounds of FOG and debris was vacuumed out of the affected manhole. (Report of Unauthorized Waste Discharge Information Form, December 9, 2015.)

City crews returned on Thursday, November 26, 2015 prior to 7:00 a.m. Additional FOG material was removed from the channel of Manhole No. 131 using hand tools to ensure sewage would continue flowing appropriately in the sewer collection system. Additional City crews returned on Friday, November 27, 2015 prior to 7:00 a.m. The crews flushed the sewer mains in the area of the discharge and vacuumed an additional 150 pounds of FOG, debris, and grit. Additionally, 55 gallons of standing raw sewage was vacuumed from the area where the initial spill deposited and pooled within the earthen wash area. The area was disinfected at that time, two days after the spill occurred. (Report of Unauthorized Waste Discharge Information Form, December 9, 2015.)

The City did not contact Cal-OES until December 16, 2015, 21 days after the SSO event occurred. (Updated Mainline Stoppage Report, December 16, 2015.) The City calculated the spill volume based upon the number of residential units contributing flow to Manhole No. 131 over a 6-day period, using an average of 240 gallons per unit per day. (Updated Mainline Stoppage Report, December 16, 2015.)

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The raw sewage discharge affected a 1,500-foot stretch of an earthen wash, which is tributary to the Mojave River. The wash was dry at the time of the raw sewage discharge, and all but 55 gallons of the discharge infiltrated into the earthen wash.

It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses. Water Board staff is not aware of any complaints or other evidence of impact to such uses resulting from the spill. However, the infiltration of raw sewage could reasonably be expected to have locally impacted groundwater resources due to the significant discharge volume, but staff has no evidence of such impacts.

The discharge of 73,445 gallons of raw sewage for the period of November 20 through 25, 2015 resulted in **below moderate harm** to the beneficial uses of the Mojave River and its tributary areas. Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation No. 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

The City was able to recover 55 gallons (approximately 0.07 percent) of the 73,500 gallons discharged. Because less than 50 percent of this SSO discharge was susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The initial base liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1000 gallons}) \times (\text{maximum per gallon liability})] + [(\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.22) \times (72,445 \text{ gallons}) \times (\$10/\text{gallon})] + [(0.22) \times (6 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$172,579.00}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

In this case, a culpability multiplier of **1.2** has been selected. Common elements between Violation No. 3 and this incident include (1) failing to implement an acceptable and current SSMP to better manage the conditions that led to approximately 225 pounds of FOG material and other debris accumulating in the affected manhole and sewer main, and (2) failing to implement an effective vandalism prevention program. In this case, however, coordination with VVWRA to develop an alarm notification system for the continuous flow meters was not a consideration, which resulted in an adjustment factor that is slightly lower than that for Violation No. 3.

B. Adjustment for Cleanup and Cooperation

In this case, a Cleanup and Cooperation multiplier of **1.3** has been selected.

The City quickly implemented appropriate containment and corrective measures once it determined an SSO was occurring. However, the City did not collect the raw sewage that had pooled within the wash area and disinfect the area until two days after it was notified of the discharge and initially mobilized crews to address the SSO event. Had the City collected and disposed of the pooled raw sewage on the day it initially mobilized crews, then the discharge volume recovered would likely have been much greater than 55 gallons, thereby reducing the amount that infiltrated through the ground surface. Further, failing to immediately clean up the raw sewage increased the risk of exposure to receptors for an additional two days.

The City also did not report the SSO event to CAL-OES until December 21, 2015, 21 days after the SSO event.

The City's failure to immediately clean up the pooled raw sewage for two days increased the amount of sewage that likely infiltrated into the ground and potentially adversely impacted local groundwater resources. The City's failure to immediately clean up the pooled raw sewage and properly notify Cal-OES also increased the risk of receptor exposure and violated Permit notification requirements.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability amount of **\$269,223.24** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} (\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) &= \text{Total Base Liability } \$172,579.00 \\ &\times (1.2) \times (1.3) \times (1.0) = \$269,223.24 \end{aligned}$$

Violation No. 5 SSO Discharge of 5 Gallons

Synopsis

On December 9, 2015, at 2:45 p.m., an SSO was observed by State Water Board staff member, Bryan Elder, while conducting a routine Permit inspection. The leak was observed from an air relief valve on a section of force main located under a private railroad trestle crossing over the Mojave River. The valve was located on the eastern side of the crossing and was corroded. The State Water Board inspection report notes that the valve appeared to be weathered, had exceeded its useful life, and discharged raw sewage directly into the Mojave River. The inspection report states approximately one to two gallons of raw sewage discharge were observed during the inspection, but that it was unknown how long the discharge had actually been occurring. (December 2015 Compliance Inspection Report, February 19, 2016.)

City staff initially arrived at the site and temporarily ceased further discharges by closing the ball valve, isolating the air relief valve from the force main. This occurred at 3:20 p.m. on December 9, 2015. The City replaced the air relief valve with a new valve the following day on December 10, 2015 at 10:45 a.m. The City also increased its number of regular inspections for this area and adjusted its schedule of preventative maintenance. The City estimated a total of five (5) gallons likely discharged on December 9, 2015. (Report of Unauthorized Waste Discharge Information Form, December 10, 2015.)

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The discharge of raw sewage occurred directly above and into the Mojave River. The river had flowing water at the time of the raw sewage discharge.

It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses given the low discharge rate. Water Board staff is not aware of any complaints or other evidence of impact to such uses resulting from the spill.

However, the site of the discharge occurred in an area where the public has access. Although the discharge is relatively small, the discharge of raw sewage directly above the Mojave River in an area where any member of the public may be walking creates a potential health hazard.

The discharge of five (5) gallons of raw sewage on December 9, 2015 resulted in **below moderate harm** to the beneficial uses of the Mojave River and its tributary areas.

Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation No. 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

For this violation, all of the raw sewage flowed directly into the Mojave River (and infiltrated into the riverbed). The discharge was unrecoverable, and therefore a factor of **1** (one) is assigned.

Step 2: Assessments for Discharge Violations

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The Initial Base Liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1000 gallons}) \times (\text{maximum per gallon liability})] + [(\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.22) \times (0 \text{ gallons}) \times (\$10/\text{gallon})] + [(0.22) \times (1 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$2,200.00}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

In this case, a culpability multiplier of **1.4** has been selected. As discussed in this factor analysis for Violation 2, the City commissioned a Gap Analysis for its sewer collection system and associated infrastructure facilities, which was completed on September 30, 2014. The Gap Analysis identified that the City had not been implementing the O&M Plan that had been identified in its 2009 Sanitary Sewer Management Plan. The Gap Analysis also recommended

that the City develop a proactive maintenance program which would include inspecting its sewer collection system for areas of deterioration, such as that due to corrosion (page 29).

The City is directly culpable for failing to properly inspect a force main located directly over the Mojave River. The City was unaware the discharge was occurring until State Water Board staff identified the discharge during its December 9, 2015 inspection. The State Water Board inspection report notes that other areas of this force main also appear to be corroded. Additionally, the City was not able to provide evidence of when this section was last inspected, other than indicating that the air relief valve was installed in 1994 when this section of force main was replaced. (State Water Board Compliance Inspection Report, February 19, 2016.)

As stated, above, additional nearby corroding pipe sections for which the City was previously unaware were discovered during the inspection. The City has sewer collection facilities within its service area that like this force main, are vulnerable due to being located above ground, being isolated, and/or in close proximity to surface waters. Such facilities require routine inspection to ensure their integrity and proper operation in order to prevent raw sewage discharges. Failure to do so results in discharges, such as this one discovered during a State Water Board staff inspection. While this discharge was small, it could have just as easily been a significantly large discharge due to the failure to implement an acceptable inspection and maintenance program.

The City's failure to properly inspect and maintain its sewer collection system in accordance with its own plans and procedures, especially a section of exposed force main located directly above the Mojave River, justifies a high culpability factor in this matter.

B. Adjustment for Cleanup and Cooperation

In this case, a neutral Cleanup and Cooperation multiplier of **1.0** has been selected. The City quickly responded once it was realized that a discharge was occurring.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability amount of **\$3,080.00** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$(\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) = \text{Total Base Liability}$$

$$(\$2,200.00) \times (1.4) \times (1.0) \times (1.0) = \$3,080.00$$

Violation No. 6 SSO Discharge of 28,925 Gallons

Synopsis

On May 11, 2016, an SSO occurred from the City's Manhole No. 127, located on Yates Road, 100 feet east of Cypress Avenue. 30,125 gallons of raw sewage were discharged along a 200-foot section of Yates Road before discharging into and through a 2,850-foot section of concrete-lined drainage channel that flows through the Green Tree Golf Course, followed by an 1,100-foot section of concrete-lined channel through Doris Davies Park, and then across a 650-foot section of an earthen wash during the event. The total flow length was 4,800 feet. The City recovered 1,200 gallons of the discharged sewage within the concrete-lined channel portion of the drainage system and returned that volume back to the sewer system. The remaining 28,925 gallons infiltrated into the ground surface of the wash. The wash is tributary to the Mojave River, but it did not carry surface water flows at the time of the SSO discharge event. A temporary earthen berm was constructed approximately 60 feet south of Hughes Road to contain the raw sewage flow within the earthen wash and to prevent the discharge from flowing further towards the Mojave River. (City of Victorville SSO Event Technical Report, May 25, 2016, and CIWQS Spill ID Form 824530 Version 1.1, May 27, 2016.)

The spill was initially reported to the City at approximately 6:00 a.m. on Wednesday, May 11, 2015, by the local Sheriff Dispatch. City crews arrived on the site at approximately 6:30 a.m., and additional crew arrived on the site at approximately 6:45 a.m. At 7:20 a.m., City crews constructed the temporary earthen berm to curtail further migration of the raw sewage. The overflow of raw sewage was stopped at approximately 8:53 a.m. Crew members began removing debris and sanitizing the affected flow path at 9:00 a.m. Additional cleanup and disinfection occurred on May 12, 2015 and again on May 16, 2015.

The City determined the cause of the SSO to be due to vandalism. The City removed approximately 75 pounds of debris consisting of garbage, plastic, and a railroad tie.

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The discharge of raw sewage affected a 4,800-foot drainage system, 650 feet of which was an earthen wash. The drainage system is tributary to the Mojave River. The drainage system was dry at the time of the raw sewage discharge, and the entire amount of the discharge reaching the earthen wash infiltrated.

In spite of the raw sewage discharge flowing through a public golf course and park before infiltrating into a dry earthen wash, it is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses given the nature of the affected drainage features (i.e., typically dry concrete channels). Water Board staff is not aware of any complaints or other evidence of impact to such uses resulting from the spill. However, the

infiltration of raw sewage could reasonably be expected to have locally impacted groundwater resources due to the significant discharge volume, but staff has no evidence of such impacts.

The discharge of 28,925 gallons of raw sewage on May 11, 2016 resulted in **below moderate harm** to the beneficial uses of the Mojave River and its tributary areas. Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

The City was able to recover 1,200 gallons (approximately four percent) of the 30,125 gallons discharged. Because less than 50 percent of this SSO discharge was susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The Initial Base Liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1,000 gallons}) \times (\text{maximum per gallon liability})] + [(\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.22) \times (27,925 \text{ gallons}) \times (\$10/\text{gallon})] + [(0.22) \times (1 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$63,635.00}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

Identical to this factor analysis for Violation No. 4, a culpability multiplier of **1.2** has been selected. The common element between the two incidents is failing to implement an effective vandalism prevention program.

B. Adjustment for Cleanup and Cooperation

In this case, a Cleanup and Cooperation multiplier of **1.0** has been selected. The City quickly implemented appropriate containment and corrective measures once they were notified that an SSO was occurring, preventing further migration of the discharge. The City also took all appropriate follow up measures to clean up and disinfect the affected area.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability amount of **\$76,362.00** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} &(\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) = \text{Total Base Liability} \\ &(\$63,635.00) \times (1.2) \times (1.0) \times (1.0) = \$76,362.00 \end{aligned}$$

Violation No. 7

Failure to Clean Up September 2015 SSO Discharge of 11,686,149 Gallons

Violation No. 7 from the Complaint has been dismissed in the Stipulated Settlement Agreement and Stipulation for Entry of Order; Order No. R6V-2020-0001 (Proposed). The violation cited non-compliance with permit conditions that do not include discharges. This violation is therefore not subject to liability under Water Code section 13385.

Violation No. 8

Failure to Properly Manage, Operate, and Maintain All Parts of the Sanitary Sewer System

Violation No. 8 from the Complaint has been dismissed in the Stipulated Settlement Agreement and Stipulation for Entry of Order; Order No. R6V-2020-0001 (Proposed). The violation cited non-compliance with permit conditions that do not include discharges. This violation is therefore not subject to liability under Water Code section 13385.

Violation No. 9 SSO Discharge of 68,750 Gallons

Synopsis

Based on the City's February 9, 2017 City of Victorville SSO Technical Report, an SSO occurred on January 26, 2017 from three different manholes:

- Manhole No. 001123 (also known as Manhole No. 110, the subject of Violation No. 2), located in the undeveloped easement area east of the intersection of Grant Street and Lambert Lane.
- Manhole No. 004426, located on Coad Road approximately 760 feet east of Hesperia Road.
- Manhole No. 005241, located on Coad Road approximately 1,470 feet east of Hesperia Road.

68,750 gallons of raw sewage were discharged into an earthen wash during the event. The City constructed three dirt berms in the wash to contain the raw sewage discharge. All raw sewage collected by the berms infiltrated into the soil within the wash. The wash did not carry surface water flows at the time of the SSO discharge event.

The City initially received notification at 12:09 p.m. from the Smart Cover system located in the manhole immediately upgradient from Manhole No. 001123. City staff confirmed the SSO at 12:30 p.m., and the City deployed personnel and equipment at 1:00 p.m. The discharge ceased at 1:48 p.m. Two initial berms were constructed within the wash to contain the raw sewage discharging from Manhole No. 001123. A small amount of the discharge flowed downgradient from the first berm but did not reach the second berm.

While inspecting the downgradient manholes, City staff observed two additional manholes (Manhole Nos. 004426 and 005241) beginning to overflow. The blockage at these locations was cleared by 2:50 p.m. City staff constructed a third berm to contain any raw sewage that may discharge into the adjacent wash, vacuumed debris, and sanitized Coad Road as a priority to ensure public safety. This activity was completed by 5:30 p.m.

The City's SSO Technical Report states that crews disbanded following the cleanup of Coad Road and reconvened at 2:30 a.m. on January 27, 2017 to thoroughly clean the affected sewer collection system. City staff removed a metal pipe support from a manhole downgradient from where the three discharges occurred. Additional rounds of disinfection occurred on January 27 and 30, 2017, and debris removal continued through February 2, 2017.

The information the City entered into CIWQS (Spill ID 832163) identifies the cause of the raw sewage discharge to be the metal pipe support found in the sewer main. The CIWQS information cites the bracket as potentially restricting flow, thereby causing grease and solids to form and clog the sewer main.

In an electronic mail to Water Board staff on February 9, 2017, the City clarified that it did not recover any of the raw sewage contained by the constructed berms. The City stated that its first priorities were to clear the blockage and to remove debris and sanitize public access areas. The City stated that by the time these initial tasks were completed, the raw sewage contained by the berms had essentially dissipated in all but the most remote location (berm No. 1). Berm No. 1 was located in an area with soft sandy soils, and the soil conditions created a challenge for equipment to maneuver and access the berm. In the email to Water Board staff, the Director of Public Works and Water stated, "With darkness setting in, it was determined that the most prudent course of action was to reconvene in the early hours before daylight to reassess the situation and perform further mitigation measures. Crews returned at 2:30 AM, at which time there was no contained spillage remaining to recover." All of the raw sewage contained behind berm No. 1 had percolated into the soil.

Water Board had staff inspected the site between 4:45 p.m. and 5:15 p.m. on January 26, 2017. During that time, staff photographed a significant quantity of water stored behind berm No. 1. Water Board staff did not observe any City crew staff in the area, but the Director of Public Works and Water was present on site. He told Water Board staff that the cause of the blockage was a grease ball and that the piece of metal had also been found in the sewer system. He stated that as the grease ball moved downstream, it caused additional SSOs at the two downgradient manholes. (Internal Memos from John Morales and from Ghasem Pour-Ghasemi to Eric Taxer, both dated August 4, 2017.)

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The raw sewage discharge flowed into and across a 4,500-foot stretch of an earthen wash, which is tributary to the Mojave River. The wash was dry at the time of the raw sewage discharge, and the entire amount of the discharge infiltrated into the earthen wash.

It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses. Water Board staff is not aware of any complaints or other evidence of impact to such uses resulting from the spill. However, the infiltration of raw sewage could reasonably be expected to have locally impacted groundwater resources due to the significant discharge volume, but staff has no evidence of such impacts. Further, impacts to wildlife resources from the discharge of the raw sewage along the 4,500-foot length of its flow path within the earthen wash may be reasonably expected.

The discharge of 68,750 gallons of raw sewage on January 26, 2017 resulted in **below moderate harm** to the beneficial uses of the Mojave River and its tributary areas. Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

The City did not recover any of the raw sewage that was discharged before it percolated into the ground. Because less than 50 percent of this SSO discharge was susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The Initial Base Liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1000 gallons}) \times (\text{maximum per gallon liability})] + [(\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.22) \times (68,750 \text{ gallons}) \times (\$10/\text{gallon})] + [(0.22) \times (1 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$153,450.00}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

In this case, a neutral culpability multiplier of **1.0** has been selected.

It is noted that this SSO event is located within the same sewer collection system section as Violation No. 2, and the City had previously identified a pipe constriction in this area which creates a vulnerability to SSOs due to fats, oils, and grease (FOG). However, there is a significant difference between Violation No. 2 and Violation No. 9. The City, since Violation No.

2 occurred, has taken appropriate proactive measures to reduce the potential for SSOs until structural improvements can be implemented.

On June 1, 2015, the City installed a Smart Cover system at Manhole No. 001123. As noted in the synopsis section, the Smart Cover system provided an immediate alert of the SSO event which prevented a much larger discharge quantity from occurring in this relatively isolated area.

The City also implemented an enhanced preventative maintenance program for this portion of the sewer collection system, which included frequent cleaning of this section. City crews cleaned this section of the collection system on November 24, 2015 and again on July 21, 2016, roughly once every eight months. (City Email, April 28, 2017.) The SSO event occurred approximately seven months following the previous cleaning event.

The City has also developed a communication and education program to help inform the public on the importance of keeping FOG and wipes from being disposed into the collection system. A FOG brochure was mailed to all City residents in October 2016. City staff also provided public outreach during the City-sponsored Fall Festival on October 1, 2016. (City of Victorville Letter, May 4, 2017.)

These actions are appropriate to address a problematic section of the City's collection system and warrant a neutral culpability factor.

B. Adjustment for Cleanup and Cooperation

In this case, a Cleanup and Cooperation multiplier of **1.3** has been selected.

As noted in the previous synopsis discussion, the City quickly implemented appropriate containment, public-area cleanup, and corrective measures once it determined an SSO was occurring. However, the City failed to implement appropriate measures to recover the raw sewage that was retained behind the constructed berms. Raw sewage recovery is required by Permit section D.7.(ii).

The City claims that it suspended initial cleanup operations because it was getting dark. This reason for suspending cleanup operations is in direct conflict with information provided by the City in its February 9, 2017 email response to Water Board staff and in its Technical Report, where the City states that cleanup crews returned to the discharge site later that night at 2:30 a.m., when it is dark. Additionally, the City should have been equipped with appropriate equipment to perform night-time emergency activities.

The City's February 9, 2017 email also noted that, "...the effluent contained by the berms was percolating at a very fast rate due to the soil conditions in the area." Knowing this, crews should have been deployed to attempt to recover as much of the raw sewage as possible. Further, Water Board staff was at the site between 4:45 p.m. and 5:00 p.m. on January 26, 2017, approximately three hours after the first berm containing a vast majority of the SSO discharge was constructed. Water Board staff photographed a significant quantity of raw sewage behind berm No. 1, and although there was still natural daylight during this period, there were no City crews present. Thus, an opportunity to recover a greater amount of the

discharge was lost, increasing the potential for impacts to underlying groundwater. These conditions justify a higher value for the Cleanup and Cooperation factor.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability Amount of **\$199,485.50** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} &(\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) = \text{Total Base Liability} \\ &(\$153,450.00) \times (1.0) \times (1.3) \times (1.0) = \$199,485.00 \end{aligned}$$

Violation No. 10 SSO Discharge of 953 Gallons

Synopsis

On February 9, 2017, an SSO occurred from the City's sewer Cleanout No. 000719, located within the Pearl Arbor Terrace sewer easement above D Street between McKinney Way and Sherman Way. The blockage site was approximately 775 feet upstream from Manhole No. 007021 near D Street. (Mainline Stoppage Report, February 16, 2017.) The Pearl Arbor Terrace easement is an existing ephemeral drainage with connectivity to the Mojave River. 1,153 gallons of raw sewage were discharged within the ephemeral drainage (Sanitary Sewer Overflow Discharge Report, August 11, 2017.) While this drainage has been modified by development, it continues to convey storm water flows from La Paz Drive to a drop inlet at D Street. From D Street, storm water flows are conveyed into a concrete-lined ditch that runs parallel to D Street and into another modified ephemeral stream at Valensa Lane, which discharges into the Mojave River. (Memo to File, Jan Zimmerman, July 27, 2017.) The City recovered 200 gallons of the amount that was discharged and returned that volume back to the sewer system (Mainline Stoppage Report, February 16, 2017). The remaining 953 gallons infiltrated into the ground surface of the tributary drainage.

The spill was initially reported to the City at approximately 2:37 p.m. on Thursday, February 9, 2017. City crews arrived on the site at approximately 3:10 p.m. and began to construct containment berms. Additional staff and equipment arrived at the site at approximately 3:40 p.m. The discharge was stopped at approximately 4:29 p.m. (Mainline Stoppage Report, February 16, 2017.)

The cause of the SSO was a blockage of sand in the sewer line. The cleanout cover was missing when crews arrived at the site. City crews were unable to clear the blockage, and a decision was made to replace the affected pipe section. The pipe replacement and initial site sanitation effort were completed at approximately 6:10 p.m. City crews returned on February 10 and daily February 13 through 16 to apply additional rounds of disinfection, to install a lockable cleanout cover, and to provide additional soil cover over the sewer line and associated cleanouts and manholes. (Mainline Stoppage Report, February 16, 2017.)

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The raw sewage discharge occurred within an ephemeral tributary to the Mojave River. The drainage system was dry at the time of the raw sewage discharge, and 953 gallons of the discharge infiltrated into the earthen drainage.

It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses. Water Board staff is not aware of any complaints or other evidence of impact

to such uses resulting from the spill. Given the small discharge volume, it is also unlikely that local groundwater resources and wildlife resources were impacted.

The discharge of 953 gallons of raw sewage on February 9, 2017 resulted in **below moderate harm** to the beneficial uses of the Mojave River and its tributary areas. Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

The City was able to recover 200 gallons (approximately 17 percent) of the 1,153 gallons initially discharged. Because less than 50 percent of this SSO discharge was susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The initial base liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1000 gallons}) \times (\text{maximum per gallon liability})] + [(\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.22) \times (0 \text{ gallons}) \times (\$10/\text{gallon})] + [(0.22) \times (1 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$2,200.00}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

Identical to the factor analysis for Violation No. 4, a culpability multiplier of **1.2** has been selected. The common element between the two incidents is failing to implement measures intended to adequately protect, inspect, and maintain sections of the sewer collection system that are vulnerable to damage caused by either vandalism or the surrounding environment (e.g., sewer main located within an earthen wash).

B. Adjustment for Cleanup and Cooperation

In this case, a Cleanup and Cooperation multiplier of **1.0** has been selected.

The City quickly implemented appropriate containment and corrective measures once it was notified that an SSO was occurring, preventing further migration of the discharge. The City took all appropriate follow up measures to clean up and disinfect the affected area.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability Amount of **\$2,640.00** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} &(\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) = \text{Total Base Liability} \\ &(\$2,200.00) \times (1.2) \times (1.0) \times (1.0) = \$2,640.00 \end{aligned}$$

Violation No. 11 SSO Discharge of 393,000 Gallons

Synopsis

On June 12-13, 2017, an SSO occurred from the City's Manhole No. 005570, located within a sewer easement northeast of Ottawa Street and west of the Santa Fe Channel. 393,000 gallons of raw sewage were discharged into the Santa Fe Channel, an earthen drainage channel, during the event, none of which was recovered. The raw sewage flow dissipated within the channel approximately 200 to 300 feet north of Coad Road, impacting an approximately 2,000-foot section of the channel. The channel is tributary to the Mojave River and is a water of the United States, but was not carrying surface water flows at the time of the SSO discharge event. (Mainline Stoppage Report, June 27, 2017.)

The City received a flow alarm for flow meter VSD No. 2 on Monday, June 12, 2017. City staff reviewed the flow information received from the alarm software triggering the notification at the time of the alarm. The information indicated that the flow characteristics appeared to be within the normal range for the day of the week and for the time of the day that the alarm occurred. The City assumed that this was a false alarm and did not conduct a field investigation. The City later discovered the alarm system software was not providing real-time flow information required to properly assess flow conditions. The City has since corrected the software issue. (January 9, 2018 email from Director of Public Works and Water.)

At approximately 3:15 p.m. on Tuesday, June 13, 2017, the City received a telephone call from VVWRA that meter VSD No. 2 was experiencing a low-level alarm, which was verified by VVWRA's flow level alarm service provider. A City crew member arrived on site at approximately 3:40 p.m. and observed raw sewage flowing onto the sewer easement surface for approximately 30 feet before discharging into the Santa Fe Channel. Two City sewer combination cleaning trucks, a backhoe/loader, and a front-end loader arrived on site between 4:25 p.m. and 4:40 p.m. City crews constructed a series of three earthen berms to contain the raw sewage discharge, and the discharge was stopped at approximately 5:45 p.m. The cause of the blockage was concrete debris. (Mainline Stoppage Report, June 27, 2017; and January 9, 2018 email from Director of Public Works and Water.)

The City re-deployed one of the sewer combination cleaning trucks and associated crew at approximately 6:30 p.m. (after the discharge was stopped and the immediate area was cleaned up and sanitized) to recover the standing raw sewage at one of the berms that had been installed (berm No. 2). However, all standing raw sewage behind the earthen berms had infiltrated into the ground surface when cleanup crews arrived. The City completed initial cleanup and disinfection efforts on June 13, 2017, and the City continued to return to the site through June 26, 2017 to provide follow-up disinfection and cleanup. (Mainline Stoppage Report, June 27, 2017.)

The City reviewed the VSD No. 2 flow chart during the SSO event and determined the initial start time of the discharge was 11:00 a.m. on the prior day, Monday, June 12, 2017. The City reviewed flow chart graphs to calculate a raw sewage discharge volume of approximately 393,000 gallons. (Mainline Stoppage Report, June 27, 2017.)

Step 1: Potential for Harm for Discharge Violations

Based on the scores for environmental harm, receptor risk, and cleanup susceptibility, and as further detailed below, a score of **6** (six) is assigned to Step 1 of the calculation methodology.

A. Factor 1: Harm or Potential Harm to Beneficial Uses

The raw sewage discharge flowed into and across a 2,000-foot section of an earthen wash, which is tributary to the Mojave River. The wash was dry at the time of the raw sewage discharge, and the entire amount of the discharge infiltrated into the earthen wash.

It is likely that the discharge resulted in no impacts to contact and non-contact recreation beneficial uses. The Lahontan Water Board is not aware of any complaints or other evidence of impact to such uses resulting from the spill. However, the infiltration of raw sewage could reasonably be expected to have locally impacted groundwater resources due to the significant discharge volume, but staff has no evidence of such impacts. Further, impacts to wildlife resources from the discharge of the raw sewage over the 2,000-foot length of its flow path within the earthen wash may be reasonably expected.

The discharge of 393,000 gallons of raw sewage on June 12 through 13, 2017 resulted in **below moderate harm** to the beneficial uses of the Mojave River and its tributary areas. Based on the circumstances described above, a score of **2** (two) is assigned to Factor 1 of the calculation methodology.

B. Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Identical to this factor analysis for Violation No. 1, the high degree of toxicity in raw sewage poses a direct threat to human and ecological receptors. The characteristics of the discharged raw sewage therefore posed an **above-moderate** risk or threat to potential receptors. Accordingly, a score of **3** (three) is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

The City was unable to recover any of the 393,000 gallons discharged. Because less than 50 percent of this SSO discharge is susceptible to cleanup and abatement, a score of **1** (one) is assigned to this factor.

Step 2: Assessments for Discharge Violations

A. Extent of Deviation from the Requirement

The raw sewage discharge rendered the prohibitions on discharging untreated wastewater to waters of the United States ineffective in their essential functions. The prohibitions would be effective only if no discharge had occurred, or if 100 percent of the discharge was cleaned up and abated. The violation is a major deviation from the requirements.

Accordingly, based on the Potential for Harm score of 6 and major deviation from the requirements, the per-gallon and per-day factors for the discharge are both **0.22**.

B. Initial Amount of ACL

The Initial Base Liability amount for the discharge is calculated by multiplying and adding:

$$[(\text{per gallon factor}) \times (\text{gallons discharged but not cleaned up over 1000 gallons}) \times (\text{maximum per gallon liability})] + [(\text{per day factor}) \times (\text{days of violation}) \times (\text{maximum per day liability})] = \text{Initial Base Liability}$$

$$[(0.22) \times (392,000 \text{ gallons}) \times (\$10/\text{gallon})] + [(0.22) \times (2 \text{ day}) \times (\$10,000/\text{day})] = \mathbf{\$866,800.00}$$

Step 3: Per Day Assessments for Non-Discharge Violations

Non-discharge violations are not applicable for this alleged violation.

Step 4: Adjustment Factors

A. Adjustment for Culpability

In this case, a neutral culpability multiplier of **1.0** has been selected.

It is noted that the City did coordinate with VVWRA to receive alarm notifications from the flow meter sensors installed at the City's discharge points into the VVWRA trunk line system. The City implemented this procedure in response to Violation Nos. 2 and 3, above. Once the City verified a discharge was occurring upon receiving the June 13, 2017 alarm notification, the City immediately mobilized personnel to contain and stop the discharge. Taking such action in response to previous violations, in part, justifies a lower value than the 1.3 value assigned for Culpability for Violation Nos. 2 and 3. However, the Water Board Prosecution Team has determined that a factor lower than 1.0 is not appropriate based upon other circumstances related to the City's alarm and data systems.

This determination is based upon the City initially receiving an alarm notification on June 12, 2017, one day prior to being notified of the discharge by VVWRA. The flow information received from the alarm software triggering the notification at the time of the alarm indicated that the flow characteristics appeared to be normal. This caused the City to assume that this was a false alarm. It was later discovered that real-time flow information was not being provided to properly assess flow conditions due to a software issue that has since been corrected. The City is ultimately responsible for the actions of its contractors, including its contracted alarm service contractor, and for verifying that such services are functioning properly.

B. Adjustment for Cleanup and Cooperation

Similar to the factor analysis for Violation No. 10, a neutral Cleanup and Cooperation multiplier of **1.0** has been selected.

C. Adjustment for History of Violations

There are no adjudicated cases of this nature against the City. Therefore, a neutral multiplier of **1.0** has been selected.

Step 5: Determination of Total Base Liability Amount

Total Base Liability amount of **\$866,800.00** is determined by multiplying the initial liability amount for the violation from Step 2 by the adjustment factors from Step 4:

$$\begin{aligned} &(\text{Initial Base Liability}) \times (\text{Culpability}) \times (\text{Cleanup}) \times (\text{History}) = \text{Total Base Liability} \\ &(\$866,800.00) \times (1.0) \times (1.0) \times (1.0) = \$866,800.00 \end{aligned}$$

Methodology Steps 6 through 10

Step 6: Ability to Pay and Ability to Continue Business

The Enforcement Policy provides that if the Water Board has sufficient financial information to assess the discharger's ability to pay the Total Base Liability, or to assess the effect of the Total Base Liability on the discharger's ability to continue in business, then the Total Base Liability amount may be adjusted downward.

In this case, the Water Board Prosecution Team has sufficient information to recommend the City has the ability to pay the proposed liability. To understand an agency's ability to pay, review of the agency's operating costs and availability of funds is necessary. The fiscal year 2015/2016 Comprehensive Annual Financial Report (CAFR) was available for review on the City's website. Collection system operation and maintenance expenses are managed and budgeted under the City's Sanitary Fund. Based on data available in the CAFR, the City's Sanitary Fund had over \$20 million in current assets at the end of the 2015/2016 fiscal year, of which nearly \$17 million was in cash and investments. Current liabilities totaled approximately \$2.4 million. The City's Sanitary Fund had an unrestricted net position of nearly \$17 million. These figures indicated that the City had liquid funds available that could be used to satisfy unanticipated expenses including penalties or accelerated compliance.

In addition to the analysis above, Water Board staff used the MUNIPAY software provided by the United States Environmental Protection Agency to determine whether the City has the ability to pay. Attachment C to the Complaint contains the affordability conclusions synopsis from MUNIPAY. MUNIPAY uses the information available in the CAFR and demographic data retrieved from United States Census Bureau to determine whether the City can afford the penalty expenditure, as well as one-time and recurring compliance expenses. For the analysis, the one-time compliance expenditures were assumed to be implementation of flow monitoring software, estimated at \$4,000, and completion of CCTV inspection for the entire collection system, estimated at \$2,235,024. Recurring compliance costs include annual labor expenses in addition to the City's current program, totaling \$546,384. Based on the input data, MUNIPAY has confirmed the City's ability to pay the \$1,500,000 civil liability and future compliance expenses.

Step 7: Other Factors as Justice May Require

Adjustment for Staff Costs

Under the 2009 Enforcement Policy, the Lahontan Water Board suspended the practice of adding staff cost into all administrative civil liabilities based upon the California State Auditor's findings stated in its 2012-120 Audit Report. Specifically, one of the findings in the Audit Report is that staffing costs in penalty actions for water quality certification violations are, "generally not supported and are inaccurate because of inflated cost rates." (California State Auditor Report 2012-120 State Water Resources Control Board, *It Should Ensure a More Consistent Administration of Water Quality Certification Program*, June 2013.) Based upon this finding, the Lahontan Water Board suspended adding staff cost into administrative civil liabilities for all regulatory programs, not just the Water Quality Certification Program.

Justification for Reducing the Liability Amount

The Water Board Prosecution Team has used factors in this penalty assessment that are comparable with other SSO cases and community system dischargers. However, due to the specific facts of each discharge incident, the comparable factors have resulted in calculating an extraordinarily high liability amount (\$11,744,277.03), especially when compared to previous Lahontan Water Board administrative civil liability actions involving wastewater (treated and untreated) discharges, such as County Sanitation District Nos. 14 and 20 of Los Angeles County, Administrative Civil Liability Order No. R6V-2007-0034. Raw sewage discharges are taken seriously due to the adverse impacts they can have on human and environmental health, and administrative civil liabilities should be reflective of such impacts and the underlying causes of the associated discharges. Additionally, the Enforcement Policy's goals and objectives for taking effective enforcement actions against significant and/or chronic non-compliance also need to be taken into consideration when determining appropriate administrative civil liability amounts. Those goals and objectives include (1) returning the discharger to compliance; (2) being fair and consistent; (3) creating a deterrent against committing future violations, either by the discharger or by other parties similarly situated in the regulatory community; and (4) fully eliminating any economic advantage obtained from the non-compliance. While a significant administrative civil liability is warranted for the violations discussed above, the Total Base Liability amount is in substantial excess of what is necessary to meet the Enforcement Policy's goals and objectives for imposing administrative civil liabilities. The following paragraphs provide justification for a substantial reduction from the Total Base Liability amount to the recommended liability amount of \$1,500,000.

- A. Returning to Compliance: It is well-documented that the series of sanitary sewer overflows subject to this enforcement action were, in part, due to or likely exacerbated by the City's significant noncompliance with the Permit. The extent of the City's non-compliance was identified through the Lahontan and State Water Board's December 2015 compliance inspection of the City's sewer collection system that also included an audit of the City's procedures and documents for complying with the Permit. (December 2015 Compliance Inspection Report, February 19, 2016) The City responded to the December 2015 Compliance Inspection Report by committing to taking the actions necessary to return to compliance. (City Response to December 2015 Compliance Inspection Report, May 23, 2016.)

The City's efforts to return to compliance initially started with the completion of the City's September 30, 2014 GAP Analysis that identified a number of areas the City needed to address in order to comply with Permit requirements. These areas included updating the City's 2009 Sewer System Management Plan (SSMP) that addresses the following critical elements:

- Operation and Maintenance Program
- Rehabilitation and Replacement Plan (Capital Improvement Plan)
- Overflow Emergency Response Plan
- System Evaluation and Capacity Assurance Plan (SECAP)

- Communication Program

The City updated its SSMP in May 2016, prior to the Prosecution Team issuing the Complaint on July 1, 2016. The SSMP update addressed many of the SSMP deficiencies (e.g., operations and maintenance, equipment needs, alarm and communication systems) identified through the December 2015 compliance inspection and earlier discharge incidents. Additionally, the work completed in preparing the System Evaluation and Capacity Assurance Plan element of the SSMP supported the City's efforts to update its 2008 Sewer Master Plan, which was completed in December 2016. The December 2016 Sewer Master Plan identifies a number of capital improvement projects necessary to address existing capacity deficiencies and those forecasted through 2040. The City also completed implementation of its Rehabilitation and Replacement Plan in March 2018. This effort included cleaning, video inspecting, evaluating and assessing, and coding for observed defects in 385 miles of the City's gravity sewer mains. The effort resulted in recommendations to rehabilitate 28 miles of sewer mains with structural deficiencies at an estimated cost of approximately \$9.8 million. Additionally, the information obtained through this effort provided the City with the information necessary to develop a detailed five-year Capital Improvement Program that subsequently supported the City's 2018 Sewer Rate Study. The 2018 Sewer Rate Study led to the City increasing sewer rates to the maximum rates supported by the Sewer Rate Study for all customer classes, effective August 1, 2018. The Sewer Rate Study incorporated capital improvement projects for correcting existing structural deficiencies and existing capacity deficiencies. (City Email, May 6, 2019.) In 2019, the City updated its 2016 SSMP again, incorporating the new information the City has obtained since 2016.

The City has also been taking action to implement several sewer system projects to begin addressing the system deficiencies that the City identified. These projects include the following (City Email, May 6, 2019):

- Lining 11,390 feet of sewer main in 10 locations. The project contract was awarded on August 17, 2017 and substantially completed on January 7, 2018 at a cost of \$321,168.
- Replacing 7,354 feet of 8-inch diameter and 416 feet of 12-inch diameter sewer main. Estimated completion date for this project is December 31, 2019 at an estimated cost of approximately \$1.69 million.
- Upgrading 3,022 feet of 10-inch pipe to 15-inch pipe. This project is identified in the 2016 Sewer Master Plan and is at 90 percent design level. The project is currently scheduled for construction during Fiscal Year 2019/2020 with an estimated cost of approximately \$1.47 million.
- Upgrading 1,748 feet of 8-inch pipe to 12-inch pipe. This project is identified in the 2016 Sewer Master Plan and is at 90 percent design level. Currently estimated cost is approximately \$700,000.
- Upgrading 6,550 feet of 12-inch pipe to 18-inch pipe. This project is identified in the 2016 Sewer Master Plan and is at 90 percent design level. Currently estimated cost is approximately \$2.89 million.

- Replacing and realigning 5,700 feet of existing trunk pipelines on Coad Road and Hesperia Road with 21-inch trunk pipelines. This project is at 90 percent design level and is currently scheduled for construction during Fiscal Year 2019/2020 with an estimated cost of approximately \$3.48 million.

These actions demonstrate the City's comprehensive efforts to effectively return to compliance with the Permit. The City's initial effort to begin addressing its noncompliance occurred in 2014 (Gap Analysis) and prior to the December 2015 Compliance Inspection. The City also initiated additional actions intended to facilitate a return to compliance prior to the Prosecution Team issuing Administrative Civil Liability Complaint No. R6V-2016-0042. The Prosecution Team has taken the timing and intensity of the City's efforts to return to compliance into consideration and believes that they justify a significant reduction from the Total Base Liability amount of \$11,744,277.03.

B. Fair and Consistent Enforcement: The Enforcement Policy states that the Water Boards need to be fair and consistent in their enforcement actions. Although consistency is generally achieved through application of the penalty methodology and not by comparing enforcement actions, comparing similar enforcement cases is not prohibited and may be relevant. The Prosecution Team evaluated the Lahontan Water Board's \$4.75 million settlement with the County Sanitation District No. 14 and No. 20 of Los Angeles County (Administrative Civil Liability Order No. R6V-2007-0034). The Prosecution Team compared the cause of the violations, the nature of the violations, and nature and extent of the impacts associated with each case.

The violations documented in Administrative Civil Liability Order No. R6V-2007-0034 were created as a result of (1) District No. 14's discharge of secondary-treated wastewater in a manner that created nuisance conditions due to overflow conditions onto Rosamond Lake from an authorized disposal location (Paiute Ponds), and (2) District No. 20's discharge of secondary-treated wastewater to its authorized disposal location (Effluent Management Site) in a manner that caused and continues to cause nitrate as nitrogen concentrations to exceed the maximum contaminant level beneath and beyond the boundaries of the Effluent Management Site. The Administrative Civil Liability Order addresses violations of waste discharge requirements, the Water Quality Control Plan for the Lahontan Region, two Cease and Desist Orders, and one Cleanup and Abatement Order. These violations occurred over the course of more than 10 years. District No. 20's discharge also resulted in nitrate groundwater pollution demonstrated by quarterly groundwater sampling in the upper 50 feet of groundwater over a 2-1/2 square mile area.

In comparison, the City's violations are related to a total of more than 12.5 million gallons of raw sewage discharged to desert washes tributary to the Mojave River and over areas of relatively shallow groundwater during approximately 3-1/4 years. There are no documented impacts to beneficial uses, although localized and temporary impacts to Municipal and Domestic Use and Wildlife Habitat beneficial uses could be expected. The discharge incidents violated waste discharge requirements.

The Lahontan Water Board imposed a \$4.75 million liability in settling a case involving actual documented beneficial use impacts over an extensive area that continue today, and violation

of three different formal enforcement actions. The City's violations and suspected impacts to beneficial uses, while still significant, are comparably less significant than those of the two county sanitation districts. To be fair and consistent, reducing the recommended liability amount to a value significantly less than that imposed for the violations and resulting conditions addressed by Administrative Civil Liability Order No. R6V-2017-0034 is justified.

- C. Creating a Deterrent: The Prosecution Team is recommending imposing an administrative civil liability of \$1,500,000 for the violations discussed, above. While this is significantly less than the Total Base Liability amount produced by the ACL Methodology, it is still a significant liability amount that will deter the City from returning to noncompliance and others from considering actions that could lead to similar violations. The recommended liability amount would represent the third largest administrative civil liability imposed by the Lahontan Water Board, sending a strong message that such violations are taken seriously by the Water Board and addressed accordingly.
- D. Fully Eliminating Any Economic Benefit: Step 8, below, demonstrates that imposing the recommended liability amount will effectively eliminate the economic benefit the City had realized as a result of the violations discussed, above.
- E. Effective Use of State Resources: The Prosecution Team is recommending that the Water Board impose a \$1,500,000 administrative civil liability, \$750,000 of which will be allocated to a Supplemental Environmental Project (SEP) to be completed with City resources. This amount is still quite significant and will send a strong message to other dischargers that the Lahontan Water Board takes the human and environmental health threat created by discharges of raw sewage seriously, and that operating and maintaining sanitary sewer systems in compliance with Permit requirements is critical to protecting human and environmental health. The recommended liability is substantial and provides an appropriate deterrence from poor maintenance and operation for this discharger and others that are similarly situated and encourages regular maintenance and upkeep of sewer collection systems. The reduction from the calculated amount to \$1,500,000 is also partially associated with avoiding any risks with litigating these alleged violations in an administrative hearing, petition to the State Water Board, or in court. In doing so, the Lahontan Water Board can direct its resources that would otherwise be used in litigating this case to its other high priority work. Additionally, the recommended liability amount and the City's commitment to spending and upgrading its system reflects a reasonable response to the underlying violations and causes.

Step 8: Economic Benefit

The Enforcement Policy directs the Water Board to determine any Economic Benefit Amount of the violation based on the best available information. Pursuant to Water Code section 13385(e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefit, if any, derived from the acts that constitute a violation. The Enforcement Policy suggests that the Water Board compare the Economic Benefit Amount to the adjusted Total Base Liability and ensure that the adjusted Total Base Liability is, at a minimum, 10 percent greater than the Economic Benefit Amount. Doing so should create a deterrent effect and will

prevent administrative civil liabilities from simply becoming the cost of doing business. (Enforcement Policy pages 20-21.)

As stated in the Complaint, the City failed to properly manage, operate, and maintain the wastewater collection system that has caused and/or contributed to several sanitary sewer overflows, in addition to causing detriment to the regulatory program. Several actions were significantly delayed or avoided that could have prevented or reduced the extent of the violations presented in this methodology. As a result, the City realized a significant economic benefit as summarized below.

Cost Savings – Labor Costs: During the 2015 State Water Board audit, limited City staff resources were noted as an issue contributing to deficiencies observed in system-wide operation and maintenance. Based on the City's May 23, 2016 response to the audit and in the City's letter submitted on May 4, 2017, the City hired five permanent positions (1-Code Enforcement Officer, 2-Maintenance Workers, 1-Senior Maintenance Lead Worker, and 1-Office Assistant) dedicated to collection system management, operation, and maintenance, in order to address concerns raised in the audit report. An additional Lead Maintenance Worker position was also filled on December 31, 2016. (City email, October 8, 2019.) Based on publicly available salary information, the total annual labor expense for the six positions is approximately \$546,384. Had these resources been available sooner, violations observed at the time of the 2015 audit may not have been as prevalent or concerning as what was observed. Additionally, discharge violations evaluated by this methodology could have been reduced or eliminated due to increased collection system maintenance and oversight.

Therefore, the Lahontan Water Board asserts that an economic benefit was realized from the labor savings associated with insufficient staff resources. Although resource limitations likely existed beyond the non-compliance period addressed by the alleged violations, for conservative cost-saving estimation purposes, the economic benefit was computed using the March 26, 2015 SSO event date as the initial date of non-compliance. Compliance dates for each of the six positions were determined based on the City's May 4, 2017 letter and October 8, 2019 email.

Cost Savings – Sewer System Assessment: In addition to staffing, an appropriate inspection and condition assessment program would have prevented or mitigated the SSO violations presented in the Stipulated Order. The 2009 SSMP described a sewer system inspection and condition assessment strategy in which the entire system would be assessed over a seven-year period. Based on information provided during the State Water Board December 2015 inspection, the City had inspected approximately 25 miles of the system using CCTV.

The City has since initiated and completed (March 2018) a video inspection and assessment program for nearly all of its gravity main system at a cost of approximately \$4.2 million. (City Email, December 20, 2017.) This inspection and assessment program were in addition to the 6.6 miles of high maintenance sewer system segments video inspected as part of developing the 2016 Sewer Master Plan. The City realized an economic benefit by delaying full implementation of the sewer system inspection and assessment strategy described in the City's 2009 SSMP.

Cost Savings – Sewer System Management Plan (SSMP): The Permit requires the City to update its SSMP once every five years. The 2009 SSMP should have been updated in 2015, but the update was not completed until May 17, 2016. Having and implementing an updated, effective SSMP is critical to keeping public sewer systems in good operating condition and could have helped to prevent or reduce the extent of the discharge violations evaluated by this methodology. The City realized an economic benefit from delaying the update of the SSMP.

Cost Savings – Sewer System Flow Monitoring: Based on the City's actions following the SSO event described in Violation No. 3, an accessible flow monitoring program was implemented allowing City staff to view VVWRA flow data and receive alarms related to upsets and anomalies (December 2015 Compliance Inspection Report, February 19, 2016 page 5). The technology was available prior to the SSO event, but had not been used by either agency. Had the system been in place, it is likely that the SSO would have been detected sooner, and therefore the volume would have been significantly reduced. The cost for implementing the program and training City staff was approximately \$4,000, based on 40 hours of labor for program setup at \$100 per hour. The City stated that the system was fully operational on February 10, 2016. (City of Victorville Letter, May 4, 2017.) The City realized an economic benefit from delaying the implementation of the communications system providing the City with access to VVWRA flow data and alarms related to City sewer system flow conditions.

The BEN financial model provided by the United States Environmental Protection Agency was used to compute the total economic benefit of noncompliance. For computational purposes, the penalty payment date was established as the projected hearing date, March 11, 2020.

The total economic benefit of noncompliance was determined to be \$1,021,884. To ensure the adjusted Total Base Liability is, at a minimum, 10 percent greater than the economic benefit amount, the adjusted Total Base Liability must be greater than \$1,124,072.

Step 9: Maximum and Minimum Liability Amounts

The Enforcement Policy directs the Water Board to consider the maximum or minimum liability amounts set forth in the applicable statutes.

Violations No. 1 through 6, and 9 through 11

The maximum liability amount the Lahontan Water Board may assess administratively pursuant to Water Code section 13385, subdivision (c), is \$10,000 per day of violation plus \$10 per gallon discharged but not cleaned up in excess of 1,000 gallons. The violations are not subject to minimum mandatory penalties.

As discussed, above, Violation Nos. 7 and 8 have been removed from this methodology.

Table 2. Summary of Initial Base and Maximum Potential Liabilities

Violation No.	Initial Base Liability	Maximum Amount
1	\$206,965.00	\$940,750.00
2	\$665,221.70	\$2,114,500.00
3	\$9,454,500.09	\$116,941,490.00
4	\$269,223.24	\$784,450.00
5	\$3,080.00	\$10,000.00
6	\$76,362.00	\$289,250.00
7	\$0.00	\$0.00
8	\$0.00	\$0.00
9	\$199,485.00	\$697,500.00
10	\$2,640.00	\$10,000.00
11	\$866,800.00	\$3,940,000.00
TOTAL	\$11,744,277.03	\$125,727,940.00

The maximum potential liability for Violations No. 1 through 6 and Violations No. 9 through 11 is \$125,727,940.00. The minimum required liability for all violations is the economic benefit derived from the violations, plus ten percent (\$1,124,072). The recommended liability falls within these maximum and minimum liability amounts.

Step 10: Final Liability Amount

The final liability proposed is \$1,500,000 for Violations Nos. 1 through 6, and 9 through 11, based on consideration of the penalty factors discussed, above.