

FACTOR CONSIDERATION AND LIABILITY METHODOLOGY FOR MARK WEST QUARRY

This document provides details to support the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) Prosecution Team's recommendations for enforcement against Dean Soiland doing business as Bo Dean Co., Inc. (Discharger) for failure to comply with the *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Industrial Activities*, Order 2014-0057-DWQ (Permit, or Industrial General Permit) at the Mark West Quarry. The Discharger is subject to administrative civil liability for the violations described below pursuant to California Water Code (Water Code) section 13385 subdivisions (a)(2) and (a)(5).

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Discharger and Site Information

Mark West Quarry is an aggregate rock quarry located on three adjacent parcels of land totaling approximately 120 acres at 4611 Porter Creek Road in eastern Sonoma County (Facility). The Facility is operated by the Discharger.

The Facility has maintained its enrollment in the Permit, including previous iterations, since 1993.¹

The Facility discharges to Porter Creek, a perennial tributary to Mark West Creek, which in turn is a tributary to the Russian River. Thus, Porter Creek is a water of the United States. Porter Creek is within the Mark West Hydrologic Subarea of the North Coast Region.²

The Facility consists of steep slopes and exposed rock and soil surfaces with: an aggregate processing plant; an aggregate processing and maintenance area; an active mining area; a solar array; three water supply wells; a reclaimed area; a process reclamation area; and an office.³

The Facility is comprised of five separate drainage areas identified as Tributary Areas A through E. Tributary Area C is the focus of this enforcement effort because the sediment laden runoff observed being discharged to Porter Creek was generated within Tributary Area C. Tributary Area C encompasses the lower northern area including a portion of the active mining area, the processing and maintenance area and road, and the processing plant. Tributary C is approximately 13.1 acres in size and discharges to Porter Creek from the east side of the Facility.⁴

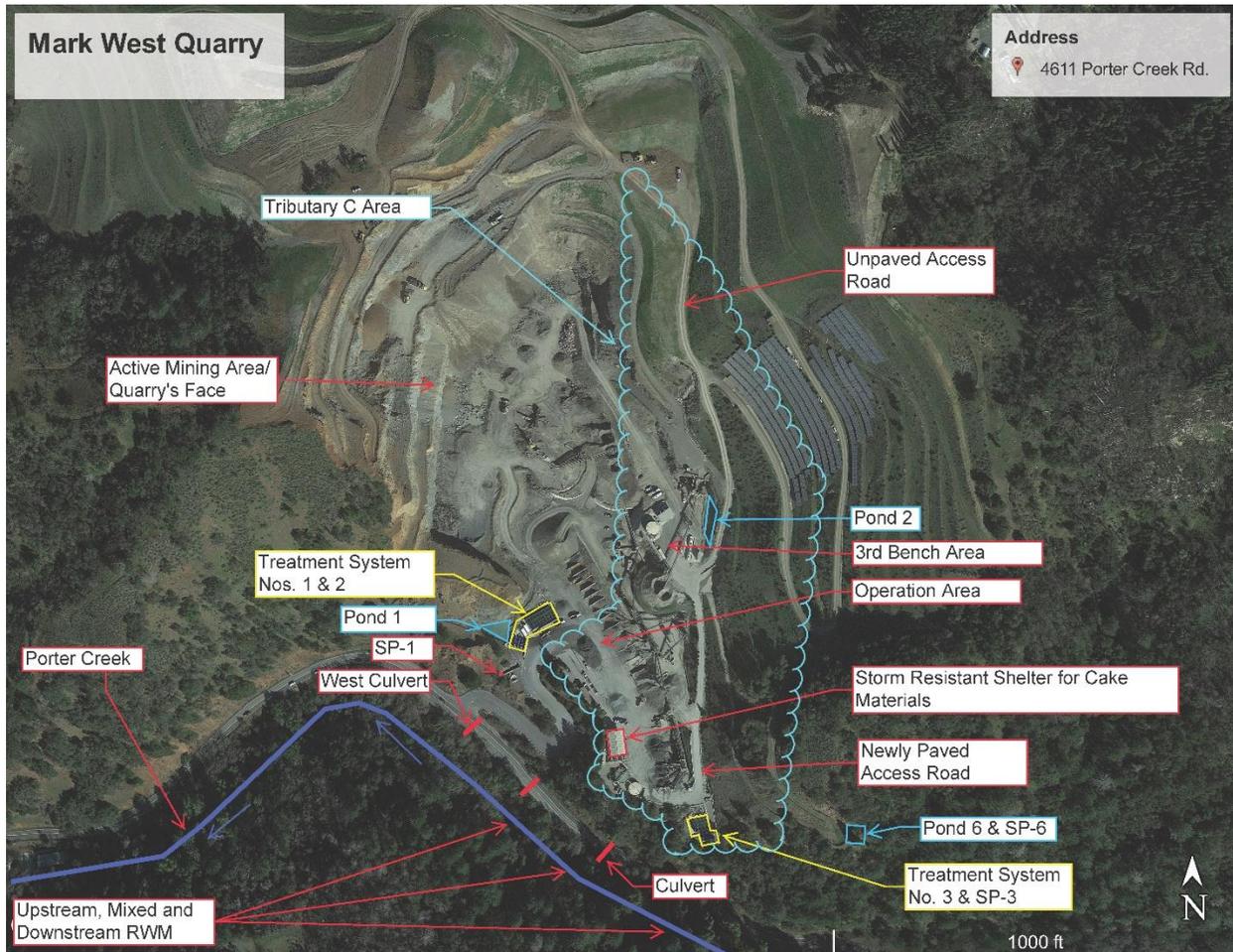
¹ Discharger's enrollment documents publicly available on Stormwater Multiple Application and Report Tracking System (SMARTS) at www.smarts.waterboards.ca.gov.

² The Water Quality Control Plan for the North Coast Region (Basin Plan), page 2-11.

³ Discharger's enrollment documents publicly available on Stormwater Multiple Application and Report Tracking System (SMARTS) at www.smarts.waterboards.ca.gov.

⁴ Discharger's response to Investigative Order No. R1-2019-0029.

Figure 1: Site Map



Due to the nature of the Discharger's industrial activity, sediment is the pollutant which poses the highest risk to receiving waters. Sediment is "solid particulate matter, both mineral and organic, that is in suspension, is being transported, or has been moved from its origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level."⁵

⁵ Industrial General Permit, Attachment C, Page 6.

Regional Water Board Oversight

On December 17, 2018, Regional Water Board staff traveling on Porter Creek Road observed a sediment plume in Porter Creek. Regional Water Board staff inspected the Facility on December 18, 2018 and determined that the Facility was a likely source of sediment contributing to the conditions observed in Porter Creek. Regional Water Board staff have inspected the Facility 15 times, issued 14 inspection reports, one Notice of Violation (NOV), two Water Code section 13267 Investigative Orders, and met with representatives of the Discharger numerous times.

On May 1, 2019 the Regional Water Board issued a Water Code section 13267 investigative order (Order) requiring the Discharger to quantify the volume of discharge from the Facility from Tributary Area C for the 2018/2019 wet season.⁶ The Discharger's response to this Order form the basis for the volume calculated in Violation 1.

Enforcement Policy

The State Water Resources Control Board's (State Water Board) *Water Quality Enforcement Policy* (Enforcement Policy) establishes a methodology for assessing administrative civil liability, including addressing the factors outlined in Water Code section 13385 subdivision (e).⁷ Water Code section 13385 subdivision (e) requires the Regional Water Board to consider several factors when determining the amount of civil liability to impose, including "...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."

⁶ Discharger's response to Investigative Order No. R1-2019-0029.

⁷ Enforcement Policy, available online:

https://www.waterboards.ca.gov/water_issues/programs/enforcement/water_quality_enforcement.shtml.

Liability Methodology

Violation 1- Discharge Violation

From December 2018 through May 2019, and for 45 days, the Discharger violated Industrial General Permit Discharge Prohibition III.A when it discharged polluted stormwater to waters of the United States, not otherwise specifically authorized by the Permit.

Basis of Violation

Between December 2018 and May 2019, Regional Water Board staff conducted multiple inspections at the Facility. On 10 of these inspections, staff observed sediment-laden stormwater discharging to Porter Creek, in direct violation of the Permit:

1. December 17, 2018
2. January 9, 2019
3. January 16, 2019
4. February 13, 2019
5. February 19, 2019
6. February 26, 2019
7. March 20, 2019
8. May 16, 2019
9. December 2, 2019
10. December 6, 2019

The Permit states: “All discharges of [stormwater] to waters of the United States are prohibited except as specifically authorized by this General Permit or another NPDES permit.”⁸ As described in more detail in Violations 2 through 5, the Discharger failed to implement the Permit during days alleged herein, because it did not install and maintain adequate Best Management Practices (BMPs)⁹ to control the runoff of sediment from its Facility. Therefore, between December 2018 and May 2019, the Discharger was not authorized by the Industrial General Permit to discharge its stormwater to Porter Creek.

⁸ Industrial General Permit, Section III.A- Discharge Prohibition.

⁹ Best Management Practices are defined as “Scheduling of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.” (Industrial General Permit, Attachment C, Glossary, page 2)

Violation 1- Discharge Violation

From December 2018 through May 2019, the Facility discharged 10,519,608 gallons of stormwater polluted with sediment to waters of the United States. This stormwater ran throughout the Facility collecting sediment as it flowed from the top of the quarry, through poorly maintained, or non-existent BMPs, to the discharge location where it ultimately reached Porter Creek.

Both a per day and per gallon liability are proposed for the unauthorized stormwater discharged only from Tributary Area C during the 2018/2019 rain season. The Prosecution Team has limited the alleged days of violation to the 2018/2019 wet season because the Discharger and the Prosecution Team entered into settlement negotiations related to this matter in June 2019 and the Discharger has been making a good faith effort to improve Facility conditions since that time.

Per Day Penalty Calculations for Violation 1

<p>Per Day Penalty = (Days)(Per Day Factor)(Statutory Max Per Day)</p> <p>=(45 days)(0.41)(\$10,000 per day)</p> <p>=\$184,500</p>

Where:

Days = Days of Violation
 = **45 days**

Per Day Factor is determined based on the application of the following factors to "Table 2- Per Day Factor for Discharge" = **0.41**

Potential for Harm = Toxicity + Harm to Beneficial Uses + Cleanup
 = 3+3+1= **7**

Where:

Toxicity = Degree of toxicity of discharge =Above Moderate= 3

Harm to Beneficial Use = Moderate= 3

Cleanup = Susceptibility to cleanup or abatement= 1

Deviation from Requirement = Major

Statutory Max Per Day= \$10, 000 per day

Discussion of Factors for Per Day Liability for Violation 1

Days of Violation

There are **45 days of violation** based on Regional Water Board staff's review of storm events and data presented by the Discharger.¹⁰ Each day of alleged violation is outlined in Table 1, below.

Over the course of 10 inspections, between December 17th, 2018 and May 26th, 2019 during which conditions at the Facility were consistently out of compliance with the minimum and advanced BMP requirements of the Permit, Regional Water Board staff observed that storm events as small as 0.1 inches of rainfall in a day resulted in a discharge of sediment laden stormwater from Tributary Area C to Porter Creek.¹¹ The Discharger's volume estimates take into account rainfall, site conditions, storage and onsite reuse.

In an exercise of enforcement discretion, the days of alleged violation include only those days that produced more than 0.1 inches of rainfall, as recorded by the National Oceanic and Atmospheric Administration (NOAA)¹² within the intervening days between December 17, 2018 through May 26, 2019. The first day of violation is on December 17, 2018 which is the first date that Regional Water Board staff inspected the Facility and was a date that the Facility received over 0.1 inches in rain. May 26, 2019 is the last date in the 2018/2019 rain season with rainfall over 0.1 inches. This approach resulted in 45 days of violation for Violation 1. Table 1 summarizes these days of alleged violation.

Note, since the Prosecution Team only alleges a day of violation where there is 0.1 inches of rain in a single day, some of the storm events have fewer days of violation than the total storm event. Additionally, even though there are days with reported discharges in Table 2, below, they are not included here for per day liability if they have less than 0.1 inches of rainfall.

¹⁰ Discharger's response to Investigative Order No.R1-2019-0029.

¹¹ See Regional Water Board Inspection Reports for inspections dated December 17, 2018; January 9 and 16, 2019; February 13, 19, and 26, 2019; March 20, 2019; and May 16, 2019, December 2 and 6, 2020.

¹² NOAA record available online: <https://www.ncdc.noaa.gov/cdo-web/datasets/LCD/stations/WBAN:23213/detail>

Table 1 – Unauthorized Discharge Days Over 0.10 Inches in Rainfall¹³

Date Range	Days of Discharge
Dec 17-Dec 31, 2018	3
January 2019	9
February 2019	14
March 2019	11
April 2019	3
May 1-26, 2019	5
<i>TOTAL</i>	45

Degree of Toxicity of Discharge

The Enforcement Policy states that the degree of toxicity considers the physical, chemical, biological, and thermal characteristics of the discharge or material involved in the violation and the risk of damage the discharge could cause to the receptors or beneficial uses. Evaluation of the discharged material’s toxicity should account for all the characteristics of the material prior to discharge, including whether it is partially treated, diluted, concentrated, or a mixture of different constituents. Toxicity analysis should include assessment of both lethal and sublethal effects such as effects on growth and reproduction. A score between 0 and 4 is assigned based on a determination of the risk and threat of the discharged material.

Here, large volumes of sediment-laden stormwater were discharged over an extended period of time, to a sediment impaired receiving water system. The discharged sediment included very fine silt and clay-size material likely produced by blasting at the Facility, and the “cake”¹⁴ material produced during crushing and washing in the recovery process. The “cake” material was stockpiled at the top of the Facility where it was left uncovered and allowed to contact stormwater and be transported to Porter Creek. This “cake” material is particularly deleterious to aquatic species because it does not readily settle in the water column and, therefore, has a long residence time in the environment, travels long distances, and results in elevated turbidity¹⁵ levels for extended periods of time.

¹³ NOAA record available online: <https://www.ncdc.noaa.gov/cdo-web/datasets/LCD/stations/WBAN:23213/detail>

¹⁴ Waste material, consisting of fine grained sediment, produced from filtering process water.

¹⁵ The cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU) or Jackson Turbidity Units (JTU). (Industrial General Permit, Attachment C, Glossary, page 8)

Sediment that is discharged into receiving waters is problematic in many ways. When suspended in the water column it causes elevated turbidity levels in the water column; clouding receiving waters and reducing the amount of sunlight reaching aquatic plants. Sediment can clog fish gills, reduce visibility making it difficult for fish to locate food, find mates, and seek cover and avoid predators.

Even short periods of elevated turbidity, or minimal increases to turbidity, can have significant impacts on aquatic species such as juvenile salmonids. Studies show that reactive distances, the area in which fish can detect and capture prey, changed significantly in rainbow trout from 80 percent to 45 percent respectively in 15 nephelometric turbidity units (NTU) and 30 NTU.¹⁶

As sediment settles out of the water column, it impairs aquatic life through deposition of fine grain particles into spawning, rearing, and interstitial niche habitats in a stream's substrate. The filling in of interstitial niches reduces habitat availability; reduced habitat availability in turn affects habitat complexity and biodiversity of species, which affects available food sources in terms of available grazing, shredding, and prey species types.¹⁷ The accumulation of sediment in the substrate also affects permeability and can result in less oxygen available in the substrate to support aquatic flora and fauna. Sediment deposition may also reduce the storage capacity of the stream and lead to shallower stream channels, causing flooding, stream bank scouring, and increases in stream temperature which in the short term can kill fish and other species and make the waterway unsuitable habitat to sensitive species in the long term.

Sediment can also mobilize and transport other pollutants such as, nutrients, metals, and oils and grease, that can be toxic to aquatic organisms.¹⁸

Potential receptors in the Mark West Creek watershed and Porter Creek include: anadromous fish (steelhead trout, and Coho salmon), aquatic insects and plants, and domestic water users.¹⁹ The discharged sediment from the Facility poses an above-moderate and direct threat to these potential receptors.

The Prosecution Team has assigned a Degree of Toxicity of Discharge score of 3, as sediment-laden stormwater posed an above moderate risk or threat to potential receptors.

¹⁶ Barrett, J. C., Grossman, G. D., Rosenfeld, J., Turbidity Induced Changes in Reactive Distances of Rainbow Trout, Transactions of the American Fisheries Society, 121:437-443, 1992.

¹⁷ Bash, J., Berman, C., Bolton, S., Effects of Turbidity and Suspended Solids on Salmonids, Center of Streamside Studies, University of Washington, 22-23, 2001.

¹⁸ Industrial General Permit, Fact Sheet, Page 51.

¹⁹ California Department of Fish and Wildlife Study Plan - Habitat and Instream Flow Evaluation for Anadromous Steelhead and Coho Salmon in Upper Mark West Creek, Sonoma County.

Actual or Potential for Harm to Beneficial Uses

The Enforcement Policy states that evaluation of the actual or potential for harm to beneficial uses considers the harm to beneficial uses in the affected receiving water body that may result from exposure to the pollutants or contaminants in the discharge. The Regional Water Board may consider actual harm or potential harm to human health and/or beneficial uses. The score evaluates direct or indirect actual harm or potential for harm from the violation. The harm or potential harm to beneficial uses ranges between 0 and 5 based on a determination of whether the harm or potential for harm to beneficial uses is negligible (0), minor (1), below moderate (2), moderate (3), above moderate (4), or major (5). The Enforcement Policy defines moderate as impacts that are observed or reasonably expected potential impacts, but harm or potential harm to beneficial uses is moderate and likely to attenuate without appreciable medium or long term acute or chronic effects.

The discharge from the Facility had a significant amount of sediment when compared with the levels measured in Porter Creek upstream of the Facility's discharge locations. For example, samples collected by Regional Board Staff on January 9th, 2019 during a rain event that generated 0.59" that day show that the turbidity of the discharge from the Facility was measured to be greater than 2,000 NTU (Nephelometric Turbidity Units) while the background turbidity in Porter Creek upstream of the Facility's discharge location was 61.7 NTUs.

These discharges from the Facility had a significant and measurable impact on the receiving water. The increase in turbidity from January 9th, 2019 show that the level at the Facility's discharge location in Porter Creek was 1,684 NTUs while upstream was only 61.7 NTUs. This increase represents a 2,629% increase in turbidity over upstream background levels due to the discharge from the Facility.²⁰ As stated in the Basin Plan "Turbidity shall not be increased more than 20 percent above naturally occurring background levels."²¹

The receiving water is listed on the Clean Water Act section 303(d) list as a sediment-impaired system²² thus indicating that there is no assimilative capacity for the system to take on additional sediment without adversely impacting water quality. The discharge of sediment-laden water from the Facility into Porter Creek was a persistent condition that repeatedly caused impacted conditions over at least a year.

Discharges from the Facility resulted in significant deposits of fine sediment in the Porter Creek stream channel, impacting habitat while deposited, and available to become resuspended and transported farther downstream with each subsequent high

²⁰ Inspection Report for inspection conducted on January 9, 2019.

²¹ The Water Quality Control Plan for the North Coast Region (Basin Plan), Page 3-6.

²² The Russian River and its tributaries are listed as impaired for sediment under Clean Water Act Section 303(d) available online at:

https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml

flow event. Sediment discharges from the Facility are reasonably expected to have a negative impact on the beneficial uses for the Mark West Subarea and Porter Creek, especially those related to aquatic beneficial uses which are present and include: cold freshwater habitat (COLD); rare, threatened, or endangered species (RARE); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPAWN).²³

While impacts from the high turbidity to beneficial uses are reasonably expected, it is likely that the turbidity and sediment discharged from the Facility into receiving waters attenuated without appreciable medium or long term acute or chronic effects because exceedances were limited to storm events and subsequent high flow events.

For this violation, the *Actual or Potential Harm to Beneficial Uses* was determined to be Moderate (3).

Susceptibility to Cleanup or Abatement

As described in the Enforcement Policy a score of 1 should be assigned when a discharger cleans up 50 percent or less of the discharge in a reasonable amount of time. Although it would have been possible for the Discharger to clean up some of the sediment deposited in the receiving water, there is no evidence in the record to suggest that the Discharger conducted any of this cleanup work. Therefore, a score of 1.0 is assigned.

The Prosecution Team has assigned a factor of 1 because more than 50 percent of the sediment entrained in the stormwater discharged to Porter Creek has dispersed and dissipated in the watershed; thus, cleanup or abatement of the sediment was not possible.

Deviation from Requirement

The requirement under Industrial General Permit Discharge Prohibition III.A is that any discharges of stormwater that are not specifically authorized are prohibited.

The Permit authorizes discharges only when all other provisions of the Permit are properly implemented at an industrial facility. The Discharger failed to meet the minimum and advanced BMP requirements of the Permit, as alleged in Violations 2 through 5, during the entire time period alleged for Violation 1. Therefore, the ongoing discharge of polluted stormwater from the Facility was not authorized by the Permit.

²³ The Water Quality Control Plan for the North Coast Region (Basin Plan), Page 2-11.

The relevant discharge prohibition was rendered ineffective in its essential function because the Facility failed to implement adequate and effective²⁴ minimum and advance BMPs.

The Deviation from Requirement was determined by the Prosecution Team to be Major.

²⁴ Where staff use the terms “effective” or “adequate” within this document, those terms are defined as follows: (1) Effective: successful in producing a desired or intended result. This may refer to the effectiveness of individual BMPs in performing their intended function, or to the effectiveness of an overall pollution control strategy to control and minimize the transport and discharge of pollutants. (2) Adequate: sufficient, enough. In some places staff observed BMPs that had been deployed, and those BMPs were correctly installed and individually effective, but not deployed in sufficient number or quantity to ensure overall effectiveness in controlling pollution.

Per Gallon Penalty Calculation for Violation 1

$$\begin{aligned} \text{Per Gallon Penalty} &= (\text{Gallons})(\text{Per Gallon Factor})(\text{Per Gallon Penalty}) \\ &= (10,518,608)(0.41)(\$1 \text{ per gallon}) \\ &= \$4,312,629 \end{aligned}$$

Where:

Gallons = Gallons of Discharge
= 10,519,608 gallons- 1,000 gallons
= **10,518,608 gallons**

Per Gallon Factor is determined based on the application of the following factors to "Table 1- Per Gallon Factor for Discharge" = **0.41**

Potential for Harm = *Toxicity + Harm to Beneficial Uses + Cleanup*
= 3+3+1= **7**

Where:

Toxicity = Degree of toxicity of discharge =Above Moderate= 3

Harm to Harm to Beneficial Use = Moderate= 3

Cleanup = Susceptibility to cleanup or abatement= 1

Deviation from Requirement = Major

Per Gallon Penalty = \$1 per gallon = Water Code section 13385(c)(2) applies a per gallon liability to every gallon discharged, but not cleaned up, over 1,000 gallons. For discharges in excess of 2,000,000 gallons the Water Boards may elect to use \$1.00 per gallon

Discussion of Additional Factors for Per Gallon Liability for Violation 1

Gallons of Discharge

As stormwater flows through the Facility it picks up sediment generated by the industrial activities, and during the period of violation, was not adequately managed through other minimum and advanced BMPs, ultimately, resulting in the discharge of sediment laden stormwater to surface waters.²⁵

The gallons of discharge alleged in this violation are based on calculations provided by the Discharger in response to the Regional Water Board's 13267 Investigative Order R1-2019-0029, including revisions to that response to reflect onsite storage and reuse. The Discharger provided calculations for all stormwater discharged from Tributary Area C in the 2018-2019 rain season. While the Facility includes some storage capacity, and the Discharger's calculations reflect this, Regional Water Board staff observed that the stormwater runoff exceeded the capacity of storage volume in Tributary Area C.²⁶

Taking into account this storage volume, and the reuse of a portion of the collected stormwater as process water, the total volume of unauthorized discharge is 10,519,608 gallons. Per Water Code section 13385 subdivision (c)(2), per gallon liability is imposed for every gallon discharged over 1,000 gallons but not cleaned up. Therefore, 10,518,608 gallons is the volume used in the liability calculations.

Note, Table 2 includes dates not included in Table 1, above. As described above, the Prosecution Team has determined that it will only allege days of violation for rain events over 0.1 inch in a day. However, Table 2 includes all gallons actually discharged, as reported by the Discharger.

²⁵ Discharger's response to Investigative Order No. R1-2019-0029.

²⁶ See Regional Water Board Inspection Reports for inspections dated December 17, 2018; January 9 and 16, 2019; February 13, 19, and 26, 2019; March 20, 2019; and May 16, 2019, December 2 and 6, 2020.

Table 2 – Unauthorized Gallons of Discharge from Tributary Area C for the 2018/2019 wet season as provided by the Discharger²⁷

Storm Event	Gallons of Discharge
September 29-October 2, 2018	90,366
November 21-23, 2018	458,574
November 27-December 1, 2018	653,188
December 5, 2018	2,192
December 14-18, 2018	301,871
December 21-24, 2018	182,081
January 5-11, 2019	1,109,997
January 14-20, 2019	748,813
January 30-February 5, 2019	507,500
February 8-17, 2019	1,539,180
February 25-27, 2019	1,998,419
March 2-6, 2019	546,492
March 9-10, 2019	271,467
March 20-28, 2019	937,421
April 1-8, 2019	200,586
April 15, 2019	20,159
May 16-21, 2019	923,131
May 26, 2019	28,171
TOTAL	10,519,608

Per Gallon Penalty- High Volume Discharges

For discharge violations, Water Code section 13385 subdivision (c) states that civil liability may be imposed 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, over 1,000 gallons, up to ten dollars (\$10) per gallon.

The Enforcement Policy notes that “[i]n most cases, the Water Boards shall apply the per gallon factor to the maximum per gallon amounts allowed under the Water Code.” However, the Enforcement Policy does allow the Regional Water Board to elect to use a value between \$2.00 and \$10.00 per gallon for discharges that are between 100,000

²⁷ The Discharger’s response to Investigative Order No.R1-2019-0029 calculated the total gallons of discharge by first applying the Modified Rationale Method to estimate the volume of stormwater runoff from the Facility taking into consideration the tributary area, a weighted runoff coefficient, and local rainfall data. Then, the Discharger subtracted the storage volume and the total gallons of stormwater reused within the Facility to estimate the total gallons discharged.

and 2,000,000 gallons, and that the Regional Water Board may elect to use a maximum of \$1.00 per gallon where the volume of waste discharged is more than 2,000,000 gallons.

While volumes of storm water discharged during the several storm events covered within this time period may have been individually less than 2,000,000 gallons and, for some single storm events less than 100,000 gallons individually, the Prosecution Team has elected to apply a **\$1.00 per gallon liability** to the total volume of storm water discharged during this period due to the extensive cumulative volume.

Initial Penalty Calculation for Violation 1

$$\begin{aligned} \text{Violation 1 Initial Penalty} &= \text{Per Day Penalty} + \text{Per Gallon Penalty} \\ &= \$184,500 + \$4,312,629 \\ &= \$4,497,129 \end{aligned}$$

Adjusted Penalty Calculations for Violation 1

$$\begin{aligned} \text{Violation 1 Adjusted Penalty} &= (\text{Initial Penalty})(\text{Culpability})(\text{History})(\text{Cleanup \& Cooperation}) \\ &= (\$4,497,129)(1.3)(1.1)(1.3) \\ &= \$8,360,163 \end{aligned}$$

Where:

Initial Penalty = \$4,497,129
Culpability = 1.3
History = 1.1
Cleanup and Cooperation = 1.3

Discussion of Violator's Conduct Factors for Violation 1

Degree of Culpability

The Enforcement Policy directs that in order to determine the Discharger's culpability, the first step is to identify any performance standards (or, in their absence, prevailing industry practices) in the context of the violation. The test for whether a discharger is negligent is what a reasonable and prudent person would have done or not done under similar circumstances. Adjustment should result in a multiplier between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, and a lower multiplier for more simple negligence. A neutral assessment of 1.0 should be used when a discharger is determined to have acted as a reasonable and prudent person would have. A multiplier of less than 1.0 should only be used when a discharger demonstrates that it has exceeded the standard of care expected of a reasonably prudent person to prevent the violation.

From December 2018 to May 2019, Regional Water Board staff conducted numerous inspections, including one inspection in February 2019 accompanied by the United States Environmental Protection Agency (USEPA) and County of Sonoma Permit and Resource Management (PRMD) staff. Throughout these inspections, Regional Water Board staff, and accompanying agencies, observed features or conditions at the Facility that did not comply with the Industrial General Permit. During inspections, and in follow up correspondence, Regional Water Board staff documented and communicated these deficiencies to the Discharger.

In short, the Discharger's BMPs were inadequate or ineffective and/or were not maintained appropriately during the entire 2018/2019 rainy season.²⁸ During this time Regional Water Board staff observed little, or no, evidence of changes made to the Discharger's operations, and little or no improvement to the type or extent of BMP implementation until the 2019/2020 rainy season, which is more than a year after the alleged period of violation.²⁹

Even before the Regional Water Board began more active oversight of the Facility in 2018, the Dischargers had received written notice that the Facility conditions were in violation of the Permit. In May 2016, the Regional Water Board issued a Notice of Violation (NOV) to the Discharger for its failure to comply with the Permit's discharge prohibitions and Numeric Action Levels (NALs).

During the 2016/2017 reporting year, the Discharger's samples exceeded the annual NALs for Total Suspended Solids (TSS) and entered Level 2 status, the highest

²⁸ See Regional Water Board Inspection Reports for inspections dated December 17, 2018; January 9, 2019; February 19, 2019; February 26, 2019; March 20, 2019; May 14, 2019; and May 16, 2019.

²⁹ See Regional Water Board Inspection Report for inspection dated August 13, 2020.

regulatory status under the Permit. Samples collected during the 2016/2017, 2017/2018, and 2018/2019 reporting years by the Discharger exceeded the annual NAL for TSS. Correspondingly, the Discharger's December 2017 "Exceedance Response Action Level 2 Action Plan (Level 2 Plan)" lists several "pollutant sources that are likely contributing to the NAL exceedance" including material storage and material tracking. Despite these indications that BMPs at the Facility were deficient, the Discharger did not implement any significant changes to BMP management or deploy additional BMPs during the period of alleged violation.

Additionally, during a Facility inspection in February 2019, the Discharger stated that it did not have a routine schedule to clean the settling tanks or assess accumulated sediment levels in the tanks. The failure to have appropriate operations and maintenance schedules to ensure the settling tanks properly functioned is not reasonable.

The Discharger has operated the Facility and been enrolled under the Permit since March 1993. The Permit identifies sediment as a core pollutant, requires monitoring of TSS, and requires both minimum and advanced BMPs that are inspected regularly to ensure that they are properly installed, well maintained, and effective to prevent the discharge of pollutants. Additionally, the Discharger is regulated under the Surface Mining and Reclamation Act (SMARA) program and was issued a Conditional Use Permit by the County of Sonoma in 2013 which specifically states: "Runoff containing sediment or other waste or by-products shall not be allowed to drain to the storm drain system, waterway(s), or adjacent lands."

Despite the Discharger's enrollment in the Permit, the Regional Water Board's NOVs, multiple NAL exceedances, and numerous site inspections with verbal warnings and written inspection reports identifying deficiencies, minimal improvements were made at the Facility to reduce or prevent the continued discharge of sediment-laden stormwater to Porter Creek over the course of the period of violation.

By January 29, 2020, the Discharger had installed and began operating a treatment system to further reduce sediment in its discharged stormwater through the use of chemical flocculent. The treatment system is considered an advanced BMP, as described in Permit Section X.H.2iii.³⁰ The treatment system, in tandem with the improvements to minimum and other advanced BMPs, discussed in more detail below, comply with the requirements of the Permit with regards to Section X.H.. However, sampling data collected during the 2019/2020 rain season after the new treatment system came online indicate that the Discharger is still discharging stormwater that exceeds the Basin Plan's turbidity objective. The Facility's discharge is substantially less turbid than in years prior due to the improved, and expanded, BMP implementation and maintenance.

³⁰ Discharger's SWPPP dated August 17, 2020, Appendix 5.

During the 2018/2019 rainy season, the Discharger knew or should have known, based on its own sampling data and Regional Water Board communications and inspections, that its BMP controls were inadequate. The Discharger knew or should have known that the settling tanks, ponds, and structures lacked the capacity and functionality to be effective in controlling the amount of sediment in stormwater generated on-site. Yet the Discharger allowed turbid, inadequately treated, stormwater discharges to continue throughout the period of violation.

Therefore, the Prosecution Team has assigned Degree of Culpability Factor of 1.3.

History of Violations

According to the Enforcement Policy, where the discharger has no prior history of violations, this factor should be neutral, or 1.0.

On August 19, 2021 the Regional Water Board adopted stipulated Cease and Desist Order R1-2021-0027 (CDO) requiring Dean Soiland, doing business as Bo Dean Co., Inc., to comply with the Industrial General Permit at another industrial facility. The CDO was based on violations of the Industrial General Permit identified at another facility. Because the Discharger has a history of adjudicated violations, **the Prosecution Team has determined that a 1.1 is appropriate.**

Cleanup and Cooperation

As stated in the Enforcement Policy, cleanup and cooperation takes into account voluntary efforts to cleanup and/or to cooperate with regulatory authorities in returning to compliance after the violation. Any adjustment results in a multiplier between 0.75 to 1.5, using the lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and higher multiplier where there is not. A reasonable and prudent response to a discharge violation or timely response to a Water Board order should receive a neutral adjustment as it is assumed a reasonable amount of cooperation is the warranted baseline.

Although it would have been possible for the Discharger to cleanup some of the sediment deposited in the receiving water, there is no evidence in the record to suggest that the Discharger conducted any of cleanup work. Further, because the sediment that was discharged had been mobilized into the environment, cleanup is no longer feasible.

In addition, the Discharger did not respond in a timely fashion to correct conditions of noncompliance at the Facility. Despite multiple NOV's, Inspection Reports, and written and oral communication by Regional Water Board staff, the Discharger failed to take significant action to achieve compliance with the Permit until after the last day of alleged

violation.³¹ Although staff of several agencies, including the Regional Water Board, USEPA, and the County of Sonoma identified and communicated to the Discharger specific deficiencies and concerns, the Discharger failed to cooperate with regulatory agencies to make the changes or improvements to its BMPs and pollution control efforts during the 2018-2019 wet weather discharge events.

By June 2019, the Discharger was making a good faith effort to improve Facility conditions. Improvements to Facility conditions after the 2018/2019 rainy season include enhanced sweeping protocols, improved maintenance of rock lined ditches, reducing stockpiles on the active mining face, and paving of the access road and portions of the third bench area. Additionally, improvements to the Facility's BMPs are more specifically discussed in Violation 2 through 5.

While the Facility failed to install adequate and effective minimum and advanced BMPs in a timely manner, the Discharger did begin evaluating the option of installing a chemical flocculent treatment systems to treat discharge from portions of the Facility during the 2018/2019 rain season. One treatment system was installed to treat the discharge from Tributary Area C and another system was installed to treat Tributary Areas B and C. These treatment systems ultimately became operational on January 29, 2020.³²

The Facility is currently in compliance with the minimum and advanced BMP requirements of the Permit, as confirmed in an inspection conducted on August 24, 2021. But, it took the Discharger far too long to implement the required corrective actions. A reasonable and prudent discharger would have responded in a timely manner. The Discharger's response fell below what is normally expected. Additionally, staff is not aware that the Discharger undertook any cleanup that would be considered exceptional in response to this violation.

Therefore, a Cleanup and Cooperation Factor of 1.3 has been assigned.

By applying the factors to Violation 1, the final adjusted liability is \$8,360,163.

³¹ See May 2016 Notice of Violation from the Regional Water Board, and Regional Water Board Inspection Reports for inspections dated December 17, 2019, January 9, 2019, February 26, 2019, March 20, 2019, and May 14, and 16, 2019.

³² Email dated January 29, 2019 from Masele Poueu to Paul Nelson, Anthony Boyle, and Farzad Kasmaei.

Statutory Maximum Penalty for Violation 1

$$\begin{aligned} \text{Violation 1 Statutory Maximum Penalty} &= (\text{Day})(\text{Statutory Max Per Day}) \\ &\quad + (\text{Gallons})(\text{Per Gallon Max}) \\ &= (45 \text{ day})(\$10,000 \text{ per day}) + (10,518,608 \text{ gal})(\$10 \text{ per gal}) \\ &= \$105,636,080 \end{aligned}$$

Final Penalty Calculation for Violation 1

$$\begin{aligned} \text{Final Penalty for Violation 1} &= \text{Adjusted Penalty unless it exceeds the} \\ &\quad \text{Statutory Maximum Penalty} \\ &= \$8,360,163 \text{ Adjusted Penalty} < \$105,636,080 \text{ Statutory Maximum Penalty} \\ &= \$8,360,163 \text{ Adjusted Penalty} \end{aligned}$$

Violations 2 -5: Non-Discharge Violations

Between December 17, 2018 and August 13, 2020 the Facility failed to install and implement effective minimum and advanced BMPs as required by the Permit. During the days of violation alleged in Violations 2 through 5, Regional Water Board staff observed persistent and continued failure to meet these requirements. Minimum BMPs were mostly absent from the Facility, or when present were incorrectly installed, were in poor condition, or ineffective.

August 13, 2020 represents the final date of violation for Violations 2-4, is the last inspection date that the Regional Water Board was present at the Facility where insufficient minimum BMPs were observed, as discussed below. By November 17, 2020, the Facility had corrected identified deficiencies and that the Facility's BMPs were adequate, as confirmed by submissions from the Discharger.

The Facility also includes advanced BMPs consisting of a number of small ponds and tanks that are used to collect and hold stormwater and settle sediment out of stormwater, a portion of which is pumped back for reuse as process water and dust control.³³ Regional Water Board staff observed persistent and continued deficiencies throughout the Facility in the use and maintenance of these advanced BMPs to control and prevent the discharge of pollutants. December 6, 2020 is the last inspection date that the Regional Water Board was present at the Facility and observed insufficient existing advanced BMPs as discussed below. Therefore, December 6, 2019 is the last day of alleged Violation 5. According to Facility staff, the new treatment system became operational on January 29, 2020.

These non-discharge violations are alleged in a manner that reduces the number of total violations by condensing separate violations into four groups of violations. Violations 2 through 5 cite to the Permit by section, and not by individual subpart. This approach defines each violation as a category of violations, which incorporates multiple Permit provisions into single alleged violation as follows: (Violation 2) good housekeeping minimum BMPs; (Violation 3) material handling and waste management minimum BMPs; (Violation 4) erosion and sediment controls; and, (Violation 5) advanced BMPs.

Days of Violation

Between December 17, 2018 and August 13, 2020, Regional Water Board staff observed ongoing and persistent BMP deficiencies at the Facility, which continually resulted in sediment-laden discharges during the 2018/2019 rainy season. Over the course of this period, Regional Water Board staff, did not observe improvements to deficient BMPs during its 13 inspections of the Facility. There is no evidence in the record that the Discharger was implementing adequate corrective actions between

³³ Discharger's response to Investigative Order No.R1-2019-0029.

Regional Water Board inspections until the Discharger provided documentation in a written response to the August 13, 2020 inspection report that the Facility had made significant improvements to its BMPs.

In determining which days of violation to allege, the Prosecution Team began with the first inspection date where staff observed the non-discharge violation to the last inspection date where staff observed the non-discharge violation. Considering the same violations were observed each inspection, it is reasonable to conclude the BMPs were not implemented and maintained in a sufficient manner throughout the season. Moreover, the sorts of BMP deficiencies alleged herein could not be easily corrected on a day to day basis. Instead, significant time and resources would have had to be invested in bringing the Facility into compliance with these provisions. Therefore, it is noncompliant conditions persisted at the Facility, even on dates that the Regional Water Board was not present, over the entire course of the alleged violation.

Instead of alleging every intervening day of violation, the Prosecution Team is proposing to address the days within this date range where there were rain events greater than 0.1 inch. As described in Violation 1, Regional Water Board staff concluded the discharge sediment laden stormwater occurred from the Facility from storms that generated 0.1 inch or more within a day.

Therefore, applying this enforcement discretion the resulting days of alleged violation are as follows. For Violations 2 and 4, the Prosecution Team is alleging a total of 125 days of violation beginning on December 18, 2018. For Violation 3, the Prosecution Team is alleging a total of 92 days of violation because this violation was first identified at a later date, due to the difficulty of accessing portions of the Facility during earlier inspections, on February 19, 2019. For Violation 5, the total alleged days of violation is 53 beginning on December 18, 2018 and ending on December 6, 2019 which is the last inspection where insufficient existing advanced BMPs were observed.

The Industrial General Permit does not identify a difference between rainy or dry seasons and regulates industrial stormwater and authorized non-stormwater discharges all year long. The Prosecution Team is putting the Discharger on notice that the Regional Water Board, after hearing, may find that there is substantial evidence the Discharger violated every Intervening day from the first day to the last day of Violations 2 through 5. The total days, including all intervening days for Violations 2 through 5 is: 606 days of violation for Violation 2, 542 days of violation for Violation 3, 606 days of violation for Violation 4, and 355 days of violation for Violation 5.

Violation 2- Non-Discharge Violation

From December 17, 2018 through August 13, 2020, and for 125 days, the Discharger violated Industrial General Permit Section X.H.1.a. by failing to implement and maintain good housekeeping minimum BMPs.

The Industrial General Permit mandates that discharger implement and maintain good housekeeping minimum BMPs to reduce or prevent pollutants in industrial storm water discharges.³⁴ Good Housekeeping BMPs require dischargers to undertake a number of specified actions to ensure that their facility is generally clean and that there is not an undue risk of materials being exposed to stormwater.

For example, some minimum good housekeeping BMPs include: “Observe all outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly;” and “Cover all stored industrial materials that can be readily mobilized by contact with storm water;” and “Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system.”³⁵

Basis of Violation

Over the course of ten inspections, Regional Water Board staff specifically observed the Discharger’s failure to comply with the good housekeeping BMP requirements of Section X.H.1.a. on the following dates:

1. December 17, 2018
2. January 9, 2019
3. February 19, 2019
4. February 26, 2019
5. March 20, 2019
6. May 14, 2019
7. May 16, 2019
8. December 2, 2019
9. December 6, 2019
10. August 13, 2020

From December 17, 2018 through at least August 13, 2020, the Facility lacked adequate good housekeeping minimum BMPs necessary to comply with the Permit and prevent the discharge of pollutants in the Facility’s stormwater. During the Regional

³⁴ Industrial General Permit, Section X.H.1., Page 30.

³⁵ Industrial General Permit, Section X.H.1., Page 30.

Violation 2- Good Housekeeping

Water Board's inspections during this period large quantities of sediment were observed accumulated within the onsite drainage system (culverts, inlets, pipes, valley gutters, drainage ditches) and on paved surfaces that drain to these systems. Accumulated sediment was often observed to be so deep that erosional rills were evident even on paved surfaces. Large quantities of sediment were observed directly in the storm drain system which ultimately discharges to Porter Creek. Additionally, stored industrial materials, stockpiles, and wastes were uncovered and exposed to rainfall and often located directly in drainage flow paths. The BMPs located downstream of these areas were full of fine sediment as a result and therefore were also rendered ineffective.

Per Day Penalty Calculation for Violation 2

$$\begin{aligned} \text{Per Day Penalty} &= (\text{Days})(\text{Per Day Factor})(\text{Statutory Max Per Day}) \\ &= (125 \text{ days})(0.55)(\$10,000 \text{ per day}) \\ &= \$687,500 \end{aligned}$$

Where:

Days = Days of Violation
= **125 days**

Per Day Factor is determined based on the application of the following factors to "Table 3- Per Day Factor for Non-Discharge" = **0.55**

Where:

Potential for Harm = Moderate
Deviation from Requirement = Major

Statutory Max Per Day= \$10, 000 per day

Discussion of Factors for Per Day Liability for Violation 2

Days of Violation

Consistent with the discussion above, there are **125 days of alleged violation** between December 17, 2018 and August 13, 2020 during the period when the Discharger failed to implement and maintain good housekeeping minimum BMPs at the Facility.

Potential for Harm

The following analysis is also applicable to Violations 2 through 5.

Per the Enforcement Policy, an assignment of **Moderate** for Potential for Harm when: “The characteristics of the violation have substantially impaired the Water Boards’ ability to perform their statutory and regulatory functions, present a substantial threat to beneficial uses, and/or the circumstances of the violation indicate a substantial potential for harm.”

Failure to properly implement and maintain minimum and advanced BMPs creates a moderate potential for harm because it creates conditions where pollutants, specifically sediment, are likely to be discharged into waters of the United States. The Discharger’s continued failure to implement adequate BMPs allowed sediment and other industrial materials³⁶ to be exposed to stormwater and ultimately transported to and discharged into Porter Creek.

As discussed in further detail in Violation 1, sediment discharged into surface waters can cloud the receiving water, thereby reducing the amount of sunlight reaching aquatic plants, clog fish gills, and smother aquatic habitat and spawning areas. Sediment can also transport other materials such as nutrients, metals, and oils and grease which can cause toxicity to aquatic organisms. Therefore, the failure to adequately implement and maintain minimum and advanced BMPs poses a threat to the following beneficial uses for Porter Creek:³⁷

- Commercial and sport fishing (COMM);
- Warm freshwater habitat (WARM);
- Cold freshwater habitat (COLD);
- Wildlife habitat (WILD);
- Rare, threatened, or endangered species (RARE);

³⁶ Other industrial materials refer to “cake,” overburden, and process water from the “cake” storage area as described in Violation 1, above.

³⁷ The Water Quality Control Plan for the North Coast Region (Basin Plan), page 2-11.

- Migration of aquatic organisms (MIGR); and,
- Spawning, reproduction, and/or early development (SPAWN).

The Prosecution Team has assigned a Moderate potential for harm.

Deviation from Requirement

Good housekeeping minimum BMPs, such as; preventing the disposal of industrial materials into the stormwater conveyance system, observing outdoor areas and removing and disposing of waste and materials, and covering stored industrial materials, were not deployed at the Facility. The Permit's BMP requirements were thus rendered ineffective in their essential function.

The Prosecution Team has determined that a **major deviation from requirement** is appropriate for this Violation. Throughout the entire period of the alleged violation Regional Water Board Staff observed that good housekeeping requirements were inadequate, ineffective, or absent thus rendering this requirement ineffective in its essential function.

Initial Penalty Calculations for Violation 2

Violation 2 Initial Penalty = \$687,500

Adjusted Penalty Calculations for Violation 2

Violation 2 Adjusted Penalty = (Initial Penalty)(Culpability)(History)(Cleanup & Cooperation)
= (\$687,500)(1.3)(1.1)(1.2)
= \$1,179,750

Where:

Initial Penalty = \$687,500

Culpability = 1.3

History = 1.1

Cleanup and Cooperation = 1.2

Discussion of Violator's Conduct Factors for Violation 2

Degree of Culpability

The following analysis is relevant to Violations 2 through 5.

The Discharger has been regulated under the Permit since 2015 and therefore should be familiar with all its requirements including those related to BMPs. The Discharger prepared and submitted a Storm Water Pollution Prevention Plan (SWPPP) which addresses the requirements of Section X.H. and establishes a plan for implementation and maintenance of minimum and advanced BMPs.

A reasonable industrial discharger would fully implement its SWPPP to reduce pollutants in its discharge. Especially after reviewing sampling data indicating that the TSS of its discharge was in exceedance of the Permit's NALs, the Discharger should have understood that its existing BMP practices were inadequate to meet the terms of the Permit. As contemplated by the Industrial General Permit, the Discharger should have iterated its BMPs to ensure that the Facility did not pose an undue risk to water quality.

As discussed above, both Regional Water Board staff and the Discharger collected and analyzed from the receiving water upstream and downstream of the Facility's discharge location (SP-3).³⁸ These results demonstrate that the minimum and advanced BMPs at the Facility were wholly inadequate and ineffective at preventing the discharge of sediment.

Despite this, the Discharger failed to conduct and implement minimum and advanced BMPs at the Facility over a period spanning at least twenty months. The Discharger was repeatedly informed by Regional Water Board staff that it was failing to meet the requirements of Section X.H. during inspections, in inspection reports, and in other written correspondence. Regional Water Board staff participated in meetings with the Discharger to discuss improvements needed to bring housekeeping BMPs into compliance with the Permit. Despite this outreach, it took the Discharger a significant amount of time to resolve deficiencies identified in Violations 2 through 5.

The Discharger's initial BMP implementation and ongoing response to identified deficiencies falls below what is expected of a reasonable and prudent discharger in a similar circumstance. Therefore, **a factor of 1.3 Degree of Culpability is appropriate.**

³⁸ See Regional Water Board Inspection Reports for inspections dated December 17, 2018; January 9 and 16, 2019; February 13, 19, and 26, 2019; March 20, 2019; and May 16, 2019. Also see Discharger's monthly reports provided in response to Investigative Order No.R1-2019-0029.

History of Violations

For the reasons discussed in Violation 1, **a score of 1.1 has been applied.**

Cleanup and Cooperation

For the entire date range identified in Violation 2, spanning approximately 20 months, the Discharger failed to fully implement effective good housekeeping minimum.

The Discharger was informed of the deficiencies of its good housekeeping minimum BMPs by Regional Water Board inspectors during at least 10 inspections through verbal communication, written inspection reports, and a Notice of Violation. Additionally, the Facility was inspected by USEPA, who also identified deficiencies with minimum good housekeeping practices both verbally and in their written inspection reports.

The Facility was also inspected by the County of Sonoma, who oversees the Facility's compliance with SMARA and the issued Conditional Use Permit in 2013. The County of Sonoma Permit and Resource Management Department (PRMD) issued a letter on March 20, 2019 summarizing their inspection findings, which included deficiencies in good housekeeping BMPs. County of Sonoma also issued a Notice of Correction on June 24, 2019 for failure to comply with the Conditional Use Permit, which also called out specific non-compliance with minimum good housekeeping BMPs.

After the period of violation, the Discharger implemented additional good housekeeping BMPs including: enhanced sweeping protocols, improved maintenance of rock lined ditches, and increased dust control activities. While this response is reasonable it took far too long for the Discharger to respond and correct the conditions of noncompliance.

A factor of 1.2 for Cleanup and Cooperation is appropriate.

By applying the factors to Violation 2, the final adjusted liability is \$1,179,750.

Statutory Maximum Penalty for Violation 2

$$\begin{aligned} \text{Violation 2 Statutory Maximum Penalty} &= (\text{Days})(\text{Statutory Max Per Day}) \\ &= (125 \text{ days})(\$10,000) \\ &= \$1,250,000 \end{aligned}$$

Final Penalty Calculations for Violation 2

$$\begin{aligned} \text{Final Penalty for Violation 2} &= \text{Adjusted Penalty} \\ &\quad \text{unless it exceeds the Statutory Maximum Penalty} \\ &= \$1,179,750 \text{ Adjusted Penalty} < \$1,250,000 \text{ Statutory Maximum Penalty} \\ &= \$1,179,750 \text{ Adjusted Penalty} \end{aligned}$$

Violation 3- Non-Discharge Violation

From February 19, 2019 through August 13, 2020, and for 92 days, the Discharger violated Industrial General Permit Section X.H.1.d. by failing to implement and maintain Material Handling and Waste Management minimum BMPs.

The Industrial General Permit requires dischargers to implement and maintain material handling and waste management minimum BMPs to reduce or prevent pollutants in industrial storm water discharges.³⁹ Material handling and waste management minimum BMPs require dischargers to: “prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with [stormwater] during a storm event;” and to “divert run-on and [stormwater] generated from within the facility away from all stockpiled material,” among other requirements.

Basis of Violation

Over the course of five inspections, Regional Water Board staff specifically observed the Discharger’s failure to comply with the material handling and waste management minimum BMP requirements of Section X.H.1.d. on the following dates:

1. February 19, 2019
2. February 26, 2019
3. March 20, 2019
4. May 16, 2019
5. August 13, 2020

During the period from February 19, 2019 through August 13, 2020, the Regional Water Board noted several deficiencies associated with the Facility’s material handling and waste management minimum BMPs. Regional Water Board staff documented large stockpiles of highly erodible materials and wastes, including “cake”, that were left unprotected from rain and wind erosion. “Cake” is the waste material byproduct made up of the fines that have been washed out of aggregate product. This material is especially erodible, difficult to remove from runoff by filtering or settling due to the fine particle size, and highly deleterious to fish. In some locations, stockpiled materials were placed directly in runoff flow paths which poses an especially high risk to water quality.

³⁹ Industrial General Permit, Section X.H.1, Page 30.

Violation 3- Minimum BMPs for Material Handling and Waste Management

Per Day Penalty Calculations for Violation 3

Per Day Penalty	= (Days)(Per Day Factor)(Statutory Max Per Day)
	=(92 days)(0.55)(\$10,000 per day)
	=\$506,000

Where:

Days = Days of Violation
= 92 days

Per Day Factor is determined based on the application of the following factors to "Table 3- Per Day Factor for Non-Discharge" = **0.55**

Where:

Potential for Harm = Moderate

Deviation from Requirement = Major

Statutory Max Per Day= \$10,000 per day

Discussion of Factors for Per Day Liability for Violation 3

Days of Violation

Consistent with the discussion above, there are **92 days of alleged violation** between February 19, 2019 and August 13, 2020 during the period when the Discharger failed to implement and maintain material handling and waste management BMPs at the Facility.

Potential for Harm

The Potential for Harm analysis described above in Violation 2 is applicable here.

For the same reasons discussed in Violation 2, **the Prosecution Team has assigned a Moderate potential for harm.**

Deviation from Requirement

Material handling and waste management minimum BMPs such as diverting stormwater away from stockpiled materials and limiting the handling of industrial materials and wastes that can be readily mobilized were not done. The Permit's BMPs were thus rendered ineffective in their essential function.

The Prosecution Team has determined that a **major deviation from requirement** is appropriate in this case as it relates to Section X.H.1.d.. Throughout the entire time of alleged violation Regional Board Staff observed that minimum BMP requirements were inadequate, ineffective, or absent.

Initial Penalty Calculation for Violation 3

Violation 3 Initial Penalty = \$506,000

Violation 3- Minimum BMPs for Material Handling and Waste Management

Adjusted Penalty Calculation for Violation 3

$$\begin{aligned} \text{Violation 3 Adjusted Penalty} &= (\text{Initial Penalty})(\text{Culpability})(\text{History})(\text{Cleanup \& Cooperation}) \\ &= (\$506,000)(1.3)(1.1)(1.2) \\ &= \$868,296 \end{aligned}$$

Where:

Initial Penalty = \$506,000

Culpability = 1.3

History = 1.1

Cleanup and Cooperation = 1.2

Discussion of Violator's Conduct Factors for Violation 3

Degree of Culpability

The Degree of Culpability discussion from Violation 2 applies here. Therefore, **a factor of 1.3 Degree of Culpability is appropriate.**

History of Violations

For the reasons discussed in Violation 1, **a score of 1.1 has been applied.**

Cleanup and Cooperation

For the entire period alleged in Violation 3, which spanned approximately 18 months, the Discharger failed to fully implement effective material handling and waste management minimum BMPs.

The Discharger was informed of the need to implement material handling and waste management BMPs by Regional Water Board inspectors during at least 5 inspections through verbal communication, written inspection reports, and a Notice of Violation. Additionally, the Facility was inspected by USEPA, who also identified significant deficiencies with material handling and waste management both verbally and in its written inspection reports.

Since the Regional Water Board initially identified this violation, the Discharger reviewed the operational practice of storing large stockpiles of recently mined material on the "benches" cut into the active mining face. These stockpiles were a significant source of sediment because they were very large, were located directly in the flow path of runoff, and were unprotected and exposed to wind and rain. In order to comply with the Permit, the Discharger changed its operational practices and stopped locating stockpiles on the benches to reduce this significant sediment source.

A factor of 1.2 for Cleanup and Cooperation is appropriate.

By applying the factors to Violation 3, the final adjusted liability is \$868,296.

Violation 3- Minimum BMPs for Material Handling and Waste Management

Statutory Maximum Penalty for Violation 3

$$\begin{aligned} \text{Violation 3 Statutory Maximum Penalty} &= (\text{Days})(\text{Statutory Max Per Day}) \\ &= (92 \text{ days})(\$10,000) \\ &= \$920,000 \end{aligned}$$

Final Penalty Calculation for Violation 3

$$\begin{aligned} \text{Final Penalty for Violation 3} &= \text{Adjusted Penalty} \\ &\quad \text{unless it exceeds the Statutory Maximum Penalty} \\ &= \$868,296 \text{ Adjusted Penalty} < \$920,000 \text{ Statutory Maximum Penalty} \\ &= \$868,296 \text{ Adjusted Penalty} \end{aligned}$$

Violation 4 - Non-Discharge Violation

From December 17, 2018 through August 13, 2020, and for 125 days, the Discharger violated Industrial General Permit Section X.H.1.e. by failing to implement and maintain erosion and sediment control minimum BMPs.

The Industrial General Permit requires dischargers to implement and maintain minimum erosion and sediment control minimum BMPs.⁴⁰ Erosion and sediment control BMPs require discharger to: “provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event;” and to “divert run-on and [stormwater] generated from within the facility away from all erodible materials.”

Basis of Violation

Over the course of nine inspections, Regional Water Board staff specifically observed the Discharger’s failure to comply with the erosion and sediment control BMP requirements of Section X.H.1.e. on the following dates:

1. December 17, 2018
2. January 9, 2019
3. February 19, 2019
4. February 26, 2019
5. May 14, 2019
6. May 16, 2019
7. December 2, 2019
8. December 6, 2019
9. August 13, 2020

During this entire period the Facility failed to implement the erosion and sediment control minimum BMPs necessary to comply with the Permit and prevent the discharge of pollutants. Large portions of the Facility were observed to have no erosion or sediment controls. Those erosion and sediment BMPs that were in place during the alleged violation period, were improperly installed, inappropriately selected, overwhelmed, and inadequate such that they remained ineffective.

⁴⁰ Industrial General Permit, Section X.H.1, Page 30.

Per Day Penalty Calculations for Violation 4

$$\begin{aligned} \text{Per Day Penalty} &= (\text{Days})(\text{Per Day Factor})(\text{Statutory Max Per Day}) \\ &= (125 \text{ days})(0.55)(\$10,000 \text{ per day}) \\ &= \$687,500 \end{aligned}$$

Where:

Days = Days of Violation
= **125 days**

Per Day Factor is determined based on the application of the following factors to “Table 3- Per Day Factor for Non-Discharge” = **0.55**

Where:

Potential for Harm = Moderate

Deviation from Requirement = Major

Statutory Max Per Day= \$10,000 per day

Discussion of Factors for Per Day Liability for Violation 4

Days of Violation

Consistent with the discussion above, there are **125 days of alleged violation** between December 17, 2018 and August 13, 2020 during the period when the Discharger failed to implement and maintain erosion and sediment control BMPs at the Facility.

Potential for Harm

For the reasons discussed in Violation 2, **the Prosecution Team has assigned a Moderate potential for harm.**

Deviation from Requirement

Erosion and sediment control BMPs such as soil stabilization through the use of hydroseeding, geotextiles, track walking in straw, or control measures such as, but not limited to, straw wattles, gravel bags, check dams, and silt fencing were largely absent, or when present were inadequate such that this Permit condition was rendered ineffective in its essential function.

The Prosecution Team has determined that a **major deviation from requirement** is appropriate in this case as it relates to Section X.H.1.e.. Through the entire time of the alleged violation Regional Water Board Staff observed that erosion and sediment controls were inadequate, ineffective, or absent.

Initial Penalty Calculations for Violation 4

Violation 4 Initial Penalty = \$687,500

Adjusted Penalty Calculations for Violation 4

Violation 4 Adjusted Penalty = (Initial Penalty)(Culpability)(History)(Cleanup & Cooperation) = (\$687,500)(1.4)(1.1)(1.3) = \$1,376,375

Where:

Initial Penalty = \$687,500

Culpability = 1.4

History = 1.1

Cleanup and Cooperation = 1.3

Discussion of Violator's Conduct Factors for Violation 4

Degree of Culpability

The discussion of Degree of Culpability from Violation 2 applies to this Violation.

However, the Discharger's culpability for Violation 4 is enhanced because the Discharger has been regulated under the SMARA Conditional Use Permit issued by the County of Sonoma since 2013. The Discharger's Condition Use Permit specifically requires that the Discharger "...develop and implement a Water Quality Protection Program (WQPP) to control sediment and pollutant runoff from the quarry..." The County Use Permit incorporates a requirement that :*"In areas not being actively mined, bare soil shall be protected from erosion with the application of hydraulic mulch or hydroseeded..."* and *"...bare soil shall be protected by the application of straw mulch, wood mulch, or mats."* These specific requirements which are above and beyond the Industrial General Permit requirements should have resulted in the Discharger implementing additional erosion and sediment control BMPs in order to comply both with the Discharger's Conditional Use Permit and the Industrial General Permit.

Therefore, **a factor of 1.4 Degree of Culpability is appropriate.**

History of Violations

For the reasons discussed in Violation 1, **a score of 1.1 has been applied.**

Cleanup and Cooperation

For the entire period alleged in Violation 4, which spanned approximately 20 months, the Discharger failed to install and/or implement effective erosion and sediment control BMPs at the Facility. BMPs in this category include soil stabilization through the use of hydroseeding, geotextiles, track walking in straw, or control measures such as, but not limited to, straw wattles, gravel bags, check dams, and silt fencing.

The Discharger was informed of the need to implement erosion and sediment control BMPs by Regional Water Board inspectors during at least nine inspections through verbal communication, written inspection reports, and a Notice of Violation. Additionally, the Facility was inspected by USEPA, who also identified significant deficiencies with erosion and sediment control BMPs both verbally and in their written inspection reports. The Facility was also inspected by the County of Sonoma, who oversees the Facility's compliance with SMARA and the issued Conditional Use Permit in 2013, on February 19 and February 26, 2019.

The Notice of Correction issued by the County of Sonoma on June 24, 2019 states that *“The main focus of the violations identified at the site are the lack of structural and non-structural controls for sediment and stormwater management and water quality violations in Porter Creek”*. It goes on to say: *“Without a substantial, fully engineered storm water detention system, combined with intensive non-structural sediment controls, the current site configuration will have recurrent overflow to Porter Creek whenever it rains sufficiently to discharge water from the quarry.”*

The compliance schedule issued by the County required that by October 15, 2019 the Discharger *“Reclaim or stabilize all disturbed areas (excluding active working, processing and storage areas on the quarry floor). Stabilizing measures including but not limited to hydraulic application of surface stabilizing compounds, hydroseeding, mulching or other measures to prevent erosion.”* These specific requirements meet or exceed the minimum requirements of the Industrial General Permit.

An overall lack of erosion and sediment control BMPs continued to be observed for almost a year beyond the stated compliance deadline. Had the Discharger implemented the minimum erosion and sediment controls required by the 1993 Conditional Use Permit, and specifically identified as violations with compliance deadlines in the Notice of Correction issued by the County of Sonoma, the minimum requirements of the Industrial General Permit would have been met.

Ultimately, work was conducted by the Discharger to pave some key areas such as the main access road to the upper quarry, the driveway access to the treatment system in Tributary Area C, and a portion of the upper processing area. This permanent stabilization reduced erosion from these areas, allowed for improved housekeeping measures such as sweeping, as well as provided an operational benefit to the Facility. The Discharger also installed BMPs such as straw wattles in front of drain inlets, gravel bags check dams in drainage ditches. Again, while this response was ultimately reasonable, it should not have taken the Discharger so long to resolve these areas of noncompliance. A reasonable and prudent discharger would have responded in a timely manner.

A factor of 1.3 for Cleanup and Cooperation is appropriate.

By applying the factors to Violation 4, the final adjusted liability is \$1,376,375

Statutory Maximum Penalty for Violation 4

$$\begin{aligned} \text{Violation 4 Statutory Maximum Penalty} &= (\text{Days})(\text{Statutory Max Per Day}) \\ &= (125 \text{ days})(\$10,000) \\ &= \$1,250,000 \end{aligned}$$

Final Penalty for Violation 4

$$\begin{aligned} \text{Final Penalty for Violation 4} &= \text{Adjusted Penalty} \\ &\quad \text{unless it exceeds the Statutory Maximum Penalty} \\ &= \$1,376,375 \text{ Adjusted Penalty} > \$1,250,000 \text{ Statutory Maximum Penalty} \\ &= \$1,250,000 \text{ Statutory Maximum Penalty} \end{aligned}$$

Violation 5- Non-Discharge Violation

From December 17, 2018 through December 6, 2019, and for 53 days, the Discharger violated Industrial General Permit Section X.H.2. by failing to implement and maintain advanced BMPs.

The Permit requires dischargers, to the extent feasible, to implement and maintain any advanced BMPs necessary to reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability, economic practicability, and achievability.⁴¹ Advanced BMPs include exposure minimization, stormwater containment and discharge reduction, treatment and other advanced BMPs.

Basis of Violation

Over the course of eleven inspections, Regional Water Board staff specifically observed the Discharger's failure to comply with the advanced BMP requirements of Section X.H.2. on the following dates:

1. January 17, 2018
2. January 9, 2019
3. January 16, 2019
4. February 19, 2019
5. February 26, 2019
6. March 20, 2019
7. May 14, 2019
8. May 16, 2019
9. November 26, 2019
10. December 2, 2019
11. December 6, 2019

The Facility includes a number of small ponds and tanks that are used to collect and hold runoff, a portion of which is pumped back for reuse as process water and dust control. These features are considered to be advanced BMPs under the Permit, and are identified as such in the Facility's SWPPP.⁴² During the time of the alleged violation Regional Water Board staff observed persistent and continued deficiencies throughout the Facility in the use and maintenance of these advanced BMPs. Regional Water Board staff observed that ponds and tanks were not maintained to remove accumulated sediment, rendering them ineffective at reducing the sediment in runoff. Additionally, these tanks and ponds were repeatedly observed to be full of stormwater runoff prior to rain events with very little or no available storage capacity for additional runoff rendering

⁴¹ Industrial General Permit, Section X.H.2., Page 33-24.

⁴² Discharger's response to Investigative Order No.R1-2019-0029.

them ineffective. The discharge leaving these advanced BMPs was highly turbid further indicating that they were inadequate.

Additionally, the Facility utilizes advanced BMPs to provide exposure minimization that can “*prevent the contact of storm water with the identified material.*”⁴³ In this case permanent covered material-bays are used to cover and store filter cake material to prevent contact with stormwater. However, on multiple occasions cake material was observed to not be fully contained within the covered bays thus allowing the industrial waste material to be conveyed in the runoff.

The Discharger’s failure to implement and maintain appropriate advanced BMPs at the Facility allowed sediment-laden stormwater discharge to enter receiving waters with little or no reduction to the sediment load.

⁴³ Facility SWPPP dated October 2018, Appendix 3 - Advanced BMPs.

Per Day Penalty Calculations for Violation 5

$$\begin{aligned} \text{Per Day Penalty} &= (\text{Days})(\text{Per Day Factor})(\text{Statutory Max Per Day}) \\ &= (53 \text{ days})(0.55)(\$10,000 \text{ per day}) \\ &= \$291,500 \end{aligned}$$

Where:

Days = Days of Violation
= **53 days**

Per Day Factor is determined based on the application of the following factors to "Table 3- Per Day Factor for Non-Discharge" = **0.55**

Where:

Potential for Harm = Moderate

Deviation from Requirement = Major

Statutory Max Per Day= \$10,000 per day

Discussion of Factors for Per Day Liability for Violation 5

Days of Violation

Consistent with the discussion above, there are **53 days of alleged violation** between December 17, 2018 to December 6, 2019 during the period when the Discharger failed to implement and maintain advanced BMPs at the Facility.

In total, **the Prosecution Team is alleging 53 days of violation.**

Potential for Harm

For the reasons discussed in Violation 2, **the Prosecution Team has assigned a Moderate potential for harm.**

Deviation from Requirement

The advanced BMPs, which include various tanks and ponds throughout the Facility, as well as permanent covered material-bays, were inadequate such that this Permit condition was rendered ineffective in its essential function.

The Prosecution Team has determined that a **major deviation from requirement** is appropriate in this case as it relates to Section X.H.2.. Through the entire time of alleged violation Regional Board Staff observed that the advanced BMPs at the Facility were inadequate, ineffective, or absent.

Initial Penalty Calculations for Violation 5

Violation 5 Initial Penalty = \$291,500

Adjusted Penalty Calculations for Violation 5

Violation 5 Adjusted Penalty = (Initial Penalty)(Culpability)(History)(Cleanup & Cooperation)
= (\$291,500)(1.4)(1.1)(1.2)
= \$538,692

Where:

Initial Penalty = \$291,500

Culpability = 1.4

History = 1.1

Cleanup and Cooperation = 1.2

Discussion of Violator's Conduct Factors for Violation 5

Degree of Culpability

The Degree of Culpability discussion from Violation 2 applies here. Additionally, the Permit specifically identifies advanced BMPs as a measure that must be used in addition to minimum BMPs. Minimum BMPs alone have been demonstrated to be inadequate to reduce or prevent the discharge of sediment from the Facility to receiving waters. The Discharger's SWPPP dated October 2018 calls for the use of *"settling structures" located at several locations throughout the Facility that "divert/collect storm flows and serve as Structural Control Measures"* and states that *"the Facility uses numerous storm water containment structures for slowing flow, settling solids and facilitating reuse of water. There are also several areas where retained storm water runoff is slowed and infiltrated."* The 2015 version of the Facility's SWPPP has almost identical language related to the use of advanced BMPs.

Additionally, the Discharger has been regulated under the SMARA program and was issued a Conditional Use Permit by the County of Sonoma in 2013 that specifically required the use of fully designed settling ponds and that the Discharger *"...develop and implement a Water Quality Protection Program (WQPP) to control sediment and pollutant runoff from the quarry..."* This WQPP requires that *"All runoff from actively mined or reclaimed areas shall be directed through the sediment control basins."* These sediment control basins must *"As specified by SMARA, sediment retention ponds will be reconstructed or, if needed, new ones constructed so that particles of medium silt (0.32 mm) will be settled out for no less than the 20-year, 1-hour rainfall event before runoff leaves the site."* The specific use and design criteria set in the Conditional Use Permit for ponds are above and beyond Industrial General Permit minimum requirements for advanced BMPs.

The Discharger knew or should have known, based on its own sampling data, as well as the requirement under the County's Conditional Use Permit that the settling tanks, ponds, and structures lacked the capacity and functionality to be effective and did not effectively or adequately reduce the amount of sediment entrained in its storm water runoff prior to discharge to Porter Creek.

Therefore, the Prosecution Team has assigned a **1.4 for Degree of Culpability Factor**.

History of Violations

For the reasons identified in Violation 1, **a score of 1.1 has been applied.**

Cleanup and Cooperation

For the entire period alleged in Violation 5, which spanned approximately 20 months, the Discharger failed to effectively implement advanced BMPs such as settling ponds and tanks.

The Discharger was informed of the need to implement effective advanced BMPs by Regional Water Board inspectors during at least 11 inspections through verbal communication, written inspection reports, and a Notice of Violation.

In addition, during an inspection in February 2019, Regional Water Board and USEPA staff specifically discussed tank cleaning with Discharger representatives and were advised that the Discharger did not have a routine schedule to clean the settling tanks or to assess sediment levels in the tanks.⁴⁴ Routine maintenance, such as periodically inspecting and cleaning the tanks, is an essential part of ensuring effectiveness of the advanced BMPs in capturing and treating contaminated stormwater runoff. The Discharger was negligent in failing to implement reasonably expected efforts under the circumstances during the period of violation.

Additionally, the Facility was inspected by USEPA, who also identified significant issues with the advanced BMPs both verbally and in their written inspection reports. The Facility was also inspected by the County of Sonoma, who oversees the Facility's compliance with SMARA and the issued Conditional Use Permit in 2013, on February 19 and February 26, 2019.

In the Notice of Correction issued by the County on June 24, 2019 states that "*The main focus of the violations identified at the site are the lack of structural and non-structural controls for sediment and stormwater management and water quality violations in Porter Creek*". It goes on to say: "*Without a substantial, fully engineered storm water detention system, combined with intensive non-structural sediment controls, the current site configuration will have recurrent overflow to Porter Creek whenever it rains sufficiently to discharge water from the quarry.*"

Had the Discharger implemented the requirements for settling ponds that met the specific design requirements up to and including the use of chemical flocculants, as mandated by the 1993 Conditional Use Permit, requirements of the Industrial General Permit related to advanced BMPs would have been met.

However, the Prosecution Team acknowledges that the Discharger has invested significant resources in installing a new treatment system on the Facility designed to remove sediment from stormwater generated on-site, after the period of alleged violation. On November 17, 2020, Regional Water Board staff inspected the Facility and confirmed that all three treatment systems were operational. The treatment system is designed to treat stormwater, prior to it being discharged to Porter Creek, by removing sediment.

⁴⁴ USEPA EPA Compliance Evaluation Inspection date April 29, 2019.

In addition to this new treatment system, the Discharger also improved the maintenance and implementation of existing advanced BMPs by providing routine sediment removal, paving adjacent areas, and increasing the use of minimum BMPs in areas draining to these advanced BMPs. Again, while this response was ultimately reasonable, it should not have taken the Discharger so long to resolve these areas of noncompliance. A reasonable and prudent discharger would have responded in a timely manner.

A cleanup and cooperation factor of **1.2** is assigned in light of the installation of the new treatment systems and other improvements in installation and maintenance of the existing advanced BMPs.

A factor of 1.2 for Cleanup and Cooperation is appropriate.

By applying the factors to Violation 5, the final adjusted liability is \$538,692.

Statutory Maximum Penalty Calculations for Violation 5

$$\begin{aligned} \text{Violation 5 Statutory Maximum Penalty} &= (\text{Days})(\text{Statutory Max Per Day}) \\ &= (53 \text{ days})(\$10,000) \\ &= \$530,000 \end{aligned}$$

Final Penalty Calculation for Violation 5

$$\begin{aligned} \text{Final Penalty for Violation 5} &= \text{Adjusted Penalty} \\ &\quad \text{unless it exceeds the Statutory Maximum Penalty} \\ &= \$538,692 \text{ Adjusted Penalty} > \$530,000 \text{ Statutory Maximum Penalty} \\ &= \$530,000 \text{ Statutory Maximum Penalty} \end{aligned}$$

Total Penalty Subtotal

Total Penalty for Discharge Violations (Violation 1)

$$\begin{aligned} \text{Total Penalty for Discharge Violations} &= \text{Violation 1} \\ &= \$8,360,163 \end{aligned}$$

Total Penalty for Non-Discharge Violations (Violations 2 through 5)

$$\begin{aligned} \text{Total Penalty for Non-Discharge Violations} &= \text{Violation 2} + \text{Violation 3} + \text{Violation 4} + \text{Violation 5} \\ &= \$1,179,750 + \$868,296 + \$1,250,000 + \$530,000 \\ &= \$3,828,046 \end{aligned}$$

Total Penalty Subtotal

$$\begin{aligned} \text{Total Penalty Subtotal} &= \text{Total Penalty for Discharge Violation} \\ &\quad + \text{Total Penalty for Non-Discharge Violations} \\ &= \$8,360,163 + \$3,828,046 \\ &= \$12,188,209 \end{aligned}$$

Other Factors

Ability to Pay and Ability to Continue in Business

Based on review of public records, Mark West Quarry and Bo Dean Co., Inc. are ongoing businesses which continue to operate and generate a profit. In addition, Dean Soiland owns several substantial assets including businesses and real estate assets.

Based on the currently available information, the Prosecution Team has determined the Discharger has the ability to pay the proposed liability amount and continue in business.

Concurrently with the issuance of this administrative civil liability complaint, the Prosecution Team has also transmitted subpoenas for financial records to the Discharger. As discussed in the Enforcement Policy, “if the discharger fails to produce evidence about its finances to rebut the staff’s prima facie evidence and/or fails to respond to a subpoena, the Water Boards should treat that failure as a waiver of the right to challenge,” the proposed liability on this basis.

Economic Benefit

The Enforcement Policy provides that the economic benefit of noncompliance should be calculated using the USEPA Economic Benefit Model (BEN)⁴⁵ penalty and financial modeling program unless it is demonstrated that an alternative method of calculating the economic benefit is more appropriate. For this case, BEN was determined to be the appropriate method. Using standard economic principles such as time-value of money and tax deductibility of compliance costs, BEN calculates a permittee’s economic benefit⁴⁶ derived from delaying or avoiding compliance with environmental statutes.

⁴⁵ At the time this document was prepared, BEN was available for download at <http://www2.epa.gov/enforcement/penalty-and-financial-models>.

⁴⁶ SWRCB 2017 Enforcement Policy Section VI. A. Step 7 - Page 20: “Economic benefit is any savings or monetary gain derived from the act or omission that constitutes the violation. In cases where the violation occurred because the discharger postponed improvements to a treatment system, failed to implement adequate control measures (such as BMPs), or did not take other measures needed to prevent the violations, the economic benefit may be substantial.”

“The economic benefit is equal to the present value of the avoided costs plus the ‘interest’ on delayed costs.”⁴⁷

Staff evaluated the types of actions that the Discharger should have taken to avoid the alleged violations and estimated the cost of these actions. Two types of costs were considered: delayed costs⁴⁸ and avoided costs⁴⁹.

The Discharger failure to implement the necessary minimum and advanced BMPs necessary comply with the Permit not only resulted in the discharge of large quantities of sediment-laden storm water to Porter Creek, but also provided a significant cost savings to the Discharger.

The Discharger avoided the cost of purchasing, installing, and maintaining erosion and sediment control minimum BMPs throughout the Facility, including: hydroseeding, gravel check dams, and straw.

The Discharger also benefited economically by significantly delaying necessary BMPs in the form of Facility improvements and necessary maintenance, including: rock lining ditches and drainages; cleaning out storm drains, culverts, and inlets; cleaning out settling ponds and tanks; rocking high use areas; paving access roads and driveways; and installing an operational treatment system.

The above mentioned items have been quantified using USEPA’s BEN Model, as specified in the Enforcement Policy. Staff evaluated the types of actions that the Discharger should have taken to avoid the alleged violations, and in some cases eventually did at the Facility, and estimated the cost of these actions. In total, Regional Water Board staff estimates the delayed and avoided costs were \$2,558,856. Based on this information, in addition to standard accounting assumptions, the BEN model calculated the economic benefit of the avoided and delayed expenditures of the alleged violations in this matter to be **\$423,024**.

Other Factors as Justice May Require

The Regional Water Board Prosecution Team proposes reducing the total liability to \$4,500,000 in light of other factors as justice may require. The proposed penalty is

⁴⁷ SWRCB 2017 Enforcement Policy Section VI. A. Step 7 - Page 21

⁴⁸ Delayed costs include expenditures that should have been made sooner, such as BMPs that were installed too late to avoid the violation.

⁴⁹ Avoided costs include the cost of effective erosion and sediment control measures that were not implemented as required. Avoided costs also include expenditures for equipment or services that the permittee should have incurred to avoid the incident of noncompliance, such as treatment for waste that cannot be cleaned up or ongoing costs, additional staffing, and BMP maintenance.

appropriate based on the conduct alleged in the complaint, and consistent with the Enforcement Policy. The proposed penalty will provide deterrence to similarly situated dischargers and is a significant administrative civil liability. Specifically, the Prosecution Team has reviewed other similar cases in industrial stormwater programs across the state and determined that the liability as calculated by the Enforcement Policy's methodology results in a disproportionate liability in this instance. It is unreasonable to seek over \$11 million for violations which are alleged for a period of approximately 20 months and did not cause specific harm to human health. As currently calculated, \$4,500,000 is the minimum liability that Prosecution Team staff can support in this matter.

The Enforcement Policy allows for the recovery of staff costs incurred by the Regional Water Board. In this instance, Regional Water Board staff have estimated that they have spent at least 2,260 hours totaling over \$320,600 in investigation and enforcement costs since the alleged violations were initially identified. In light of the total liability produced by the Enforcement Policy, and the factors discussed above, the Prosecution Team does not propose that staff costs be recovered in addition to the proposed liability in this matter.

Maximum and Minimum Liability Amounts

$$\begin{aligned} \text{Maximum Liability Amount} &= \text{Max Violation 1} + \text{Max Violation 2} + \text{Max Violation 3} \\ &\quad + \text{Max Violation 4} + \text{Max Violation 5} \\ &= \$105,636,080 + 1,250,000 + \$920,000 + \$1,250,000 + \$530,000 \\ &= \mathbf{\$109,586,080} \end{aligned}$$

$$\begin{aligned} \text{Minimum Liability Amount} &= \text{Economic Benefit} + 10\% \\ &= \$423,024 + \$42,302 \\ &= \mathbf{\$465,326} \end{aligned}$$

Final Liability Amount

$$\text{Final Liability Amount} = \mathbf{\$4,500,000}$$