

Attachment A: Methodology

I. Introduction

This technical analysis provides a summary of factual and analytical evidence that support the findings in Administrative Civil Liability Complaint No. R1-2020-0009 (Complaint) and the recommended assessment of administrative civil liability (ACL) in the amount of **\$6,425,680**. The Complaint alleges that Sonoma Luxury Resort LLC (Discharger) has failed to implement the requirements of State Water Resources Control Board (State Water Board) Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit or CGP) while conducting site development and construction work on the Saggio Hills Project, a 258-acre property located at 16840 Healdsburg Avenue, Healdsburg, in Sonoma County (Site). Additionally, the Complaint alleges that the Discharger has failed to meet the conditions of its December 5, 2008 (amended December 6, 2018), Clean Water Act section 401 Water Quality Certification (401 Certification) for work at the Site.

A. Construction General Permit

The Construction General Permit authorizes discharges of storm water associated with construction activity so long as a permittee complies with all applicable requirements, provisions, limitations and prohibitions. Pursuant to federal statutes and regulations, the CGP requires the implementation of the best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to reduce or eliminate pollutants in storm water runoff, as well as additional measures as necessary to meet applicable water quality standards.

Sites with any construction or demolition activity resulting in a land disturbance of equal to or more than one acre must obtain coverage under and comply with the requirements of the CGP. Permittees that have obtained coverage under the CGP must implement controls, structures, and management practices (a.k.a. Best Management Practices [BMPs¹]) that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

¹ Best Management Practices (BMPs) are “schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of ‘waters of the United States.’ BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.” (40 C.F.R. § 122.2)

Based upon each site's sediment transport and receiving water risk (Risk Level), the CGP requires different BMPs, monitoring, and reporting to achieve and demonstrate implementation of BAT and BCT.

Attachments C, D, and E of the CGP specify requirements for each Risk Level (Risk Level 1, 2, or 3, respectively). Permittees with a site not meeting one or more of the requirements, per the requirements applicable to their site, are considered to be failing to implement the BMPs necessary to achieve BAT and BCT at their site. Discharges of storm water or non-storm water to receiving waters, from sites not implementing BMPs that achieve BAT and BCT as required by the CGP, are unauthorized discharges.

On April 1, 2016, the Discharger filed a Notice of Intent (NOI) with the State Water Board to comply with the requirements of the CGP. (WQ ORDER NO. 2009-009-DWQ Notice of Intent, April 1, 2016). On April 4, 2016, the State Water Board processed the NOI and assigned Waste Discharge Identification (WDID) No. 1 49C375878 to the Discharger. The NOI identifies Discharger as the "Property Owner" and "Contractor/Developer," with Robert Green as its contact.

The Storm Water Pollution Prevention Plan (SWPPP) filed with the NOI indicates that the sediment risk factor and receiving water risk factor for the Site are both "high." Thus, based on the "Combined Risk Level Matrix in the General Permit," the Site is defined as Risk Level 3, and must comply with the requirements in Attachment E of the General Permit. The NOI indicates that construction activities will disturb 65 acres of the 258-acre property. The NOI further indicates that construction activities would begin on May 16, 2016, grading was anticipated to be completed in October 2019, with final stabilization in November 2021.

B. Water Quality Certification

Anyone proposing to conduct a project in the jurisdiction of the North Coast Regional Water Quality Control Board (Regional Water Board) that requires a federal permit or that involves dredge or fill activities resulting in a discharge to Waters of the United States must obtain a Clean Water Act section 401 Certification and/or Waste Discharge Requirements from the Regional Water Board, verifying that the project activities will comply with state water quality standards (collectively beneficial uses, antidegradation, and water quality objectives). On November 30, 2006, the Discharger filed an application for certification under section 401 of the Clean Water Act (33 U.S.C. § 1341) with the Regional Water Board for activities related to the Site. The Regional Water Board issued an individual (site-specific) 401 Certification (WDID NO. 1B06169WNSO) on December 5, 2008 and amended the 401 Certification on December 6, 2018.

The Site contains approximately 3.8 acres of wetlands and other waters of the state and the United States, in the Russian River watershed, and the project will permanently fill 2.08 acres of seasonal wetlands and 1,100 linear feet of watercourse.

C. Site and Project Description

The Discharger is constructing a resort and residential homes with structures and associated infrastructure disturbing approximately 65 acres in the hills in the northern portion of the unincorporated urban boundary of the City of Healdsburg, in Sonoma County. Site development is anticipated to include construction of a 130-room hotel resort, a public park and fire substation, 150 units of affordable housing, and 70 privately owned residences within a private open space.

Drainage from the Site flows to Foss Creek, tributaries to Foss Creek, or tributaries to Jordan Pond and Lytton Creek. Both Foss and Lytton Creeks are tributary to the Russian River². Figure 1 shows the portions of the Site comprising each of the three drainage areas:

1. The lower project entrance including staging areas and slopes along Passalacqua Road (Foss Creek) – Portion enclosed in green line marked with intermittent sets of 4 parallel marks, and the portion of project along Healdsburg Avenue;
2. Roads 4, 5, and 8 (tributaries to Foss Creek) – Portion enclosed in purple line marked with triangles; and
3. The Resort Area (tributaries to Jordan Pond and Lytton Creek) – Portion enclosed in red line marked with circles.

² Lytton Creek is in the Middle Russian River Hydrologic Area (HA), Geyserville Hydrologic Subarea (HSA), and is identified on the 303(d) list as impaired for sediment / siltation. Foss Creek is in the Middle Russian River HA, Warm Springs HSA, and is identified on the 303(d) list as impaired for sediment / siltation.

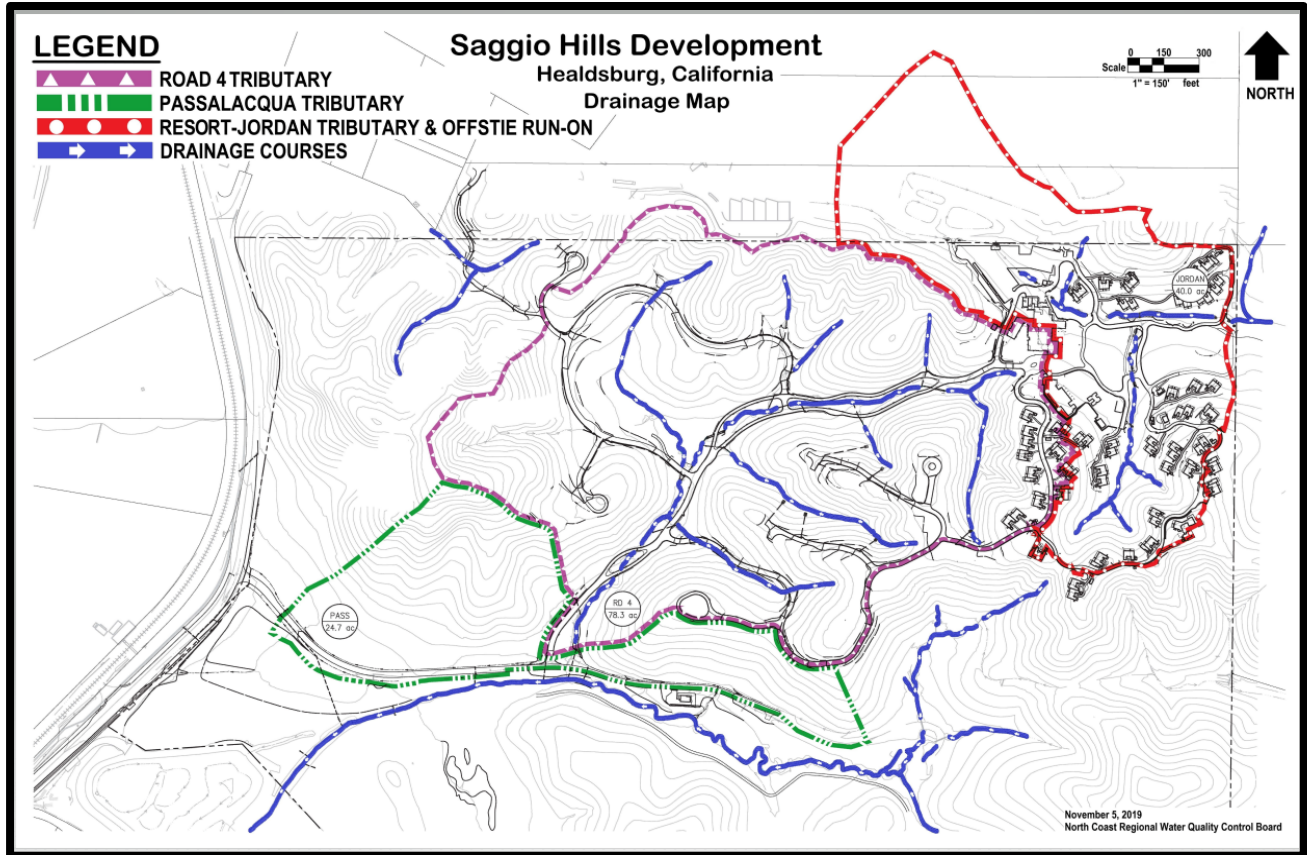


Figure 1. Saggio Hills construction site.

D. Beneficial Uses, Water Quality Objectives, and Policy for Sediment-Impaired Receiving Waters

The Water Quality Control Plan for the North Coast Region (Basin Plan) identifies beneficial uses for each hydrologic area in the Region, as well as for specific waterbodies and broad categories of waters. Protection will be afforded to the present and potential beneficial uses of waters of the North Coast Region as designated and presented in Table 2-1 of the Basin Plan. The beneficial uses of any specifically identified water body generally apply to all its tributaries. Table 2-1 of the Basin Plan identifies the following existing and potential beneficial uses for the Middle Russian River Hydrologic Area:

- a. Municipal and domestic supply
- b. Agricultural supply
- c. Industrial service supply
- d. Industrial process supply
- e. Groundwater recharge
- f. Freshwater replenishment
- g. Navigation
- h. Hydropower generation
- i. Water contact recreation

- j. Non-contact water recreation
- k. Commercial and sport fishing
- l. Warm freshwater habitat
- m. Cold freshwater habitat
- n. Wildlife habitat
- o. Rare, threatened, or endangered species
- p. Migration of aquatic organisms
- q. Spawning, reproduction, and/or early development
- r. Aquaculture

The Basin Plan also designates water quality objectives to protect the designated beneficial uses. Water Code section 13050, subdivision (h), defines "water quality objectives" as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area."

The Russian River supports a number of aquatic species, including the Coho Salmon, Chinook Salmon, and Steelhead Trout. Water quality objectives of particular importance for protecting fisheries beneficial uses (i.e., Cold Freshwater Habitat; Commercial and Sport Fishing; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species; and Migration of Aquatic Organisms), include, though are not necessarily limited to, the following:

- Sediment (Section 3.3.11) "The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses."
- Suspended Material (Section 3.3.12) "Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses."
- Turbidity (Section 3.3.17) "Turbidity shall not be increased more than 20 percent above naturally occurring background levels."

The federal Clean Water Act section 303(d) list identifies the Russian River as impaired due to sediment and temperature.

On November 29, 2004, the Regional Water Board adopted the *Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters in the North Coast Region* (Sediment Policy) by Resolution R1-2004-0087. The goals of the Sediment Policy are to control sediment waste discharges to impaired water bodies so that the TMDLs are met, sediment water quality objectives are attained, and beneficial uses are no longer adversely affected by sediment.

The Sediment Policy states that the Executive Officer is directed to “rely on the use of all available authorities, including the existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste.”

E. Compliance History

October 2018: On October 3, during the first significant rainfall event³ of fall, 2018, Regional Water Board staff observed the Site from a vehicle, noting deficient and/or failing BMPs. On October 29, inspectors from the City of Healdsburg⁴ (City) visited the Site and documented several BMP deficiencies including insufficient erosion and sediment controls. (City Inspection Report, by Clay Thistle, October 29, 2018.) City personnel notified the Discharger’s representatives of the deficiencies and identified several categories of corrective actions necessary to return to compliance. (City email from Clay Thistle to Chris Theiss, dated Tuesday, October 30, 2018, 11:10 AM.)

November 2018: On November 5, City inspectors visited the Site and again documented several BMP deficiencies including insufficient erosion and sediment controls. The City inspection report noted that “progress is being made, but the rate of progress compared to the amount of disturbed area is of concern.” (City Inspection Report, by Clay Thistle, dated November 6, 2018.) City personnel notified the Discharger’s representatives of the deficiencies and again identified several categories of corrective actions necessary to return to compliance.

On November 6, while conducting watershed reconnaissance,⁵ Regional Water Board staff drove up the main road into the Site, observing significant road cuts and landings that lacked erosion and sediment control BMPs. Staff noted that such conditions would be problematic for water quality, in a rain event. On November 19, noting weather predictions of a two to three-inch rainstorm the following week, staff sent an email to the Discharger requesting permission to conduct an inspection the week of November 26.

³ 1.5” of precipitation at the Site between September 30 and October 4, 2018.

⁴ Pursuant to the Sonoma County MS4 Storm Water Permit, Order R1-2015-0030, the City is responsible for ensuring CGP compliance within their jurisdiction.

⁵ In fall 2018, Regional Water Board staff performed drive by inspections throughout the watershed, from Ukiah to the Lower Russian River, to prioritize sites for winter inspections.

Following the November 19 email from Regional Water Board staff, City inspectors visited the Site, also on November 19, and documented several BMP deficiencies including insufficient erosion and sediment controls. Additionally, City inspectors noted that Road 5 and the southern road at the Resort Area were not accessible due to active construction. (City Inspection Report, by Clay Thistle, dated November 19, 2018.) City personnel notified the Discharger's representatives of the deficiencies and again identified several categories of corrective actions necessary to return to compliance. (City email from Clay Thistle to Chris Theiss, dated November 20, 2018.) From November 20-22,⁶ 2.2-inches of rain fell at the Site, and from November 27-29,⁷ an additional 2.2-inches of rain fell at the Site.

On November 29, Regional Water Board staff inspected the Site to assess compliance with the 401 Certification and CGP. During the inspection, staff observed and documented unauthorized discharges of waste to receiving waters; numerous violations and water quality concerns, including highly turbid water draining from the Site into receiving waters; and, at many locations, few or no BMPs to prevent or minimize the discharge of pollutants from the Site into receiving waters. Staff collected water samples from several locations during the inspection and measured an average turbidity in the samples of more than 500 nephelometric turbidity units (NTU). During a post-inspection briefing, Regional Water Board staff discussed with the Discharger's representatives the observed violations and concerns. (Staff Inspection Report, dated November 29, 2018.)

December 2018: On December 3, 2018, staff notified the Discharger of the turbidity exceedances measured during the November 29 inspection and directed the Discharger to begin conducting receiving water monitoring.

On December 4, Regional Water Board staff inspected the Site to assess soil loss from disturbed areas and discharges to waters, and to assess compliance with permit requirements for BMP implementation. Additionally, Regional Water Board staff sent an email to the Discharger describing the 401 Certification and CGP violations staff observed and directed the Discharger to cease all project activities on the Site until adequate BMPs had been implemented. (Staff email from Jeremiah Puget to Robert Green, dated, December 3, 2018, 5:16 PM.)

⁶ The Discharger subsequently reported a calculated volume of stormwater runoff discharge from the Site of 2,262,483.08 gallons.

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This communication also required additional monitoring pursuant to section V.C. of the CGP.⁸

On December 6, the Regional Water Board Executive Officer issued an amended 401 Certification, in response to an August 24, 2018, request from the Discharger for an extension. The amended 401 Certification also notified the Discharger of permit violations and reiterated the requirement to cease all project activities until adequate BMPs had been implemented. (Amended 401 Certification, dated December 6, 2018.) On the same day, staff inspected the Site to identify suitable locations for receiving water monitoring and sampling, and to advise Discharger representatives that receiving water monitoring is intended to fulfill two purposes: 1) to assess compliance with permit requirements including water quality objectives; and 2) assess BMP effectiveness in order to identify and treat problematic areas of the Site. Figure 1 shows receiving water monitoring locations.

On December 7, 2018, staff and Discharger representatives visited the Site together to identify appropriate receiving water monitoring locations, and the Discharger began collecting water quality samples on December 17, 2018. Staff subsequently memorialized the monitoring in a December 28 information order discussed in further below.

On December 11, the Discharger submitted a Wet Season Soil Disturbance Plan (WSSDP), pursuant to condition 24 of the 401 Certification, proposing a limited scope of work with minimal soil disturbing activities. Regional Water Board staff inspected the Site that day at the Discharger's request and observed significant improvements in BMPs. Staff noted continued concerns with Site hydrology and the amount of sediment already in the streams that was likely to continue to remobilize during subsequent rain events.

On December 12, the Discharger submitted a Supplement to the WSSDP, with aerial images identifying specific locations of proposed work and improvements to erosion and sediment controls throughout the Site.

On December 13, acknowledging the improvements to the protection to water quality at the Site, Regional Water Board staff sent an email to the Discharger authorizing commencement of very specific, limited construction activities contingent upon the following conditions: 1) compliance with all terms and conditions of the 401 Certification and 2) effective BMP installation, inspection,

⁸ Section V.C. (page 29) Effluent Standards & Receiving Water Monitoring, Receiving Water Monitoring Triggers, states, in part, that the receiving water monitoring triggers for Risk Level 3 dischargers with direct discharges to surface waters include "when the daily average effluent turbidity exceeds 500 NTU."

maintenance, and repair per the CGP. (Staff email from Jeremiah Puget to Robert Green, dated December 13, 2018, 2:25 PM.)

On December 28, the Regional Water Board's Assistant Executive Officer (AEO) issued a Notice of Violation (NOV), based on the violations identified during the November 29 through December 4, 2018 inspections. In addition, the AEO issued a California Water Code section 13267 Order (13267 Order) requiring, in part, that the Discharger conduct instream water quality monitoring and/or sampling daily, during rain events. (NOV and 13267 Order, dated December 28, 2018.) The same day, Regional Water Board staff also sent an email authorizing resumption of all project activities throughout the entire Site, contingent upon compliance with all terms and conditions of the 13267 Order, 401 Certification, and CGP, including effective BMP installation, inspection, maintenance, and repair:

"As required by these Orders and Certification, if BMPs are not sufficient to control future discharges additional BMPs must be deployed. The responsible party must implement BAT and BCT to minimize or eliminate pollutants in storm water runoff." (Staff email from Evelyn Reynolds to Robert Green, dated December 28, 2018, 4:22 PM.)

January 2019: On January 7, 2019, Regional Water Board staff visited the Site, and observed BMPs that had deteriorated since the last Site inspection on December 11, 2018. Staff observed turbid water leaving the Site, straw wattles along Passalacqua Road that had been recently overtopped by storm water and sediment, and evidence of flooding and bank failure north of a culvert crossing at Passalacqua Road. On January 18, Regional Water Board staff again visited the Site, this time observing failed erosion and sediment control BMPs, pollution sources lacking adequate erosion and/or sediment control BMPs, and failed instream BMPs. (Staff Inspection Report, dated February 11, 2019.)

For the month of January, turbidity in receiving waters was regularly higher downstream of the Site's discharge locations. Table 1 presents turbidity results from the receiving water monitoring program. As shown in Table 1, discharges of waste from the Site caused documented exceedances of the Basin Plan turbidity objective at one or more locations on eight separate days, with exceedances ranging from 24 to 2,197 percent above background (Table 1).

February 2019: On February 1 and 2,⁹ a total of 2.2 inches of rain fell at the Site. On February 1 and 4, Regional Water Board staff inspected portions of the Site, and observed numerous features with deficient or inadequately maintained BMPs. On both Site visits, staff observed that the paved roads throughout the resort area had been covered in a layer of mud tracked by vehicles accessing and leaving the vertical construction areas, and turbid runoff was flowing from the paved roadways into onsite receiving waters. Staff collected samples of the runoff and measured turbidity levels of more than 1,000 NTU. Staff also collected instream samples and confirmed exceedances of the Basin Plan turbidity objective in receiving waters.

Staff observed locations where BMPs had been driven over and damaged by onsite traffic, and locations where transported sediment had accumulated and overtopped BMPs, rendering them ineffective.

Both inspections were conducted during precipitation events and although there was active runoff and sediment transport into surface waters, staff did not observe and could not identify any onsite personnel tasked with monitoring or maintaining BMPs. (Staff Inspection Reports for February 1 and 4, dated February 6, 2019)

On February 6, Regional Water Board staff sent an email to the Discharger, directing it to cease all activities until BMPs are improved and can adequately control sediment discharge and erosion. The communication stated, in part, “if BMPs are not sufficient to control future discharges additional BMPs must be deployed. The responsible party must implement [BAT] and [BCT] to minimize or eliminate pollutants in storm water runoff. Be advised that additional BMPs, additional structural controls and/or an active treatment systems [sic], may be necessary to control significant discharges.” (Staff email from Jeremiah Puget to Robert Green, dated February 6, 2019, 11:31 AM.)

On February 28, Regional Water Board staff met with the Discharger and its consultant and contractors, to discuss permit requirements, monitoring requirements, and expectations for water quality protection, and to answer questions. At the end of the meeting, the Discharger stated that staff had addressed all its questions and requested a follow-up meeting.

⁹ Staff estimated 2,262,483.08 gallons of runoff; assuming all the same factors used by Carlile Macy, the Discharger’s consultant, to calculate runoff volume based on previous 2.2-inch rain events.

For the month of February, turbidity in receiving waters continued to be regularly higher downstream of the Site discharge locations during storm events. Exceedances of the Basin Plan turbidity objective were observed at one or more locations on ten separate days, with exceedances ranging from 24 to 528 percent above background (Table 1).

March 2019: On March 5, staff again met with the Discharger, and its consultant and contractors. At the meeting, the Discharger presented to staff a proposal for: 1) improving BMP maintenance and housekeeping, 2) engineering advanced BMP solutions in the form of settling tanks with sand filtration units for compliance, and 3) complying with the turbidity water quality objective. The Discharger outlined a plan to return to compliance and requested that staff provide authorization for the Discharger to resume construction activities at the Site. On March 6, Regional Water Board staff inspected the Site with the Discharger to assess compliance and evaluate the proposal for resuming limited project activities. On March 8, Regional Water Board staff authorized resumption of limited project activities, acknowledging the improvement to BMPs applied to the Site.

On March 20, Regional Water Board staff visited the resort portion of the Site, that drains to unnamed tributaries to Jordan Pond and then to Lytton Creek, to observe and discuss the newly installed filtration system designed to ensure compliance with turbidity objectives in receiving waters. Staff noted that the filtration system was not yet effectively reducing turbidity concentrations enough to meet the objective.

For the month of March, turbidity in receiving waters continued to be regularly higher downstream of the Site discharge locations during storm events. Exceedances of the Basin Plan turbidity objective were recorded/reported at one or more locations on nine separate days, with exceedances ranging from 20 to 436 percent above background (Table 1).

April 2019: The month of April had no rain events and Regional Water Board staff did not inspect the Site in April.

May 2019: On May 16, Regional Water Board staff inspected the Site during a significant rain event and observed that many of the BMPs had been removed. The remaining BMPs were inadequate to prevent turbid storm water runoff from entering waters. In May, exceedances of the Basin Plan turbidity objectives were recorded/reported at one or more locations on three separate days, with exceedances ranging from 82 to 783 percent above background. Based on the results from the receiving water monitoring program, it appeared that the tank and filtration system installed at the resort area in March was not effective at reducing suspended sediment and turbidity levels in the receiving waters at the compliance point (DL6).

After the installation of the filtration system, turbidity measurements downstream of Site discharge points continued to show violations of Basin Plan objectives, with exceedances ranging from 68 percent to 451 percent.

II. Violations, Regulatory Basis, and Regional Water Boards Policy for Penalty Assessment

A. Violations

Over the period from October 3, 2018, to May 16, 2019, Regional Water Board staff observed, measured, documented, or the Discharger reported, 38 violations of the following permits, regulations, and plans:

- CGP
- 401 Certification
- Basin Plan

1. Non-Discharge Violations

The non-discharge violations are categorized below by the specific permit and regulatory provisions violated, including the following:

- a) The Discharger violated CGP Attachment E, Section B.1.b, by failing to cover and contain stockpiles of construction materials at the Site.

CGP - Attachment E, Section B.1.b. requires that permittees cover and berm loose stockpiled construction materials that are not actively being used (i.e., soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.)

Uncovered and uncontained construction materials left exposed to precipitation and runoff can leach pollutants and be transported into receiving waters, adversely impacting water quality and beneficial uses. Staff observed uncovered and/or uncontained stockpiles of construction materials on the following dates:

- i. November 29, 2018 (**Violation 6**)
- ii. January 18, 2019 (**Violation 17**)
- iii. February 1, 2019 (**Violation 23**)

- b) The Discharger violated CGP Attachment E, Section B.2.d, by failing to cover waste disposal containers at the Site during rain events.

CGP Attachment E, Section B.2.d. requires that permittees cover waste disposal containers at the end of every business day and during a rain event.

When waste disposal containers are left uncovered, wastes can be carried out by the wind or by scavengers. During precipitation events, rain can enter waste containers, contacting waste (trash), generating or adding to leachate, and transporting pollutants via overflows or through leaks or cracks in waste containers. Staff observed uncovered waste disposal containers on the following dates:

- i. November 29, 2018 (**Violation 7**)
 - ii. February 1, 2019 (**Violation 24**)
- c) The Discharger violated CGP Attachment E, Section B.1.c, by failing to properly cover or contain chemicals at the Site during a rain event.

CGP Attachment E, Section B.1.c requires that permittees store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

When chemicals are not properly stored, they can spill or leak into water and be transported by runoff into receiving waters. Staff observed improperly stored chemicals on the following date:

- i. November 29, 2018 (**Violation 8**)
- d) The Discharger violated CGP Attachment E, Section B.5.e, by failing to install effective¹⁰ BMPs that reduce or prevent pollutants in storm water runoff from discharging to receiving waters.

CGP Attachment E, Section B.5.e. requires permittees ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

Ineffective BMPs meant to reduce and prevent pollutants in storm water result in discharges of waste from controllable pollutant sources.

¹⁰ 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.

Staff observed ineffective BMPs related to controlling pollutants on the Site on the following dates:

- i. October 3, 2018 (**Violation 1**)
 - ii. November 29 through December 4, 2018 (**Violation 9**)
 - iii. January 7, 2019 (**Violation 15**)
 - iv. January 18, 2019 (**Violation 18**)
 - v. February 1, 2019 (**Violation 25**)
 - vi. February 4, 2019 (**Violation 31**)
- e) The Discharger violated CGP Attachment E, Section D.2, by failing to have effective soil cover on inactive areas

CGP Attachment E, Section D. 2. requires that dischargers shall provide effective soil cover for inactive areas (areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days) and all finished slopes, open space, utility backfill and completed lots.

Bare soil that is exposed to precipitation and runoff is susceptible to erosion and transport into receiving waters. Staff observed uncovered or ineffectively covered soil on the Site on the following dates:

- i. October 3, 2018 (**Violation 2**)
 - ii. November 29 through December 4, 2018 (**Violation10**)
 - iii. January 7, 2019 (**Violation 16**)
 - iv. January 18, 2019 (**Violation 19**)
 - v. February 1, 2019 (**Violation 26**)
 - vi. February 4, 2019 (**Violation 32**)
- f) The Discharger violated CGP Attachment E, Section E.1, by failing to have effective perimeter controls.

CGP Attachment E, Section E.1. requires that permittees shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.

Inadequate or ineffective perimeter controls allow pollutants and pollutant-laden runoff to flow from or be transported from their sources. Staff observed inadequate or ineffective perimeter controls at the Site on the following dates:

- i. October 3, 2018 (**Violation 3**)
- ii. November 29 through December 4, 2018 (**Violation 11**)
- iii. January 18, 2019 (**Violation 20**)
- iv. February 1, 2019 (**Violation 27**)
- v. February 4, 2019 (**Violation 33**)

- g) The Discharger violated CGP Attachment E, Section E.3, by failing to have adequate or effective erosion and sediment control BMPs in active construction areas.

CGP Attachment E, Section E.3. requires that permittees implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active (areas undergoing land surface disturbance, including construction activity during the preliminary stage, mass grading stage, streets and utilities stage and the vertical construction stage) construction.

Erosion and sediment control BMPs to control runoff and stabilize soil are fundamental for preventing pollutant discharges from construction projects involving land disturbance. Staff observed inadequate or ineffective erosion control BMPs or inadequate sediment control BMPs on the Site on the following dates:

- i. November 29 through December 4, 2018 (**Violation 12**)
- ii. February 1, 2019 (**Violation 28**)
- iii. February 4, 2019 (**Violation 34**)

- h) The Discharger violated CGP Attachment E, Section E.4, by failing to have adequate or effective linear sediment controls at toes and breaks in slopes.

CGP Attachment E, Section E.4. requires that permittees apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths (i.e. the length that shallow, low velocity flow travels across a site.) in accordance with Table 1 in the CGP.

As slopes steepen, runoff velocity increases which increases erosion and sediment transport potential. Linear sediment controls at breaks in slopes and at the toe of slopes can help to slow down runoff velocity, trap pollutants, and minimize or prevent the transport of pollutants to receiving waters. Staff observed slopes and breaks in slopes with deficient linear sediment controls at the Site on the following dates:

- i. October 3, 2018 (**Violation 4**)
- ii. November 29 through December 4, 2018 (**Violation 13**)
- iii. January 18, 2019 (**Violation 21**)
- iv. February 1, 2019 (**Violation 29**)
- v. February 4, 2019 (**Violation 35**)

- i) The Discharger violated CGP Attachment E, Section F, by failing to have effective run-on and runoff controls.

CGP Attachment E, Section F. requires that permittees effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off-site shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in the CGP.

Run-on and runoff controls help reduce the volume of runoff susceptible to picking up or mingling with pollutants, thereby reducing the potential for pollutant transport and delivery to receiving waters. Staff observed ineffective run-on or runoff controls at the Site on the following dates:

- i. October 3, 2018 (**Violation 5**)
- ii. November 29, and December 4, 2018 (**Violation 14**)
- iii. January 18, 2019 (**Violation 22**)
- iv. February 1, 2019 (**Violation 30**)
- v. February 4, 2019 (**Violation 36**)

2. Discharge Violations

The discharge violations are categorized below by specific permit and regulatory provisions violated which include the following:

a) Turbidity

- i. CGP Section VI.C. requires the permittee to ensure that storm water discharges and authorized non-storm water discharges will not contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards (collectively, WQS) contained in a Statewide Water Quality Control Plan, the California Toxics Rule, the National Toxics Rule, or the applicable Regional Water Board's Water Quality Control Plan.

Section 3.3.17 of the Basin Plan states: "Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be defined for specific discharges upon the issuance of discharge permits or waiver thereof."

Violation 37: During the period from November 29, 2018, to May 19, 2019, Regional Water Board staff or the Discharger documented 33 days where discharges from the Site resulted in turbidity increases of more than 20% in receiving waters.

During this period, turbidity in receiving waters was regularly higher downstream of the Site's discharge locations.

With the exception of the November 2018 sampling event, the Discharger collected all turbidity measurements. During the November 29, 2018, inspection, Regional Water Board staff collected upstream and downstream turbidity measurements. Sampling locations and turbidity results from the receiving water monitoring program are presented in Table 1 and Figure 45 through Figure 48 on pages 79 through 82 below. Table 1 presents sampling results that show exceedances of the turbidity objectives on 32 days. Table 1 and Figure 46 Figure 48 do not include data or results from November 29, 2018, as measurements on that day were collected from different sampling locations.

For the month/date of:

- November 29, 2018: Regional Water Board staff measured downstream (896 NTU) turbidity levels¹¹ up to 118 percent higher than the upstream¹² (411 NTU) levels measured on this one (1) day.
- December 17, 2018: Exceedances ranging from 44 to 98 percent above the background measurement observed on this one (1) day.
- January 2019: Exceedances ranging from 24 to 2,197 percent above background observed at one or more locations on eight (8) days.
- February 2019: Exceedances ranging from 24 to 528 percent above background observed at one or more locations on ten (10) days.
- March 2019: Exceedances ranging from 20 to 436 percent above background observed at one or more locations on ten (10) days.
- May 2019: Exceedances ranging from 82 to 783 percent above background observed at one or more locations on three (3) days.

¹¹ Turbidity results ranged from 367 NTU to 2,941 NTU in samples collected from Healdsburg Avenue and Road 5 (RD5), respectively.

¹² The upstream sample was taken at a location that receives runoff from areas that have been disturbed by construction activities (i.e., clearing, grubbing, and grading). Therefore, the upstream sample almost certainly had higher turbidity than a sample that had been taken from an undisturbed area. However, given the extent of the exceedance in the downstream sample, there was no need to sample from an undisturbed area to document a 20 percent exceedance.

b) Discharge Prohibitions

- i. CGP Section III.A states that, “[permittees] shall not violate any discharge prohibition contained in the applicable Basin Plan or statewide water quality control plans”
- ii. Basin Plan Section 4.2.1: The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.
- iii. CGP Section III.B prohibits all discharges “except for the storm water and non-storm water discharges specifically authorized by th[e] [CGP] or another NPDES permit.”
- iv. 401 Certification Condition 7 requires the Discharger to ensure that “[n]o debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this [401 Certification], shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State.”

Violation 38: Unauthorized discharge of approximately 9.4 million gallons of sediment-laden storm water from the Site. The CGP prohibits discharges of storm water except as authorized by the CGP, and the Discharger’s 401 Certification requires the Discharger to ensure that materials associated with construction do not impact waters of the State and the United States. The Discharger violated these CGP prohibitions and Condition 7 of its 401 Certification through the unauthorized discharge of sediment-laden storm water on the following dates:

- September 30 to October 1, 2018: 900,000 gallons
- November 20-24, 2018: 2.2 million gallons
- November 27-29, 2018: 2.2 million gallons
- February 1-2, 2019: 2.2 million gallons
- May 16, 2019: 1.6 million gallons
- May 18-19, 2019: 295,000 gallons

B. Regulatory basis and State Water Board Enforcement Policy guidance for penalty assessment by the Regional Water Board

1. Water Code

An administrative civil liability may be imposed pursuant to the procedures in Water Code section 13323. The Complaint alleges the acts or failure to act that constitutes a violation of law, the provision of law authorizing civil liability, and the proposed civil liability. Pursuant to the relevant portions of Water Code section 13385, subdivision (a):

A person who violates any of the following shall be liable civilly in accordance with this section:

(1) Section 13375 or 13376.

(2) A waste discharge requirement or dredged or fill material permit issued pursuant to this chapter or any water quality certification issued pursuant to Section 13160.

...

(5) A requirement of Section 301, 302, 306, 307, 308, 318, 401, or 405 of the federal Clean Water Act (33 U.S.C. Sec. 1311, 1312, 1316, 1317, 1318, 1341, or 1345), as amended.

Furthermore, Water Code section 13385, subdivision (c), provides that:

Civil liability may be imposed administratively by the state board or a regional board pursuant to Article 2.5 (commencing with section 13323) of Chapter 5 in an amount not to exceed the sum of both of the following:

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

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

...the nature, circumstances, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue its business, any voluntary cleanup efforts

undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters that justice may require. At a minimum, liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation.

2. State Water Board Enforcement Policy

On April 4, 2017, the State Water Board approved Resolution No. 2017-0020 adopting the State Water Board's Water Quality Enforcement Policy (Enforcement Policy). The Enforcement Policy was approved by the Office of Administrative Law and became effective on October 5, 2017. The Enforcement Policy establishes a methodology for assessing administrative civil liability. Use of the methodology addresses the factors in Water Code sections 13327 and 13385, subdivision (e).

The liability calculation methodology enables the Regional Water Boards to fairly and consistently implement liability provisions of the Water Code for maximum enforcement impact to address, correct, and deter water quality violations¹³.

Pursuant to the Enforcement Policy, Regional Water Boards determine an initial liability factor based on the Potential for Harm and the extent of Deviation from Requirements for a violation:

Step 1. Actual Harm or Potential for Harm for Discharge Violations – Calculate Actual Harm or Potential for Harm considering: (1) the degree of toxicity of the discharge; (2) the actual or potential for harm to beneficial uses; and (3) the discharge's susceptibility to cleanup or abatement.

Step 2. Per Gallon and Per Day Assessments for Discharge Violations – For discharges resulting in violations, use Table 1 and/or Table 2 to determine Per Gallon and/or Per Day Assessments. Depending on the particular language of the ACL statute being used, either or both tables may be used. Multiply these factors by per gallon and/or per day amounts as described below. Where allowed by code, both amounts should be determined and added together. This becomes the initial ACL amount for the discharge violations.

¹³ The State Water Board Enforcement Policy directs staff to evaluate several factors that may increase and/or decrease the liability amount. However, the Water Code limits the maximum liability to \$10,000 per day per non-discharge violation and \$10 per gallon per discharge violation. Therefore, in some instances the total base liability must be reduced to the statutory maximum.

Step 3. *Per Day Assessments for non-Discharge Violations* – For non-discharge violations, use Table 3 to determine per day assessments. Multiply these factors by the per day amount as described below. This becomes the initial ACL amount for the non-discharge violations. Where allowed by the California Water Code, amounts for these violations should be added to amounts (if any) for discharge violations from Step 2, above.

Step 4. *Adjustment Factors* – Adjust the initial amounts for each violation by factors addressing the violator’s conduct, multiple instances of the same violation, and multiple day violations.

Step 5. *Total Base Liability Amount* – Add the adjusted amounts for each violation from Step 4.

Thereafter, the Total Base Liability amount may be adjusted, based on consideration of the following:

Step 6. *Ability to Pay and Ability to Continue in Business* – If the Total Base Liability calculated under the methodology exceeds the permittee’s ability to pay, or would impact the permittee’s ability to continue in business, the decision maker may adjust the liability downward provided express findings are made to justify so doing. Decision makers need only consider ability to pay and continue in business under the California Water Code and this Policy, and are well within their discretion to decline to reduce a liability based on this factor.

Step 7. *Economic Benefit* – The economic benefit of the violations must be determined based on the best available information, and the amount of the ACL should exceed this amount so that avoiding costs of compliance is not rewarded.

Step 8. *Other Factors as Justice May Require* – Determine if there are additional factors that should be considered that would justify an increase or a reduction in the Total Base Liability amount. These factors must be supported by evidence or policy considerations and documented in the ACL Complaint or Order by a finding that, taken as a whole, the liability amount is just in light of the violations. One of the factors decision makers should consider in this step is the staff costs of investigating the violations and issuing the ACL. Subject to the guidance provided in more detail below regarding when to begin and end the calculation of staff costs and how much to charge for particular staff, staff costs can and should be added to the amount of the ACL.

Step 9. *Maximum and Minimum Liability Amounts* – Determine the statutory maximum and minimum amounts of the ACL, if any. Adjust the ACL to ensure it is within these limits.

Step 10. *Final Liability Amount* – The final liability amount will be assessed after consideration of the above factors. The final liability amount and significant considerations regarding the liability amount must be discussed in the ACL Complaint and in any order imposing liability

Additional adjustments may be used regarding multiple violations resulting from the same incident and multiple day violations.

III. Liability Calculations

A. Non-Discharge Violations and Proposed Base Liability Amounts

1. Violations 1-5, October 3, 2018

On October 3, 2018, Regional Water Board staff drove by the Site during a rainfall event and observed a portion of the Site from Healdsburg Avenue. Staff observed a bare, steep slope with several erosional rills or gullies (Violation 2: inadequate soil cover; D.2.) with intermittent wattles and silt fences that were undercut by erosion or overrun with sediment (Violation 1: BMPs not effectively reducing/preventing pollutants; B.5.e.). The slope did not have continuous or effective linear sediment controls at the base (Violation 4: inadequate linear sediment controls; E.4) showing evidence of drainage and sediment transport onto and across an adjacent active area (Violation 5: inadequate run-on/runoff control; F). Staff observed sediment that had been tracked from this area onto Healdsburg Avenue (Violation 3: inadequate perimeter control; E.1.). Collectively, this snapshot captured an overall failure to maintain adequate erosion, sediment, and turbidity control BMPs.



Figure 2. View of failed BMPs. Insufficient ground cover, and sediment in street (Healdsburg Avenue) after storm event. Photograph taken on October 3, 2018.

Determining the Initial Liability Factor

Violation 1 – Failure to implement BMPs that are effective in reducing or preventing pollutants in storm water discharges (CGP Att. E, section B.5.e)

On October 3, 2018, staff observed gullying on a slope, demonstrating inadequate erosion control; wattles at some locations on the slope with gullying beneath, sediment overtopping, or both; partially buried silt fence; and evidence of sediment transport onto and across the work area that had tracked onto Healdsburg Avenue. BMPs were not adequate in reducing or preventing pollutants, including fine sediment, in storm water runoff.

Potential for Harm: Moderate

BMPs that are effective in reducing or preventing pollutants in storm water, especially sediment, are essential where soil has been cleared or disturbed, to prevent or minimize the transport of sediment into surface waters. However, they must be adequate for the intended purpose, and properly installed and maintained, in order to be effective. Staff observed evidence of sediment transport onto and across the work area and tracked onto Healdsburg Avenue. BMPs were not effective in reducing or preventing pollutants, including fine sediment, in storm water runoff. Fine sediment poses a substantial threat to water quality and beneficial uses, in particular for aquatic species, as it can cloud the receiving water, thereby reducing the amount of sunlight reaching aquatic plants, clog fish gills, 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. The Potential for Harm for this violation is Moderate because the characteristics of the violation present a substantial threat to beneficial uses given the observed uncontrolled sediment in areas that are susceptible to transport to receiving waters.

Violation 2 – Failure to implement effective soil cover on slopes and inactive areas (CGP Att. E, section D.2).

On October 3, 2018 staff observed a slope with no cover over bare soil that had numerous erosion gullies.

Potential for Harm: Moderate

Unprotected slopes are susceptible to erosion and represent sources of sediment. The slope staff observed on October 3 had no cover over bare soil and had numerous erosion gullies, indicating that sediment had eroded and been transported towards receiving waters. As noted above, fine sediment poses a substantial threat to water quality and beneficial uses. The Discharger's failure to implement effective soil cover on slopes at the Site created a substantial threat to beneficial uses because erosion gullies were forming on the slope meaning sediment was being transported from the slope,

increasing the likelihood it would discharge into receiving waters. Therefore, the Potential for Harm for this violation is Moderate.

Violation 3 – Failure to implement effective perimeter controls (CGP Att. E, section E.1)

On October 3, Staff observed tracked sediment on Healdsburg Avenue. The tracked sediment demonstrates the Discharger did not have effective perimeter controls because sediment was tracked offsite.

Potential for Harm: Moderate

Perimeter control BMPs on construction sites help to prevent sediment and other pollutants from migrating or being transported from their source. As evident from the tracked sediment staff observed on Healdsburg Avenue on October 3, perimeter control BMPs were not adequate to prevent the transport of fine sediment off the Site. Failing to ensure sediment is not being transported off the Site through effective perimeter controls poses a substantial threat to beneficial uses as it increases the likelihood of sediment reaching receiving waters. Thus, the Potential for Harm for this violation is Moderate.

Violation 4 – Failure to implement effective linear sediment controls at toes, breaks, and bases of slopes (CGP Att. E, section E.4.)

On October 3, staff observed wattles and sediment fence visible below a slope that appeared to have been undercut or overtopped by sediment. As selected, installed, or maintained, the BMPs were not effective in preventing sediment transport from the slope onto and across the adjacent work area.

Potential for Harm: Moderate

Linear controls at the base of or break in slope help to slow down fast-moving runoff, reduce the potential for erosion below the slope, and to capture transported pollutants where slope protection has not been effective in preventing erosion. At the Site, staff observed wattles and silt fence visible below the slope that appeared to have been undercut or overtopped by sediment. The BMPs were not effective in preventing sediment transport from the slope onto and across the adjacent work area. This violation poses a substantial threat to beneficial uses because sediment was transported from the slope to the work area, increasing the likelihood that it would discharge into receiving waters. As a result, the Potential for Harm for this violation is Moderate.

Violation 5 – Failure to implement effective run-on and runoff controls (CGP Att. E, section F)

The portion of the Site observed by staff on October 3 did not have effective run-on and runoff controls. The combination of wattles and silt fence visible along and below the slope that staff observed were not effective in preventing storm water runoff from the slope from flowing onto and through the active work area, transporting and potentially

picking up additional sediment and other pollutants. Staff observed wattles on the slope that were undercut or overtopped by sediment.

The BMPs were not effective in preventing sediment transport from the slope onto and across the adjacent work area.

Potential for Harm: Moderate

Run-on and runoff control BMPs help to prevent or minimize contact between water flowing through or around a construction site and pollutants available on that site, thus helping to minimize the volume of polluted runoff generated on or potentially discharging from a site. Although staff observed wattles and silt fences along and below the slope at the Site, the BMPs were clearly not effective in preventing storm water runoff from the slope from flowing onto and through the active work area. Staff observed wattles on the slope that were undercut or overtopped by sediment. The BMPs were not effective in preventing sediment transport from the slope onto and across the adjacent work area. The lack of effective run-on and runoff BMPs at the Site poses a substantial threat to beneficial uses because it increases the likelihood that runoff will transport additional sediment and other pollutants and end up in receiving waters. Therefore, the Potential for Harm for this violation is Moderate.

Deviation from Requirement, Violations 1-5: Major

Conditions observed by staff on October 3, 2018, deviated significantly from the applicable CGP requirements. As discussed above, the slope was not protected; sediment was not controlled; sediment had migrated from the slopes to the active work area and had been transported onto Healdsburg Avenue. The purpose of those requirements is to prevent loose sediment from being susceptible to transport and potentially harming water quality. As discussed above and seen in the photo in Figure 2, loose sediment was being transported around and off the Site. Individually the applicable requirements were rendered ineffective in their essential function. The Deviation from the Requirement was Major for each of the five violations.

Per day factors

The per day factor for a violation with Moderate Potential for Harm and Major Deviation from Requirement ranges from 0.4 to 0.7, with a middle value of 0.55. For Violations 1-5, staff selected a per day factor of 0.55 because of the lack of information that would support selecting a factor from either end of the allowable range. For each day where violations were observed staff applied \$10,000 per day to the liability calculation. Staff allege one day of violation.

Initial Liability, Violations 1-5

V1: $0.55 \times \$10,000 = \$5,500$

V2: $0.55 \times \$10,000 = \$5,500$

$$V3: 0.55 \times \$10,000 = \$5,500$$

$$V4: 0.55 \times \$10,000 = \$5,500$$

$$V5: 0.55 \times \$10,000 = \$5,500$$

Adjustment Factors

The Enforcement Policy requires consideration of three factors for potential modification of the liability amount: the permittee's culpability, efforts to clean up and/or cooperate with regulatory authority and the permittee's compliance history. Staff documented Violations 1-5 on a single inspection, and, as discussed below, staff deemed it appropriate to apply the same Adjustment Factor multipliers to each of these violations.

Culpability: The culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a permittee is determined to have acted as a reasonable and prudent person would have.

The portion of the Site staff observed was not adequately prepared for the wet weather season in a fashion one would expect of a reasonable and prudent permittee subject to the CGP. Although perfection is not a viable standard, the scope of violations observed indicate a clear departure from reasonable conduct.

A reasonable and prudent person would have corrected the deficient BMPs and ensured they were properly maintained to prevent transport of sediment off the Site. Accordingly, a value of 1.1 for culpability is appropriate.

History of Violations: Where the permittee has no prior history of violations, this factor should be neutral, or 1.0. Where the permittee has prior violations within the last five years, the Regional Water Board should use a multiplier of 1.1. Where the permittee has a history of similar or numerous dissimilar violations, the Regional Water Board should consider adopting a multiplier above 1.1. Since the Discharger does not have a history of violations, a neutral multiplier of 1.0 is appropriate.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not. Staff is not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations, nor any steps that would be considered above and beyond a normally expected response. Accordingly, a multiplier of 1.0 is appropriate.

Total Base Liability for Violations 1-5

$$V1: (\$5,500) \times (1.1) \times (1) \times (1) = \$6,050$$

V2: (\$5,500)x(1.1)x(1)x(1) = \$6,050

V3: (\$5,500)x(1.1)x(1)x(1) = \$6,050

V4: (\$5,500)x(1.1)x(1)x(1) = \$6,050

V5: (\$5,500)x(1.1)x(1)x(1) = \$6,050

2. Violations 6-14, November 29 through December 4, 2018

Staff inspected the Site on November 29, 2018. Following this inspection, on December 3, staff directed the Discharger to cease all project activities on the Site until adequate BMPs had been deployed to protect water quality impacts from the Site. The next day, staff returned to the Site to collect further evidence regarding Site conditions and water quality violations. On the December 4 inspection, staff observed many of the same conditions and violations observed on the November 29, inspection, as well as several additional violations.

Throughout the portions of the Site staff inspected on November 29 through December 4, staff observed **two** uncovered stockpiles (Violation 6); **one** uncovered waste disposal container (Violation 7); **two** locations where gas containers had been left on the ground in the rain (Violation 8); **118** locations where BMPs were not effectively reducing or preventing pollutants in storm water discharges (Violation 9); **77** inactive areas where bare soil had not been effectively covered (Violation 10); **50** areas where perimeter controls were not in place and/or were not effective in controlling erosion and sediment discharges from the Site (Violation 11); **5** areas under active construction where erosion or sediment control BMPs were not adequate (Violation 12); **96** slope toes or breaks in slope with deficient or ineffective linear sediment controls (Violation 13); and **71** locations where run-on or runoff was not being managed effectively (Violation 14).

Determining the Initial Liability Factor

Violation 6 – Failure to cover and contain stockpiles of construction materials (CGP Att. E, section B.1.b)

Staff observed two uncovered, uncontained stockpiles in the rain; one of wood waste with nearby puddles of discolored water (note image below), and one of gravel and fine-grained material adjacent to a drainage channel.



Figure 3. Uncovered, uncontained wood waste

Potential for Harm: Moderate

While staff observed only two such stockpiles during the November 29 through December 4 inspections, staff deem the potential for harm associated with this violation to be Moderate. The unprotected stockpiles present a substantial threat to beneficial uses and the circumstances of the violation indicate a substantial potential for harm, given that the overall condition of the Site increased the likelihood that pollutants from these stockpiles entered into receiving waters, threatening water quality and beneficial uses.

Violation 7 – Failure to cover waste disposal container (CGP Att. E, section B.2.d)

Staff observed one uncovered waste bin during the November 29, 2018, inspection. Rainfall had ceased at the time staff took the photo shown here, but the bin had been uncovered during the earlier rainfall, as well.

Potential for Harm: Moderate

The circumstances of the violation indicate a substantial potential for harm given that the waste bin was uncovered during a rain event and the overall lack of adequate or effective pollution control BMPs on the Site at that time increases the likelihood that any waste, leachate, or contaminated rainwater could migrate or be transported into receiving waters and adversely impact water quality and beneficial uses. Accordingly, staff assigned a Potential for Harm of Moderate to this violation.



Figure 4. Uncovered waste disposal bin.

Violation 8 – Failure to properly store chemicals (CGP Att. E, section B.1.c.)

Staff observed two locations where gas cans were sitting in the rain on November 29, 2018.

Potential for Harm: Moderate

As seen in the picture below, gas cans were sitting on a sediment-covered road during a rain event. These circumstances, in addition to the conditions throughout the rest of the Site at the time, increase the likelihood that any chemicals spilled or leaked throughout the Site would come into contact with runoff and be transported into receiving waters, posing a substantial threat to water quality and beneficial uses. As a result, staff assigned a Potential for Harm factor of Moderate.



Figure 5. Gas cans on the ground in the rain.

Violation 9 – Failure to implement BMPs that are effective in reducing or preventing pollutants in storm water discharges (CGP Att. E, section B.5.e)

During the November 29 through December 4, 2018, inspections, staff observed 118 locations where BMPs were not effective in reducing or preventing pollutants in storm water discharges. In addition, storm water runoff samples collected by staff during the November 29, 2018, inspection showed turbidity levels as high as 896 NTU, well above the 250 NTU as a numeric action level (NAL) in the CGP that triggers additional pollution control requirements for Risk Level 3 sites.



Figure 6. Ineffective Sediment control BMPs resulting in turbid, sediment-laden storm water runoff.

Potential for harm: Major

Given the size and nature of the Site, and the Discharger's failure to comply with this requirement of the CGP by having numerous locations where BMPs were either nonexistent or not effective for controlling pollution, the Site presented a particularly egregious threat to beneficial uses and a high potential for harm. This potential for harm was further exemplified by storm water runoff samples collected by staff during the November 29, 2018, inspection, which showed turbidity levels as high as 896 NTU. Water quality samples demonstrated that the overall lack of pollution control BMPs on the Site was resulting in violations of water quality standards in a watershed impaired due to sediment, with beneficial uses including habitat for endangered salmonids. Evidence supports a Major potential for harm because the characteristics of the violation present an egregious threat to beneficial uses and the circumstances of the violation indicate a very high potential for harm.

Violation 10 – Failure to implement effective soil cover on slopes and inactive areas (CGP Att. E, section D.2)

During the November 29 through December 4, 2018, inspections, staff observed 77 inactive areas with unprotected or ineffectively covered bare soil that was susceptible to erosion and exposed to the elements.



Figure 7. Sediment control BMPs inadequate to prevent erosion and overwhelmed by sediment deposition resulting from sediment-laden runoff.

Potential for Harm: Major

The scale of the Site and the numerous inactive areas with bare soil made it highly likely that soil eroded from bare areas throughout the Site and contributed to sediment discharges to receiving waters. Water quality samples demonstrated that the overall lack of pollution control BMPs on the Site was resulting in violations of water quality standards in a watershed impaired due to sediment, with beneficial uses including habitat for endangered salmonids. As a result, this violation posed an egregious threat to beneficial uses and therefore the Potential for Harm associated with this violation is Major.

Violation 11 – Failure to implement effective perimeter controls (CGP Att. E, E.1)

During the November 29 through December 4, 2018, inspections, staff observed 50 locations with inadequate perimeter controls, allowing pollutants to migrate or be transported off the Site.



Figure 8. Sediment from Road 5 has breached the single perimeter wattle and discharged to the hillslope below. An unnamed tributary to Foss Creek is located approximately 75 feet downslope.

Potential for Harm: Major

Given the numerous points around the Site with non-existent or deficient perimeter controls, it is highly likely that sediment entered or was transported into receiving waters on and around the Site at several locations. Water quality samples demonstrated that the overall lack of pollution control BMPs on the Site was resulting in violations of water quality standards in a watershed impaired due to sediment, with beneficial uses including habitat for endangered salmonids. Therefore, the Potential for Harm for this violation is Major because of the egregious threat to beneficial uses resulting from the violation.

Violation 12 – Failure to implement effective erosion and sediment control BMPs in active construction areas (CGP Att. E, section E.3)

During the November 29 through December 4, 2018, inspections, staff observed 5 areas within the Site under active construction where erosion or sediment controls were non-existent or ineffective. Throughout the Site, staff observed bare, exposed, erodible, and eroding soil; turbid runoff; and sediment-laden runoff entering waterway. BMPs, where present, were either improperly installed, inadequate for the nature or scale of the discharges, rendered ineffective, or some combination thereof.



Figure 9. Disturbed soil where resort area was under active construction; lack of effective erosion or sediment control BMPs.

Potential for Harm: Major

This violation allowed and resulted in significant sediment discharges to receiving waters, as observed by staff during their inspection and seen through the large discharge of sediment-laden storm water that occurred on November 29, 2018. Water quality samples demonstrated that the overall lack of pollution control BMPs on the Site was resulting in violations of water quality standards in a watershed impaired due to sediment, with beneficial uses including habitat for endangered salmonids. The Potential for Harm is Major because the characteristics of the violation present an egregious threat to beneficial uses and the circumstances of the violation indicate a very high potential for harm.

Violation 13 – Failure to implement effective linear sediment control at toes, breaks, and bases in slopes (CGP Att. E, E.4)

During the November 29 through December 4, 2018, inspections, staff observed 96 locations lacking adequate linear sediment controls at the toe or break in a slope. Erosion and drainage controls were non-existent or ineffective on slopes throughout the Site and were compounded by the lack of linear sediment controls. As a result, eroded sediment and large volumes of high-velocity runoff were free to travel across the Site, overwhelming ineffective BMPs and discharging into receiving waters.



Figure 10. No linear sediment controls along the base of this roadside slope. Signs of gullying on the road.



Figure 11. Erosional gully underneath wattle and silt fence; creek in the background.



Figure 12. While several types of erosion and sediment controls are present at this location, the resort area lacked effective controls to prevent highly turbid runoff to the unnamed tributary (shown on left of photo) to Jordan Pond

Potential for Harm: Major

Linear sediment controls at slope bases often serve as a last line of defense to retain eroded sediment and to slow down high velocity runoff where erosion or drainage controls along the slopes are not adequate. The size of the Site and the wet weather increased the importance of this requirement, given the millions of gallons of storm water discharged from the Site over various rainfall events. The rain event from November 27-29 resulted in approximately 2.2 million gallons of sediment-laden storm water discharge from the Site. Water quality samples demonstrated that the overall lack of pollution control BMPs on the Site was resulting in violations of water quality standards in a watershed impaired due to sediment, with beneficial uses including habitat for endangered salmonids. The Potential for Harm associated with this violation is Major because the characteristics of the violation present an egregious threat to beneficial uses and the circumstances of the violation indicate a very high potential for harm.

Violation 14 – Failure to implement effective run-on and runoff controls (CGP Att. E, section F)

During the November 29 through December 4 inspections, staff observed 71 locations where run-on or runoff was not effectively controlled resulting in million gallons of sediment laden storm water discharging from the Site.



Figure 13. Road segment with adjacent unprotected slope and signs of uncontrolled runoff.

Potential for Harm: Major

When effectively implemented, run-on and runoff controls can segregate clean or less polluted water from pollutants and more polluted water to control or minimize the amount of polluted storm water generated on a site and the amount of pollutants discharged from a site. With deficient run-on and runoff controls and widespread lack of effective pollution prevention BMPs throughout the Site, it is likely that most of the storm water that landed on or flowed across the disturbed portions of the Site became contaminated by sediment and other pollutants and discharged from the Site into receiving waters. The Potential for Harm associated with this violation is Major because the characteristics of the violation present an egregious threat to beneficial uses and the circumstances of the violation indicate a very high potential for harm.



Figure 14. Road segment with no erosion and sediment control BMPs. Signs of gullying on the road.

Deviation from Requirement, Violations 6-14: Major

Conditions observed by staff on November 29 through December 4, 2018, deviated significantly from the applicable CGP requirements. As discussed above, apart from violations 6, 7, 8, and 12, staff observed dozens of instances of each type of violation, with conditions deviating significantly from the requirements. While staff observed only one or two instances where conditions violated CGP Attachment E, Sections B.1.b (requirement to cover and contain stockpiled materials); B.2.d (requirement to cover waste disposal containers), and B.1.c. (requirement to store chemicals with proper secondary containment or in a storage shed), in each case, the conditions observed deviated significantly from the requirement. The woodwaste and fine material stockpiles were uncovered, uncontained, exposed to the elements, and at locations where they could leach or be transported into receiving waters during a rain event; the waste disposal container staff observed was uncovered in the rain; the fuel containers staff observed were on the ground, exposed to the elements during a rain event and at locations where spills or leaks could become entrained in storm water runoff. The Deviation from Requirement for Violations 6-14 is Major because the requirement was rendered ineffective in its essential function.

Per day factors

The per day factor for a violation with Moderate Potential for Harm and Major Deviation from Requirement ranges from 0.4 to 0.7. The per day factor for a violation with Major Potential for Harm and Major Deviation from Requirement ranges from 0.7 to 1. For Violations 6-14, given the extent of the disturbed, unprotected areas on the Site, with connectivity and demonstrated discharges to receiving waters, staff opted for the high end of the per day factor range for each of the violations, selecting a factor of 0.7 for violations 6-8, and a factor of 1 for violations 9-14.

Initial Liability, Violations 6-14

Staff documented Violations 6-14 between November 29 through December 4, 2018, six days apart from each other, with no evidence that the status of the violations had changed during that time. Accordingly, staff allege six days of violation.

The initial liabilities for violations 6-14:

V6: $0.7 \times \$10,000 \times 6 \text{ days} = \$42,000$

V7: $0.7 \times \$10,000 \times 6 \text{ days} = \$42,000$

V8: $0.7 \times \$10,000 \times 6 \text{ days} = \$42,000$

V9: $1 \times \$10,000 \times 6 \text{ days} = \$60,000$

V10: $1 \times \$10,000 \times 6 \text{ days} = \$60,000$

V11: $1 \times \$10,000 \times 6 \text{ days} = \$60,000$

V12: $1 \times \$10,000 \times 6 \text{ days} = \$60,000$

V13: $1 \times \$10,000 \times 6 \text{ days} = \$60,000$

V14: $1 \times \$10,000 \times 6 \text{ days} = \$60,000$

Adjustment Factors

Staff documented violations 6-14 during two inspections within six days of each other, with no evidence of changes to the Site made in between, and no events, actions, or other known factors that would warrant assigning different adjustment factors to any of the violations. Accordingly, the discussion below applies to all nine violations, 6-14.

Culpability: The culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a discharger is determined to have acted as a reasonable and prudent person would have. Staff informed the Discharger of the November 29, 2018, inspection ten days in advance.

In staff's November 19, 2018, email proposing an inspection during the week of November 26, staff included information about the weather forecast for November 19-24, indicating that several days of rain were likely. In addition, City staff had inspected the Site on October 29, 2018, November 5, 2018, and November 19, 2018, informing the Discharger of deficiencies in its storm water pollution prevention measures.

Nevertheless, during the November 29, 2018, inspection, staff observed hundreds of instances of inadequate sediment and erosion control efforts, as well as evidence of gross sediment discharges to receiving waters. A reasonable person would have corrected the deficient BMPs to prevent future discharges, as identified by City staff and as required by the CGP. A reasonable and prudent person would have corrected the deficient BMPs, implemented additional BMPs, and ensured they were functioning throughout the Site, especially given the forecasted rain event. The Discharger's conduct in this regard is at least negligent. Staff assigned a value of 1.2 for this factor.



Figure 15. Significant sediment discharge at the culvert outfall that drains the upper resort area.



Figure 16. Significant sediment deposition within Foss Creek culvert inlet.

History of Violations: Since the Discharger does not have a history of violations, staff assigned a neutral multiplier of 1.0.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not.

Four days after the November 29, 2018, inspection, staff directed the Discharger to cease work on the project until it had deployed adequate BMPs, as required under Condition 11 of the Discharger's 401 Certification. In response, the Discharger made prompt, extensive improvements to the Site, showing a willingness to cooperate with staff and expressed interest in coming into compliance and preventing further discharges. The Discharger promptly submitted revised plans and made commitments for controlling pollution from the Site over the remainder of the rainy season. The Discharger's response and actions to correct violations were reasonable and did not go above and beyond what would be required to achieve compliance with CGP requirements and Condition 11 of its 401 Certification. Additionally, staff are not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations. Accordingly, staff assigned a neutral multiplier of 1.0.

Total Base Liability for Violations 6-14

V6: (\$42,000)x(1.2)x(1)x(1) = \$50,400

V7: (\$42,000)x(1.2)x(1)x(1) = \$50,400

V8: (\$42,000)x(1.2)x(1)x(1) = \$50,400

V9: (\$60,000)x(1.2)x(1)x(1) = \$72,000 (reduced to statutory maximum: \$60,000)¹³

V10: (\$60,000)x(1.2)x(1)x(1) = \$72,000 (reduced to statutory maximum: \$60,000)¹³

V11: (\$60,000)x(1.2)x(1)x(1) = \$72,000 (reduced to statutory maximum: \$60,000)¹³

V12: (\$60,000)x(1.2)x(1)x(1) = \$72,000 (reduced to statutory maximum: \$60,000)¹³

V13: (\$60,000)x(1.2)x(1)x(1) = \$72,000 (reduced to statutory maximum: \$60,000)¹³

V14: (\$60,000)x(1.2)x(1)x(1) = \$72,000 (reduced to statutory maximum: \$60,000)¹³

3. Violations 15-16, January 7, 2019

On January 7, 2019, staff inspected the Site for the first time following the Discharger fully resuming work on December 28, 2018. Just weeks earlier, staff had confirmed extensive deployment of BMPs throughout the Site. During the inspection staff noted that the BMPs added in December 2018 significantly reduced the area of the Site susceptible to erosion and sedimentation. However, in the limited portion of the Site inspected, staff observed multiple features that violated one or more CGP requirements, including **two** locations where BMPs were not effectively reducing or preventing pollutants in storm water discharges (Violation 15) and **two** inactive areas lacking effective erosion and sediment controls (Violation 16). Instream samples collected January 7, 9, and 10 showed significant exceedances of the Basin Plan turbidity objective in receiving waters, further demonstrating the inadequacy of the BMPs observed by staff on January 7.

Violation 15 – Failure to implement BMPs that are effective in reducing or preventing pollutants in storm water discharges (CGP Att. E, section B.5.e)



Figure 17. Lack of erosion and sediment controls in this inactive area resulted in stream bank failure that led to sediment deposition within Foss Creek

Staff inspected a fairly limited portion of the Site during the January 7, 2019, inspection, but observed that BMPs did not appear to have been recently inspected or maintained. Staff observed two locations where BMPs were not effectively reducing or preventing pollutants in storm water discharges. Given the extent of disturbed soil on the Site and the several heavy precipitation events since December 2018, regular inspection and maintenance of all BMPs throughout the Site was a critical element to ensure pollution prevention. Inadequate maintenance appeared to allow sediment control BMPs to become overwhelmed.

Potential for Harm: Major

The BMPs staff observed on January 7, 2019 were not effectively reducing pollutants in storm water discharges as seen through the high turbidity measurements, resulting in significant adverse impacts to water quality and a continuing egregious threat to beneficial uses including habitat for endangered salmonids in sediment-impaired waters. The Potential for Harm for this violation is Major because the characteristics of the violation present an egregious threat to beneficial uses and the circumstances of the violation indicate a very high potential for harm.



Figure 18. Downstream from Figure 14, large sediment deposit within Foss Creek as a result of the slope failure along the creek bank.

Violation 16 – Failure to implement effective soil cover on slopes and inactive areas (CGP Att. E, section D.2)

As noted above, staff observed only a limited portion of the Site on January 7, 2019 but observed inadequate erosion and sediment control BMPs and ineffective soil cover at two inactive areas along the lower portion of the Site and within Foss Creek. There were no erosion control blankets on the slopes that failed, resulting in the large sediment deposit shown in Figure 18, above. The applied hydroseed was not sufficiently established to effectively reduce soil erosion. Additionally, straw had not been uniformly applied in conjunction with the hydroseed, as described in the site-specific SWPPP.



Figure 19. Ineffective soil cover contributing to erosion. The combination of BMPs for erosion, sediment, and turbidity controls on the Site was not adequate to prevent erosion and sedimentation.



Figure 20. Farther downstream of Figure 19 above, the silt deposits show that sediment-laden water impounded sufficiently to overtop the center bag.

Potential for Harm: Major

Failure to maintain effective soil cover for inactive areas leaves the disturbed soil susceptible to transport across the Site and into receiving waters. Given the extent of exposed soil that was not adequately covered, and the multiple rain events, this violation posed a substantial threat to beneficial uses. Water quality samples demonstrated that the overall lack of pollution control BMPs on the Site was resulting in violations of water quality standards in a watershed impaired due to sediment, with beneficial uses including habitat for endangered salmonids. As a result, the Potential for Harm for this violation was Major because the characteristics of the violation present an egregious threat to beneficial uses and the circumstances of the violation indicate a very high potential for harm.

Deviation from Requirement, Violations 15-16: Moderate

As noted above, staff inspected a relatively limited portion of the Site, and observed locations that appeared to have adequate and functional BMPs, and locations where BMPs were not adequate or were not fully functional. Staff have assigned a Deviation from Requirement of Moderate because the effectiveness of the requirement was only partially achieved, acknowledging those portions of the Site where BMPs appeared to be adequate and functional.

Per day factors

The per day factor for a violation with Major Potential for Harm and Moderate Deviation from Requirement ranges from 0.4 to 0.7, with a middle value of 0.55. For Violations 15-16, staff selected a per day factor of 0.55 because of the lack of information that would support selecting a factor from either end of the allowable range. For each day where violations were observed staff applied \$10,000 per day to the liability calculation. Staff allege one day of violation.

Initial liability for Violations 15-16:

$$V15: 0.55 \times \$10,000 = \$5,500$$

$$V16: 0.55 \times \$10,000 = \$5,500$$

Adjustment Factors

Staff observed Violations 15-16 on a single day and deem it appropriate to apply the same adjustment factors to each of these violations. Accordingly, the discussion below applies to Violations 15 and 16.

Culpability: As mentioned above, the culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a permittee is determined to have acted as a reasonable and prudent person would have.

The January 7, 2019, inspection occurred following Regional Water Board staff directing the Discharger to stop work on the Site and then allowing the Discharger to fully go back to work. On December 13, 2018, staff authorized commencement of very specific, limited construction activities contingent upon Discharger compliance with all terms and conditions of the 401 Certification and effective BMP installation, maintenance and repair per the CGP. Additionally, the Regional Water Board's AEO had issued a Water Code section 13267 Order and NOV to the Discharger on December 28, 2018. The Discharger expressed understanding and interest in complying with CGP and 401 Certification requirements over the remainder of the rainy season. The deficient BMPs staff observed during the January 7, 2019, inspection, a little more than a week after the Discharger resumed work, suggest that the Discharger was not making a diligent effort to ensure continued compliance with the CGP and 401 Certification. Staff assigned a value of 1.3 for culpability because the Discharger was at least negligent, if not grossly negligent, by failing to implement sufficient and effective BMPs at the Site.

History of Violations: Since the Discharger does not have a history of violations, a neutral multiplier of 1.0 is appropriate.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not. On the same day as the inspection, the Discharger sent an email to staff stating that it had ceased any ground-disturbing activities at that time and that it would continue to maintain and re-establish BMPs in the focus areas, as well as install additional BMPs to prepare for the a rain event forecasted for the next day. The Discharger's response and actions to correct the violations were reasonable and did not go above and beyond what would be expected to comply with the CGP and the Discharger's 401 Certification. Additionally, staff are not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations. Accordingly, a neutral value of 1.0 for cleanup and cooperation is appropriate.

Total Base Liability for Violations 15 and 16

V15: $(\$5,500) \times (1.3) \times (1) \times (1) = \$7,150$

V16: $(\$5,500) \times (1.3) \times (1) \times (1) = \$7,150$

4. Violations 17-22, January 18, 2019

During a January 18, 2019, inspection, staff confirmed that the installation of BMPs in December 2018 had significantly reduced the area of the Site susceptible to erosion and sedimentation. However, staff observed troubling signs that BMPs were not being diligently maintained. During this inspection, staff observed multiple instances of violations of CGP requirements, including **two** uncovered stockpiles (Violation 17); **seven** locations where BMPs were not effectively reducing or preventing pollutants in storm water discharges (Violation 18); **four** inactive or finished areas lacking sufficient soil cover (Violation 19); **four** areas lacking effective perimeter controls (Violation 20); **four** slopes and breaks in slope with ineffective linear sediment controls (Violation 21); and **five** areas with ineffective run-on or runoff controls (Violation 22).

Determining the Initial Liability Factor

Violation 17 – Failure to cover and contain stockpiles of construction materials (CGP Att. E, section B.1.b)

Though staff observed only two uncovered, uncontained construction material stockpiles during the January 18 inspection, both were exposed to the elements and showed signs of leaching of pollutants near receiving waters. Staff observed and photographed a pool of discolored water that had gathered under one of the stockpiles.



Figure 21. Uncovered stockpile near top of a stream/drainage channel bank. Creek in the foreground.

Potential for Harm: Major

The Potential for Harm for this violation was Major because the characteristics of the violation present an egregious threat to beneficial uses due to the stockpiles' exposure to the elements and evidence of leaching. Additionally, the circumstances indicate a very high potential for harm as one of the large uncovered and uncontained stockpiles was located near the top of a stream or drainage channel bank, as seen in Figure 18. The other stockpile had a discolored pool by it, signs of the pollutants leaching from the uncontained stockpile and posing an egregious threat to beneficial uses.

Violation 18 – Failure to implement BMPs that are effective in reducing or preventing pollutants in storm water discharges (CGP Att. E, section B.5.e)

During the January 18, 2019 inspection, staff observed seven locations where BMPs were not sufficient in reducing or preventing pollutants in storm water discharges. In some locations, staff observed BMPs that had not been properly maintained and were rendered ineffective. Figures 22 and 23, below, show examples of both insufficient combinations of BMPs as well as BMPs that were not adequately maintained and had failed.

Potential for Harm: Major

The extent of disturbed soil at the Site at this time required extensive, diligent efforts to prevent and control erosion and pollution. Erosion and sediment control BMPs were susceptible to rapid inundation and failure if they were not frequently inspected, maintained, and evaluated to determine if they needed to be reinforced with additional measures. As shown in Figure 22, below, the combination of BMPs applied to the slope (netting and wattle), had become overwhelmed and/or undermined by erosion and sediment movement, and had not been repaired and reinforced. Ineffective BMPs led to additional pollutant discharges to receiving waters, as seen by the gravel draining from the drain inlet into a receiving water. The potential for harm for these violations was Major because the characteristics of the violation present an egregious threat to beneficial uses.

Violation 19 – Failure to implement effective soil cover on slopes and inactive areas (CGP Att. E, section D.2)

Staff observed four locations throughout Road 8 that had disturbed soil that had not been effectively covered and overwhelmed BMPs that needed maintenance on the January 18, 2019, inspection.



Figure 22. Sediment deposition beyond the undermined and overwhelmed BMPs; insufficient maintenance of erosion and sediment control BMPs.

Potential for Harm: Major

As mentioned above, there was extensive disturbed soil at the Site, requiring diligent maintenance over the continuing rainy season. Ineffective soil cover was observed at four locations along Road 8. Where disturbed soil was not effectively covered, and where BMPs were not maintained it was susceptible to erosion and transport to receiving waters, presenting an egregious threat to beneficial uses. The circumstances of the violation occurring during a continuing rainy season and the extensiveness of the disturbed soil indicate a very high potential for harm. Therefore, Potential for Harm for this violation was Major.



Figure 23. Ineffective erosion and sediment controls on slope resulting in bank failure and evidence of sediment transport in the foreground.

Violation 20 – Failure to implement effective perimeter controls (CGP Att. E, section E.1)

During the January 18 inspection, staff observed four areas lacking sufficient perimeter controls, allowing pollutants to migrate or be transported off the Site.



Figure 24. Lack of perimeter controls downhill from disturbed soil areas.

Potential for Harm: Major

Given the numerous points around the Site with non-existent or deficient perimeter controls, it is likely that sediment entered or was transported into receiving waters on and around the Site at several locations, posing an egregious threat to beneficial uses. As a result, the Potential for Harm associated with this violation is Major.

Violation 21 – Failure to implement effective linear sediment control at toes, breaks, and bases in slopes (CGP Att. E, E.4)

During the January 18, 2019 inspection, staff observed four locations lacking effective linear sediment controls at the toe or break in a slope. Erosion and drainage controls were non-existent or ineffective on slopes throughout the Site.



Figure 25. Lack of effective linear sediment controls at the toe or break in a slope.

Potential for Harm: Major

Unprotected slopes with no toe or mid-slope sediment control measures, in combination with the overall deficient or non-existent erosion and sediment control BMPs on the Site, created circumstances in which substantial amounts of sediment were available to erode from the Site and be transported and delivered to receiving waters, indicating a very high potential for harm. The lack of toe or mid-slope sediment control measures in place at numerous slopes throughout the Site present a particularly egregious threat to beneficial uses, as there were many locations for sediment to erode and discharge into receiving waters. Therefore, Potential for Harm associated with this violation was Major.

Violation 22 – Failure to implement effective run-on and runoff control (CGP Att. E, section F)

During the January 18, 2019 inspection, staff observed five locations where run-on or runoff was not effectively controlled.



Figure 26. The sediment trap is inadequate and needs maintenance; sediment has overtopped the gravel bags and discharged sediment-laden runoff to the storm drain system that discharges to Foss Creek

Potential for Harm: Major

When effectively implemented, run-on and runoff controls can segregate clean and less polluted water from pollutants and more polluted water. They can control or minimize the amount of polluted storm water generated on a site and the amount of pollutants discharged from a site. With deficient run-on and runoff controls as well as widespread lack of effective pollution prevention BMPs throughout the Site, it is likely that most of the storm water that flowed across the disturbed portions of the Site became contaminated by sediment and other pollutants before discharging from the Site into receiving waters (Figure 26). This poses an egregious threat to beneficial uses including salmonid habitat, and this violation combined with a lack of effective pollution prevention BMPs on the Site demonstrate circumstances that indicate a very high potential for harm. Thus, the Potential for Harm associated with this violation is Major.

Deviation from Requirement, Violations 17-22: Major

The Discharger had implemented many BMPs that were reducing the risk to receiving waters after stopping work in December 2018, however, it was apparent that the Discharger was not adequately maintaining BMPs throughout the Site. As BMPs deteriorated or failed, they were rendered increasingly ineffective in their function, until they eventually were no longer partially compromised or effective but rather wholly ineffective in their essential functions. As a result, the Deviation from Requirement was Major for these violations.

Per day factors

The per day factor for a violation with Major Potential for Harm and Major Deviation from Requirement ranges from 0.7 to 1. Acknowledging that portions of the Site continued to have adequate, functional pollution control measures as compared with conditions observed in November and December 2018, staff recommend applying a per day factor of 0.7 to these violations. For each day where violations were observed staff applied \$10,000 per day to the liability calculation. Staff allege one day of violation.

Initial Liability, Violations 17-22

V17: $0.7 \times \$10,000 = \$7,000$

V18: $0.7 \times \$10,000 = \$7,000$

V19: $0.7 \times \$10,000 = \$7,000$

V20: $0.7 \times \$10,000 = \$7,000$

V21: $0.7 \times \$10,000 = \$7,000$

V22: $0.7 \times \$10,000 = \$7,000$

Adjustment Factors

Staff documented Violations 17-22 on a single day and deem it appropriate to apply the same adjustment factors to each of these violations. Accordingly, the discussion below applies to all six violations, 17-22.

Culpability: The culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a permittee is determined to have acted as a reasonable and prudent person would have.

The Discharger had already been directed to stop work once for failing to comply with the CGP and 401 Certification prior to the January 18, 2019, inspection. Additionally, after the January 7 inspection, the Discharger voluntarily stopped ground-clearing activity to focus on BMP installation and preparing for the forecasted rain event. However, staff observed multiple violations relating to ineffective BMPs throughout the Site, often a result of the Discharger's failure to maintain, inspect, and reinforce BMPs. Given the extensive communication with the Discharger about the importance of effective and adequate BMP installation throughout the Site, and the Discharger repeatedly failing to comply, such failures constitute more than simple negligence. Staff therefore deemed it appropriate to apply a culpability factor of 1.4 for these violations.

History of Violations: Since the Discharger does not have a history of violations, a neutral multiplier of 1.0 is appropriate.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not. The Discharger installed BMPs throughout the site, but many needed maintenance. The Discharger's response and actions to correct the violations were reasonable and did not go above and beyond what would be expected to comply with the CGP and the Discharger's 401 Certification. Additionally, staff is not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations. Accordingly, staff assigned a neutral value of 1.0 for cleanup and cooperation.

Total Base Liability for Violations 17-22

V17: $(\$7,000) \times (1.4) \times (1) \times (1) = \$9,800$

V18: $(\$7,000) \times (1.4) \times (1) \times (1) = \$9,800$

V19: $(\$7,000) \times (1.4) \times (1) \times (1) = \$9,800$

V20: $(\$7,000) \times (1.4) \times (1) \times (1) = \$9,800$

V21: $(\$7,000) \times (1.4) \times (1) \times (1) = \$9,800$

V22: $(\$7,000) \times (1.4) \times (1) \times (1) = \$9,800$

5. Violations 23-30, February 1, 2019

On February 1, 2019, staff mainly limited the inspection to the resort area. Rain occurred during the inspection and staff observed sediment-laden runoff discharging off the paved roadways and into the unnamed tributaries to Foss Creek and Jordan Pond, then to Lytton Creek. Staff observed mud tracking from construction vehicles on the roadways so extensive that the paved road system throughout the Site was covered in a layer of fine sediment. Staff noted that BMPs had been deployed on the Site, but that they were not sufficient to prevent runoff from construction activities into receiving waters. Staff also observed sediment-laden water entering receiving waters and a sediment-filled culvert leading to receiving waters. It was apparent that the Discharger was making little or no effort to inspect and maintain BMPs in general, and those BMPs deployed on the Site were continuing to deteriorate, fail, become damaged, or otherwise become less effective or functional.



Figure 27. Turbid storm water runoff entering drain inlet that discharges to Foss Creek

During this inspection, staff observed **one** area with uncovered stockpiles (Violation 23); **one** uncovered waste disposal container (Violation 24); **14** locations where BMPs were not effectively reducing or preventing pollutants in storm water discharges (Violation 25); **three** inactive areas where bare soil had not been effectively covered (Violation 26); **six** areas where perimeter controls were not in place or were not effective in controlling erosion and sediment discharges from the Site (Violation 27); **seven** areas under active construction where erosion or sediment control BMPs were not effective (Violation 28); **four** slope toes or breaks in slope with ineffective linear sediment controls (Violation 29); and **14** locations where run-on or runoff was not being managed effectively (Violation 30).

Determining the Initial Liability Factor

Violation 23 – Failure to cover and contain stockpiles of construction materials (CGP Att. E, section B.1.b)

On February 1, 2019, staff observed an area with several material stockpiles that continued to remain uncovered and uncontained, with nearby puddles of discolored water.



Figure 28. Stockpiles, some covered, some uncovered. Discolored water. Heavy equipment tracks in the mud.

Potential for Harm: Major

The unprotected stockpiles were in a flat area, partially strawed, and one of the piles was covered in a tarp. However, other piles were uncovered, and both the strawed and unstrawed areas showed signs of disturbance, including vehicle tracking in muddy areas with discolored puddles. The unprotected piles were exposed to the rain and susceptible to leaching and erosion, potentially being tracked by equipment driving in and out of the area. The Potential for Harm associated with this violation is Major because the characteristics of the violation present an egregious threat to beneficial uses. The circumstances indicate a very high potential for harm due to the potential for concentrated discharges of woodwaste leachate to negatively affect stream pH and dissolved oxygen concentrations that negatively impact aquatic organisms' respiration. Additionally, the leachate can include biostimulatory substances that promote aquatic growth such as algal blooms that have the potential to adversely affect water quality by lowering dissolved oxygen concentrations and negatively impact aquatic organisms' respiration.

Violation 24 – Failure to cover waste disposal container (CGP Att. E, section B.2.d)

Staff observed one uncovered waste bin during the February 1 inspection, with accumulated trash bags and other garbage exposed to the rain.



Figure 29. Partially filled waste bin, uncovered, during rainfall.

Potential for Harm: Major

Given the overall deficiencies in the pollution control measures throughout the Site, spills or leaks from this container, either where it was or while being transported would likely contact and commingle with storm water, and potentially enter receiving waters. The Potential for Harm for this violation is Major because the circumstances indicate a very high potential for harm due to the rain that was occurring and the overall condition of the Site.

Violation 25 – Failure to implement BMPs that are effective in reducing or preventing pollutants in storm water discharges (CGP Att. E, section B.5.e)



Figure 30. Mud on paved roads continues to result in discharges of sediment-laden runoff.

During the February 1, 2019 inspection, staff observed that there were insufficient BMPs and insufficiently maintained BMPs throughout the Site to reduce or prevent pollutants in storm water discharges. Staff observed active sediment discharges into watercourses and drainageways resulting from the Discharger failing to have these BMPs.

Potential for Harm: Major

The continuing deterioration of BMPs increased the amount of deliverable sediment and other pollutants at the Site. Staff observed that the lack of adequate or adequately maintained BMPs was leading to active sediment discharges during rainfall events. This was evident at 14 locations where staff observed active discharges of turbid runoff into watercourses and drainageways tributary to receiving waters. The Potential for Harm associated with this violation was Major because the characteristics of the violation present an egregious threat to beneficial uses as seen through the active sediment discharges and the circumstances indicate a very high potential for harm given the overall Site conditions.

Violation 26 – Failure to implement effective soil cover on slopes and inactive areas (CGP Att. E, section D.2)

Staff observed three inactive slopes without effective soil cover. Staff observed one slope on Road 4 that had disturbed soil, and the BMPs, if present, were inadequate to reduce erosion. Sediment from the slope was running onto the road.

Potential for Harm: Major



Figure 31. Ineffective erosion and lack of sediment controls in this inactive area.

With BMPs deteriorating throughout the Site, all bare soil susceptible to erosion had a high likelihood to enter or be transported into receiving waters. Exposed slopes created an egregious potential for harm to beneficial uses. It was raining during the inspection, and staff observed sediment running off an exposed slope onto a roadway, increasing the likelihood of sediment discharging into a receiving water. This was compounded by the ineffective soil cover staff observed on slopes and inactive areas at three locations, creating circumstances that indicate a very high potential for harm. As a result, the Potential for Harm for this violation was Major.

Violation 27 – Failure to implement effective perimeter controls (CGP Att. E, section E.1)

Staff observed a lack of effective perimeter controls throughout the Site on February 1. Staff observed soil eroding into the roadway, and the road surface was covered in tracked mud.



Figure 32. Sediment control BMPs observed do not effectively contain soil within the active construction area.

Potential for Harm: Major

The lack of effective perimeter controls was apparent at the Site (as shown in Figure 32), with staff observing six instances of ineffective perimeter controls. As a result, soil tracked from adjacent active and inactive work areas covered the roadways, increasing the likelihood that sediment would be transported and discharged into a receiving water and indicating a very high potential for harm. Therefore, Potential for Harm associated with this violation is Major.

Violation 28 – Failure to implement effective erosion and sediment control BMPs in active construction areas (CGP Att. E, section E.3)



Figure 33. Sediment from the adjacent work area is overflowing onto the roadway and into the drain inlet.

During the February 1, 2019, inspection, staff observed seven locations where erosion and sediment control BMPs in active areas were not effective. For example, as shown in Figure 33, straw cover in the work area adjacent to the roadway is sparse and disturbed, and sediment has travelled or failed onto the road. Sediment control BMPs at the drop inlet (filter bags) have been pushed aside or driven over and crushed. Both the erosion and sediment control BMPs in this area have been rendered ineffective.

Potential for Harm: Major

As discussed earlier, erosion and sediment control BMPs to control runoff and stabilize soil are fundamental for preventing pollutant discharges from construction projects involving land disturbance. These BMPs are especially susceptible to damage when construction occurs during wet and rainy periods, times when their integrity is most critical, and it is essential that they are frequently inspected, maintained, and evaluated to determine if they need to be reinforced with additional measures. As staff observed during the February 1 (and subsequent February 4) inspection, not only were the erosion and sediment BMPs in and adjacent to active construction areas not being maintained as needed to ensure their effectiveness, but many of the BMPs were becoming damaged, destroyed, or disabled as construction activities on the Site continued.

The potential for harm for these violations was Major given the extent of the active construction area, the condition of the BMPs, the frequent rainfall events during this period, and the observed discharges of turbid runoff from active areas to and into receiving waters.

Violation 29 – Failure to implement effective linear sediment control at toes, breaks, and bases of slopes (CGP Att. E, section E.4)

On February 1, 2019, staff observed four locations with no toe or mid-slope sediment control measures. Sediment from slopes without toe or mid-slope sediment controls, such as the one shown in Figure 34, below, showed signs of movement and transport into areas where it was available to be transported via storm water runoff to receiving waters.



Figure 34. The cut slope adjacent to the roadway lacks erosion or sediment control measures either on the slope or at its toe.

Potential for Harm: Major

Unprotected slopes with no toe or mid-slope sediment control measures, in combination with the overall deficient or non-existent erosion and sediment control BMPs on the Site, created circumstances in which substantial amounts of sediment were available to erode from the Site and be transported and delivered to receiving waters, indicating a very high potential for harm.

The lack of toe or mid-slope sediment control measures in place at numerous slopes throughout the Site present a particularly egregious threat to beneficial uses, as there were many locations for sediment to erode and discharge into receiving waters. Therefore, Potential for Harm associated with this violation was Major.

Violation 30 – Failure to implement effective run-on and runoff controls (CGP Att. E, section F)

Staff observed ineffective run-on or runoff controls at 14 locations on February 1. These included a storm drain inlet with soil and straw overwhelming the BMPs seen on the roadway where the BMPs needed replacement and maintenance. Additionally, staff observed turbid runoff going under wattles, and gravel bags, and into a storm drain inlet on Road 4 (see Figure 35).



Figure 35. This check dam is not correctly positioned to effectively capture or remove pollutants from storm water runoff.

Potential for Harm: Major

Staff observed ineffective runoff controls throughout the Site, with runoff entering drain inlets and discharging into watercourses. The deficient run-on and runoff controls resulted in pollutant-laden storm water discharging from the Site into receiving waters, presenting a particularly egregious threat to beneficial uses. Combined with the widespread lack of effective pollution prevention BMPs throughout the Site, the circumstances of the violation indicate a very high potential for harm and therefore the Potential for Harm associated with this violation is Major.

Deviation from Requirement, Violations 23-30: Major

Staff observed numerous BMPs that had been rendered ineffective, cumulatively contributing to significant discharges of pollutants to receiving waters. Stockpiles were uncovered and uncontained with discolored water puddled nearby. The waste disposal container was completely uncovered in the rain. Many slopes were bare, lacking any erosion or sediment controls. BMPs had failed, been removed, or rendered ineffective in their function from a lack of maintenance. For each of violations 23-30, the Deviation from Requirement was Major because the requirement was rendered ineffective in its essential function.

Per day factors

The per day factor for a violation with Major Potential for Harm and Major Deviation from Requirement ranges from 0.7 to 1. For these violations, because the extent to which pollutants were moving or being carried from source areas to discharge points as a result of CGP violations observed by staff on February 1, staff deem it appropriate to apply the maximum per day factor of 1. For each day where violations were observed staff applied \$10,000 per day to the liability calculation. Staff allege one day of violation.

Initial Liability, Violations 23-30

V23: $1 \times \$10,000 = \$10,000$

V24: $1 \times \$10,000 = \$10,000$

V25: $1 \times \$10,000 = \$10,000$

V26: $1 \times \$10,000 = \$10,000$

V27: $1 \times \$10,000 = \$10,000$

V28: $1 \times \$10,000 = \$10,000$

V29: $1 \times \$10,000 = \$10,000$

V30: $1 \times \$10,000 = \$10,000$

Adjustment Factors

As staff documented violations 23-30 during a single inspection, staff deem it appropriate to apply the same adjustment factor to each of these eight violations.

Culpability: The culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a permittee is determined to have acted as a reasonable and prudent person would have.

Staff had communicated the CGP and 401 Certification requirements to the Discharger on multiple occasions prior to February 1, including through a 13267 Order, a NOV, and through ordering a work stoppage on the Site until effective BMPs were installed. The Discharger knew what was required of it to protect water quality, particularly when engaging in active construction such as the vertical construction happening on February 1. However, staff still observed multiple violations relating to ineffective BMPs throughout the Site, often a result of the Discharger's failure to maintain, inspect, and reinforce BMPs. As a result, staff deem it appropriate to apply a culpability factor of 1.4 to these violations.

History of Violations: Since the Discharger does not have a history of violations, staff have assigned a neutral multiplier of 1.0.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not. Staff inspected the Site three days later (February 4, 2019) and did not see any improvement in BMPs. Staff is not aware of the Discharger making any improvements within a reasonable time after the inspection. Additionally, staff is not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations. Accordingly, staff have assigned a cleanup and cooperation factor of 1.0 to these violations.

Total Base Liability for Violations 23-30

V23: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V24: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V25: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V26: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V27: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V28: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V29: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V30: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

6. Violations 31-36, February 4, 2019

During the February 4, 2019 inspection, staff observed further evidence of the failure to maintain BMPs, further deterioration of onsite BMPs, and sediment discharges from the Site into receiving waters. Staff observed onsite traffic causing damage to BMPs. As a result of the unauthorized discharges observed by staff during the February 1 and February 4 inspections, on February 6, 2019, the AEO directed the Discharger to cease all construction work at the Site until it implemented adequate BMPs.

During the February 4 inspection, staff observed multiple instances of violations of CGP requirements, including **11** locations where BMPs were not effectively reducing or preventing pollutants in storm water discharges (Violation 31); **one** inactive area where bare soil had not been effectively covered (Violation 32); **two** areas where perimeter controls were not in place or were not effective in controlling erosion and sediment discharges from the Site (Violation 33); **three** areas under active construction where erosion or sediment control BMPs were not effective (Violation 34); **five** slope toes or breaks in slope with ineffective linear sediment controls (Violation 35); and **four** locations where run-on or runoff was not being managed effectively (Violation 36).

Determining the Initial Liability Factor

Violation 31 – Failure to implement BMPs that are effective in reducing or preventing pollutants in storm water discharges (CGP Att. E, section B.5.e)

Similar to what staff observed on February 1, BMPs throughout the Site during the February 4 inspection were deteriorated, damaged by traffic, or needing maintenance in 11 different locations, and were not effectively reducing or preventing pollutants in storm water discharges. Additionally, sediment deposition up to and into the drain inlets indicating that turbid storm water runoff had entered the storm drain at the intersection of Passalacqua Rd. and Healdsburg Avenue. Figure 359, below, shows another location where sediment-laden storm water was pooling near a drain inlet because of ineffective pollutant reducing BMPs and sediment control BMPs.



Figure 36. Poor maintenance of BMPs, and lack of BMPs to keep the paved roads clean continues to result in discharges of sediment-laden runoff to the drainage system.

Potential for Harm: Major

Similar to the discussion for violation 28, above, BMPs for active areas are especially susceptible to damage when construction occurs during wet and rainy periods, times when their integrity is most critical, and it is essential that they are frequently inspected, maintained, and evaluated to determine if they need to be reinforced with additional measures. As staff had previously observed on February 1, and again observed on February 4, BMPs in and adjacent to active construction areas were not being maintained as needed and were becoming progressively less effective as construction activities and traffic led to further damage and displacement. The potential for harm for these violations was Major given the extent of the active construction area, the condition of the BMPs, the frequent rainfall events during this period, and the observed discharges of turbid runoff from active areas to and into receiving waters.

Violation 32 – Failure to implement effective soil cover on slopes and inactive areas (CGP Att. E, section D.2)

Staff observed one inactive area without effective soil cover on the February 4, 2019 inspection.



Figure 37. Erosion controls (hydroseed and straw soil cover) are not adequate or established enough to prevent sediment-laden runoff to the storm drain system that discharges to Foss Creek.



Figure 38. Downstream of Figure 37 above, sediment has overtopped the gravel bags and discharged sediment-laden runoff to the storm drain system that discharges to Foss Creek.

Potential for Harm: Major

Staff observed ineffective soil cover in one inactive area at the Site. Given the overall condition of the Site and the fact it was raining during the inspection, the circumstances surrounding uncovered inactive areas indicate a very high potential for harm. As a result, the Potential for Harm for this violation was Major.

Violation 33 – Failure to implement effective perimeter controls (CGP Att. E, section E.1)

Potential for Harm: Major

On February 4, staff observed two instances of ineffective perimeter controls. Poor maintenance of BMPs continued to result in discharges onto paved roads and sediment-laden runoff to storm drains.



Figure 39. Sediment controls near the drainage inlet are not effectively reducing or preventing pollutants in storm water discharges.

Staff observed that the overall Site condition did not appear to be significantly improved from the previous inspection conducted three days prior with many BMPs throughout the Site in need of maintenance. Given the circumstances of the Site and the fact it was raining, the lack of effective perimeter controls indicates a very high potential for harm. Therefore, the Potential for Harm associated with this violation is Major.

Violation 34 – Failure to implement effective erosion and sediment control BMPs in active construction areas (CGP Att. E, section E.3)

Staff observed three instances of ineffective erosion and sediment control BMPs in active construction areas on February 4. Multiple storm drains in active construction areas appeared impacted by ineffective erosion and sediment control BMPs, as one drain inlet had a large amount of sediment deposition up to the drain and another had sediment-laden water flowing over a gravel bag and into the drain inlet.



Figure 40. Oil sheen and turbid water on road surface in the resort area was observed flowing into the storm drain inlet in Figure 38.

Potential for Harm: Major

Active construction areas must be properly controlled for sediment and erosion issues in order to protect water quality. Staff observed drain inlets with sediment-laden water in the active construction areas due to the lack of effective erosion and sediment control BMPs, posing an egregious threat to beneficial uses. Therefore, the Potential for Harm associated with this violation is Major.

Violation 35 – Failure to implement effective linear sediment controls at toes, breaks, and bases of slopes (CGP Att. E, section E.4)

On February 4, staff observed five locations where slopes did not have toe or mid-slope sediment control measures. Additionally, insufficiently maintained BMPs throughout the Site resulted in sediment-laden storm water discharges into Foss Creek and its tributaries.



Figure 41. Note slumping slope on roadway. Turbid water is visible emerging from the left side of the first straw bale berm in the foreground. This turbid water eventually discharged to an unnamed tributary to Foss Creek.

Potential for Harm: Major

Unprotected slopes with no toe or mid-slope sediment control measures, in combination with the overall deficient or non-existent erosion and sediment control BMPs on the Site, ensured that substantial amounts of sediment were available to erode from the Site and be transported to receiving waters. The circumstances of the lack of effective linear sediment controls at toes, breaks, and bases of slopes on the Site indicate a very high potential for harm. As a result, the Potential for Harm associated with this violation was Major.

Violation 36 – Failure to implement effective run-on and runoff control (CGP Att. E, section F)

Staff observed nine locations that lacked effective run-on or runoff controls on February 4. Throughout the wet season staff observed sediment discharges to waters, damaged and unmaintained BMPs, and locations where transported sediment had accumulated within the City’s detention basin downstream of the Site. During periods of high flow, sediment deposited within the detention basin became resuspended and discharged into Foss Creek.



Figure 42. Discharge point from the City's detention basin which is receiving flow from the Site and delivering turbid water to Foss Creek.

Potential for Harm: Major

Effectively controlling run-on and runoff from a construction site is important for water quality protection, because it helps reduce the volume of runoff susceptible to picking up or mingling with pollutants, thereby reducing the potential for pollutant transport and delivery to receiving waters. Staff observed nine instances where run-on or runoff were not effectively controlled on the Site during a rain event. Given the numerous instances of ineffective run-on and runoff control, as well as the fact it was raining, the characteristics of this violation pose a particularly egregious threat to beneficial uses. Therefore, the Potential for Harm associated with this violation is Major.

Deviation from Requirement, Violations 31-36: Major

As with the conditions on February 1, the conditions staff observed on February 4 indicated that many of the BMPs present on the Site had been rendered ineffective, contributing to significant discharges of pollutants to receiving waters. Staff observed traffic actively damaging or compromising the effectiveness of BMPs, demonstrating a complete disregard for pollution prevention and a failure to inspect and maintain BMPs. For each of the violations 31-36, the Deviation from Requirement was Major because the requirement was rendered ineffective in its function.

Per day factors

The per day factor for a violation with Major Potential for Harm and Major Deviation from Requirement ranges from 0.7 to 1. Staff observed no evidence to demonstrate that the Discharger was making an effort to improve or maintain onsite BMPs. Turbid runoff flowing nearly unchecked to drainage and discharge points, and turbidity violations in receiving waters demonstrated that the water quality consequence of these non-discharge violations was significant and severe. Staff deem it appropriate to apply the maximum per day factor of 1. For each day where violations were observed staff applied \$10,000 per day to the liability calculation. Staff allege one day of violation.

Initial Liability, Violations 31-36

V31: 1 x \$10,000 = \$10,000

V32: 1 x \$10,000 = \$10,000

V33: 1 x \$10,000 = \$10,000

V34: 1 x \$10,000 = \$10,000

V35: 1 x \$10,000 = \$10,000

V36: 1 x \$10,000 = \$10,000

Adjustment Factors

As staff documented Violations 31-36 during a single inspection, staff deem it appropriate to apply the same adjustment factor to each of these six violations.

Culpability: The culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a permittee is determined to have acted as a reasonable and prudent person would have.

Although staff had been out at the Site just days before, little improvement to BMPs appeared to have occurred throughout the Site. As with the February 1 inspection, it was raining during the February 4 inspection, but the Discharger had not taken steps to better protect the Site before or during the rain. By this time, staff had communicated the CGP and 401 Certification requirements to the Discharger on multiple occasions and the Discharger knew what was required of it to protect water quality, particularly when engaging in active construction. However, staff still observed multiple violations relating to ineffective BMPs throughout the Site and multiple instances of sediment discharging into drain inlets. As a result, staff deem it appropriate to apply a culpability factor of 1.4 to these violations.

History of Violations: Since the Discharger does not have a history of violations, staff have assigned a neutral multiplier of 1.0.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not.

When staff brought deficient BMPs to the Discharger's attention again, through issuance of a second directive to cease work, on February 6, 2019, the Discharger responded promptly and extensively by conducting maintenance of ineffective BMPs and installing additional BMPs at the Site. However, such a response was only appropriate after a second prolonged failure to control pollution from the Site in accordance with the CGP and 401 Certification. The Discharger's response and actions to correct violations were reasonable and did not go above and beyond what would be expected to comply with the CGP and the Discharger's 401 Certification. Furthermore, staff is not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations. Accordingly, staff have assigned a neutral value of 1.0 for cleanup and cooperation.

Total Base Liability for Violations 31-36

V31: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V32: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V33: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V34: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V35: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

V36: (\$10,000)x(1.4)x(1)x(1) = \$14,000 (reduced to statutory maximum: \$10,000)¹³

B. Turbidity Violations and Proposed Base Liability Amount

1. Violation 37 – Failure to meet the Basin Plan turbidity objective (CGP Section VI.C) November 29, 2018 through May 19, 2019 (33 Days)

During the period from November 29, 2018, to May 19, 2019, the Regional Water Board staff or the Discharger documented 33 days where discharges from the Site resulted in turbidity increases of more than 20% in receiving waters.



Figure 43. November 29, 2018. Foss Creek Bridge on Healdsburg Avenue downstream of Site. In route to the Site, staff noticed Foss Creek was highly turbid.



Figure 44. Foss Creek at the confluence of the tributaries affected by Site construction activities.

During this period, turbidity in receiving waters was regularly higher downstream of the Site's discharge locations. With the exception of the November 2018 sampling event, the Discharger collected all turbidity measurements, in accordance with the receiving water monitoring program required pursuant to the 13267 Order issued on December

28, 2018. Table 1 and Figure 45-Figure 48 show sampling locations and turbidity results from the receiving water monitoring program. Table 1 presents sampling results that show exceedances of the turbidity objectives on 32 days. Staff collected the November 29, 2018, measurements from different sampling locations; therefore, the results are not included in Table 1 nor Figure 46-Figure 48.

For the month/date of:

- November 29, 2018: Regional Water Board staff collected downstream (896 NTU) turbidity samples with levels¹⁴ up to 118 percent higher than the upstream¹² (411 NTU) levels measured on this one (1) day.
- December 17, 2018: Exceedances ranging from 44 to 98 percent above the background measurement observed on this one (1) day.
- January 2019: Exceedances ranging from 24 to 2,197 percent above background observed at one or more locations on eight (8) days.
- February 2019: Exceedances ranging from 24 to 528 percent above background observed at one or more locations on ten (10) days.
- March 2019: Exceedances ranging from 20 to 436 percent above background observed at one or more locations on ten (10) days.
- May 2019: Exceedances ranging from 82 to 783 percent above background observed at one or more locations on three (3) days.

¹⁴ Turbidity results ranged from 367 NTU to 2,941 NTU in samples collected from Healdsburg Avenue and Road 5 (RD5), respectively.

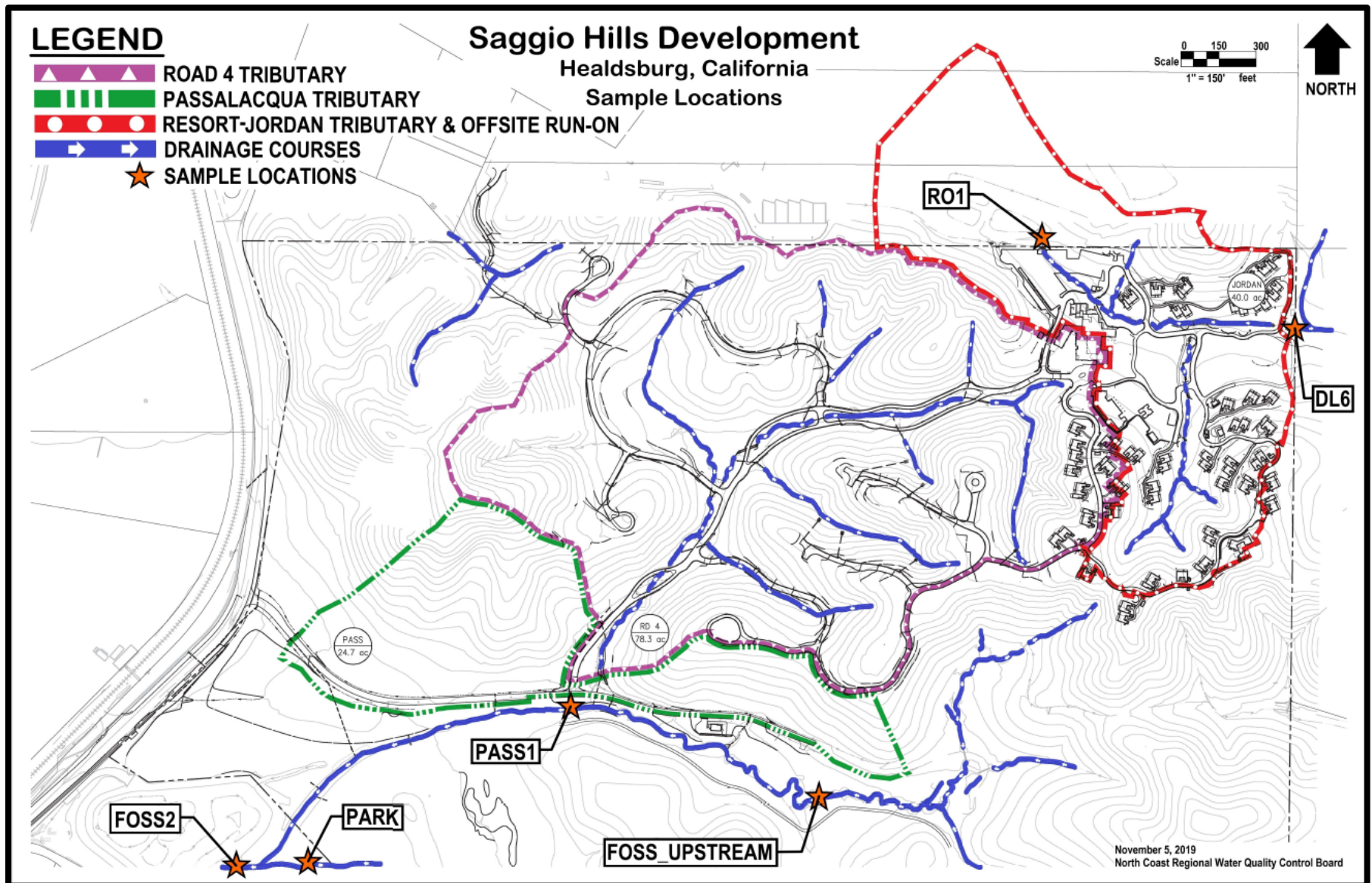


Figure 45. Saggio Hills receiving water monitoring program paired sample locations.

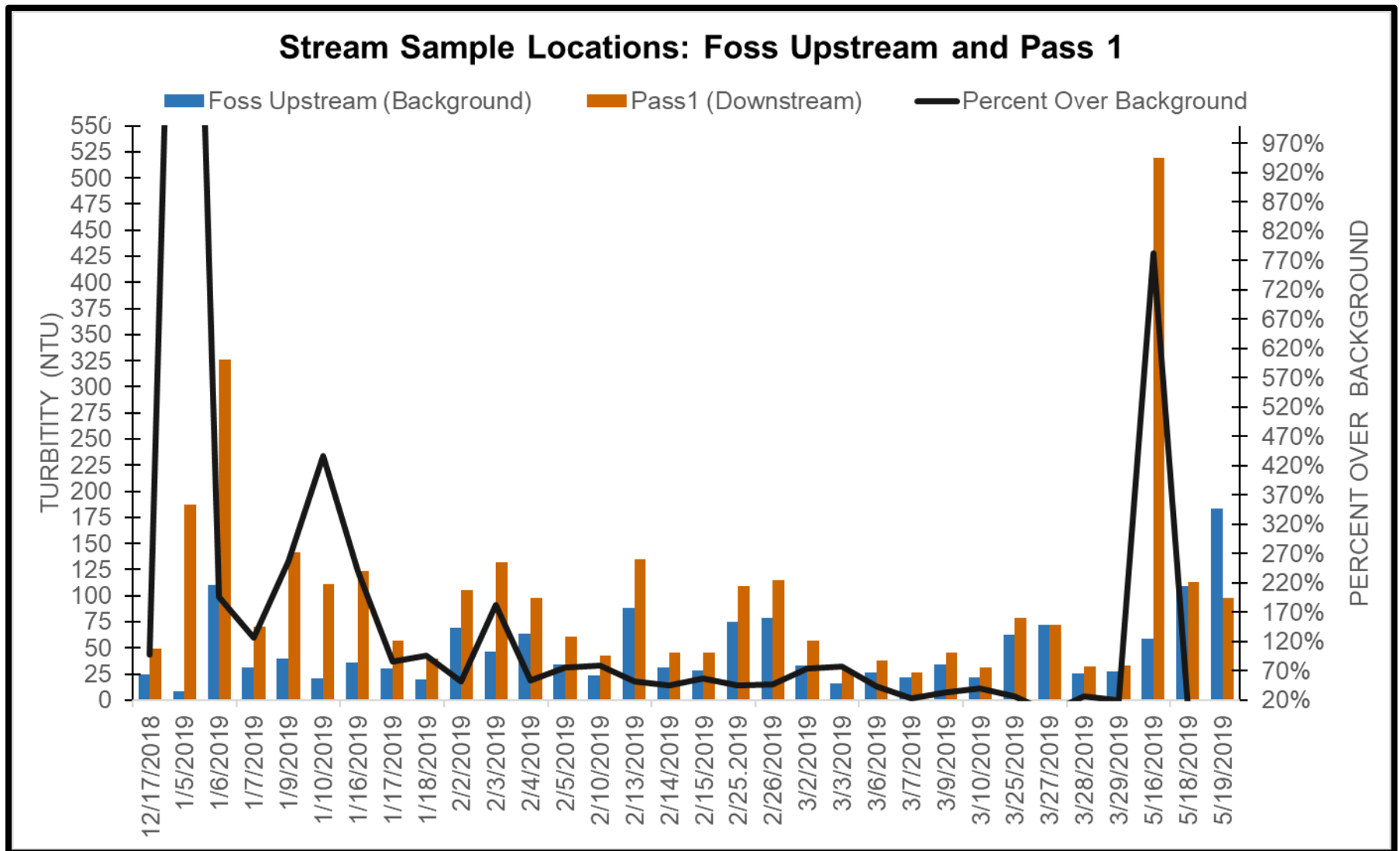


Figure 46. Saggio Hills receiving water monitoring program turbidity results for paired samples in Foss Creek; Foss Upstream (background) and Pass1 (downstream). Note: for viewing purposes the percent over background scale excludes the peak from the January 5, 2019 exceedance of 2,197 percent over background.

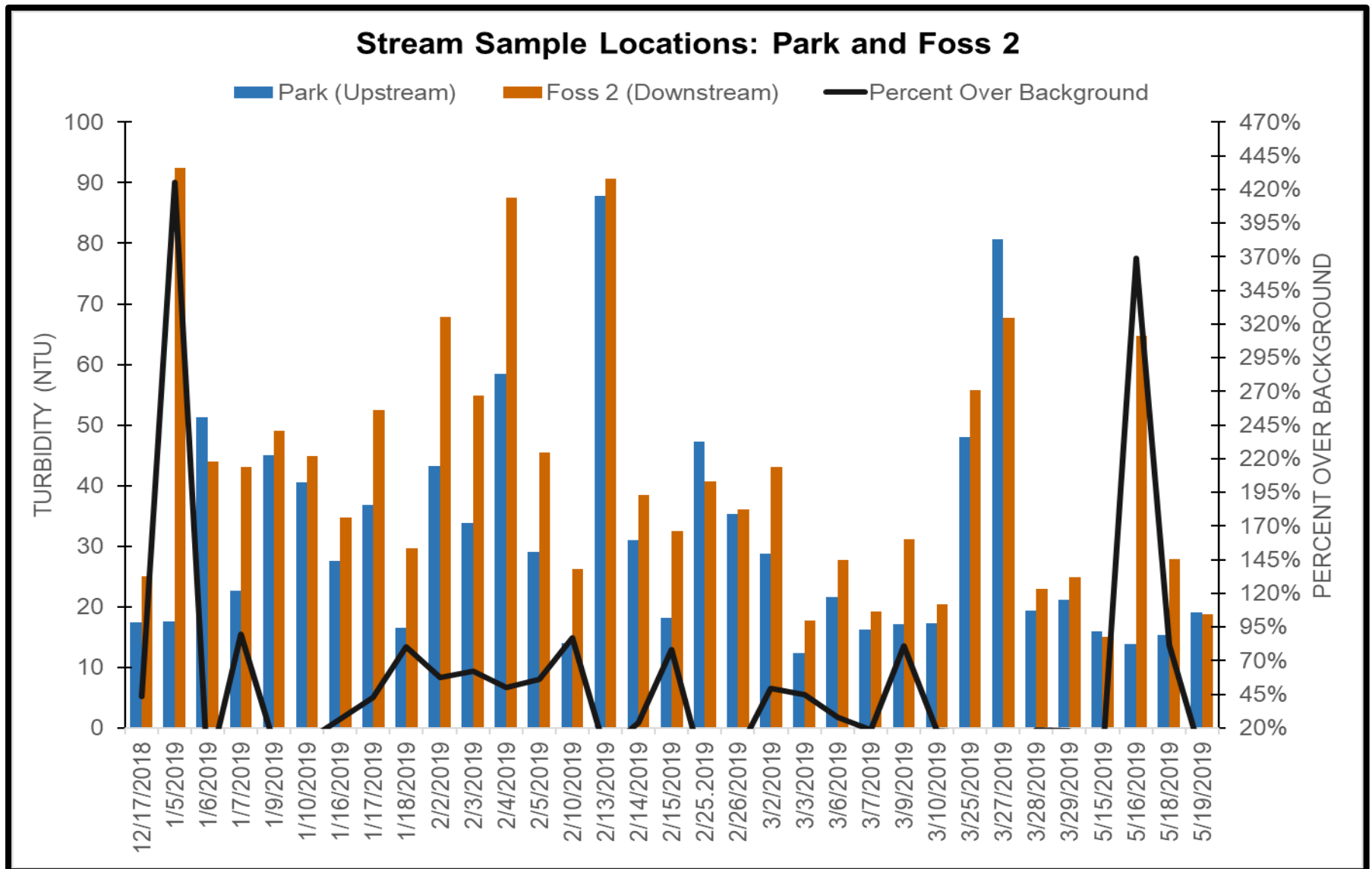


Figure 47. Saggio Hills receiving water monitoring program turbidity results for paired samples in Foss Creek; Park (background) and Foss 2 (downstream).

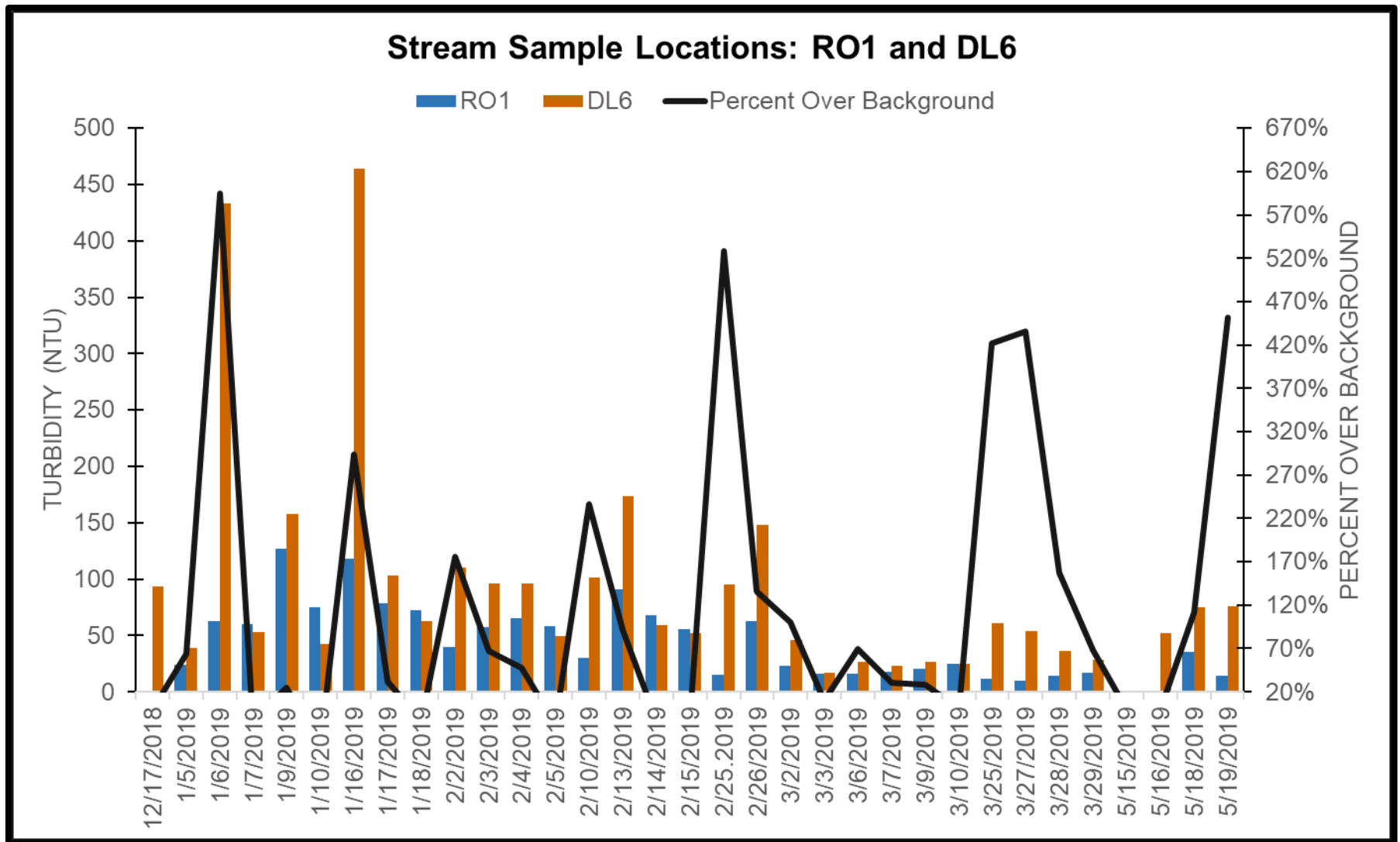


Figure 48. Saggio Hills receiving water monitoring program results for paired samples in tributary to Lytton Creek; R01 (upstream background) and DL6 (downstream).

Table 1. Saggio Hills turbidity results and percentage increases for upstream and downstream paired samples.

Sample Date	Background NTU (Upstream Foss)	Downstream NTU (Pass 1)	Percent Increase	Background NTU (Park)	Downstream NTU (Foss 2)	Percent Increase	Background NTU (RO1)	Downstream NTU (DL6)	Percent Increase
12/17/2018	25	49.6	98%	17.4	25	44%	NF	93.7	0%
1/5/2019	8.14	187	2197%	17.6	92.5	426%	23.6	38.5	63%
1/6/2019	110	326	196%	51.3	44	-14%	62.3	433	595%
1/7/2019	31.1	70.4	126%	22.7	43.1	90%	60.1	53	-12%
1/9/2019	39.8	142	257%	45	49.1	9%	127.0	158.0	24%
1/10/2019	20.7	111	436%	40.6	44.8	10%	74.6	42.1	-44%
1/16/2019	36.4	124	241%	27.5	34.8	27%	118.0	464.0	293%
1/17/2019	30.6	56.8	86%	36.8	52.5	43%	78.2	103	32%
1/18/2019	20.3	39.9	97%	16.5	29.7	80%	72.0	62.9	-13%
2/2/2019	69	105	52%	43.2	67.9	57%	39.9	110	176%
2/3/2019	46.6	132	183%	33.8	54.8	62%	57.8	96.5	67%
2/4/2019	63.7	97.6	53%	58.4	87.5	50%	65.4	96.2	47%
2/5/2019	34.6	61	76%	29.1	45.4	56%	58.6	49.1	-16%
2/10/2019	23.8	42.6	79%	14	26.2	87%	30	101	237%
2/13/2019	88.6	135	52%	87.8	90.6	3%	91.2	174.0	91%
2/14/2019	31.5	46	46%	31	38.4	24%	68.2	59.3	-13%
2/15/2019	28.9	45.2	56%	18.2	32.5	79%	55.8	52.1	-7%
2/25/2019	74.9	109	46%	47.2	40.7	-14%	15.2	95.5	528%
2/26/2019	78.5	115	46%	35.3	36	2%	62.8	148.0	136%
3/2/2019	32.8	57.1	74%	28.8	43.1	50%	22.8	45.7	100%
3/3/2019	16.1	28.7	78%	12.3	17.8	45%	15.6	17.2	10%
3/6/2019	26.4	37.9	44%	21.6	27.7	28%	15.8	26.7	69%
3/7/2019	21.3	26.1	23%	16.2	19.2	19%	17.9	23.3	30%
3/9/2019	33.9	45.1	33%	17.2	31.1	81%	20.5	26.3	28%
3/10/2019	22.1	30.9	40%	17.3	20.4	18%	24.6	24.8	1%
3/25/2019	62.2	79	27%	48	55.8	16%	11.7	61.1	422%

Sample Date	Background NTU (Upstream Foss)	Downstream NTU (Pass 1)	Percent Increase	Background NTU (Park)	Downstream NTU (Foss 2)	Percent Increase	Background NTU (RO1)	Downstream NTU (DL6)	Percent Increase
3/27/2019	72.5	72.1	-1%	80.7	67.7	-16%	10.1	54.1	436%
3/28/2019	25.3	31.9	26%	19.3	22.9	19%	14.2	36.6	158%
3/29/2019	27.4	33	20%	21.1	24.9	18%	16.8	28.2	68%
5/15/2019	NF ⁱ	NF	0%	16	15	-6%	NF	NF	0%
5/16/2019	58.8	519	783%	13.8	64.7	369%	NF	52.2	NA
5/18/2019	109	113	4%	15.3	27.8	82%	35.2	74.6	112%
5/19/2019	183	97.5	-47%	19.1	18.7	-2%	13.8	76.1	451%

ⁱNF = No flow

Note – Table 1 presents sampling results that show exceedances of the turbidity objectives on 32 days. For days where there are multiple exceedances, only one day of violation is alleged. During the November 29, 2018 inspection, Regional Water Board staff measured downstream turbidity levels as much as 118 percent higher than those turbidity levels measured upstream of Site discharge points. Instream sampling points used by staff on November 29, 2018, were different from those used pursuant to the December 28, 2018, 13267 Order; accordingly, those measurements are not included in Table 1.

Determining the Initial Liability Factor

Violation 37 – Turbidity exceeding 20 percent or more above background levels (CGP Section VI. Subdivision C and Basin Plan Section 3.3.17)

CGP Section VI, subdivision C, requires that dischargers ensure that storm water discharges and authorized non-storm water discharges do not contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards contained in a Statewide Water Quality Control plan, the California Toxics Rule, the National Toxics Rule, or the applicable Regional Water Board's Water Quality Control Plan. The Regional Water Board's Basin Plan Section 3.3.17 requires turbidity to not exceed 20 percent or more above naturally occurring background levels. The Discharger exceeded this objective, violating the CGP, on 33 days between November 29, 2018 and May 19, 2019.

Step 1. Potential for Harm for Discharge Violations

Factor 1: Degree of Toxicity of the Discharge

The evaluation of the degree of toxicity considers the physical, chemical, biological, and/or thermal characteristics of the discharge, waste, fill, or material involved in the violation or violations and the risk of damage the discharge could cause to the receptors or beneficial uses. A score between 0 and 4 is assigned based on a determination of the risk and threat of the discharged material.

The material discharged in this case was sediment and sediment-laden water discharged in large volumes over many days from multiple points on the Site into Foss Creek, and Jordan Pond, thence to Lytton Creek. Sediment in the water column can cause elevated turbidity levels. Turbidity is a term used to describe the clarity of water. Increasing turbidity is describing the clouding of water, or the scattering of light through the water column, which reduces the ability of light to penetrate the water column. The reduction in light in the water column caused by turbidity can affect food supply on all trophic levels of the food web. Turbidity, if chronic, affects respiration through damage to and interference with the gills of fish and macro-invertebrates. All of these in turn affect overall physiological health.

For this violation, a score of 3 is appropriate, as the material meets the Enforcement Policy's definition for that score: "[d]ischarged material poses an above-moderate risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceeds known risk factors or there is substantial threat to potential receptors)." In this case, a large volume of sediment and sediment-laden water discharged into Foss Creek, and to Jordan Pond, thence to Lytton Creek, causing elevated turbidity levels in the receiving waters. Additionally, sediment abrades fish and aggrades in streams restricting the channels, filling pools, smothering reeds, and can lead to increased stream temperatures.

Factor 2: Actual Harm or Potential Harm to Beneficial Uses

The evaluation of the actual or potential harm to beneficial uses factor 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, consistent with the statutory factors of the nature, circumstances, extent, and gravity of the violation(s). The Regional Water Board may consider actual harm or potential harm to human health, in addition to harm to 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).

As noted above, the material discharged in this case was sediment and sediment-laden runoff, causing numerous reported exceedances of the Basin Plan turbidity objective of 20 percent over background. Many of the reported turbidity exceedances were 50-100 percent or even more above background. Sediment was discharged over multiple days at multiple locations in a sediment-impaired system, causing repeated periods with turbid conditions in the water column exceeding Basin Plan water quality objectives necessary to maintain beneficial uses. Even short-term periods of turbidity can have significant impacts, as they can result in mortality of juvenile salmonids by making it harder for the fish to see cover, and predators. Even relatively small levels of turbidity can have a significant effect; reactive distances¹⁵ changed significantly in rainbow trout from 80 percent to 45 percent, respectively, in 15 NTU and 30 NTU turbidities (Barrett 1992)¹⁶.

Suspended sediment can impair aquatic life through deposition of fines 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. 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 and lead to shallower stream channels, causing flooding, stream bank scouring, and increases in water temperature.

¹⁵ Reactive distance is the area in which a fish can detect and capture prey.

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

Discharges from the Site resulted in significant deposits of fine sediment in stream channels, impacting habitat while deposited, and available to become resuspended and transported farther downstream with each high flow event. Sediment discharges from the Site are reasonably expected to have a negative impact on the beneficial uses of the receiving waters, especially related to aquatic beneficial uses.¹⁷ However, the discharges are likely to attenuate without acute and chronic effects.

For this violation, staff determined the Harm or Potential Harm to be Moderate (3). The Enforcement Policy defines a score of Moderate as typified by 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. While the discharged turbid water is reasonably expected to cause impacts to beneficial uses, staff consider it to be likely that the turbidity and sediment discharged from the Site into receiving waters attenuated without appreciable medium or long term acute or chronic effects because exceedances were not occurring every day.

Factor 3: Susceptibility to Cleanup or Abatement

The Susceptibility to Cleanup or Abatement factor is assessed as either 0 or 1. A score of 0 is assigned if the permittee cleans up 50 percent or more of the discharge within a reasonable amount of time, whereas a score of 1 is appropriate where less than 50 percent of the discharge is susceptible to cleanup or abatement, or if 50 percent or more of the discharge is susceptible to cleanup or abatement, but the Discharger failed to clean up 50 percent or more of the discharge within a reasonable time.

For this violation, the sediment-laden storm water discharged from the Site into Foss Creek and unnamed tributaries to Jordan Pond, that flows to Lytton Creek. Although the Discharger might have removed a portion of the sediment discharged from the stream channels, because a minor amount of the total volume of sediment discharged was deposited in locations and quantities conducive to cleanup, this was far less than 50 percent of the total. Because most of the discharge dispersed and dissipated in the watershed, cleanup or abatement of 50 percent or more of the sediment was not possible. Therefore, a score of 1 is appropriate.

Step 2. Assessment for Discharge Violations

Per Day Assessments for Discharge Violations

The per day factor for discharge violations is derived using Table 2 on page 15 of the Enforcement Policy and is based on the Potential for Harm score (toxicity + harm + susceptibility to cleanup) and the Deviation from Requirement.

¹⁷ Cold freshwater habitat; Rare, threatened, or endangered species; Migration of aquatic organisms; Spawning, reproduction, and/or early development

Sampling results during the period from November 29, 2018, through May 19, 2019, showed that discharges from the Site caused exceedances over the 20 percent objective, ranging from 20 to 2,197 percent over background. For these violations, staff determined the Deviation from Requirement was Major because the requirement is meant to protect a sediment-impaired waterbody from high turbidity levels and it was rendered ineffective in its essential function, as there was very high turbidity on 33 days in Foss Creek, Jordan Pond, and Lytton Creek. A Potential for Harm score of 7 and Deviation from Requirement of Major produces a per day factor for this violation of 0.41.

There were 33 days with recorded turbidity objective exceedances over this period, in violation of the CGP. Staff allege one violation per day. The maximum per day penalty for each violation, pursuant to Water Code section 13385, subdivision (c), is \$10,000. Accordingly, the initial liability for the violations in this set is:

$$(0.41)(\$10,000) \times 33 \text{ violations} = \$135,300$$

Step 3. Per Day Assessment for Non-Discharge Violations

This factor does not apply to this violation.

Step 4. Adjustment Factors

Staff applied Discharger conduct factors similar to those applied for the non-discharge violations occurring over this period.

Culpability: The culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a permittee is determined to have acted as a reasonable and prudent person would have. In staff's November 19, 2018 email proposing an inspection during the week of November 26, staff included information about the weather forecast for November 19-24, indicating that several days of rain were likely. In addition, staff from the City had inspected the Site on October 29, 2018, November 5, and November 19, 2019, informing the Discharger of deficiencies in its storm water pollution prevention measures. A reasonable and prudent person would have corrected the reported deficiencies in its BMPs in preparation for the predicted rainfall events and the proposed inspection by Regional Water Board staff. Nevertheless, during the November 29, 2018 inspection, staff identified hundreds of instances of inadequate sediment and erosion control measures, and staff observed evidence of gross sediment discharges to receiving waters.

On December 3, 2018, staff notified the Discharger of the turbidity exceedances measured during the November 29 inspection and staff directed the Discharger to begin conducting receiving water monitoring. On December 7, 2018, staff and Discharger representatives visited the Site together to identify appropriate monitoring locations, and the Discharger began collecting water quality samples on December 17, 2018.

Staff subsequently memorialized the monitoring locations in the December 28, 2018, 13267 Order and NOV. From December 17, 2018 onward, the Discharger collected numerous water quality samples and measurements. Additionally, the Discharger was submitting its monitoring reports that showed turbidity exceedances. In May 2019, exceedances of the Basin Plan turbidity objective were recorded/reported at one or more locations on three separate days, with exceedances ranging from 82 to 783 percent above background. A reasonable and prudent person would not have removed BMPs, would have implemented more BMPs, as required by the CGP, and ensured they were functioning throughout the Site to meet the turbidity water quality objective.

The Discharger's conduct in this regard from November 2018 to May 2019 appears to be grossly negligent as it repeatedly failed to take reasonable and prudent steps to effectively implement BMPs and to reduce impacts to water quality in spite of the continued communications from Regional Water Board and City staff of deficient BMPs and continued exceedances of the turbidity water quality objective. Accordingly, a value of 1.4 is appropriate for this factor.

History of Violations: Since the Discharger does not have a history of violations, a neutral multiplier of 1.0 is appropriate.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not. Four days after the November 29, 2018 inspection, staff directed the Discharger to cease work on the project until it had deployed adequate BMPs. In response, the Discharger made prompt, extensive improvements to the Site, showing a willingness to cooperate with staff, and the Discharger expressed an interest in coming into compliance and preventing further discharges to receiving waters. The Discharger also promptly submitted revised plans and made commitments for controlling pollution from the Site over the remainder of the rainy season. The Discharger indicated that some cleanup had occurred and agreed to provide information regarding the extent of such cleanup, but ultimately that information was never provided.¹⁸ In mid-March 2019, the Discharger installed a filtration system in the Resort Area designed to ensure compliance with turbidity objectives in receiving waters (Lytton Creek). However, no such filtration systems were installed in the Road 4 watershed tributary area to treat discharges to Foss Creek. After a dry month in April 2019, the Discharger resumed work in several areas of the Site and removed BMPs from many of the disturbed areas. When a storm event occurred in May, the remaining BMPs at the Site were inadequate and ineffective at controlling sediment laden discharges to receiving waters. The Discharger's response fell below what is normally-expected by removing BMPs from many of the disturbed areas after the February 2019 rain event and prior to the May

¹⁸ The 13267 Order (section III.D.) required the Discharger to provide this information. This violation of the 13267 Order is not alleged as a separate violation in the Complaint.

2019 rain events.

Overall, the Discharger's response and actions to correct the violations were reasonable and did not go above and beyond what would be expected to comply with the CGP and the Discharger's 401 Certification. Additionally, staff is not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations. Accordingly, staff have assigned a neutral multiplier of 1.0.

Step 5. Total Base Liability

Total Base Liability for Violation 37

The Total Base Liability is determined by applying the adjustment factors (Step 4) to the Initial Liability Amount (Step 3).

(\$135,300)(1.4)(1.0)(1.0) = \$189,420

C. Storm Water Discharge Violations and Proposed Base Liability Amount

1. Violation 38 – Unauthorized Storm Water Discharges September 30 to October 1, 2018; November 20-24 and 27-29, 2018; February 1-2, 2019; and May 16 and 18-19, 2019.

As required by the 13267 Order, the Discharger reported the volume of storm water runoff from the Site for the precipitation events in 2018. Regional Water Board staff identified three qualifying rain events (September 30 to October 1, 2018, November 20-24, 2018, and November 27-29, 2018) prior to inspecting the Site, when few to no BMPs were present at the southern road of the resort area, and Roads 4, 5, and 8. Staff identified the February 1 and 2, 2019 rain event, after noting significant BMP deficiencies during the February 1 inspection, which resulted in staff directing the Discharger to stop work until the Site was sufficiently protecting water quality. Finally, staff identified the May 16 and 18-19, 2019 rain events, after noting significant BMP deficiencies during the May 16 inspection.

Using the calculations provided by the Discharger's consultant, staff determined that the volume of runoff from the September 30 to October 1, 2018 rain event resulted in the discharge of approximately 900,000 gallons of sediment-laden storm water into Foss Creek, and Jordan Pond, thence to Lytton Creek. Each of the November 2018 and February 2019 rain events resulted in a discharge of approximately 2.2 million gallons of sediment-laden storm water into Foss Creek, and Jordan Pond, thence to Lytton Creek. Additionally, the May 16 and 18-19, 2019 storm events resulted in the discharge of approximately 1.9 million gallons of sediment-laden storm water into Foss Creek, and

Jordan Pond, thence to Lytton Creek. This violation includes storm water discharges that occurred on the following dates¹⁹:

- September 30 to October 1, 2018: 900,000 gallons over a two-day period
- November 20-24, 2018: 2.2 million gallons over a 5-day period.
- November 27-29, 2018: 2.2 million gallons over a 3-day period.
- February 1-2, 2019: 2.2 million gallons over a 2-day period.
- May 16, 2019: 1.6 million gallons over 1-day period
- May 18-19, 2019: 295,000 gallons over a 2-day period



Figure 49. Highly turbid water (2,941 NTU) in stream due to failure by the Discharger to implement BMPs along Road 5. November 29, 2018.

¹⁹ Regional Water Board staff took a conservative approach in assessing liability on the volume of unauthorized storm water discharged to surface waters by excluding the run-on from the Sonoma County Landfill property and rounding down the total estimated volume of discharge for each storm event. The actual estimated gallons of unauthorized storm water discharged to surface waters from Road 4, Passalacqua Road, and the Resort tributary were as follows: 1) Sept 30 / Oct 1, 2018: 909,309; 2) Nov 22-24, 2018: 2,262,640; 3) Nov 27-29, 2018: 2,262,640; 4) Feb 1-2, 2019, 2018: 2,262,640; 5) May 16, 2019: 1,637,587; 6) May 18-19, 2019: 295,621.

Determining the Initial Liability Factor

Violation 38 – Unauthorized Discharges of Sediment-Laden Storm Water (CGP Section III.A and Basin Plan Section 4.2.1, CGP Section III.B, and 401 Certification Condition 7)

The CGP allows for the discharge of treated storm water under specific conditions. However, this is contingent on compliance with conditions of the CGP^{20, 21} and the “implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate pollutants in storm water runoff.”²² The CGP also includes requirements necessary to achieve applicable water quality standards (i.e., water quality objectives established for the reasonable protection of beneficial uses and the Antidegradation Policy). An unauthorized discharge of storm water is defined as one that:

- a) Violates provisions of the CGP.^{20, 21}
- b) Exceeds applicable water quality standards.²³
- c) Is prohibited by the CGP²⁴ or applicable Basin Plan.²⁵
- d) Is caused by the lack of adequate and effective BMPs, structures and controls that utilize the BAT for toxic and non-conventional pollutants and the BCT for conventional pollutants.^{26, 27}
- e) Contains toxic constituents in toxic amounts or (other) significant quantities of pollutants.^{22, 28}

²⁰ CGP, Findings, Section I.A.2, pg. 1.

²¹ CGP, Special Provisions, Section IV.A.1 & .2, pg. 22.

²² CGP, Effluent Standards and Receiving Water Monitoring Narrative Effluent Limitations, Section V.A.2, page 28.

²³ CGP, Receiving Water Limitations, Section VI.C, pg. 31.

²⁴ CGP, Findings, Section I.E.29, pg. 6

²⁵ Placing soil, silt, bark, slash, or other earthen material where it could pass into any stream or watercourse in an amount that could be deleterious to fish, wildlife, or other beneficial uses is prohibited and violates Basin Plan section 4.2.1.2, the Action Plan for Logging, Construction, and Associated Activities. (North Coast Basin Plan, pg. 4-33.00).

²⁶ CGP, Discharge Prohibitions, Section III. pg. 20.

²⁷ CGP, Attachment E Risk Level 3 Requirements, Section A.1.b, pg. 1.

²⁸ CGP, Special Provisions, Section IV.A.2, pg. 22.

- f) Is not monitored by the discharger in accordance with the CGP and/or exceeds the applicable NAL and no corrective actions are taken.²⁹
or
- g) Is not sampled and/or reported by the discharger in accordance with the CGP annual report requirements.³⁰

On December 28, 2018, the Regional Water Board's AEO issued the 13267 Order requiring, in part, that the Discharger provide an estimate of the total volume of storm water discharged from the Site to surface waters for each of the qualifying rain events from the beginning of Site construction to the date of receipt of the 13267 Order. The discharger must calculate the volume of unauthorized discharge using an appropriate engineering methodology (using TR-55, described below, or an equivalent volume estimation model) and consider site specific factors such as watershed tributary areas, soil type, site condition, and design storm³¹.

In order to determine the volume of storm water discharged to surface waters, the Discharger used a method known as the United States Department of Agriculture, Natural Resources Conservation Services Urban Hydrology for Small Watersheds Technical Release 55 (TR-55)³². This method presents simplified procedures for estimating runoff and peak storm water discharges or runoff in small watersheds. Runoff volume is determined primarily based on the amount of precipitation and by infiltration characteristics related to soil type, soil moisture, antecedent rainfall, cover type, impervious surfaces, and surface retention.

The method described in TR-55 begins with a rainfall amount uniformly imposed on the watershed over a specified time distribution. Mass rainfall is converted to mass runoff by using a runoff curve number (CN). The CN is based on soils, plant cover, amount of impervious areas, interception, and surface storage. Runoff is then transformed into a

²⁹ CGP, Attachment E Risk Level 3 Requirements, Section G.5.g, pg. 7 and G.15.d.iii, pg. 21.

³⁰ CGP, Annual Reporting Requirements, Section XVI. D, pg. 39.

³¹ A design storm means a prescribed hyetograph and total precipitation amount (for a specific duration recurrence frequency) used to estimate runoff for a hypothetical storm for the purposes of analyzing existing drainage, designing new drainage facilities or assessing other impacts of a proposed project on the flow of surface water.

³² United States Department of Agriculture's [TR-55 Manual](#) describes in detail the method used for calculating stormwater runoff in applicable watersheds.

hydrograph³³ by using unit hydrograph theory and routing procedures that depend on runoff travel time³⁴ through segments of the watershed.

This estimated runoff is the storm water volume from the Site and its surrounding watershed tributary areas that discharges to a specific outfall or to surface waters. Based on evidence gathered by City of Healdsburg staff and Regional Water Board staff from site inspections and data from the surface water monitoring program, the Site did not comply with provisions of the CGP, 401 Certification and Basin Plan Prohibition during the storm events noted above. Therefore, the entire volume of storm water discharged to surface waters from the Road 4, Passalacqua, and Resort tributary areas was unauthorized (Figure 1).

Step 1. Potential for Harm for Discharge Violations

Factor 1: Degree of Toxicity of the Discharge

The evaluation of the degree of toxicity considers the physical, chemical, biological, and/or thermal characteristics of the discharge, waste, fill, or material involved in the violation or violations and the risk of damage the discharge could cause to the receptors or beneficial uses. A score between 0 and 4 is assigned based on a determination of the risk and threat of the discharged material.

The material discharged in this case was sediment and sediment-laden water discharged in large volumes over six different rain events, each spanning multiple days, from multiple points on the Site into Foss Creek, and Jordan Pond, thence to Lytton Creek. Sediment in the water column can cause elevated turbidity levels and impact the clarity of water. Increased turbidity reduces light in the water column and can affect food supply on all trophic levels of the food web. Turbidity, if chronic, affects respiration through damage to and interference with the gills of fish and macro-invertebrates. All of this can affect overall physiological health.

For this violation, a score of 3 is appropriate. The Enforcement Policy defines a 3 as “[d]ischarged material poses an above-moderate risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceeds

³³ A hydrograph is a graph showing the rate of flow (discharge) versus time past a specific point in a river, channel, or conduit carrying flow. It can also refer to a graph showing the volume of water reaching an outfall.

³⁴ Travel time is determined primarily by slope, length of flow path, depth of flow, and roughness of flow surfaces. Peak discharges are based on the relationship of these parameters and on the total drainage area of the watershed, the location of the development, the effect of any flood control works or other natural or manmade storage, and the time distribution of rainfall during a given storm event.

known risk factors or there is substantial threat to potential receptors).” Here, sediment-laden water was discharged in very large volumes creating highly turbid water in Foss Creek, and unnamed tributaries to Jordan Pond, greatly decreasing water clarity and reducing light. Additionally, sediment abrades fish and aggrades in streams restricting the channels, filling pools, smothering reeds, and can lead to increased stream temperatures.

Factor 2: Actual Harm or Potential Harm to Beneficial Uses

The evaluation of the actual or potential harm to beneficial uses factor 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, consistent with the statutory factors of the nature, circumstances, extent, and gravity of the violation(s). The Regional Water Board may consider actual harm or potential harm to human health, in addition to harm to 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 discharge events ranged from 295,000 gallons to 2.2 million of gallons of sediment-laden water discharging into the receiving waters in a very short period of time, resulting in very high turbidity. As discussed in the turbidity violation section, turbidity can have significant impacts on aquatic life and ecosystems, as it clouds the water and prevents sunlight from reaching food sources. It also decreases the ability of organisms to avoid predation and to find cover. Suspended sediment can impair aquatic life through deposition of fines into spawning, rearing, and interstitial niche habitats in the stream’s substrate, which affects habitat complexity and biodiversity of species. 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 and lead to shallower stream channels, causing flooding, stream bank scouring, and increases in water temperature.

During the discharge events, the reported turbidity exceedances ranged from 20 to 2,197 percent above background. The turbidity water quality objective is set at a level to protect beneficial uses. Repeated exceedances, especially such significant exceedances, posed a moderate threat to beneficial uses in the receiving water, particularly aquatic beneficial uses (see Footnote 17). Additionally, sediment was discharged over multiple days during the six different rain events at multiple locations in a sediment-impaired system. Discharges from the Site resulted in significant deposits of fine sediment in stream channels, impacting habitat while deposited, and remaining available to become resuspended and transported farther downstream with each high flow event.

For this violation, the Harm or Potential Harm is Moderate (3). The Enforcement Policy defines a score of Moderate as typified by observed or reasonably expected potential

impacts, where harm or potential harm to beneficial uses is moderate and likely to attenuate without appreciable medium or long term acute or chronic effects. Given that the water system the turbid storm water discharged into is already sediment-impaired, it is reasonable to expect potential impacts to beneficial uses from the discharges, but given the relatively short duration of the discharges (the longest rain event was five days) the harm was likely moderate and likely to attenuate without appreciable medium or long term acute or chronic effects.

Factor 3: Susceptibility to Cleanup or Abatement

The Susceptibility to Cleanup or Abatement factor is assessed as either 0 or 1. A score of 0 is assigned if the permittee cleans up 50 percent or more of the discharge within a reasonable amount of time, whereas a score of 1 is appropriate where less than 50 percent of the discharge is susceptible to cleanup or abatement, or if 50 percent or more of the discharge is susceptible to cleanup or abatement, but the discharger failed to clean up 50 percent or more of the discharge within a reasonable time.

For this violation, the unauthorized discharges of sediment-laden storm water discharged from the Site into Foss Creek and unnamed tributaries to Jordan Pond, and thence Lytton Creek. Although the Discharger might have removed a portion of the sediment discharged from the stream channels because a minor amount of the total volume of sediment discharged was deposited in locations and quantities conducive to cleanup, this was far less than 50 percent of the total. Because most of the discharged pollutants dispersed and likely dissipated in the watershed, cleanup or abatement of the sediment was not possible. Therefore, a score of 1.0 is appropriate.

Step 2. Assessment for Discharge Violations

For discharge violations, Water Code section 13385(c)(1) and (2) 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;
- (2) Where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.

Per Gallon Assessments for Discharge Violations

The per gallon factor for discharge violations is derived using Table 1 on page 14 of the Enforcement Policy and is based on the Potential for Harm score (toxicity + harm + susceptibility to cleanup) and the Deviation from Requirement.

The relevant requirements were: (1) not to discharge except in a manner specifically authorized by the CGP or another NPDES permit, (2) not to violate the Regional

Water Board's Basin Plan prohibition regarding the discharge of soil and earthen material from construction, and (3) comply with the Discharger's 401 Certification prohibition against allowing construction-related soil and earthen materials to enter waters of the State.

The Deviation from Requirement was Major for this violation because three discharges totaling approximately 9.4 million of gallons of sediment-laden storm water discharged into a water of the State, where the sediment was related to construction activities, rendering the three relevant requirements ineffective in their essential function. Accordingly, per Table 1, a Potential for Harm score of 7 and Deviation from Requirement of Major produces a per gallon factor for these discharges of 0.41.

Over the six storm events, approximately 9.4 million gallons of storm water was discharged. As noted above, Water Code section 13385(2) allows that where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. Accordingly, as shown below, per gallon assessments for the six storm events are based on the total volume discharged during each storm event minus 1,000 gallons per event.

The Enforcement Policy states that: "For discharges in excess of 2,000,000 gallons . . . the [Regional] Water Boards may elect to use a maximum of \$1.00 per gallon with the above factor to determine the per gallon amount." Based on this, to avoid generating an unrealistically high initial liability amount, staff elected to use \$1.00 per gallon to account for the high-volume discharges documented at this Site. Accordingly, the initial liability for these discharge violations is:

- 1) September 30 to October 1, 2018: 900,000 gallons
= (0.41)(\$1/gallon) x (900,000 gallons – 1000 gallons) = \$368,590
- 2) November 20-24, 2018: 2.2 million gallons
= (0.41)(\$1/gallon) x (2.2 million gallons – 1,000 gallons) = \$901,590
- 3) November 27-29, 2018: 2.2 million gallons
= (0.41)(\$1/gallon) x (2.2 million gallons – 1,000 gallons) = \$901,590
- 4) February 1-2, 2019: 2.2 million gallons
= (0.41)(\$1/gallon) x (2.2 million gallons – 1,000 gallons) = \$901,590
- 5) May 16, 2019: 1.6 million gallons
= (0.41)(\$1/gallon) x (1.6 million gallons – 1000 gallons) = \$655,590

6) May 18-19, 2019: 295,000 gallons

$$= (0.41)(\$1/\text{gallon}) (295,000 \text{ gallons} - 1000 \text{ gallons}) = \$120,540$$

Accordingly, the total sum of initial liability for discharge violation(s) is:

$$= \$368,590 + \$901,590 + \$901,590 + \$901,590 + \$655,590 + \$120,540 = \$3,849,490$$

Per Day Assessment

For each day where discharge violations were alleged staff applied \$10,000 per day to the liability calculation with the same potential for harm factor of 0.41.

The discharges occurred over 15 days between the following dates.

1) September 30 to October 1, 2018 (2 days)

$$= (0.41)(\$10,000) \times 2 \text{ Days} = \$8,200$$

2) November 20-24, 2018 (5 days)

$$= (0.41)(\$10,000) \times 5 \text{ Days} = \$20,500$$

3) November 27-29, 2018 (3 days)

$$= (0.41)(\$10,000) \times 3 \text{ Days} = \$12,300$$

4) February 1-2, 2019 (2 days)

$$= (0.41)(\$10,000) \times 2 \text{ Days} = \$8,200$$

5) May 16, 2019 (1 day)

$$= (0.41)(\$10,000) \times 1 \text{ Days} = \$4,100$$

6) May 18-19, 2019 (2 days)

$$= (0.41)(\$10,000) \times 2 \text{ Days} = \$8,200$$

Accordingly, the total sum of initial liability for the days of discharge is:

$$= \$8,200 + \$20,500 + \$12,300 + \$8,200 + \$4,100 + \$8,200 = \$61,500$$

Step 3. Per Day Assessment for Non-Discharge Violations

This factor does not apply to this violation.

Step 4. Adjustment Factors

This violation is comprised of six separate precipitation events. Because the Discharger's actions in connection with each of the events were distinct, the below analysis is broken down for each of the precipitation events, to recognize the unique factors associated with each event. Those evaluations are set forth below and are then combined to present a final dollar amount associated with this violation. Staff applied Discharger conduct factors similar to those applied for the non-discharge violations occurring over this period.

Culpability: The culpability multiplier ranges between 0.75 and 1.5, with a higher multiplier for intentional misconduct and gross negligence, a lower multiplier for more simple negligence, and a neutral assessment of 1 where a permittee is determined to have acted as a reasonable and prudent person would have.

The Discharger received its 401 Certification on December 5, 2008 and submitted its Notice of Intent to obtain coverage under the CGP on April 1, 2016. At those times, the Discharger should have known the requirements under both permits and complied with them. Staff reviewed available aerial imagery of the Site from September 19, 2018 and October 23, 2018 and concluded, that the Site was unprotected with little to no erosion and sediment control BMPs in place during the September 30 to October 1, 2018 rain event. Staff performed drive by inspections on October 3 and November 6, 2018 and noted that insufficient BMPs persisted, supporting staff observations of the available aerial imagery. The Discharger's conduct regarding this violation was negligent, as it fell below the conduct that is expected of a reasonable party in similar circumstances.

***Accordingly, staff assigned a culpability value for this storm event as follows:
September 30 to October 1, 2018: 1.1.***

The City had inspected the Site and informed the Discharger of the BMP deficiencies on October 29, 2018, prior to the November 20 through 24, 2018, discharge. Staff notified the Discharger by email on November 19, 2018 of the weather forecast for November 19-24, indicating that several days of rain were likely, prior to both the November 20 through 24, 2018 and November 27 through 29, 2018 discharges. On December 3, 2018, staff directed the Discharger to stop construction activities until effective BMPs were implemented. At all relevant times, the Discharger was well aware of the CGP and 401 Certification requirements, including prior to the February 1 through 2, 2019 discharge.

On February 6, 2019 Regional Water Board staff emailed the Discharger, directing it to cease all activities "until BMPs are improved and can adequately control sediment discharge and erosion." On February 28, 2019 Regional Water Board staff met with the Discharger and its consultant and contractors to discuss permit requirements, additional monitoring requirements, and compliance options to achieve water quality objectives, and to answer questions.

On March 5, 2019, staff again met with the Discharger and its consultant and contractors. The Discharger outlined a plan to return to compliance and requested that the Regional Water Board authorize the Discharger to resume construction activities at

the Site. Staff informed the Discharger that the CGP has no defined wet season and BMPs are required year-round. Staff also informed the Discharger that construction can occur in the rainy season, if enough adequate BMPs are in place to treat storm water discharges to a level that complies with the CGP provisions. On March 6, 2019, Regional Water Board staff inspected the Site with the Discharger to assess compliance and evaluate the Discharger's proposal to resume construction activities. On March 8, 2019, Regional Water Board staff authorized limited construction activities to resume at the Site, acknowledging improvement in BMPs at the Site.

On March 20, 2019, Regional Water Board staff visited the resort portion of the Site, that drains to unnamed tributaries to Jordan Pond and thence to Lytton Creek, to observe and discuss the newly installed filtration system designed to ensure compliance with turbidity objectives in receiving waters. Staff noted that the filtration system was not yet effectively reducing turbidity concentrations enough to meet the water quality objective for turbidity. No precipitation occurred in April 2019, and consequently Regional Water Board staff did not inspect the Site. After the dry month in April 2019, the Discharger resumed work in several areas of the Site and removed BMPs from many of the disturbed areas.

On May 16, 2019, Regional Water Board staff inspected the Site during a significant rain event and observed that many of the BMPs had been removed. The remaining BMPs were inadequate to prevent turbid storm water runoff from entering waters. Additionally, the increased storm water flows resuspended sediment previously discharged to surface waters throughout the Site leading to highly elevated turbidity concentrations in receiving waters and further transporting sediment into the streams.

Had the Discharger maintained BMPs, cleaned up their previous sediment discharges to the streams, and implemented advanced treatment BMPs as suggested by staff, the discharges and impacts to beneficial uses could have been avoided and/or minimized. A reasonable and prudent person would have implemented more BMPs and ensured they were functioning throughout the Site, especially after being notified on multiple occasions by staff and the City that the BMPs on the Site were not effective. Additionally, after the first discharge event, a reasonable and prudent person would have inspected the Site and made adjustments in the BMPs to prevent future discharges.

And lastly, after being directed to stop construction activities to improve BMPs at the Site, and only allowed to resume work after improving Site BMPs, a reasonable and prudent person would have taken continued action to prevent or minimize future discharges. The Discharger did not do so, and unauthorized discharges occurred on February 1 and 2, and May 16, and 18-19, 2019. The Discharger's conduct regarding these storm events was grossly negligent, as it was an intentional breach of its duty and in reckless disregard of the consequences of such breach. **Accordingly, staff assigned culpability values for these storm events as follows:**

November 20-24, 2018: 1.4

November 27-29, 2018: 1.4

February 1-2, 2019: 1.4

May 16, 2019: 1.4

May 18-19, 2019: 1.4.

History of Violations: Since the Discharger does not have a history of violations, a neutral multiplier of 1.0 for each storm event is appropriate.

Cleanup and Cooperation: The cleanup and cooperation multiplier ranges from 0.75 to 1.5, with a lower multiplier where there is exceptional cleanup and cooperation compared to what can reasonably be expected, and a higher multiplier where there is not.

Four days after the November 29, 2018, inspection and the second discharge event, staff directed the Discharger to cease work on the project until it had deployed adequate BMPs. In response, the Discharger made rapid, extensive improvements to the Site, showing a willingness to cooperate with staff. The Discharger promptly submitted revised plans and made commitments for controlling pollution from the Site over the remainder of the rainy season. The Discharger had implemented many BMPs that were reducing the risk to receiving waters after stopping work in December 2018, however, it was apparent that the Discharger was not adequately maintaining BMPs throughout the Site. As BMPs deteriorated or failed, they were rendered increasingly ineffective in their function, until they eventually were no longer partially compromised or effective but rather wholly ineffective in their essential functions.

When another discharge occurred on February 1 and 2, 2019 after the Discharger resumed limited work, staff again directed the Discharger to stop working until the Site was effectively protecting water quality. After staff directed the Discharger to stop working for a second time, on February 6, 2019, until the Discharger improved BMPs throughout the Site, the Discharger responded promptly and took appropriate steps to protect the Site by repairing and maintaining damaged BMPs and installing additional sediment and erosion controls. In addition, the Discharger indicated that some cleanup had occurred and it agreed to provide information regarding the extent of such cleanup, but ultimately that information was never provided.¹⁸

In mid-March 2019, the Discharger installed a filtration system in the Resort Area designed to ensure compliance with turbidity objectives in receiving waters (Lytton Creek). However, no such filtration systems were installed in the Road 4 watershed tributary area to treat discharges to Foss Creek. After a dry month in April 2019, the Discharger resumed work in several areas of the Site and removed BMPs from many of the disturbed areas. When a storm event occurred in May, the remaining BMPs at the Site were inadequate and ineffective at controlling sediment laden discharges to receiving waters. The Discharger's response fell below what is normally-expected by

removing BMPs from many of the disturbed areas after the February 2019 rain event and prior to the May 2019 rain events.

Overall, the Discharger's responses were reasonable and prudent and did not go above and beyond what would be required to achieve compliance with the CGP requirements and 401 Certification. Additionally, staff is not aware that the Discharger undertook any cleanup that would be considered exceptional in response to these violations.

Accordingly, staff assigned cleanup and cooperation values for these storm events as follows:

September 30-October 1, 2018: 1.0

November 20-24, 2018: 1.0

November 27-29, 2018: 1.0

February 1-2, 2019: 1.0.

May 16, 2019: 1.0

May 18-19, 2019: 1.0.

Step 5. Total Base Liability

Total Base Liability for Violation 38

The Total Base Liability is determined by applying the adjustment factors (Step 4) to the Initial Liability Amount (Step 3) as follows:

Total Base Liability = (Culpability Factor) x (History of Violations Factor) x (Cleanup and Cooperation Factor) x (Per Gallon Initial Liability + Per Day Initial Liability). This equation was applied to each respective discharge event:

- 1) September 30 to October 1, 2018: 900,000 gallons
= (1.1)(1)(1)(\$368,590 + \$8,200) = \$414,469
- 2) November 20-24, 2018: 2.2 million gallons
= (1.4)(1)(1)(\$901,590 + \$20,500) = \$1,290,926
- 3) November 27-29, 2018: 2.2 million gallons
= (1.4)(1)(1)(\$901,590 + \$12,300) = \$1,279,446
- 4) February 1-2, 2019: 2.2 million gallons

$$= (1.4)(1)(1)(\$901,590 + \$8,200) = \$1,273,706$$

5) May 16, 2019: 1.6 million gallons

$$= (1.4)(1)(1)(\$655,590 + \$4,100) = \$923,566$$

6) May 18-19, 2019: 295,000 gallons

$$= (1.4)(1)(1)(\$120,540 + \$8,200) = \$180,236$$

The total sum of base liability for the six discharge events is:

$$= \$414,469 + \$1,290,926 + \$1,279,446 + \$1,273,706 + \$923,566 + \$180,236 =$$

\$5,362,349.

D. Enforcement Policy Steps 6 through 10

Below, staff analyze Steps 6 through 10 of the Enforcement Policy for all the violations.

Step 6. Ability to Pay

The Regional Water Board is required to assess a permittee's ability to pay the ACL amount and consider the effect the ACL amount has on a permittee's ability to continue in business. Importantly, the Regional Water Board is under no obligation to ensure that a permittee has the ability to pay an ACL amount; the Regional Water Board must only consider these factors when imposing an ACL amount. The ability of a permittee to pay an ACL amount is determined by its income (revenue minus expenses) and net worth (assets minus liabilities). If staff makes an initial showing that a discharger has sufficient income or net worth to pay the proposed liability, then the burden of proof on this factor shifts to the discharger to produce sufficient evidence that it lacks an ability to pay. In this case, the Discharger is a luxury resort developer that owns 82 properties in Sonoma County comprising at least 250 acres, with an assessed value of \$19,995,079 in 2017 according to the County of Sonoma Assessor's Office. Because the Site is still under development, staff is not aware of any income the Discharger receives. However, the assessed value of approximately \$20 million, with no evidence of liabilities approaching or exceeding that amount, provide a sufficient basis to believe that Discharger has a net worth sufficient to cover the ACL amount. Even if the Discharger produced evidence of liabilities exceeding \$20 million, it would need to provide at least two additional pieces of information in order for staff to perform a more complete analysis of Discharger's ability to pay: (1) the value of all assets presently held by Discharger (including the market value – not assessed value – of any real property) and (2) the expected value to the Discharger of the Saggio Hills development, once completed. Based on the currently available information, the Prosecution Team has determined the Discharger has the ability to pay the ACL amount and continue in business.

Step 7. Economic Benefit

The Enforcement Policy provides that the economic benefit of noncompliance should be calculated using the United States Environmental Protection Agency (U.S. EPA) Economic Benefit Model (BEN)³⁵ 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 benefit³⁶ derived from delaying or avoiding compliance with environmental statutes. "The economic benefit is equal to the present value of the avoided costs plus the 'interest' on delayed costs."³⁷

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 cost were considered: delayed costs³⁸ and avoided costs.³⁹ In this case, the Discharger initially failed to adequately implement standard erosion and sediment control BMPs, resulting in significant sediment discharges to unnamed tributaries to Jordan Pond, and to Foss Creek and its tributaries. Standard BMPs identified in the Site-specific SWPPP include, but are not limited to, the following:

- Scheduling
- Drain inlet protection - gravel bags and/or filter fabric traps
- Groundcover - hydroseed, straw, and/or hydraulic mulch

³⁵ At the time this document was prepared, BEN was available for download at <http://www2.epa.gov/enforcement/penalty-and-financial-models>.

³⁶ 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."

³⁷ SWRCB 2017 Enforcement Policy Section VI. A. Step 7 - Page 21

³⁸ Delayed costs include expenditures that should have been made sooner, such as BMPs that were installed too late to avoid the violation.

³⁹ 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.

- Perimeter controls - silt fence and/or straw wattles
- Slope breaks - straw wattles, rock check dams, and/or gravel bag berms
- Sediment traps – vegetated and/or rock-lined drainage swales
- Slope/stream bank stabilization - erosion control blankets and/or straw wattles
- Stockpiles covers – plastic or vegetation

Staff reviewed inspection photographs, the CASQA BMP manual, aerial imagery, City inspection records, and the Site-specific SWPPP to identify compliance actions and associated costs that would have avoided or minimized⁴⁰ the alleged violations.

Delayed Costs: \$31,216.00

Based on evidence gathered by the City and staff, Roads 4, 5, 8, and the southern road at the resort area had little to no standard BMPs during the first three rain events.⁴¹ The Discharger implemented additional standard BMPs after the November 29, 2018, staff inspection. However, BMPs were not applied soon enough, nor maintained adequately through the wet season, to prevent sediment discharges from reaching streams. Nevertheless, staff have determined that the interest on delayed costs for standard BMPs was negligible, because the Discharger implemented the BMPs two weeks after the inspections. Therefore, staff did not find an economic benefit for short-term delays in implementation of standard erosion and sediment control BMPs.

The failure to timely implement standard BMPs led to uncontrolled sediment discharges throughout the Site. Standard BMPs were no longer effective at controlling the turbid storm water runoff and do not provide treatment of sediment already discharged to streams. Consequently, advanced BMPs (e.g. settling basins or tanks with filtration units) or active treatment systems (ATS)⁴² were necessary to further avoid and minimize sediment discharges.

Based on field observations and results from the receiving water monitoring program, Staff conclude ATS was necessary to achieve compliance from at least December 1,

⁴⁰ CGP Section IV. Special Provisions, Subsection D, Duty to Mitigation - The discharger shall take all responsible steps to minimize or prevent any discharge in violation of this General Permit, which has a reasonable likelihood of adversely affecting human health or the environment.

⁴¹ Rain events and precipitation: 9/30/18 – 10/4/18 = 1.5"; 11/20/18 – 11/22/18 = 2.2"; 11/27/18 – 11/29/18 = 2.2"

⁴² CGP Section I.G.50 (Page 8) - An ATS is a treatment system that employs chemical coagulation, chemical flocculation, or electrocoagulation in order to reduce turbidity caused by fine suspended sediment.

2018,⁴³ through May 19, 2019.⁴⁴

On March 14, 2019, the Discharger installed advanced BMPs in the form of settling tanks with a sand filtration unit at the resort area to minimize sediment discharges. Therefore, staff calculated the delayed cost of the settling tanks over a period of four months, from December 2018 through March 2019. Using readily available prices, staff estimated a total of cost of \$31,216.00 to install and operate the settling tank and filtration unit for a period of four months as detailed below:

- \$2,032 per month for pumps and generators,
- \$3,540 per month for two settling tanks with sand filtration units,
- \$1,232 per month for operation and maintenance costs, and
- \$4,000 for systems mobilization and installation.

Therefore, the total delayed cost of the settling tanks and filtration unit is \$31,216.00.

Even though advanced BMPs were installed at the resort area, discharges continued to exceed the Basin Plan turbidity objective in the unnamed tributary to Jordan Pond. Therefore, staff conclude that an ATS was necessary to avoid and minimize sediment discharges. See the discussion below on avoided ATS costs.

Avoided Costs \$474,069.69

While the Discharger installed additional standard BMPs after the first inspection, it failed to install perimeter controls and slope breaks, pursuant to the CGP, at Roads 5, 8, and the southern road at the resort area.

⁴³ Staff selected December 1, 2018, as the non-compliance date input for the U.S. EPA BEN model calculation. During the November 29, 2018, compliance inspection, staff observed significant stream sedimentation and highly turbid storm water runoff. Staff informed the Discharger's representatives that sedimentation to streams and ongoing turbidity discharges may warrant more robust BMPs including ATS.

⁴⁴ May 19, 2019 was the last day staff observed a violation during the 2018-19 wet weather season. Therefore, staff chose May 20, 2019, as the compliance date input for the U.S. EPA BEN model calculation.

Therefore, staff determined the avoided cost of not installing and maintaining perimeter controls or slope breaks from October 2018 through May 2019 to be approximately \$65,727.04.⁴⁵

Results from the receiving water monitoring program indicated highly elevated levels of turbidity and suspended sediment discharges from the resort area to unnamed tributaries to Jordan Pond, and from Roads 4, 5, and 8 to Foss Creek. Despite having this information, the Discharger chose not to install any advanced BMPs or ATS downstream of Roads 4, 5, and 8, where significant sediment discharges and turbidity water quality objective exceedances continued.

The Discharger's SWPPP states, "ATS can reliably provide exceptional reductions of turbidity and associated pollutants and should be considered where turbid discharges to sediment and turbidity sensitive waters cannot be avoided using traditional BMPs. Additionally, it may be appropriate to use an ATS when site constraints inhibit the ability to construct a correctly sized sediment basin, when clay and/or highly erosive soils are present, or when the site has very steep or long slope lengths."⁴⁶ Despite knowing that turbidity exceedances continued, and ATS is identified in the SWPPP as an effective method for reducing turbidity and suspended sediment concentrations, the Discharger avoided the cost of implementing ATS.

Staff estimated the ATS size necessary at Roads 4, 5, and 8 by using the settling tanks and filtration system installed by the Discharger in the resort area as an example, and by using discharge volume calculations provided by the Discharger's consultant. The discharge volumes for Roads 4, 5, and 8 are approximately three times that of the resort area.⁴⁷ Using this information, staff calculated the avoided cost of the three separate ATSs over a period of six months, from December 1, 2018, through May 19, 2019.

Using readily available prices, staff estimated the total cost for installation and operation of three ATS units for six months is \$332,134.19, as detailed below:

- \$13,791.34 per month for renting the systems,

⁴⁵ The estimated cost of avoiding the implementation of slope breaks and perimeter controls was \$36,515.02, with ten percent maintenance cost per month over a period of eight months of \$29,212.

⁴⁶ Saggio Hills SWPPP, March 2016, page 3-14

⁴⁷ Pursuant to the 13267 Order the Discharger's consultant determined that the drainage area for the Roads 4, 5, and 8 was three times that of the resort area. The runoff volume calculations indicate that a 2.2-inch rain event produces approximately 464,000 gallons and 1.4 million gallons of runoff from the resort area and Roads 4, 5, and 8, respectively.

- \$2,442.81 per month for chemical treatment (coagulants/flocculants),
- \$4,784.13 per month for pumps, generators, and conveyance system,
- \$23,175.05 per month for operation and maintenance, and
- \$11,162.38 per month for mobilization, installation, fuel, filter replacement, and sludge cleanup and disposal.

Therefore, the total avoided cost of the ATS at Roads 4, 5, and 8 is \$332,134.19.

Additionally, while settling tanks with filtration units were installed at the resort area on March 20, 2019, the discharges continued to cause significant exceedances of the turbidity water quality objective. Despite having this information, the Discharger avoided additional costs by not employing an ATS from April through May 2019 in the resort area. Therefore, staff calculated the avoided costs of upgrading the settling and filtration tanks to an ATS over a period of two months. Using readily available prices,⁴⁸ staff estimated the total costs for installation and operation of one ATS for two months is \$69,560.47 as detailed below:

- \$2,442.81 per month for chemical treatment (coagulants/flocculants),
- \$23,175.05 per month for operation and maintenance, and
- \$9,162.38 per month for mobilization, installation, fuel, filter replacement, and sludge cleanup and disposal.

Therefore, the total avoided cost of the ATS at the resort area is \$69,560.47.

Staff also assert that the Discharger gained an economic benefit by inappropriately scheduling and conducting soil disturbing activities (grading for road construction) in one dry season from May 2018 through mid-November 2018, as opposed to phasing such actions over two separate dry seasons.

Using aerial imagery, staff observed a wheel tractor-scraper, bulldozer, and water truck on Site, and estimate the Discharger avoided the heavy equipment mobilization cost of approximately \$6,648.00.⁴⁹

⁴⁸ Cost factors and estimates for materials and labor were gathered from local vendors, Caltrans Construction Site BMP Practice Manual and Labor Surcharge and Equipment Rental Rates, and State Water Board Underground Storage Tank Cost Guidelines (2018 Update).

⁴⁹ Heavy equipment mobilization costs were based on hourly rental rates to move equipment to and from the Site. By reviewing satellite imagery staff determined that at

Staff believe that had the Discharger properly scheduled ground disturbing activities, and installed a combination of soil stabilization controls, linear sediment controls, and energy dissipating devices prior to the wet season, the egregious sediment discharges could have been avoided or minimized. However, once sediment was discharged throughout the Site and into the streams, ATS became the only feasible option to avoid or minimize the impacts to receiving waters. Although the Discharger's SWPPP submitted as part of its CGP notice of intent identified ATS as an option for pollution control, the Discharger avoided the cost of implementing the necessary ATS units. Therefore, staff determined that the total avoided cost from October 3, 2018, to May 20, 2019, equals \$474,069.69.⁵⁰

Economic Benefit \$397,881.79

In total, staff estimates the delayed and avoided costs were \$505,285.69. Based on information gathered by staff and provided by the Discharger, in addition to standard accounting assumptions, the BEN model calculated the economic benefit of the avoided and delayed expenditures described above to be **\$397,881.79** Table 2 shows compliance actions and the BEN model inputs and outputs.

least one scraper (\$189.00/hour), one dozer (\$207.00/hour), and one water truck (\$145.00/hour) were used at the Site. Staff estimated eight hours of round trip travel for the road equipment and 16 hours total for a flatbed semi-truck (\$145/hour) for mob/demob. Prices were derived from Caltrans and State Water Board Guidelines noted above.

⁵⁰ The total avoided costs include \$65,727.04 for standard erosion and sediment control BMPs with maintenance, \$401,694.69 for advanced treatment systems, and \$6,648.00 for heavy equipment mobilization.

Table 2. Summary of Economic Benefit Analysis

Compliance Action	Amount	Non-Compliance Date	Compliance Date	Benefit of Non-Compliance
BMP Implementation Avoided	\$36,515.02	10/3/2018	5/20/2019	\$31,102.44
October Maintenance Avoided	\$3,651.50	10/30/2018	5/20/2019	\$3,091.99
November Maintenance Avoided	\$3,651.50	11/30/2018	5/20/2019	\$3,072.22
December Maintenance Avoided	\$3,651.50	12/20/2018	5/20/2019	\$3,058.98
January Maintenance Avoided	\$3,651.50	1/30/2019	5/20/2019	\$3,021.51
February Maintenance Avoided	\$3,651.50	2/28/2019	5/20/2019	\$3,004.97
March Maintenance Avoided	\$3,651.50	3/30/2019	5/20/2019	\$2,990.38
April Maintenance Avoided	\$3,651.50	4/30/2019	5/20/2019	\$2,971.13
May Maintenance Avoided	\$3,651.50	5/19/2019	5/20/2019	\$2,959.39
Heavy Equipment Mobilization Avoided	\$6,648.00	10/3/2018	5/20/2019	\$5,662.74
Resort Area ATS Avoided	\$69,560.47	3/26/2019	5/20/2019	\$57,008.97
Roads 4, 5, and 8 ATS Avoided	\$332,134.19	12/1/2018	5/20/2019	\$279,394.86
Resort Area Tanks Delayed	\$31,216.00	12/1/2018	3/25/2019	\$542.21
Sum	\$505,285.69			\$397,881.79

U.S. EPA BEN Model inputs apply the construction cost index, corporation income tax schedule, discount rate ranging from 7.9% to 8.2% for one-time non-depreciable

expenditures (e.g., BMPs). The model was run on September 8, 2020 with an estimated penalty payment date of January 10, 2021.

Step 8: Other factors as justice may require

If the Regional Water Board believes that the amount determined using the above factors is inappropriate, the amount may be adjusted under the provision for “other factors as justice may require,” but only if express findings are made to justify this adjustment. The Regional Water Board may exercise its discretion to include some of the costs of investigation and enforcement in a total administrative civil liability.

Staff Cost: \$119,361

The Regional Water Board has incurred \$119,361 in staff costs associated with the investigation, preparation, and enforcement of the violations. This represents approximately 1,000 hours of staff time devoted to inspecting the Site, meetings and communications, and drafting the enforcement documents. The Prosecution Team recommends increasing the Total Base Liability amount by \$119,361 in order to create a sufficient general and specific deterrent against future violations.

Step 9: Maximum and Minimum Liability Amounts

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

a. Statutory Maximum penalty: Pursuant to Water Code section 13385(c)(1) and (2), 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;

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

The violations addressed in this matter include:

i. Thirty-six (36) non-discharge violations. Twenty-seven (27) of the violations are classified as single day violations, while 9 of the violations persisted uncorrected over a 6-day period. The statutory maximum penalty for these violations is $(27 \text{ violations})(1 \text{ day})(\$10,000/\text{day}) + (9 \text{ violations})(6 \text{ days})(\$10,000/\text{day}) = \$270,000 + \$540,000 = \mathbf{\$810,000}$.

ii. Thirty-three (33) days of discharge violations. The statutory maximum penalty for these violations is \$10,000 per violation, or **\$330,000**.

iii. Storm water discharges over six separate storm events, in which approximately 9.4 million gallons of sediment-laden storm water discharged into receiving waters. The total number of days of discharge associated with these six storms is 15days.

The maximum penalty is $\$10,000 \times 15 \text{ days} = \$150,000$ plus
 $[(9,395,000 \text{ gallons discharged} - 6,000 \text{ gallons}) \times \$10/\text{gallon} = 9,389,000 \text{ gallons} \times \$10/\text{gallon} = \$93,890,000$

Subtotal for this subsection: $\$150,000 + \$93,890,000 = \mathbf{\$94,040,000}$

The total statutory maximum penalty is: $\$810,000$ (Violations 1-36) + $\$330,000$ (Violation 37) + $\$94,040,000$ (Violation 38) = **$\$95,180,000$**

b. Minimum Penalty: Water Code section 13385, subdivision (e), requires that at least the economic benefit derived from the violation be recovered. The Enforcement Policy states that Regional Water Board should strive to impose civil liabilities 10 percent greater than the economic benefit to the violator.

Staff determined that the economic benefit derived from the violations addressed in this matter was \$397,881.79. Adding 10 percent to the statutory minimum, the minimum penalty for these violations is $(\$397,881.79)(1.1) = \mathbf{\$437,669.97}$.

Step 10. Final Liability Amount:

To determine the final liability amount, staff added the proposed liabilities for each violation, for a total of \$6,306,319.

Violations 1-36 = \$754,550⁵¹

Violation 37 = \$189,420⁵²

Violation 38 = \$5,362,349⁵³

⁵¹ Initial and total base liability calculations for violations 1 through 36 are presented on pages 25 through 76.

⁵² Initial and total base liability calculations for violation 37 are presented on pages 87 through 90.

⁵³ Initial and total base liability calculations for violations 38 are presented on pages 97 through 103.

Staff recommend that the costs of investigation be included in this civil liability. As discussed under Step 8, above, to date, staff have incurred \$119,361 in investigation and enforcement costs. Accordingly, the final proposed liability amount is \$6,306,319+ \$119,361 = **\$6,425,680**