STORMWATER POLLUTION PREVENTION PLAN

for

Suncrest Dynamic Reactive Power Support Project

Risk Level 1 and
Linear Underground/Overhead Project Type 1

Legally Responsible Person (LRP):

NextEra Energy Transmission West, LLC
700 Universe Boulevard
Juno Beach, Florida, 33408
Brian McDonald (415) 318-5929

Approved Signatory:

John Bulich (561) 304-5632

Prepared for:

NextEra Energy Transmission West, LLC
700 Universe Boulevard
Juno Beach, Florida 33408
Andy Flajole, Project Manager – Environmental Services
(561) 568-6553

Project Address:

Bell Bluff Truck Trail
Alpine, California 91901

SWPPP Prepared by:

SWCA Environmental Consultants
60 Stone Pine Road, Suite 100
Half Moon Bay, California 94019
Erika Carrillo, Qualified SWPPP Developer

SWPPP Preparation Date

October 2018

Estimated Project Dates:

Start of Construction	**March 2019**	Completion of Construction	**December 2019**

Table of Contents

Attachments

Appendices

Qualified SWPPP Developer

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name: Suncrest Dynamic Reactive Power Support Project

Project Number/ID: Not Applicable (N/A)

"This Stormwater Pollution Prevention Plan and Attachments were prepared under my direction to meet the requirements of the California Construction General Permit (SWRCB Orders No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below."

QSD Signature

October 19, 2018

Date

Erika Carrillo

QSD Name

23555

QSD Certificate Number

Senior Environmental Project Manager,
SWCA Environmental Consultants

Title and Affiliation

(650) 440-4160 x6403

Telephone Number

Erika.carrillo@swca.com

Email

Legally Responsible Person

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name: Suncrest Dynamic Reactive Power Support Project

Project Number/ID: N/A

"I certify under penalty of law that this document and all Attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NextEra Energy Transmission West, LLC

Legally Responsible Person

Signature of Legally Responsible Person or Approved Signatory	Date
Brian McDonald	(415) 318-5929
Name of Legally Responsible Person or Approved Signatory	Telephone Number

Amendment Log

Project Name: Suncrest Dynamic Reactive Power Support Project

Project Number/ID: N/A

Amendment No.	Date	Brief Description of Amendment (include section and page number)	Prepared and Approved By
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#

Section 1 SWPPP Requirements

1.1 INTRODUCTION

The Suncrest Dynamic Reactive Power Support Project (project) comprises an approximately 8.59-acre Static VAR compensator (SVC) site (Risk Level 1) and an approximately 3.62-acre transmission line (Linear Underground/Overhead Project [LUP] Type 1), and is located on Bell Bluff Truck Trail in Alpine, California. The project is located on property currently owned by private parties within the administrative boundary of the Cleveland National Forest and San Diego Gas & Electric Company (SDG&E), and is being developed by NextEra Energy Transmission West. The project's location is shown on the site maps in Appendix B.

This Stormwater Pollution Prevention Plan (SWPPP) is designed to comply with California's General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order No. 2009-0009-DWQ as amended in 2010 and 2012 (National Pollutant Discharge Elimination System [NPDES] No. CAS000002) issued by the State Water Resources Control Board (State Water Board). This SWPPP has been prepared following the SWPPP Template provided on the California Stormwater Quality Association (CASQA) *Best Management Practice Handbook Portal: Construction* (CASQA 2012).

In accordance with the General Permit, Section XIV, this SWPPP is designed to address the following:

- Pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and other activities associated with construction activity are controlled;
- Where not otherwise required to be under a Regional Water Quality Control Board (Regional Water Board) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
- Site best management practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Control Technology (BAT/BCT) standard; and
- Calculations and design details, as well as BMP controls, are complete and correct.

1.2 PERMIT REGISTRATION DOCUMENTS

Required Permit Registration Documents (PRDs) shall be submitted to the State Water Board via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Legally Responsible Person (LRP), or authorized personnel (i.e., Approved Signatory) under the direction of the LRP. The project-specific PRDs include:

1. Notice of Intent (NOI);
2. Risk Assessment (Construction Site Sediment and Receiving Water Risk Determination);
3. Site Map;
4. Annual Fee;

5. Signed Certification Statement (LRP Certification is provided electronically with SMARTS PRD submittal);
6. SWPPP; and
7. Post-construction water balance calculation.

Site maps can be found in Appendix B. A copy of the submitted PRDs shall also be kept in Appendix C along with the Waste Discharge Identification (WDID) confirmation.

1.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The discharger shall make the SWPPP available at the construction site during working hours (see Section 7.5 of the Construction Site Monitoring Program [CSMP] for working hours) while construction is occurring and shall be made available upon request by a state or municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone (General Permit Section XIV.C).

The SWPPP shall be implemented concurrently with the start of ground-disturbing activities.

1.4 SWPPP AMENDMENTS

The SWPPP should be revised:

- If there is a General Permit violation;
- When there is a reduction or increase in total disturbed acreage (General Permit Section II Part C); or
- BMPs do not meet the objectives of reducing or eliminating pollutants in stormwater discharges.

In addition, the SWPPP shall be amended when:

- There is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- When there is a change in the project duration that changes the project's risk level; or
- When deemed necessary by the Qualified SWPPP Developer (QSD). The QSD has determined that the changes listed in Table 1.1 can be field determined by the Qualified SWPPP Practitioner (QSP). All other changes shall be made by the QSD as formal amendments to the SWPPP.

The following items shall be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for change;
- The original BMP proposed, if any; and

- The new BMP proposed.

Amendments shall be logged at the front of the SWPPP and certifications kept in Appendix D. The SWPPP text shall be revised, replaced, and/or hand annotated as necessary to properly convey the amendment. SWPPP amendments must be made by a QSD. The following changes have been designated by the QSD as "to be field determined" and constitute minor changes that the QSP may implement based on field conditions (Table 1.1).

Table 1.1 List of Changes to be Field Determined

Candidate changes for field location or determination by QSP[(1)]	Check changes that can be field located or field determined by QSP
Increase quantity of an erosion or sediment control measure	
Relocate or add stockpiles or stored materials	
Relocate or add toilets	
Relocate vehicle storage and/or fueling locations	
Relocate areas for waste storage	
Relocate water storage and/or water transfer location	
Changes to access points (entrance/exits)	
Change type of erosion or sediment control measure	
Changes to location of erosion or sediment control	
Minor changes to schedule or phases	
Changes in construction materials	
(1) Any field changes not identified for field location or field determination by QSP must be approved by QSD	

1.5 RETENTION OF RECORDS

Paper or electronic records of all documents required by this SWPPP shall be retained for a minimum of 3 years from the date generated or date submitted, whichever is later.

These records shall be available at the site until construction is complete. Records assisting in the determination of compliance with the General Permit shall be made available within a reasonable time, to the Regional Water Board, State Water Board, or U.S. Environmental Protection Agency (EPA) upon request. Requests by the Regional Water Board for retention of records for a period longer than 3 years shall be honored.

1.6 REQUIRED NON-COMPLIANCE REPORTING

If a General Permit discharge violation occurs, the QSP shall immediately notify the LRP. The LRP shall include information on the violation with the Annual Report. Corrective measures will be implemented immediately following identification of the discharge or written notice of non-

compliance from the Regional Water Board. Discharges and corrective actions must be documented and include the following items:

- The date, time, location, nature of operation, and type of unauthorized discharge.
- The cause or nature of the notice or order.
- The control measures (BMPs) deployed before the discharge event, or prior to receiving notice or order.
- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent reoccurrence.

1.7 ANNUAL REPORT

The General Permit requires that permittees prepare, certify, and electronically submit an Annual Report no later than September 1 of each year. Reporting requirements are identified in Section XVI of the General Permit. Annual reports will be filed in SMARTS and in accordance with information required by the online forms.

The following information will be included in the Annual Report:

1. Sampling and analysis results including laboratory reports, analytical methods and reporting limits, and chain of custody (COC) forms;
2. Corrective actions and compliance activities, including those not implemented;
3. Violations of the General Permit;
4. Date, time, place, and name(s) of the inspector(s) for all sampling, inspections, and field measurement activities;
5. Visual observation and sample collection exception records; and
6. Training documentation of all personnel responsible for General Permit compliance activities.

1.8 CHANGES TO PERMIT COVERAGE

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when: a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs shall be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP shall be modified appropriately and logged at the front of the SWPPP, and certification of SWPPP amendments are to be kept in Appendix D. Updated PRDs submitted electronically via SMARTS can be found in Appendix E.

1.9 NOTICE OF TERMINATION

A Notice of Termination (NOT) must be submitted electronically by the LRP via SMARTS to terminate coverage under the General Permit. The NOT must include a final site map and

representative photographs of the project site that demonstrate final stabilization has been achieved. The NOT shall be submitted within 90 days of completion of construction. The Regional Water Board will consider a construction site complete when the conditions of the General Permit, Section II.D, have been met.

Section 2 Project Information

2.1 PROJECT AND SITE DESCRIPTION

2.1.1 Site Description

The project site comprises a SVC facility interconnected with the existing SDG&E Suncrest Substation via an approximately 1-mile-long transmission line, and is located in unincorporated south-central San Diego County, California. The project site is located approximately 3.75 miles southeast of the community of Alpine, off Bell Bluff Truck Trail. Interstate 8 is located approximately 1.8 miles north of the project area, and Japatul Valley Road is approximately 1.2 miles to the southeast. The project is located on property currently owned by private parties within the administrative boundary of the Cleveland National Forest. The project site is located approximately 1 mile south of Sweetwater River, with Taylor Creek located approximately 0.55 mile south of the SVC site, which ultimately drains to the Sweetwater River. The project is located at latitude/longitude 32.8120, -116.6674, and is identified on the site maps in Appendix B.

The project consists of two segments: (1) an approximately 6-acre SVC facility and (2) an approximately 1-mile-long transmission line. Construction of the project will result in approximately 6.2 acres of temporary disturbance, accounting for staging area impacts and trenching for underground transmission line installation, and approximately 6.01 acres of permanent disturbance. The project will disturb approximately 12.21 acres during construction.

This project was divided into two segments based on the two distinct sections of the project. Each segment was evaluated separately for site sediment and receiving water risk determinations, and to determine the applicable permit requirements and reporting for each segment.

2.1.2 Existing Conditions

As of the initial date of this SWPPP, the lands surrounding the project are primarily undeveloped, with some rural-residential development present to the east and south, and the existing SDG&E Suncrest Substation at the project's western terminus. The SVC site will be located south of Bell Bluff Truck Trail in a restored vegetated area. A portion of this area was known as the Wilson Construction Yard, and was cleared and graded for its use as a construction staging/laydown area during construction of SDG&E's Suncrest Substation. Following the completion of the Suncrest Substation, the area was recontoured to a surface intended to match its original topography, and the vegetation was restored in accordance with the project's restoration plan.

The approximately 1-mile-long transmission line segment of the project will be primarily underground within Bell Bluff Truck Trail—a private, paved, secured 30-foot-wide road—with the last approximately 300 feet of the line transitioning to an overhead span via a new riser pole to be installed just north of the road. A new intermediate pole will also be installed approximately 35 feet outside the Suncrest Substation. The only impervious surface within the project area is Bell Bluff Truck Trail, which is paved. No known contamination exists within the SVC site or along the transmission line route.

2.1.3 Existing Drainage

The project site occupies a topographic saddle along the watershed divide between the Sweetwater River watershed to the north and the Taylor Creek watershed to the south. The Sweetwater River is the central drainage feature within the watershed flowing east to west through Sweetwater Reservoir and Loveland Reservoir before discharging to San Diego Bay, located approximately 37.8 miles west of the project area. The elevation of the project site ranges from 3,000 to 3,200 feet above mean sea level (msl).

Surface drainage in the project area is dictated by two main surface water systems: the Sweetwater River and several unnamed drainages to the north, and Peterson Creek (a tributary to Taylor Creek that drains to the Sweetwater River) and several unnamed drainages to the south. A nearly east-west-trending drainage bisects the center of the SVC site. Areas within the northern portion of the SVC site drain northward toward an existing culvert under Bell Bluff Truck Trail that conveys flow toward an unnamed ephemeral drainage discharging to the Sweetwater River. The southern portion of the SVC site drains southward toward an unnamed ephemeral drainage that discharges to Peterson Creek. Portions of the transmission line drain both north and south toward the drainage systems described above.

Bell Bluff Truck Trail was paved and widened as part of the SDG&E's Sunrise Powerlink project, including raising the elevation of the road surface over the existing drainage feature to the north of the site. A stormwater conveyance system was also constructed along the length of the road, including several culverts underneath the roadway to allow flows to pass under the road and rip-rap bioswales excavated wholly from uplands. The stormwater conveyance system consists of concrete "v-ditches" at the base of the slope on the southern side of Bell Bluff Truck Trail, which convey stormwater runoff from the roadway and the adjacent land to outlets and/or culverts.

The site drains to unnamed tributaries to both the north and south, which then join larger watersheds to the north and south of the project site through the existing stormwater conveyance system. Stormwater discharges from the site are not considered direct discharges as defined by the State Water Board. Existing site topography, drainage patterns, and stormwater conveyance systems are shown on the site maps in Appendix B.

The project discharges to Sweetwater River, which is listed for water quality impairment on the most recent 303(d)-list for:

- Benthic community effects
- Indicator bacteria
- Selenium
- Total nitrogen as N

2.1.4 Geology and Groundwater

The SVC site is underlain by sandy loam, and the transmission line segment is underlain by sandy loam, coarse sandy loam, and rocky coarse sandy loam. As previously mentioned, substantial grading effort was undertaken for the construction of Bell Bluff Truck Trail and the SVC site during the Sunrise Powerlink project, and there is likely some artificial fill present in

the project area. The geotechnical investigation report anticipates most of the fill in the project area to be less than 5 feet in depth, with isolated areas up to a maximum of 10 feet in depth.

No designated groundwater basins are located within the vicinity of the project area. Surface waters in the vicinity all drain to the Sweetwater Valley groundwater basin located near the confluence with San Diego Bay. No water supply or other groundwater wells are mapped within the immediate vicinity of the project. Groundwater is not expected to be encountered during any subsurface excavation, and it is unlikely that the project will require any dewatering operations.

2.1.5 Project Description

SVC Facility

Project grading for the SVC facility will occur on up to approximately 8.59 acres of the project, which comprises approximately 70 percent of the total area. The limits of grading are shown on the site maps in Appendix B. Grading will include 21,000 cubic yards (cy) of excavated earthwork material (including topsoil), with the generation of 4,000 cy of excess material that will require onsite removal and disposal at a landfill. Approximately 17,000 cy of fill material, including surfacing gravel material of 2,500 cy for grounding purposes, will be imported during grading activities. Soil will be stockpiled onsite at the SVC site as shown on the site maps in Appendix B. Construction activities will be phased following initial clearing; topsoil will be salvaged to a depth of approximately 6 inches (or less if subsoil is not present to that depth) in all areas to be restored and will be stored onsite for use in site restoration as appropriate. All clean spoils excavated by the project will be reused onsite as fill as feasible.

Conventional excavation practices will be used first to excavate to the location where bedrock is encountered. In areas where shallow bedrock is found, detonation blast holes will be drilled into the bedrock. Explosives will be detonated in the blast holes to crack the rock around the blast hole. Blast intensity is dependent on the amount of explosives used, frequency and diameter of the holes where the explosives are placed, and timing of the detonation. The type of blasting that may be used is characterized as low-energy, localized blasts, also referred to as micro-blasting. Although it is anticipated that a minimal amount of blasting may be required for construction of the SVC facility, it is impossible to determine the exact location where blasting will be required until conventional excavation is conducted and areas of bedrock are identified.

Transmission Line

Similar to the SVC facility, construction of the transmission line will occur in a phased approach beginning with site preparation, followed by trenching, with duct bank and splice vault installation occurring concurrently, and finally cable pulling, splicing, and termination.

Construction of the transmission line is anticipated to require minimal vegetation clearing because the transmission line will be located primarily within (underneath) the paved surface of Bell Bluff Truck Trail. Excavation and vegetation clearing will only extend onto the road shoulder or outside the paved portion of the road in the areas of the splice vault locations, and for the installation of the new riser and intermediate poles shown on the site maps in Appendix B. Project grading will be up to approximately 3.62 acres, which comprises approximately 30 percent of the total area.

Trenching required for duct bank and vault installation will involve asphalt cutting to expose the soil layer below the paved surface of Bell Bluff Truck Trail, followed by open-cut trenching techniques. Up to five underground splice vaults may be required for the underground transmission line, spaced approximately 900 feet apart. The vaults will be prefabricated steel-reinforced concrete measuring approximately 30 feet long by 8 feet wide by 11 feet deep, so the excavation will be large enough to accommodate these dimensions. The typical trench width for duct bank installation will be approximately 2.5 feet wide by 5 feet deep, whereas the typical trench width for vault installation will be 9 feet wide by 13 feet deep. After duct banks have been installed, the trenches will be backfilled. It is anticipated that approximately 800 cy of native, non-thermal, or thermal backfill will be used in backfilling trenches. Each duct bank will be anticipated to have a minimum of 36 inches of cover, including 18 inches of road and sub-road material. Excavation methods for digging the trenches for the underground alignment will include both conventional practices (e.g., a backhoe) and, potentially, micro-blasting techniques. It is anticipated that 10 percent of the alignment, or approximately 530 linear feet of trench, could require blasting, but it is not possible to determine the exact location where blasting will be required until conventional excavation is conducted and areas of bedrock are identified.

All excavated material, including soil, rock, concrete, and asphalt, will be temporarily staged onsite and hauled off to an appropriate disposal facility, such as Miramar Landfill. It is anticipated that a total of 3,000 cy will be generated and hauled offsite from trenching for the transmission line construction at a rate of 30 cy (three truck trips) per day.

The work areas for the riser pole and intermediate pole will first be cleared of vegetation and then be slightly graded prior to excavating for the pole foundations. Temporary work pads may be required to excavate for the foundations or install the poles at either location. The excavation depths will be approximately 20 feet deep. Approximately 30 cy of material will be removed from each pole location and reused onsite or disposed of at an approved offsite location. Following construction of the pole foundations, the riser pole and intermediate pole structures will be installed.

Due to the likely presence of rock either at or very near the ground surface, installation of the riser pole and intermediate pole may require localized blasting or other alternative excavation techniques to install the poles. Alternative methods may include pole installation on a micropile foundation. Micropiles typically consist of small-diameter drilled and grouted replacement piles (i.e., a pile placed or constructed within a previously drilled borehole replacing the excavated ground). Micropiles are installed by drilling a borehole, reinforcing the hole with a casing or other enforcement structure, and grouting the hole. Micropiles will be 35 to 40 feet deep under a 10-foot-deep pile cap. These foundations will use up to 70 cy of concrete.

2.1.6 Developed Condition

Post-construction surface drainage will be directed to the south as surface water will flow through existing stormwater conveyance systems, newly installed culverts, detention basins, and diversion swales and ditches, which will discharge at the southwestern corner of the SVC facility. The SVC site will include approximately 6 acres of developed area, approximately 2.6 acres of which will be impervious. SVC site components will included two new, graveled, 20-foot-wide by 95-foot-long access driveways from Bell Bluff Truck Trail to the SVC facility, and paved turning aprons to accommodate large construction and haul vehicles, which will occupy a total area of approximately 5,000 square feet. The access driveways will be entirely located

within the 6-acre area. In addition, a stormwater detention basin and stormwater drainage system, including earthen swales surrounding the SVC facility, will be constructed. The stormwater detention basin will be sized based on the 85th percentile of the 25-year, 24-hour rainfall event. It will be designed to capture the runoff from such an event and then release the captured water over 48 hours. Overflow from the basin will occur through a rip-rap spillway that will provide for sheet-flow of the stormwater to the adjacent land surface during storms that exceed the basin's design capacity. A series of earthen swales constructed around the SVC facility will divert stormwater that will otherwise run onto the site. The swales will discharge any run-on water via shallow, concentrated sheet flow to the adjacent land surface, and will include rip-rap aprons at discharge locations for erosion control.

A retaining wall, approximately 480 feet long and 15 feet tall at its highest point (an average height of 8 feet) along the eastern side of the SVC facility, will also be constructed. The retaining wall will be built on grade (i.e., not above grade) on the eastern side of the SVC facility to provide slope stability and minimize the potential for erosion. The retaining wall will be supported by a concrete foundation constructed of concrete blocks, installed 1 to 2 feet below grade. Depending on the soil and rock conditions, anchors or reinforced geogrid strips, with a maximum embedment length of approximately 12 feet, may be installed to support the wall.

The transmission line connecting the SVC facility to the existing Suncrest Substation will be approximately 1 mile in length and will be installed primarily underground within Bell Bluff Truck Trail, with the last approximately 300 feet of the line transitioning to an overhead span via a new riser pole to be installed just north of the road. The 85- to 95-foot-tall riser pole will be installed on the road shoulder north of Bell Bluff Truck Trail, with a base of approximately 7 feet in diameter plus an area of permanent disturbance approximately 15 feet in radius from the pole. A new intermediate pole will be installed between the riser pole and Suncrest Substation, approximately 35 feet north of the substation's fence line. This intermediate pole will be approximately 116 feet tall, with a base of approximately 7 feet in diameter. The intermediate pole will be situated on the hillside on the northern side of the graveled service road, between 5 and 10 feet from the road edge. Approximately 0.37 acre of temporary and 0.01 acre of permanent disturbance will be required to construct, operate, and maintain this intermediate pole.

Post-construction drainage patterns and conveyance systems are presented on the site maps in Appendix B.

Table 2.1 provides the construction site area, percentage of impervious surface, and curve number for existing and developed conditions.

Table 2.1 Construction Site Estimates

SVC Facility	
Construction site area	8.59 acres
Percentage impervious before construction	0%
Runoff coefficient before construction	
Percentage impervious after construction	2.64%
Runoff coefficient after construction	

Table 2.1 Construction Site Estimates

Transmission Line	
Construction site area	3.62 acres
Percentage impervious before construction	94%
Runoff coefficient before construction	
Percentage impervious after construction	100%
Runoff coefficient after construction	

2.2 PERMITS AND GOVERNING DOCUMENTS

In addition to the General Permit, the following documents have been taken into account while preparing this SWPPP:

- Regional Water Board requirements
- Basin Plan requirements
- Contract documents
- Air Quality regulations and permits
- Federal Endangered Species Act
- National Historic Preservation Act/requirements of the State Historic Preservation Officer
- State of California Endangered Species Act

2.3 STORMWATER RUN-ON FROM OFFSITE AREAS

There is no anticipated offsite run-on to this construction site because existing stormwater conveyance systems, culverts, diversion channels, and temporary BMPs installation around the perimeter of work limits will direct run-on away from disturbed areas.

Risk calculations are provided in Appendix A.

2.4 FINDINGS OF THE CONSTRUCTION SITE SEDIMENT AND RECEIVING WATER RISK DETERMINATION

A construction site risk assessment has been performed for the project and the resultant risk level is Risk Level 1 for the SVC site and LUP Type 1 for the transmission line.

The risk level was determined through the use of the R, K, and LS factors for the site and Appendix A.1, LUP Type Determination of the General Permit. The risk level is based on project duration, location, proximity to impaired receiving waters, and soil conditions. Risk calculations are provided in Appendix A. A copy of the Risk Level/LUP Type determination submitted on SMARTS with the PRDs is included in Appendix C.

Table 2.2 and Table 2.3 summarize the sediment and receiving water risk factors and document the sources of information used to derive the factors.

Table 2.2 Summary of Sediment Risk

RUSLE Factor	Value	Method for establishing value
R	15.81	See Appendix A
K	0.2	See Appendix A
LS	3.52	See Appendix A
Total Predicted Sediment Loss (tons/acre)		**61.54148**
Overall Sediment Risk Low Sediment Risk < 15 tons/acre Medium Sediment Risk ≥ 15 and < 75 tons/acre High Sediment Risk ≥ 75 tons/acre		☐ **Low** ☒ **Medium** ☐ **High**

Project construction activities will be located within an existing private, paved street (Bell Bluff Truck) and on a previously disturbed open area. Runoff from the project site will discharge through stormwater conveyance systems, diversion ditch and swales, and a detention basin that eventually discharge into Peterson Creek, Taylor Creek, and Sweetwater River.

Table 2.3 Summary of Receiving Water Risk

Receiving Water Name	303(d) Listed for Sediment Related Pollutant(1)	TMDL for Sediment Related Pollutant(1)	Beneficial Uses of COLD, SPAWN, and MIGRATORY(1)
Peterson Creek, Taylor Creek, and Sweetwater River	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Overall Receiving Water Risk			☒ **Low** ☐ **High**
(1) If yes is selected for any option the Receiving Water Risk is High.			

For a LUP, risk level determination is specified in Attachment A.1 of the General Permit. Appendix A includes a flow chart that was used to determine the LUP type. It is assumed that more than 70 percent of the project will occur on paved surfaces, and some areas may not be returned to "pre-construction" conditions at the end of each day. Thus, the project LUP type was determined based on the receiving water risk and project sediment risk.

Risk Level 1 sites are subject to the narrative effluent limitations specified in the General Permit. The narrative effluent limitations require stormwater discharges associated with construction activity to minimize or prevent pollutants in stormwater and authorized non-stormwater through the use of controls, structures, and best management practices. This SWPPP has been prepared to address Risk Level 1 requirements (General Permit Attachment C).

2.5 CONSTRUCTION SCHEDULE

The site sediment risk was determined based on construction taking place between March 2019 and January 2020. Modification or extension of the schedule (start and end dates) may affect risk determination and permit requirements. The LRP shall contact the QSD if the schedule changes

during construction to address potential impacts to the SWPPP. The estimated schedule for planned work can be found in Appendix F.

2.6 POTENTIAL CONSTRUCTION ACTIVITY AND POLLUTANT SOURCES

Appendix G includes a list of construction activities and associated materials that are anticipated to be used onsite. These activities and associated materials will or could potentially contribute pollutants, other than sediment, to stormwater runoff.

The anticipated activities and associated pollutants were used in Section 3 to select the BMPs for the project. Location of anticipated pollutants (temporary laydown are and concrete wash-out station) and associated BMPs are shown on the site maps in Appendix B.

For sampling requirements for non-visible pollutants associated with construction activity, refer to Section 7.7.1. For a full and complete list of onsite pollutants, refer to the material Safety Data Sheets (SDS), which are retained onsite at the construction trailer.

2.7 IDENTIFICATION OF NON-STORMWATER DISCHARGES

Non-stormwater discharges consist of discharges that do not originate from precipitation events. The General Permit provides allowances for specified non-stormwater discharges that do not cause erosion or carry other pollutants.

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the General Permit and are listed in the SWPPP, or authorized under a separate NPDES permit, are prohibited.

Non-stormwater discharges that are authorized from this project site include the following:

- Natural upstream run-on from non-storm sources (i.e., springs).

These authorized non-stormwater discharges will be managed with the stormwater and non-stormwater BMPs described in Section 3 of this SWPPP and will be minimized by the QSP.

Activities at this site that may result in unauthorized non-stormwater discharges include:

- Vehicle and equipment cleaning, fueling, and maintenance operations
- Vehicle and equipment wash water, including concrete washout water
- Slurries from concrete or mortar mixing operations
- Slurries from drilling or boring operations
- Runoff from dust control applications of water or dust palliatives
- Sanitary and septic wastes
- Chemical leaks and/or spills of any kind including but not limited to petroleum, paints, cure compounds, etc.

Steps will be taken, including the implementation of appropriate BMPs, to ensure that unauthorized discharges are eliminated, controlled, disposed, or treated onsite.

Discharges of construction materials and wastes, such as fuel or paint, resulting from dumping, spills, or direct contact with rainwater or stormwater runoff, are also prohibited.

2.8 REQUIRED SITE MAP INFORMATION

The construction project's site map(s) showing the project location, surface water boundaries, geographic features, construction site perimeter and general topography, and other requirements identified in Attachment B of the General Permit, is located in Appendix B. Table 2.5 identifies map or sheet numbers where required elements are illustrated.

Table 2.5 Required Map Information

Included on Map/Plan Sheet No.(1)	Required Element
Appendix B	The project's surrounding area (vicinity)
Appendix B	Site layout
Appendix B	Construction site boundaries
Appendix B	Drainage areas
Appendix B	Discharge locations
Appendix B	Sampling locations
Appendix B	Areas of soil disturbance (temporary or permanent)
Appendix B	Active areas of soil disturbance (cut or fill)
Appendix B	Locations of runoff BMPs
Appendix B	Locations of erosion control BMPs
Appendix B	Locations of sediment control BMPs
N/A	Active treatment system (ATS) location (if applicable)
Appendix B	Locations of sensitive habitats, watercourses, or other features that are not to be disturbed
N/A	Locations of all post-construction BMPs
Appendix B	Waste storage areas
Appendix B	Vehicle storage areas
Appendix B	Material storage areas
Appendix B	Entrances and exits
Appendix B	Fueling locations

Note: (1) Indicates maps or drawings where information is included (e.g., vicinity map, site map, drainage plans, grading plans, progress maps, etc.)

Section 3 Best Management Practices

3.1 SCHEDULE FOR BMP IMPLEMENTATION

BMPs will be implemented as necessary prior to construction; when seasonal conditions such as track-out, runoff, or dust are present; or when activities that may potentially result in stormwater or non-stormwater discharges are initiated. Table 3.1 provides the BMP implementation schedule.

Table 3.1 BMP Implementation Schedule

	BMP	Implementation	Duration
Erosion Control	EC-1, Scheduling	Prior to construction	Entirety of project
	EC-2, Preservation of Existing Vegetation	Start of construction	Entirety of project
	EC-4, Hydroseed	Install prior to rain as needed	Until seed is established
	EC-7, Geotextiles and Mats	Install prior to rain as needed	Until seed is established
	EC-9, Earth Dikes and Drainage Swales	Start of construction	Entirety of project
	EC-10, Velocity Dissipation Devices	Start of construction	Entirety of project
	EC-11, Slope Drains	Start of construction	Entirety of project
	EC-15, Soil Preparation/Roughening	After vegetation removal	Until planting or stabilization by other means
Non-Stormwater and Material Management	NS-1, Water Conservation Practices	Start of construction	Entirety of project
	NS-2, Dewatering Operation	As needed during construction	Entirety of project
	NS-3, Paving and Grinding Operation	Start of construction	Entirety of project
	NS-6, Illicit Connection/Discharge	Start of construction	Entirety of project
	NS-8, Vehicle and Equipment Cleaning	Start of construction	Entirety of project
	NS-9, Vehicle and Equipment Fueling	Start of construction	Entirety of project
Sediment Control	SE-1, Silt Fence	Prior to construction	Entirety of project
	SE-2, Sediment Basin	Start of construction	Entirety of project

Table 3.1 BMP Implementation Schedule

	BMP	Implementation	Duration
Sediment Control	SE-4, Check Dams	During events in which water is channelized to a steep slope and during work where sediment could transport to stormwater drainages	Entirety of project
	SE-5 Fiber Roll	Prior to construction	Entirety of project
	SE-7, Street Sweeping and Vacuuming	During discovery of track-out	Entirety of project
	SE-10, Storm Drain Inlet Protection	Prior to construction	Entirety of project
Tracking Control	TC-1, Stabilized Construction Entrance/Exit	Prior to construction	Entirety of project
	TC-2, Stabilized Construction Roadway	Start of construction	Entirety of project
	TC-3, Entrance/Outlet Tire Wash	Prior to construction	Entirety of project
Wind Erosion	WE-1, Wind Erosion Control	Covered off-haul during hauling operations and applying water where needed	Entirety of project
Waste Management	WM-1, Material Delivery and Storage	At the staging/material storage areas	Entirety of project
	WM-2, Material Use	All materials will be used in accordance with scheduled work and all worker training in how to handle equipment for use. Contractor to have all chemical manufacturer documentation stored onsite for reference. No chemicals to be used prior to rain events.	Entirety of project
	WM-3, Stockpile Management	All earthen and vegetative stockpiles will be off hauled or covered within 14 days or prior to rain.	Entirety of project

Table 3.1 BMP Implementation Schedule

	BMP	Implementation	Duration
Waste Management	WM-4, Spill Prevention and Control	Secondary containment for all storage and spill kits will be available. Contractor to inform all workers of appropriate practices for all materials. No chemicals to be used prior to rain events.	Entirety of project
	WM-5, Solid Waste Management	Watertight or coverable trash receptacles will be at staging areas. Contractor will remove vegetation and other off-hauls from site in covered trucks.	Entirety of project
	WM-6, Hazardous Waste Management	Chemicals/pesticides will be stored and transported in proper secondary containment. Any spills from equipment will be addressed immediately. No chemicals to be used prior to rain events.	Entirety of project
	WM-7, Contaminated Soil Management	During discovery of contaminated soil.	Entirety of project
	WM-8, Concrete Waste Management	Any concrete used will have secondary containment. No concrete work prior to rain events.	Entirety of project
	WM-9, Sanitary/Septic Waste Management	Contractor will use portable toilets and hand wash stations with secondary containment stored away from slopes and waterways, and serviced by licensed hauler.	Entirety of project

3.2 EROSION AND SEDIMENT CONTROL

Erosion and sediment controls are required by the General Permit to provide effective reduction or elimination of sediment related pollutants in stormwater discharges and authorized non-stormwater discharges from the site. Applicable BMPs are identified in this section for erosion control, sediment control, tracking control, and wind erosion control.

3.2.1 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles.

This construction project will implement the following practices to provide effective temporary and final erosion control during construction:

1. Preservation of existing vegetation where required and when feasible.
2. The area of soil disturbing operations shall be controlled such that the contractor is able to implement erosion control BMPs quickly and effectively.
3. Stabilization of non-active areas within 14 days of cessation of construction activities or sooner if stipulated by local requirements.
4. Erosion control in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding, or alternate methods.
5. Prior to the completion of construction, application of permanent erosion control to remaining disturbed soil areas.

Sufficient erosion control materials shall be maintained onsite to allow implementation in conformance with this SWPPP.

Table 3.2 indicates the BMPs that shall be implemented to control erosion on the construction site. Fact Sheets for temporary erosion control BMPs are provided in Appendix H.

These temporary erosion control BMPs shall be implemented in conformance with the following guidelines and as outlined in the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the site maps will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site-specific details in the site maps prevail over standard details included in the site map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Scheduling

The contractor will schedule as much soil-disturbing activities as possible during the dry season, leaving as much soil undisturbed as possible; will conduct daily monitoring of weather forecasts for predicted rain events; and will stabilize cleared areas during grading as soon as practical.

Preservation of Existing Vegetation

The contractor will preserve existing vegetation prior to the commencement of clearing and grubbing operations or other soil-disturbing activities in areas where no construction activity is planned. Disturbance areas will be minimized as much as feasible in the course of completing the work.

Hydroseed

The contractor will apply hydroseeding on disturbed soil areas at the end of construction activities. Hydroseeding typically consists of applying a mixture of wood fiber, seed, fertilizer, and stabilizing emulsion with hydro-mulch equipment, which temporarily protects exposed soils from erosion by water and wind. The contractor will avoid overspray onto the traveled roadway, sidewalks, lined drainage channels, and existing vegetation.

Table 3.2 Temporary Erosion Control BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[1]	BMP Used		If not used, state reason
			YES	NO	
EC-1	Scheduling	✓	✓		
EC-2	Preservation of Existing Vegetation	✓	✓		
EC-3	Hydraulic Mulch	✓[2]		✓	Use EC-4 instead
EC-4	Hydroseed	✓[2]	✓		
EC-5	Soil Binders	✓[2]		✓	Use EC-4 instead
EC-6	Straw Mulch	✓[2]		✓	Use EC-4 instead
EC-7	Geotextiles and Mats	✓[2]	✓		
EC-8	Wood Mulching	✓[2]		✓	Use EC-4 instead
EC-9	Earth Dike and Drainage Swales	✓[3]	✓		
EC-10	Velocity Dissipation Devices		✓		
EC-11	Slope Drains		✓		
EC-12	Stream Bank Stabilization			✓	No work planned on creek banks
EC-14	Compost Blankets	✓[2]		✓	Use EC-4 instead
EC-15	Soil Preparation-Roughening		✓		
EC-16	Non-Vegetated Stabilization	✓[2]		✓	Use EC-4 instead
WE-1	Wind Erosion Control	✓	✓		
Alternate BMPs Used:					**If used, state reason:**

[1] Applicability to a specific project shall be determined by the QSD.
[2] The QSD shall ensure implementation of one of the minimum measures listed or a combination thereof to achieve and maintain the Risk Level requirements.
[3] Run-on from offsite shall be directed away from all disturbed areas; diversion of onsite flows may require design/analysis by a licensed civil engineer and/or additional environmental permitting.

Geotextile and Mats

Geotextiles and mats will be used as needed to stabilize seeded slopes.

Earth Dike and Drainage Swales

Earth dikes and drainage swales will be used as needed to convey stormwater flow cleanly through the work limits in areas where flow concentrates due to steep slopes and maintaining sheet flow is not feasible, or where concentrated flows need to be directed around/away from a work area.

Velocity Dissipation Devices

Velocity dissipation devices will be used at the outlets of pipes, drains, culverts, slope drains, diversion ditches, swales, conduits, or channels.

Slope Drains

Slope drains will be used where concentrated flow of surface runoff must be conveyed down a slope.

Soil Preparation/Roughening

Soil preparation/roughening will be used in combination with EC-4, hydroseeding, to provide adequate soil contact for these BMPs and to ensure they are most effective.

Wind Erosion Control

Water will be applied to disturbed soil areas of the project site to control dust and maintain optimum moisture levels for compaction. The water will be applied using water trucks.

3.2.2 Sediment Controls

Sediment controls are temporary or permanent structural measures intended to complement the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water.

Table 3.3 indicates the BMPs that shall be implemented to control sediment on the construction site. Fact Sheets for temporary sediment control BMPs are provided in Appendix H.

These temporary sediment control BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the site maps will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site-specific details in the site maps prevail over standard details included in the site map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Silt Fence

Silt fencing will be deployed along exterior of the SVC site work area to settle out soil particles from stormwater runoff.

Table 3.3 Temporary Sediment Control BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[1]	BMP used		If not used, state reason
			YES	NO	
SE-1	Silt Fence	✓[2]	✓		
SE-2	Sediment Basin		✓		
SE-3	Sediment Trap			✓	Use SE-2 instead
SE-4	Check Dams		✓		
SE-5	Fiber Rolls	✓[2]	✓		
SE-6	Gravel Bag Berm			✓	Use SE-5 instead
SE-7	Street Sweeping	✓	✓		
SE-8	Sandbag Barrier			✓	Use SE-1, SE-4, SE-5, SE-10, and TC-1 instead
SE-9	Straw Bale Barrier			✓	Use SE-1, SE-4, SE-5, SE-10, and TC-1 instead
SE-10	Storm Drain Inlet Protection	✓	✓		
SE-11	ATS			✓	No direct discharges to sediment or turbidity sensitive waters
SE-12	Manufactured Linear Sediment Controls			✓	Use SE-1, SE-4, SE-5, SE-10, and TC-1 instead
SE-13	Compost Sock and Berm			✓	Use SE-1, SE-4, SE-5, and SE-10 instead
SE-14	Biofilter Bags			✓	Use SE-1, SE-4, SE-5, SE-10, and TC-1 instead
TC-1	Stabilized Construction Entrance and Exit	✓	✓		
TC-2	Stabilized Construction Roadway		✓		
TC-3	Entrance/Outlet Tire Wash			✓	Use TC-1 and TC-2 instead
Alternate BMPs Used:					**If used, state reason:**

[1] Applicability to a specific project shall be determined by the QSD.
[2] The QSD shall ensure implementation of one of the minimum measures listed or a combination thereof to achieve and maintain the Risk Level requirements.

Sediment Basin

A sediment basin will be constructed as part of the SVC facility and will be used during construction to detain sediment-laden runoff, allowing sediment to settle out before the runoff is released.

Check Dams

Check dams will be deployed in stormwater drainage ditches around the SVC site to prevent erosion and sedimentation.

Fiber Rolls

Biodegradable fiber rolls will be installed along slopes perpendicular to the flow lines in the event of a forecasted rain. In the event of a forecasted rain, fiber rolls will be placed on disturbed slopes and spaced dependent on slope in accordance with the Construction General Permit guidelines (i.e., fiber roll spacing/sheet flow will not exceed 20 feet for slopes 0 to 25 percent, fiber roll spacing/sheet flow will not exceed 15 feet for slopes 25 to 50 percent, and fiber roll spacing/sheet flow will not exceed 10 feet for slopes greater than 50 percent). Fiber rolls will also be installed along the downslope side of Bell Bluff Truck Trail where there are no curbs.

Street Sweeping

Street sweeping and vacuuming will be implemented in areas typically in the vicinity of the point of egress and areas where sediment is tracked from the project site onto public roads by a wet-vacuum sweeper during all construction activities as needed to control tracking of sediments. As least one sweeper should be onsite during haul operation if there is any track-out not addressed by TC-1. Sweepers shall be self-loading motorized, have spray nozzles, and shall include a vacuum apparatus.

Storm Drain Inlet Protection

Storm drain inlet protection should be gravel bags placed around the inlet and a pre-manufactured insert placed into the inlet.

Stabilized Construction Entrance and Exit

Stabilized construction entrance and exit will be constructed and maintained to reduce tracking of sediment during construction. The entrance and exit will be designated and graded to prevent runoff from leaving the site. Stabilized material will be 3- to 6-inch crushed aggregate. The entrance and exit will be flared where it meets the existing road to provide an adequate turning radius.

Stabilized Construction Roadway

A stabilized construction roadway will be constructed and maintained to reduce tracking sediment during construction. Stabilization material will be Class 2 aggregate base.

3.3 NON-STORMWATER CONTROLS AND WASTE AND MATERIALS MANAGEMENT

3.3.1 Non-Stormwater Controls

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the General Permit, are prohibited. Non-stormwater discharges for which a separate NPDES permit is required by the local Regional Water Board are prohibited unless coverage under the separate NPDES permit has been obtained for the discharge. The selection of non-stormwater BMPs is based on the list of construction activities with a potential for non-stormwater discharges identified in Section 2.7 of this SWPPP.

Table 3.4 indicates the BMPs that shall be implemented to control sediment on the construction site. Fact Sheets for temporary non-stormwater control BMPs are provided in Appendix H.

Non-stormwater BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the site maps will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site-specific details in the site maps prevail over standard details included in the site map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Water Conservation Practices

Water application rates will be minimized as necessary to prevent runoff and ponding, and water equipment leaks will be repaired immediately. The water truck filling area will be stabilized. Watering times and schedules will be adjusted to ensure the appropriate amount of water is being used and to minimize runoff. Exposure of construction materials to precipitation will be minimized. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e., poles, equipment pads, conductors, insulators, etc.).

Dewatering Operation

No dewatering is anticipated during construction; however, if groundwater is encountered during trenching or installation of the duct bank and vaults for the new underground transmission line, appropriate BMPs (e.g., gravity bag filters) will be implemented to prevent erosion at the discharge point.

Paving and Grinding Operation

Paving and grinding BMPs will be implemented to prevent paving materials from being discharged into waterways. Following paving operations, the area will be swept. Dried and cured concrete wastes will be disposed offsite during concrete washout maintenance activities.

Illicit Connection/Discharge

The contractor will implement the illegal connection/illegal discharge detection reporting BMP throughout the duration of the project. Chemicals will be stored in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a stored shed (completely enclosed), or chemicals will be transported offsite daily.

Vehicle and Equipment Cleaning

Vehicle and equipment cleaning BMPs will be used to eliminate or reduce the discharge of pollutants to stormwater. All vehicles and equipment will be cleaned offsite or at the temporary cleaning area. All vehicle and equipment cleaning will be conducted at least 50 feet from all drainage areas and on a level graded area.

Vehicle and Equipment Fueling

Vehicle and equipment fueling BMPs will be used to prevent discharges of fuel. All vehicles and equipment will be fueled offsite or at the temporary fueling area. Fuel trucks, each equipped with absorbent spill cleanup materials, will be used for all onsite fueling, whether at the temporary fueling area or for mobile fueling elsewhere on the site. Drip pans will be used during all mobile fueling. All vehicle and equipment maintenance and mobile fueling operations will be conducted at least 50 feet away from all drainage areas and on a level graded area.

Vehicle and Equipment Maintenance

Vehicle and equipment maintenance BMPs will be used to prevent discharges of fuel, oil, and other vehicles fluids during required maintenance for a breakdown onsite. All vehicles and equipment will be maintained offsite. Drip pans or absorbent pads will be used during all vehicle and equipment maintenance activities that involve grease, oil, solvents, or other vehicle fluids. All vehicle maintenance and mobile fueling operation will be conducted at least 50 feet away from drainage areas and on a level graded area.

Concrete Curing

Drain inlets will be protected prior to the application of curing compounds. Excess cure water and water from high-pressure blasting will be collected and disposed of, and will not be allowed to run off to inlets or drainage ditches.

Concrete Finishing

Excess water from high-pressure blasting will be collected and disposed of, and will not be allowed to run off to inlets or drainage ditches.

Table 3.4 Temporary Non-Stormwater BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[1]	BMP used		If not used, state reason
			YES	NO	
NS-1	Water Conservation Practices	✓	✓		
NS-2	Dewatering Operation		✓		
NS-3	Paving and Grinding Operation		✓		
NS-4	Temporary Stream Crossing			✓	No temporary stream crossings planned
NS-5	Clear Water Diversion			✓	No clear water diversions planned
NS-6	Illicit Connection/Discharge	✓	✓		
NS-7	Potable Water/Irrigation			✓	
NS-8	Vehicle and Equipment Cleaning	✓	✓		
NS-9	Vehicle and Equipment Fueling	✓	✓		
NS-10	Vehicle and Equipment Maintenance	✓	✓		
NS-11	Pile Driving Operation			✓	No pile driving operations planned
NS-12	Concrete Curing		✓		
NS-13	Concrete Finishing		✓		
NS-14	Material and Equipment Use Over Water			✓	No barges, boats, docks, or other platforms planned
NS-15	Demolition Removal Adjacent to Water			✓	No bridge, channel, or other structure removal planned
NS-16	Temporary Batch Plants			✓	No temporary batch plant facilities planned
Alternate BMPs Used:			**If used, state reason:**		
[1] Applicability to a specific project shall be determined by the QSD					

3.3.2 Materials Management and Waste Management

Materials management control practices consist of implementing procedural and structural BMPs for handling, storing, and using construction materials to prevent the release of those materials into stormwater discharges. The amount and type of construction materials to be used at the site will depend upon the type of construction and the length of the construction period. The materials may be used continuously, such as fuel for vehicles and equipment, or the materials may be used for a discrete period, such as soil binders for temporary stabilization.

Waste management consists of implementing procedural and structural BMPs for handling, storing, and ensuring proper disposal of wastes to prevent the release of those wastes into stormwater discharges. Waste management shall be conducted in accordance with the project's Hazardous Materials and Waste Management Plan.

Materials and waste management pollution control BMPs shall be implemented to minimize stormwater contact with construction materials, wastes, and service areas, and to prevent materials and wastes from being discharged offsite. The primary mechanisms for stormwater contact that shall be addressed include:

- Direct contact with precipitation;
- Contact with stormwater run-on and runoff;
- Wind dispersion of loose materials;
- Direct discharge to the storm drain system through spills or dumping; and
- Extended contact with some materials and wastes, such as asphalt cold mix and treated wood products, which can leach pollutants into stormwater.

A list of construction activities is provided in Appendix G. Table 3.5 indicates the BMPs that shall be implemented to handle materials and control construction site wastes associated with these construction activities. Fact Sheets for Materials and Waste Management BMPs are provided in Appendix H.

Material management BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the site maps will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site-specific details in the site maps prevail over standard details included in the site map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Material Delivery and Storage

Material delivery and storage will be implemented to prevent and minimize the discharge of construction materials during delivery and storage. The general material storage area will be located at the staging area as shown on the site maps. The contractor will protect bagged or boxed material during non-working days and when precipitation is predicted, and will provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas will be kept clean, well organized, and equipped with cleanup supplies appropriate for the materials being stored. Secondary containment will be used to store items

such as bags of concrete and mortar, fuel cans, pesticides, etc., when required. The contractor will repair or replace perimeter controls, containment structures, covers, and liners as needed.

Material Use

When materials are used that could potentially discharge into adjacent water bodies, proper procedures such as secondary containment on level ground, proper storage lockers, and only preparing what is needed for the immediate job will be used to minimize or eliminate these materials from entering into the waterways. This applies to materials such as limes, acids, concrete products, asphalt products, fertilizers, pesticides, herbicides, and other related hazardous chemicals.

Stockpile Management

Stockpile management will be implemented to reduce or eliminate pollution of stormwater from stockpiles of soil, debris, wood and other vegetation, and paving materials. Stockpiles will be surrounded with sediment controls (e.g., fiber rolls). Plastic covers and dust control watering will also be used as needed for inactive stockpiles (more than 14 days of inactivity) and prior to a forecast rain.

Spill Prevention and Control

Spill prevention and control will be implemented to contain and clean up spills and prevent material discharges to the storm drain system. Spill prevention is also discussed above in Material Delivery and Storage, and below in the following waste management sections.

Table 3.5 Temporary Materials Management BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[1]	BMP used		If not used, state reason
			YES	NO	
WM-01	Material Delivery and Storage	✓	✓		
WM-02	Material Use	✓	✓		
WM-03	Stockpile Management	✓	✓		
WM-04	Spill Prevention and Control	✓	✓		
WM-05	Solid Waste Management	✓	✓		
WM-06	Hazardous Waste Management	✓	✓		
WM-07	Contaminated Soil Management		✓		
WM-08	Concrete Waste Management	✓	✓		
WM-09	Sanitary-Septic Waste Management	✓	✓		
WM-10	Liquid Waste Management			✓	No non-stormwater liquid discharges are planned
Alternate BMPs Used:				**If used, state reason:**	

[1] Applicability to a specific project shall be determined by the QSD.

Spill prevention and cleanup practices will be as follows:

- Spill cleanup materials, SDSs, a material inventory, and emergency contact numbers will be maintained at the contractor's main yard. A material inventory list will be onsite and a list of pesticides (herbicides) has been prepared and is included in Attachment G.
- Site personnel will be instructed on spill cleanup procedures and location of cleanup supplies, and contractor will be responsible for implementing these practices.
- Materials and equipment for the cleanup of a relatively small spill will be kept in the staging area. Cleanup equipment may include brooms, rags, gloves, shovels, goggles, sand, sawdust, absorbent, plastic or metal trash containers, and protective clothing.
- All containers will be labeled, tightly sealed, and stacked or stored neatly and securely.

Spill response procedures will be as follows:

- Step 1: Upon discovery of a spill, stop the source of the spill.
- Step 2: Cease all spill material transfer until the release is stopped and waste is removed from the spill site.
- Step 3: Initiate containment to prevent spill from reaching state waters.
- Step 4: Notify the NEET West representative, supervisor, and project's site manager of the spill.
- Step 5: The project site manager will immediately notify the project emergency coordinator and coordinate further cleanup activities.
- Step 6: Any significant spill of hazardous material will be reported to the appropriate state and/or local agencies by NEET West personnel or qualified contractors. The project's environmental emergency contacts are provided in Table 3.6 below.
- Step 7: Record a description of the spill, cause, and cleanup measures taken. Maintain a log of these records in the SWPPP.
- Step 8: Review and amend the SWPPP to address the violation that the general objective of reducing or eliminating pollutants in stormwater discharges has not achieved.

Table 3.6: Emergency Telephone List

Company/Organization	Telephone Numbers
Primary Facility Emergency Coordinator: To Be Determined (TBD)	TBD
Alternate Facility Emergency Coordinator: TBD	TBD
NEET West Representative: Adrienne Charbonneau	(561) 691-7510 (office)/ (850) 445-7015 (cell)
Other Resources	
Poison Control Center:	(800) 222-1222
Federal Agency	

Company/Organization	Telephone Numbers
U.S. Coast Guard/National Response Center:	(800) 424-8802
State Agencies	
California Office of Emergency Services (OES):	(800) 852-7550
California Department of Toxic Substances Control (DTSC)*:	(800) 852-7550
Regional Water Quality Control Board (RWQCB)*:	(800) 852-7550
California Department of Fish and Wildlife (CDFW)	(800) 852-7550
Local Contacts	
San Diego County Hazardous Materials Division:	(858) 505-6880
Fire:	911
Police:	911
Hospital:	911
Ambulance/Paramedics:	911

*DTSC, RWQCB, and CDFW have requested that emergency notifications to these offices be made through the OES 800 number.

Solid Waste Management

Solid waste management will be implemented to minimize stormwater contact with waste materials and to prevent waste discharges. Solid wastes will be loaded directly onto trucks for onsite disposal. When onsite storage is necessary, solid wastes will be stored in watertight dumpster in the staging area. Waste disposal containers will be covered at the end of every business day and during a rain event, with covers onsite at all times. Drainage from the waste disposal containers, if any, will be captured and will not be allowed to enter the stormwater drainage system. Waste containers will be emptied daily or more often if necessary to not attract wildlife, and the trash will be hauled to the local dump. No construction waste will be buried onsite. All site personnel will be instructed regarding the correct procedure for waste disposal.

Hazardous Waste Management

A Hazardous Materials and Waste Management Plan that addresses removal and disposal of potentially hazardous materials at the project site has been prepared separately and will be adhered to during construction. Any materials will be covered during transport and as needed to prevent contact with stormwater.

Contaminated Soil Management

It is unlikely that contaminated soil will be encountered; however, operators and construction personnel will be asked to report unusual conditions to the appropriate personnel, and the area and/or material will be properly contained during investigative actions. If soils require temporary

stockpiling, piles will be placed on and covered with plastic sheeting or tarps that are secured safely with sandbags and bermed with fiber rolls or silt fencing to prevent runoff from leaving the area. Samples will be collected and sent to a certified analytical laboratory for characterization. If contamination is detected, the waste will be handled and properly disposed of in an authorized waste management facility. In addition, the appropriate local, state, and federal agencies will be notified.

Concrete Waste Management

Concrete washout areas and other washout areas that may contain additional pollutants will be provided with an impermeable containment so there is no discharge into the underlying soil and onto the surrounding areas. Excess concrete and concrete washout slurries will be discharged to a temporary concrete washout facility (e.g., portable steel bin). The washout facility will be maintained to provide adequate holding capacity with a minimum freeboard of 4 inches. The washout facility will be cleaned or a new facility constructed once the washout is 75 percent full. Dried concrete shall then be removed and disposed of at an approved onsite location. No surplus concrete or drum wash water will be disposed of onto the ground surface.

Sanitary-Septic Waste Management

A licensed sanitary waste management contractor will collect all sanitary wastes from the portable units. The units will be serviced weekly at a minimum. Portable sanitary units will be placed on a flat area at least 200 feet from all drainage/waterways or provided secondary containment. Portable units will be anchored to prevent blowing or tipping over, and all leaks or spills shall be reported immediately.

3.4 POST-CONSTRUCTION STORMWATER MANAGEMENT MEASURES

Post-construction BMPs are permanent measures installed during construction that are designed to reduce or eliminate pollutant discharges from the site after construction is completed.

This site is located in an area subject to a Phase I or Phase II Municipal Separate Storm Sewer System (MS4) permit approved Stormwater Management Plan. ☒ Yes ☐ No

Post-construction runoff reduction requirements have been satisfied through the MS4 program; thus, this project is exempt from Provision XIII A of the General Permit.

Section 4 BMP Inspection, Maintenance, and Rain Event Action Plans

4.1 BMP INSPECTION AND MAINTENANCE

The General Permit requires routine weekly inspections of BMPs, along with inspections before, during, and after qualifying rain events. A BMP inspection checklist must be filled out for inspections and maintained onsite with the SWPPP. The inspection checklist includes the necessary information covered in Section 7.6. A blank inspection checklist can be found in Appendix I. Completed checklists shall be kept in CSMP Attachment 2, Monitoring Records.

BMPs shall be maintained regularly to ensure proper and effective functionality. If necessary, corrective actions shall be implemented within 72 hours of identified deficiencies and associated amendments to the SWPPP shall be prepared by the QSD.

Specific details for maintenance, inspection, and repair of construction site BMPs can be found in the BMP Fact Sheets in Appendix H.

4.2 RAIN EVENT ACTION PLANS

Rain Event Action Plans (REAPs) are not required for LUP Type 1 or Risk Level 1 projects.

Section 5 Training

Appendix L identifies the QSPs for the project. To promote stormwater management awareness specific to this project, periodic training of jobsite personnel shall be included as part of routine project meetings (e.g., daily/weekly tailgate safety meetings) or task-specific trainings as needed.

The QSP shall be responsible for providing this information at the meetings and subsequently completing the training logs shown in Appendix K, which identifies the site-specific stormwater topics covered as well as the names of site personnel who attended the meeting. Tasks may be delegated to trained employees by the QSP, provided adequate supervision and oversight is provided. Training shall correspond to the specific task delegated, including SWPPP implementation, BMP inspection and maintenance, and record keeping.

Documentation of training activities (formal and informal) is retained in SWPPP Appendix K.

Section 6 Responsible Parties and Operators

6.1 RESPONSIBLE PARTIES

Approved Signatories who are responsible for SWPPP implementation and have authority to sign permit-related documents are listed below. Written authorizations from the LRP for these individuals are provided in Appendix L. The Approved Signatory assigned to this project is:

Name	Title	Phone Number
John Bulich	Approved Signatory	(561) 304-5632

QSPs identified for the project are identified in Appendix L. The QSP shall have primary responsibility and significant authority for the implementation, maintenance, and inspection/monitoring of SWPPP requirements. The QSP will be available at all times throughout the duration of the project. Duties of the QSP include but are not limited to:

- Implementing all elements of the General Permit and SWPPP, including but not limited to:
  - Ensuring all BMPs are implemented, inspected, and properly maintained;
  - Performing non-stormwater and stormwater visual observations and inspections;
  - Performing non-stormwater and stormwater sampling and analysis, as required;
  - Performing routine inspections and observations;
  - Implementing non-stormwater management, and materials and waste management activities such as monitoring discharges; general site cleanup; vehicle and equipment cleaning, fueling, and maintenance; spill control; ensuring that no materials other than stormwater are discharged in quantities that will have an adverse effect on receiving waters or storm drain systems; etc.
- The QSP may delegate these inspections and activities to an appropriately trained employee, but shall ensure adequacy and adequate deployment.
- Ensuring elimination of unauthorized discharges.
- The QSPs shall be assigned authority by the LRP to mobilize crews to make immediate repairs to the control measures.
- Coordinating with the contractor to assure all of the necessary corrections/repairs are made immediately and that the project complies with the SWPPP, the General Permit, and approved plans at all times.
- Notifying the LRP or Authorized Signatory immediately of onsite discharges or other non-compliance events.

6.2 CONTRACTOR LIST

Contractor

Name:	TBD
Title:	TBD
Company:	TBD
Address:	TBD
Phone Number:	TBD
Number (24/7):	TBD

Section 7 Construction Site Monitoring Program

7.1 PURPOSE

This Construction Site Monitoring Program was developed to address the following objectives:

1. To demonstrate that the site is in compliance with the Discharge Prohibitions of the General Permit;
2. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives;
3. To determine whether immediate corrective actions, additional BMP implementation, or SWPPP revisions are necessary to reduce pollutants in stormwater discharges and authorized non-stormwater discharges; and
4. To determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges.

7.2 APPLICABILITY OF PERMIT REQUIREMENTS

This project has been determined to be a Risk Level 1 project and LUP Type 1. The General Permit identifies the following types of monitoring as applicable to a Risk Level 1 project:

- Visual inspections of BMPs;
- Visual monitoring of the site related to qualifying storm events;
- Visual monitoring of the site for non-stormwater discharges;
- Sampling and analysis of construction site runoff for non-visible pollutants when applicable; and
- Sampling and analysis of construction site runoff as required by the Regional Water Board when applicable.

The General Permit identifies the following types of monitoring as applicable for a LUP Type 1:

- Visual inspections of BMPs; and
- Sampling and analysis of non-stormwater discharges when applicable.

7.3. WEATHER AND RAIN EVENT TRACKING

Visual monitoring and inspections requirements of the General Permit are triggered by a qualifying rain event. The General Permit defines a qualifying rain event as any event that produces 0.5 inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

7.3.1 Weather Tracking

The QSP should consult NOAA daily for the weather forecasts. These forecasts can be obtained at http://www.srh.noaa.gov/. Weather reports should be printed and maintained with the SWPPP in CSMP Attachment 1, Weather Reports.

7.3.2 Rain Gauges

The QSP shall install one rain gauge on the project site at the SVC site. The QSP will locate the gauge in an open area away from obstructions such as trees or overhangs. The QSP will mount the gauge on a post at a height of 3 to 5 feet with the gauge extending several inches beyond the post. The QSP will make sure that the top of the gauge is level. The QSP will make sure the post is not in an area where rainwater can indirectly splash from sheds, equipment, trailers, etc.

The rain gauge shall be read daily during normal site scheduled hours. The rain gauge should be read at approximately the same time every day and the date and time of each reading recorded. The QSP will log rain gauge readings in CSMP Attachment 1, Weather Reports. The QSP will follow the rain gauge instructions to obtain accurate measurements.

Once the rain gauge reading has been recorded, accumulated rain shall be emptied and the gauge reset.

For comparison with the site rain gauge, the nearest appropriate governmental rain gauge is located in Descanso (https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2406).

7.4 MONITORING LOCATIONS

Monitoring locations are shown on the site maps in Appendix B. Monitoring locations are described in Tables 7.5 through 7.8.

Whenever changes in the construction site might affect the appropriateness of sampling locations, the sampling locations shall be revised accordingly. All such revisions shall be implemented as soon as feasible and the SWPPP amended. Temporary changes that result in a one-time additional sampling location do not require a SWPPP amendment.

7.5 SAFETY AND MONITORING EXEMPTIONS

Safety practices for sample collection will be in accordance with the contractor's Health and Safety Plan for the project. Refer to Suncrest Dynamic *Reactive Power Support Project Hazardous Materials and Waste Management Plan* for specific safety requirements that apply to sampling personnel.

This project is not required to collect samples or conduct visual observations (inspections) under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms.
- Outside of scheduled site business hours.

Scheduled site business hours are Monday through Saturday, 7 a.m. to 7 p.m.

If monitoring (visual monitoring or sample collection) of the site is unsafe because of the dangerous conditions noted above, the QSP shall document the conditions for why an exception to performing the monitoring was necessary. The exemption documentation shall be filed in CSMP Attachment 2, Monitoring Records.

7.6 VISUAL MONITORING

Visual monitoring includes observations and inspections. Inspections of BMPs are required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that

could fail to operate as intended. Visual observations of the site are required to observe stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources.

Table 7.1 identifies the required frequency of visual observations and inspections. Inspections and observations will be conducted at the locations identified in Appendix B and Tables 7.5 through 7.8.

Table 7.1 Summary of Visual Monitoring and Inspections

Type of Inspection	Frequency
Routine Inspections	
BMP Inspections (Risk Level 1)	Weekly[1]
BMP Inspections – Tracking Control	Daily
BMP Inspections (LUP Type 1)	Daily
Non-Stormwater Discharge Observations (Risk Level 1)	Quarterly during daylight hours
Rain Event Triggered Inspections (Risk Level 1)	
Site Inspections Prior to a Qualifying Event	Within 48 hours of a qualifying event [2]
BMP Inspections During an Extended Storm Event	Every 24-hour period of a rain event[3]
Site Inspections Following a Qualifying Event	Within 48 hours of a qualifying event[2]

[1] Most BMPs must be inspected weekly; those identified below must be inspected more frequently.

[2] Inspections are required during scheduled site operating hours.

[3] Inspections are required during scheduled site operating hours regardless of the amount of precipitation on any given day.

7.6.1 Routine Observations and Inspections

Routine site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the General Permit.

7.6.1.1 Routine BMP Inspections

Inspections of BMPs are conducted to identify and record:

- BMPs that are properly installed;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; or
- BMPs that could fail to operate as intended.

7.6.1.2 Non-Stormwater Discharge Observations

Each drainage area will be inspected for the presence of or indications of prior unauthorized and authorized non-stormwater discharges. Inspections will record:

- Presence or evidence of any non-stormwater discharge (authorized or unauthorized);
- Pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.); and
- Source of discharge.

7.6.2 Rain-Event Triggered Observations and Inspections

Visual observations of the site and inspections of BMPs are required prior to a qualifying rain event; following a qualifying rain event, and every 24-hour period during a qualifying rain event. Pre-rain inspections will be conducted after consulting NOAA and determining that a precipitation event with a 50 percent or greater probability of precipitation has been predicted.

7.6.2.1 Visual Observations Prior to a Forecasted Qualifying Rain Event

Within 48 hours prior to a qualifying event a stormwater visual monitoring site inspection will include observations of the following locations:

- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify if they have been properly implemented;
- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

Consistent with guidance from the State Water Board, pre-rain BMP inspections and visual monitoring will be triggered by a NOAA forecast that indicates a probability of precipitation of 50 percent or more in the project area.

7.6.2.2 BMP Inspections During an Extended Storm Event

During an extended rain event BMP inspections will be conducted to identify and record:

- BMPs that are properly installed;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; or
- BMPs that could fail to operate as intended.

If the construction site is not accessible during the rain event, the visual inspections shall be performed at all relevant outfalls, discharge points, and downstream locations. The inspections should record any projected maintenance activities.

7.6.2.3 Visual Observations Following a Qualifying Rain Event

Within 48 hours following a qualifying rain event (0.5 inch of rain) a stormwater visual monitoring site inspection is required to observe:

- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify if they have been properly designed, implemented, and effective;
- Need for additional BMPs;

- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard; and
- Discharge of stored or contained rain water.

7.6.3 Visual Monitoring Procedures

Visual monitoring shall be conducted by the QSP or staff trained by and under the supervision of the QSP.

The names and contact numbers of the site visual monitoring personnel are listed below and their training qualifications are provided in Appendix K.

Assigned inspector: Chennie Castañon, QSP Contact phone: (650) 922-7086

Alternate inspector: Kristen Outten, QSP Contact phone: (831) 331-5264

Stormwater observations shall be documented on the *Visual Inspection Field Log Sheet* (see CSMP Attachment 3, Example Forms). BMP inspections shall be documented on the site-specific BMP inspection checklist. Any photographs used to document observations will be referenced on stormwater site inspection reports and maintained with the Monitoring Records in Attachment 2.

7.6.4 Visual Monitoring Follow-Up and Reporting

Correction of deficiencies identified by the observations or inspections, including required repairs or maintenance of BMPs, shall be initiated and completed as soon as possible.

If identified deficiencies require design changes, including additional BMPs, the implementation of changes will be initiated within 72 hours of identification and be completed as soon as possible. When design changes to BMPs are required, the SWPPP shall be amended to reflect the changes.

Deficiencies identified in site inspection reports and correction of deficiencies will be tracked on the Inspection Field Log Sheet or BMP Inspection Report and shall be submitted to the QSP and shall be kept in CSMP Attachment 2, Monitoring Records.

Results of visual monitoring must be summarized and reported in the Annual Report.

7.6.5 Visual Monitoring Locations

The inspections and observations identified in Sections 7.6.1 and 7.6.2 will be conducted at the BMP locations shown on the site maps in SWPPP Appendix B.

7.7 WATER QUALITY SAMPLING AND ANALYSIS

7.7.1 Sampling and Analysis Plan for Non-Visible Pollutants in Stormwater Runoff Discharges

This Sampling and Analysis Plan for non-visible pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in stormwater runoff discharges from the project site.

Sampling for non-visible pollutants will be conducted when (1) a breach, leakage, malfunction, or spill is observed; (2) the leak or spill has not been cleaned up prior to the rain event; and (3) there is the potential for discharge of non-visible pollutants to surface waters or drainage system.

LUP Type 1 dischargers are not required to sample if one of the conditions described above (e.g., breach or spill) occurs and the site is cleaned of material and pollutants and/or BMPs are implemented prior to the next storm event.

The following construction materials, wastes, or activities, as identified in Appendix G, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the site maps in Appendix B.

- Cleaning products (e.g., acids, bleaches, TSP, solvents, etc.)
- Masonry products (e.g., acid wash, methyl methacrylate, solids and mortar, non-pigmented curing compounds, etc.)
- Landscaping products (e.g., aluminum sulfate, elemental sulfur, organic and inorganic fertilizers, herbicides, pesticides, lime and gypsum, etc.)
- Painting products (e.g., adhesives, paint strippers, resins, sealants, solvents, thinners, etc.)
- Dust palliative products (e.g., salts [magnesium chloride, calcium chloride, and natural brines, etc.])
- Treated wood products (e.g., ammonia cal-copper-zinc-arsenate, copper-chromium-arsenic, etc.)
- Soil amendment/stabilization products (e.g., copolymer, lignin sulfonate, psyllium, guar, petroleum resin, gypsum, plant gums, etc.)
- Batteries

The following soil amendments have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site. If soil amendment application will be used, locations will be shown on the site maps in Appendix B.

- Copolymer
- Lignin sulfonate
- Psyllium
- Guar
- Petroleum resin
- Gypsum
- Plant gums

7.7.1.1 Sampling Schedule

Samples for the potential non-visible pollutant(s) and a sufficiently large unaffected background sample shall be collected during the first 2 hours of discharge from rain events that result in a

sufficient discharge for sample collection. Samples shall be collected during the site's scheduled hours and shall be collected regardless of the time of year and phase of the construction.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during site inspections conducted prior to or during a rain event.

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.
- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed; (2) the leak or spill is not cleaned up prior to the rain event; and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- A construction activity, including but not limited to those in Appendix G, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event; (2) BMPs were observed to be breached, malfunctioning, or improperly implemented; and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- If applied, soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- Stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

7.7.1.2 Sampling Locations

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence, or use; accessibility for sampling; and personnel safety. Planned non-visible pollutant sampling locations are shown on the site maps in Appendix B and include the locations identified in Tables 7.5 through 7.8.

Three sampling locations on the project site have been identified for the collection of samples of runoff from planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned.

Table 7.5 Non-Visible Pollutant Sample Locations

Sample Location Number	Sample Location Description	Sample Location Latitude and Longitude (Decimal Degrees)
1	3-foot-wide aggregate lined diversion ditch rip-rap pad	32.811418°, -116.666682°

Table 7.5 Non-Visible Pollutant Sample Locations		
Sample Location Number	**Sample Location Description**	**Sample Location Latitude and Longitude (Decimal Degrees)**
2	Diversion swale rip-rap pad	32.811277°, -116.666405°
3	Sediment basin-controlled outlet structure rip-rap pad	32.811380°, -116.666558°

If soil amendments will be applied, three sampling locations have been identified for the collection of samples of runoff from drainage areas that have the potential to affect water quality.

Table 7.6 Non-Visible Pollutant Sample Locations – Soil Amendment Areas		
Sample Location Number	**Sample Location**	**Sample Location Latitude and Longitude** (Decimal Degrees)
1	3-foot-wide aggregate lined diversion ditch rip-rap pad	32.811418°, -116.666682°
2	Diversion swale rip-rap pad	32.811277°, -116.666405°
3	Sediment basin-controlled outlet structure rip-rap pad	32.811380°, -116.666558°

One sampling location has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. This location was selected so that the sample will not have come in contact with the operations, activities, or areas identified in Section 7.7.1 or with disturbed soil areas.

Table 7.7 Non-Visible Pollutant Sample Locations – Background (Unaffected Sample)		
Sample Location Number	**Sample Location**	**Sample Location Latitude and Longitude (Decimal Degrees)**
1	Existing culvert east of the SVC site on Bell Bluff Truck Trail	32.813104°, -116.666408°

7.7.1.3 Monitoring Preparation

Non-visible pollutant samples will be collected by:

Contractor ☐ Yes ☒ No

Consultant ☐ Yes ☒ No

Laboratory ☒ Yes ☐ No

Samples on the project site will be collected by one of the following laboratories:

Company Name:	EnviroMatrix Analytical, Inc.	Clarkson Laboratory and Supply, Inc.
Street Address:	4340 Viewridge Avenue, Suite A	350 Trousdale Drive
City, State Zip:	San Diego, California 92123	Chula Vista, California 91910
Telephone Number:	(858) 560-7717	(619) 425-1993
Point of Contact:	Dan Verdon/Jennifer Beyer	TBD
Name of Sampler(s):	TBD	TBD
Name of Alternate(s):	TBD	TBD

The QSP or his/her designee will contact one of these laboratories 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins if one of the triggering conditions is identified during an inspection to ensure that adequate sample collection personnel and supplies for monitoring non-visible pollutants are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.1.4 Analytical Constituents

Table 7.9 lists the specific sources and types of potential non-visible pollutants on the project site and the water quality indicator constituent(s) for that pollutant.

Table 7.9 Potential Non-Visible Pollutant and Water Quality Indicator Constituents

General Work Activity/Potential Pollutants	Water Quality Indicators of Potential Constituents
Adhesives	Chemical Oxygen Demand (COD), Phenols, Semi-Volatile Organic Compounds (SVOCs)
Asphalt Work	Volatile Organic Compounds (VOCs)
Cleaning	
Acids	pH
Bleaches	Residual chlorine
TSP	Phosphate
Solvents	VOCs, SVOCs
Detergents	Methylene Blue Active Anionic Substances (MBAS)
Concrete/Masonry Work	
Sealant (Methyl methacrylate)	SVOC

General Work Activity/Potential Pollutants	Water Quality Indicators of Potential Constituents
Curing compounds	VOCs, SVOCs, pH
Ash slag sand	pH, Aluminum (Al), Calcium (Ca), Vanadium (V), Zinc (Zn)
Drywall	Copper (Cu), Al, General Minerals
Framing/Carpentry	
Treated Wood	Cu, Chromium (Cr), Arsenic (As), Zn
Particle board	Formaldehyde
Untreated wood	Biochemical Oxygen Demand (BOD)
Grading/Earthwork	
Gypsum/Lime amendment	pH
Contaminated soil	Constituents specific to known contaminants. Check with lab.
Heating, Ventilation, Air Conditioning	Freon
Insulation	Al, Zn
Landscaping, Planting, Vegetation Management	
Vegetation stockpiles	BOD
Pesticides/Herbicides	Product dependent; see label and check with lab.
Fertilizers	Total Kieldahl Nitrogen (TKN), Nitrate (NO_3), BOD, COD, Dissolved Organic Carbon (DOC), Sulfate, Ammonia (NH_3), Phosphate, Potassium (K)
Aluminum sulfate	Al, Total Dissolved Solids (TDS), Sulfate
Liquid Waste	Constituents specific to materials, check with lab.
Painting	
Resin	COD, SVOCs
Thinners	COD, VOCs
Paint strippers	VOCs, SVOCs, metals
Lacquers, varnishes, enamels	COD, VOCs, SVOCs
Sealants	COD
Adhesives	Phenols, SVOCs
Plumbing	
Solder, flux, pipe fitting	Cu, Lead (Pb), Tin (Sn), Zn
Roofing	Cu, Pb, VOCs

General Work Activity/Potential Pollutants	Water Quality Indicators of Potential Constituents
Sanitary Waste	
Portable toilets (using clear fluid – blue fluid is visible if discharged)	BOD, Total/fecal coliform
Soil Preparation/Amendments/Dust Control	
Polymer/Co-polymers	TKN, NO_3, BOD, COD, DOC, Sulfate, Nickel (Ni)
Lignin sulfate	TDS, alkalinity
Psyllium	COD, Total Oxygen Demand (TOC), Ni
Guar/Plant Gums	COD, TOC, Ni
Solid Waste (leakage)	BOD
Vehicle and Equipment Use	
Batteries	Sulfuric acid, Pb, pH

7.7.1.5 Sample Collection

Samples of discharge shall be collected at the designated non-visible pollutant sampling locations shown on the site maps in Appendix B or in the locations determined by observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas (if applied), and historical site usage areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the methods identified in Table 7.10. Only the QSP, or personnel trained in water quality sampling under the direction of the QSP, shall collect samples.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.1.6 Sample Analysis

Samples shall be analyzed using the analytical methods identified in Table 7.10.

Samples will be analyzed by one of the following laboratories:

Laboratory Name:	EnviroMatrix Analytical, Inc.	Clarkson Laboratory and Supply, Inc.
Street Address:	4340 Viewridge Avenue, Suite A	350 Trousdale Drive
City, State Zip:	San Diego, California 92123	Chula Vista, California 91910
Telephone Number:	(858) 560-7717	(619) 425-1993
Point of Contact:	Dan Verdon/Jennifer Beyer	

ELAP Certification Number:	2564	1055

Samples will be delivered to the laboratory:

Driven by Contractor	☐ Yes	☒ No
Picked up by Laboratory Courier	☒ Yes	☐ No
Shipped	☐ Yes	☒ No

Table 7.10 Sample Collection, Preservation, and Analysis for Monitoring Non-Visible Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Containers	Sample Preservation	Reporting Limit	Maximum Holding Time
COD	EPA 410.4	1 × 250 mL	Glass-amber	Store at 4°C, H_2SO_4 to pH<2	5 mg/L	28 days
Phenols	EPA 8270C	1 × 1 L	Glass-amber	Store at 4°C	Check Lab	7 days
SVOCs	EPA 8270C	1 × 1 L	Glass-amber	Store at 4°C	10 µg/L	7 days
VOCs-solvents	EPA 8260B	3 × 40 mL	VOA-glass	Store at 4°C, HCl to pH<2	1 µg/L	14 days
Pesticides/PCBs	EPA 8081A/8082	1 × 1 L	Glass-amber	Store at 4˚C	0.1 µg/L	7 days
Herbicides	EPA 8151A	1 × 1 L	Glass-amber	Store at 4˚C	Check lab	7 days
pH	EPA 150.1	1 × 100 mL	PE	None	Unitless	Immediate
Residual chlorine	SMEWW 4500 Cl- G	1 × 100 mL	PE	None	Check lab	15 minutes
Phosphate	EPA 300	1 × 125 mL	PE	Store at 4°C	Check lab	28 days
MBAS	SMEWW 5540 C	1 × 200 mL	PE	None	Check lab	48 hours
Metals (Al, As, Ca, Cr, Cu, Ni, Pb, Sn, V, Zn)	EPA 200.8	1 × 250 mL	Borosilicate glass or PE	Store at 4°C, HNO_3 to pH<2	0.2 - 5µg/L	6 months
General Minerals (Ca, Cl-, Fe, K, Mg, Mn, Na, NO_3)	EPA 200.7	1 × 500 mL	Glass or PE	Store at 4˚C	1 µg/L	6 months
Formaldehyde	Unavailable	Check lab	Check lab	Check lab	Check lab	Check lab
BOD	SMEWW 5210 A-B	1 × 1 L	PE	None	Check lab	48 hours
Freon (difluorochloromethane; Refrigerant 22)	Unavailable	1 L @ 1000 ppm, maximum: 4 L	Solid sorbent tubes	Store at 25˚C	Check lab	7 days

Table 7.10 Sample Collection, Preservation, and Analysis for Monitoring Non-Visible Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Containers	Sample Preservation	Reporting Limit	Maximum Holding Time
TKN	EPA 351.3	1 × 100 mL	Glass or PE	Store at 4˚C, H_2SO_4 to pH<2	0.1 mg/L	28 days
NO_3-inorganic nitrogen (N)	EPA 300.0	1 × 100 mL	Glass or PE	Store at 4˚C, H_2SO_4 to pH<2	0.1 mg/L	48 hours
TOC/DOC	EPA 415.1	1 × 100 mL	Glass or PE	Store at 4˚C, H_2SO_4 to pH<2	1 mg/L	28 days
Anions (Cl-, sulfate)/Acidity Anions (acetic acid, phosphoric acid, sulfuric acid, nitric acid, HCl)	EPA 300 (Anions), SMEWW 2310B (Acidity)	1 × 500 mL	PE	Store at 4˚C	1 mg/L	28 days (Anions),
NH_3	SMEWW 4500-NH_3 B,C	1 × 50 mL	Glass	H_2SO_4 to pH<2	1 mg/L	28 days
TDS	EPA 160.1	1 × 100 mL	Glass or PE	Store at 4˚C	1 mg/L	7 days
Coliform bacteria (total/fecal)	SMEWW 9221 B, E	1 × 200 mL	Sterile glass or plastic	Store at 4˚C, sodium thiosulfate in presence of chlorine	1 MPN/ 100 mL	6 hours
Alkalinity	SMEWW 2320 B	1 × 250 mL	Glass or PE	Store at 4˚C	1 mg/L	14 days

Notes:

°C = degree(s) Celsius
Cl- = chloride
Fe = iron
HCl = hydrogen chloride
H_2SO_4 = hydrogen sulfide
HNO_3 = nitric acid
L = liter
Mg = magnesium
mg/L = milligrams per liter
mL = milliliter(s)
Mn = manganese
MPN = most probable number
Na = sodium
PE = Polyethylene plastic
ppm = parts per million
PCB = polychlorinated biphenyl
SMEWW = Standard Methods for the Examination of Water and Wastewater
VOA = volatile organic analysis
µg/L = microgram(s) per liter

7.7.1.7 Data Evaluation and Reporting

The QSP shall complete an evaluation of the water quality sample analytical results.

Runoff/downgradient results shall be compared with the associated upgradient/unaffected results and any associated run-on results. Should the runoff/downgradient sample show an increased level of the tested analyte relative to the unaffected background sample, which cannot be explained by run-on results, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

The General Permit prohibits stormwater discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 Code of Federal Regulations (CFR) Sections 117.3 and 302.4. The results of any non-stormwater discharge results that indicate the presence of a hazardous substance in excess of established reportable quantities shall be immediately reported to the Regional Water Board and other agencies as required by 40 CFR Sections 117.3 and 302.4.

Results of non-visible pollutant monitoring shall be reported in the Annual Report.

7.7.2 Sampling and Analysis Plan for pH and Turbidity in Stormwater Runoff Discharges

Sampling and analysis of runoff for pH and turbidity is not required for LUP Type 1 or Risk Level 1 projects.

7.7.3 Sampling and Analysis Plan for pH, Turbidity, and Suspended Sediment Concentration in Receiving Water

This project is not subject to Receiving Water Monitoring.

7.7.4 Sampling and Analysis Plan for Non-Stormwater Discharges

This project is not subject to the non-stormwater sampling and analysis requirements of the General Permit because it is a LUP Type 1 and Risk Level 1 project.

7.7.5 Sampling and Analysis Plan for Other Pollutants Required by the Regional Water Board

The Regional Water Board has not specified monitoring for additional pollutants.

7.7.6 Training of Sampling Personnel

Sampling personnel shall be trained to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring program (SWAMP) 2008 Quality Assurance Program Plan (QAPrP). Training records of designated contractor sampling personnel are provided in Appendix K.

7.7.7 Sample Collection and Handling

7.7.7.1 Sample Collection

Samples shall be collected at the designated sampling locations shown on the site maps and listed in the preceding sections. Samples shall be collected, maintained, and shipped in accordance with the SWAMP 2008 QAPrP.

Grab samples shall be collected and preserved in accordance with the methods identified in preceding sections.

To maintain sample integrity and prevent cross-contamination, sample collection personnel shall follow the protocols below.

- Collect samples (for laboratory analysis) only in analytical laboratory-provided sample containers;
- Wear clean, powder-free nitrile gloves when collecting samples;
- Change gloves whenever something not known to be clean has been touched;
- Change gloves between sites;
- Decontaminate all equipment (e.g., bucket, tubing) prior to sample collection using a trisodium phosphate water wash, distilled water rinse, and final rinse with distilled water. Dispose of wash and rinse water appropriately (i.e., do not discharge to storm drain or receiving water). Do not decontaminate laboratory-provided sample containers;
- Do not smoke during sampling events;
- Never sample near a running vehicle;
- Do not park vehicles in the immediate sample collection area (even non-running vehicles);
- Do not eat or drink during sample collection; and
- Do not breathe, sneeze, or cough in the direction of an open sample container.

The most important aspect of grab sampling is to collect a sample that represents the entire runoff stream. Typically, samples are collected by dipping the collection container in the runoff flow paths and streams as noted below.

i. For small streams and flow paths, simply dip the bottle facing upstream until full.
ii. For a larger stream that can be safely accessed, collect a sample in the middle of the flow stream by directly dipping the mouth of the bottle, once again making sure that the opening of the bottle is facing upstream to avoid any contamination by the sampler.
iii. For larger streams that cannot be safely waded, pole-samplers may be needed to safely access the representative flow.
iv. Avoid collecting samples from ponded, sluggish, or stagnant water.
v. Avoid collecting samples directly downstream from a bridge because the samples can be affected by the bridge structure or runoff from the road surface.

Note that depending upon the specific analytical test, some containers may contain preservatives. These containers should **never** be dipped into the stream, but filled indirectly from the collection container.

7.7.7.2 Sample Handling

Turbidity and pH measurements must be conducted immediately. Do not store turbidity or pH samples for later measurement.

Samples for laboratory analysis must be handled as follows. Immediately following sample collection:

- Cap sample containers;
- Complete sample container labels;
- Sealed containers in a resealable storage bag;
- Place sample containers into an ice-chilled cooler;
- Document sample information on the Effluent Sampling Field Log Sheet; and
- Complete the CoC.

All samples for laboratory analysis must be maintained between 0 and 6°C during delivery to the laboratory. Samples must be kept on ice, or refrigerated, from sample collection through delivery to the laboratory. Place samples to be shipped inside coolers with ice. Make sure the sample bottles are well packaged to prevent breakage and secure cooler lids with packaging tape.

Ship samples that will be laboratory analyzed to the analytical laboratory right away. Hold times are measured from the time the sample is collected to the time the sample is analyzed. The General Permit requires that samples be received by the analytical laboratory within 48 hours of the physical sampling (unless required sooner by the analytical laboratory).

Laboratory Name:	EnviroMatrix Analytical, Inc.	Clarkson Laboratory and Supply, Inc.
Street Address:	4340 Viewridge Avenue, Suite A	350 Trousdale Drive
City, State Zip:	San Diego, California 92123	Chula Vista, California 91910
Telephone Number:	(858) 560-7717	(619) 425-1993
Point of Contact:	Dan Verdon/Jennifer Beyer	
ELAP Certification Number:	2564	1055

7.7.7.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, Effluent Sampling Field Log Sheet, and CoCs shall be recorded using waterproof ink. These shall be considered accountable

documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

Duplicate samples shall be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples shall be identified in the Effluent Sampling Field Log Sheet.

Sample documentation procedures include the following:

Sample Bottle Identification Labels: Sampling personnel shall attach an identification label to each sample bottle. Sample identification shall uniquely identify each sample location.

Field Log Sheets: Sampling personnel shall complete the Effluent Sampling Field Log Sheet and Receiving Water Sampling Field Log Sheet for each sampling event, as appropriate.

Chain of Custody: Sampling personnel shall complete the CoC for each sampling event for which samples are collected for laboratory analysis. The sampler will sign the CoC when the sample(s) is turned over to the testing laboratory or courier.

7.8 ACTIVE TREATMENT SYSTEM MONITORING

An Active Treatment System (ATS) will be deployed on the site?

☐ Yes ☒ No

This project does not require a project specific Sampling and Analysis Plan for an ATS because deployment of an ATS is not planned.

7.9 BIOASSESSMENT MONITORING

This project is not subject to bioassessment monitoring because it is not a Risk Level 3 project.

7.10 WATERSHED MONITORING OPTION

This project is not participating in a watershed monitoring option.

7.11 QUALITY ASSURANCE AND QUALITY CONTROL

An effective Quality Assurance and Quality Control (QA/QC) plan shall be implemented as part of the CSMP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- Field logs;
- Clean sampling techniques;
- CoCs;
- QA/QC samples; and
- Data verification.

Each of these procedures is discussed in more detail in the following sections.

7.11.1 Field Logs

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples collected. Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log. A Visual Inspection Field Log Sheet and an Effluent Sampling Field Log Sheet are included in CSMP Attachment 3, Example Forms.

7.11.2 Clean Sampling Techniques

Clean sampling techniques involve the use of certified clean containers for sample collection and clean, powder-free nitrile gloves during sample collection and handling. As discussed in Section 7.7.7, adoption of a clean sampling approach will minimize the chance of field contamination and questionable data results.

7.11.3 Chain of Custody

The sample CoC is an important documentation step that tracks samples from collection through analysis to ensure the validity of the sample. Sample CoC procedures include the following:

- Proper labeling of samples;
- Use of CoC forms for all samples; and
- Prompt sample delivery to the analytical laboratory.

Analytical laboratories usually provide CoC forms to be filled out for sample containers. An example CoC is included in CSMP Attachment 3, Example Forms.

7.11.4 Quality Assurance/Quality Control Samples

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

☒ Field Duplicates at a frequency of 1 duplicate minimum per sampling event
(Required for all sampling plans with field measurements or laboratory analysis)

☒ Equipment Blanks at a frequency as specified by the lab/EPA method
(Only needed if equipment used to collect samples could add the pollutants to sample)

☒ Field Blanks at a frequency as specified by the lab/EPA method
(Only required if sampling method calls for field blanks)

☒ Travel Blanks at a frequency as specified by the lab/EPA method
(Required for sampling plans that include VOC laboratory analysis)

7.11.4.1 Field Duplicates

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples shall be collected, handled, and analyzed using the same protocols as primary

samples. The sample location where field duplicates are collected shall be randomly selected from the discharge locations. Duplicate samples shall be collected immediately after the primary sample has been collected. Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples shall not influence any evaluations or conclusion.

7.11.4.2 Equipment Blanks

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- New equipment is used;
- Equipment has been cleaned after use at a contaminated site;
- Equipment not dedicated for surface water sampling is used; or
- Whenever a new lot of filters is used when sampling metals.

7.11.4.3 Field Blanks

Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ionized water field blanks are taken to the field, transferred to the appropriate container, and treated the same as the corresponding sample type during the course of a sampling event.

7.11.4.4 Travel Blanks

Travel blanks assess the potential for cross-contamination of volatile constituents between sample containers during shipment from the field to the laboratory. De-ionized water blanks are taken along for the trip and held unopened in the same cooler with the VOC samples.

7.11.5 Data Verification

After results are received from the analytical laboratory, the QSP shall verify the data to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received. Data verification shall include:

- Check the CoC and laboratory reports.
  Make sure all requested analyses were performed and all samples are accounted for in the reports.
- Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Check data for outlier values and follow up with the laboratory.
  Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. The QSP should especially note data that is an order of magnitude or more different than similar locations, or is inconsistent with previous data from the same location.
- Check laboratory QA/QC results.
  EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These

data are typically reported along with the sample results. The QSP shall evaluate the reported QA/QC data to check for contamination (method, field, and equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.

- Check the data set for outlier values and, accordingly, confirm results and reanalyze samples where appropriate.
  Sample reanalysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.

Field data including inspections and observations must be verified as soon as the field logs are received, typically at the end of the sampling event. Field data verification shall include:

- Check field logs to make sure all required measurements were completed and appropriately documented;
- Check reported values that appear out of the typical range or inconsistent; follow up immediately to identify potential reporting or equipment problems; if appropriate, recalibrate equipment after sampling;
- Verify equipment calibrations;
- Review observations noted on the field logs; and
- Review notations of any errors and actions taken to correct the equipment or recording errors.

7.12 RECORDS RETENTION

All records of stormwater monitoring information and copies of reports (including Annual Reports) must be retained for a period of at least 3 years from date of submittal or longer if required by the Regional Water Board.

Results of visual monitoring, field measurements, and laboratory analyses must be kept in the SWPPP along with CoCs and other documentation related to the monitoring.

Records are to be kept onsite while construction is ongoing. Records to be retained include:

- The date, place, and time of inspections, sampling, visual observations, and/or measurements, including precipitation;
- The individual(s) who performed the inspections, sampling, visual observation, and/or field measurements;
- The date and approximate time of field measurements and laboratory analyses;
- The individual(s) who performed the laboratory analyses;
- A summary of all analytical results, the method detection limits and reporting limits, and the analytical techniques or methods used;

- Rain gauge readings from site inspections;
- QA/QC records and results;
- Calibration records;
- Visual observation and sample collection exemption records; and
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections.

CSMP Attachment 1: Weather Reports

INSERT WEATHER REPORTS DAILY DURING CONSTRUCTION

CSMP Attachment 2: Monitoring Records

INSERT COMPLETED MONITORING RECORDS AFTER EACH INSPECTION

CSMP Attachment 3: Example Forms

Rain Gauge Log Sheet				
Construction Site Name:				
WDID #:				
Date (mm/dd/yy)	Time (24-hr)	Initials	Rainfall Depth (Inches)	Notes:

Risk Level 1, 2, 3 ***Visual Inspection Field Log Sheet***						
Date and Time of Inspection:				Report Date:		
Inspection Type:	☐ Weekly	☐ Before predicted rain	☐ During rain event	☐ Following qualifying rain event	☐ Contained stormwater release	☐ Quarterly non-stormwater
Site Information						
Construction Site Name:						
Construction stage and completed activities:					Approximate area of exposed site:	
Weather and Observations						
Date Rain Predicted to Occur:				Predicted percent chance of rain:		
Estimate storm beginning: _____ (date and time)		Estimate storm duration:_____ (hours)		Estimate time since last storm: _____ (days or hours)	Rain gauge reading:_____ (inches)	
Observations: If yes identify location						
Odors	Yes ☐ No ☐					
Floating material	Yes ☐ No ☐					
Suspended Material	Yes ☐ No ☐					
Sheen	Yes ☐ No ☐					
Discolorations	Yes ☐ No ☐					
Turbidity	Yes ☐ No ☐					
Site Inspections						
Outfalls or BMPs Evaluated			**Deficiencies Noted**			
(add additional sheets or attached detailed BMP Inspection Checklists)						
Photos Taken:	Yes ☐	No ☐	Photo Reference IDs:			
Corrective Actions Identified (note if SWPPP change is needed)						
Inspector Information						
Inspector Name:				Inspector Title:		
Signature:					Date:	

CHAIN-OF-CUSTODY **DATE:** **Lab ID:**

DESTINATION LAB: ATTN: **ADDRESS:** **Office Phone:** **Cell Phone:**							REQUESTED ANALYSIS				Notes:
SAMPLED BY:											
Contact:											
Project Name											
Client Sample ID	**Sample Date**	**Sample Time**	**Sample Matrix**	**Container #**	**Container Type**	**Container Pres.**					

SENDER COMMENTS:	**RELINQUISHED BY**	
	Signature:	
	Print:	
	Company:	
	Date:	TIME:
LABORATORY COMMENTS:	**RECEIVED BY**	
	Signature:	
	Print:	
	Company:	
	Date:	TIME:

CSMP Attachment 4: Supplemental Information

INSERT SUPPLEMENTAL INFORMATION AS NEEDED THROUGHOUT CONSTRUCTION

Section 8 References

Project Plans and Specifications No. C1-0010 dated 11/25/2015, prepared by Sargent & Lundy Engineers, Ltd.

State Water Board. (2012). Order 2009-0009-DWQ (As amended by 2010-0014-DWQ and 2012-0006-DWQ, NPDES General Permit No. CAS000002: NPDES California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available online at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

CASQA. 2009, *Stormwater BMP Handbook Portal: Construction*, November 2009, www.casqa.org

Appendix A: Calculations

STATIC VAR COMPENSATOR SITE – RISK LEVEL

R FACTOR

The R factor was determined based on the isoerodent R contours KMZ provided by the State Water Resources Control Board (SWRCB) on their FTP site (https://ftp.waterboards.ca.gov/#/swrcb/dwq/cgp/Risk/). The Static VAR compensator (SVC) site is located approximately 4 miles from the R factor 20 contour (see Figure A-1) and approximately 11 miles from the R factor 40 contour. The total distance from the R factor 20 contour and R factor 40 contour is approximately 15 miles; therefore, the R factor would increase by approximately 1.33 per mile (20/15 miles=1.33 per mile). Four miles from the R factor 20 contour would result in an interpolated R factor of 25.33.

Since the anticipated construction schedule is less than 1 year (10 months), the percent erosivity index (%EI) value was determined based on the methodology prescribed in the Environmental Protection Agency's (EPA's) Construction Rainfall Erosivity Waiver Fact Sheet. The erosivity index zone was determined to be 25 based on the KMZ provided by the State Water Resources Control Board (SWRCB) on their FTP site (https://ftp.waterboards.ca.gov/#/swrcb/dwq/cgp/Risk/) (see Figure A-2). For 2019, construction is anticipated to be between March 1, 2019 and December 31, 2019. The %EI value for March 1 (37.6) was subtracted from the %EI value for December 31 (100) to obtain an %EI value of 62.4% for the site (100%-37.6%=62.4%). The %EI values are provided in Figure A-3.

The total %EI value was multiplied by the annual isoerodent value (25.33) to obtain a R factor of 15.81 for the SVC site (25.33x62.4%=15.81).

K FACTOR

The K factor was determined based on the KMZ provided by the State Water Resources Control Board (SWRCB) on their FTP site (https://ftp.waterboards.ca.gov/#/swrcb/dwq/cgp/Risk/). The K factor for the SVC site is 0.2 (see Figure A-4).

A site-specific K factor could not be determined using the nomograph method (percentages of sand, very fine sand, silt, and clay) because a particle size analysis (in accordance with ASTM D-422) was not conducted, as described in the Risk Determination Worksheet (Appendix 1 of the Construction General Permit [CGP]).

LS FACTOR

A site-specific LS factor was determined based on the average watershed slope between the SVC site's highest elevation (3,087 feet above mean sea level [amsl]) and lowest elevation (3,047 feet amsl), which is 6.83%, combined with the sheet flow length (585.4 feet) (see Figures A-5 and A-6). Based on the LS table provided in the Risk Determination Worksheet (Appendix 1 of the CGP), rounding up the slope and sheet flow length to the closest number, the LS factor is 3.52 (see Figure A-7).

SEDIMENT RISK FACTOR

Based on the R, K, and LS factors, the watershed erosion estimate (RxKxLS) is 11.1 tons per acre (15.81x0.2x3.52=11.1). Therefore, the site sediment risk factor is low (low sediment risk = <15 tons per acre) (see Figure A-8).

RECEIVING WATER RISK FACTOR

Since the receiving waters (Peterson Creek, Taylor Creek, and Sweetwater River) are not 3030(d)-listed for sediment-related pollutants, do not have an EPA-approved Total Maximum Daily Load implementation plan for sediment, and do not have designated beneficial uses of SPAWN and COLD and MIGRATORY, the receiving water risk is low (see Figure A-9).

COMBINED RISK LEVEL

Since the sediment risk is low and the receiving water risk is low, the combined risk for the SVC site is Risk Level 1 (see Figure A-10).

TRANSMISSION LINE – LINEAR UNDERGROUND/OVERHEAD PROJECT TYPE

Based on the flowchart in Attachment A.1 of the CGP, more than 70% of the construction activity will occur on paved surfaces and areas disturbed will be returned to pre-construction conditions or equivalent condition at the end of the day; therefore, the transmission line is a Linear Underground/Overhead Project (LUP) Type 1 (see Figure A-11).

Figure A-1: Isoerodent Contours

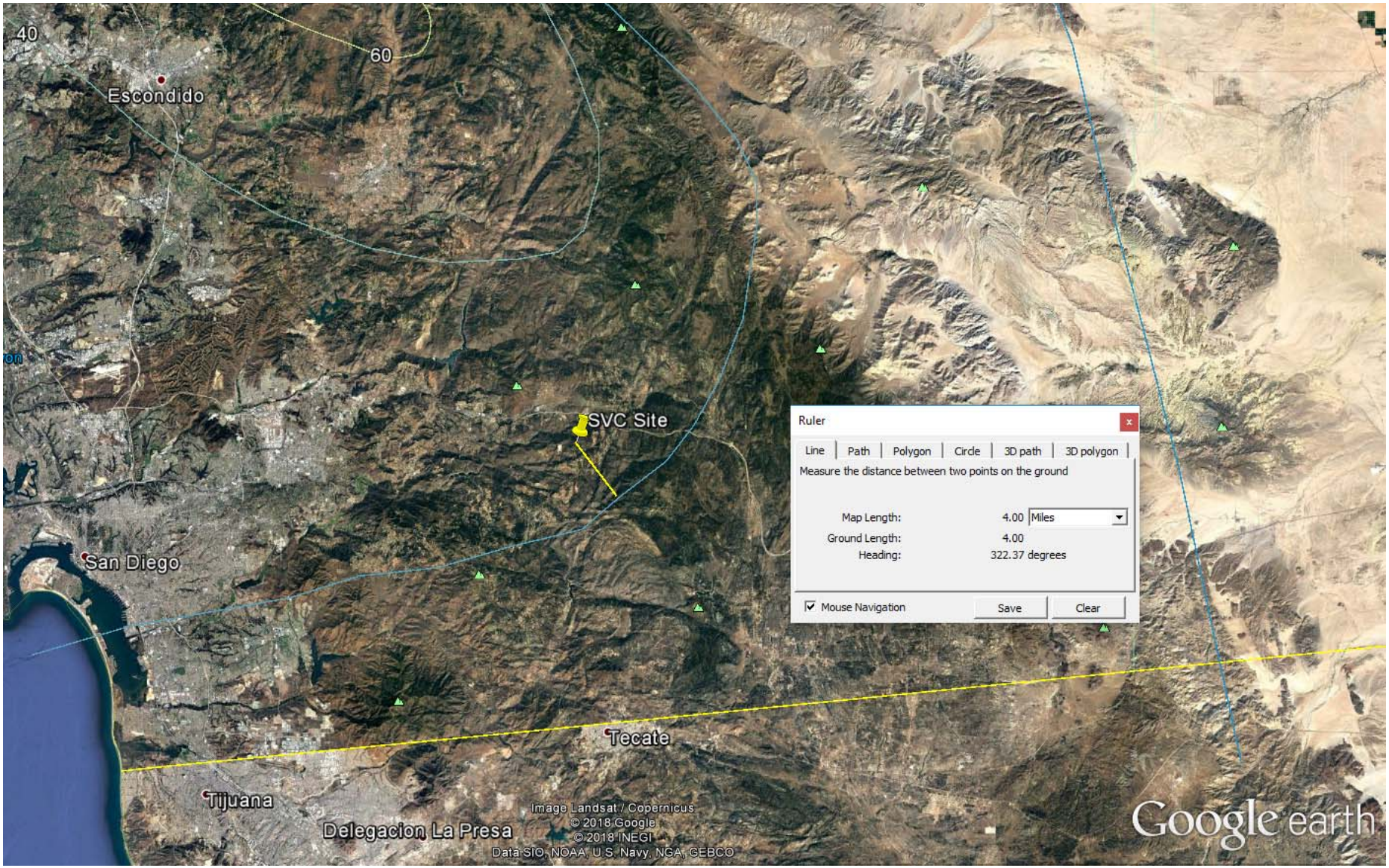


Figure A-2: Erosivity Index Zone

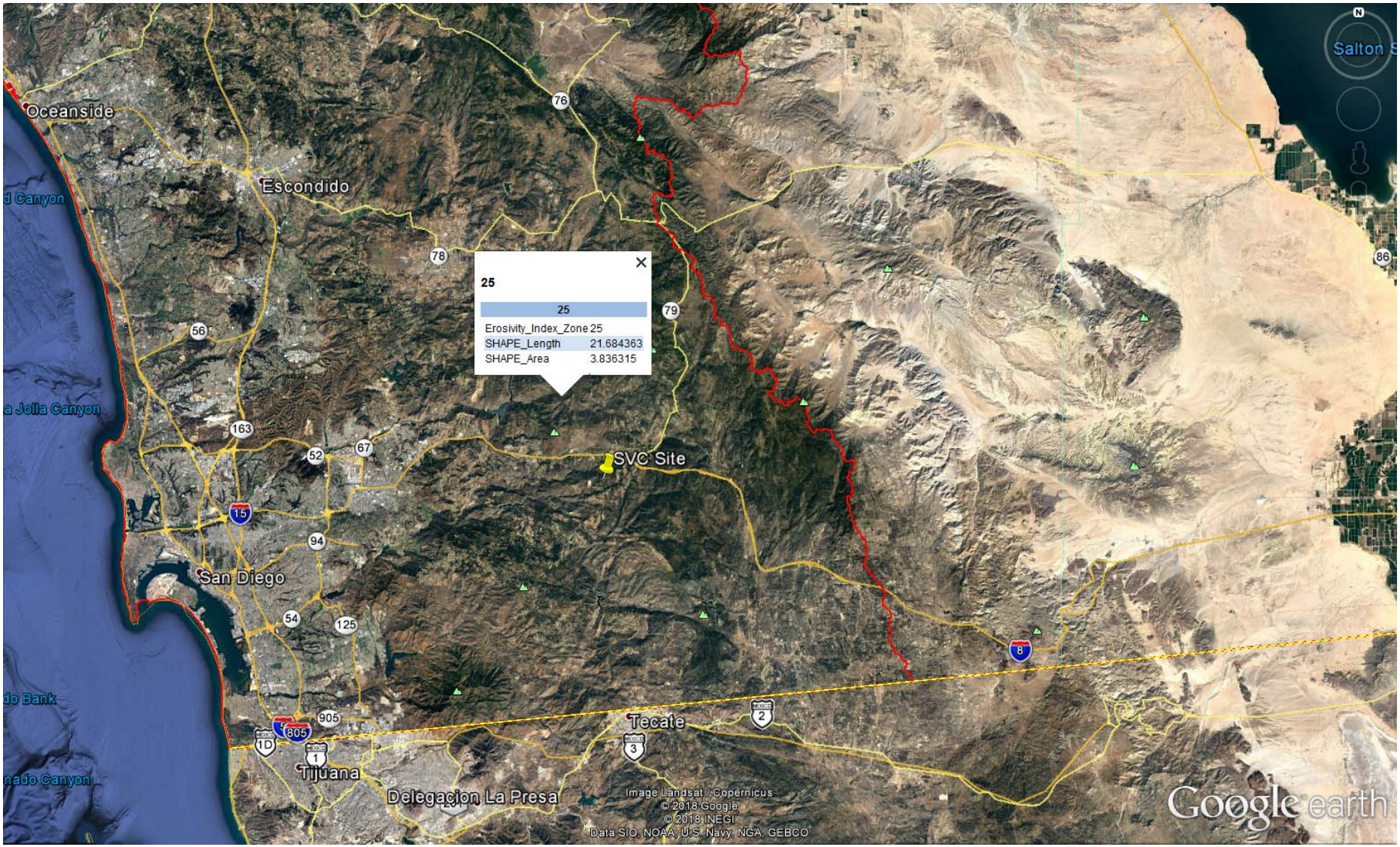


Figure A-3: Percent Erosivity Index Values

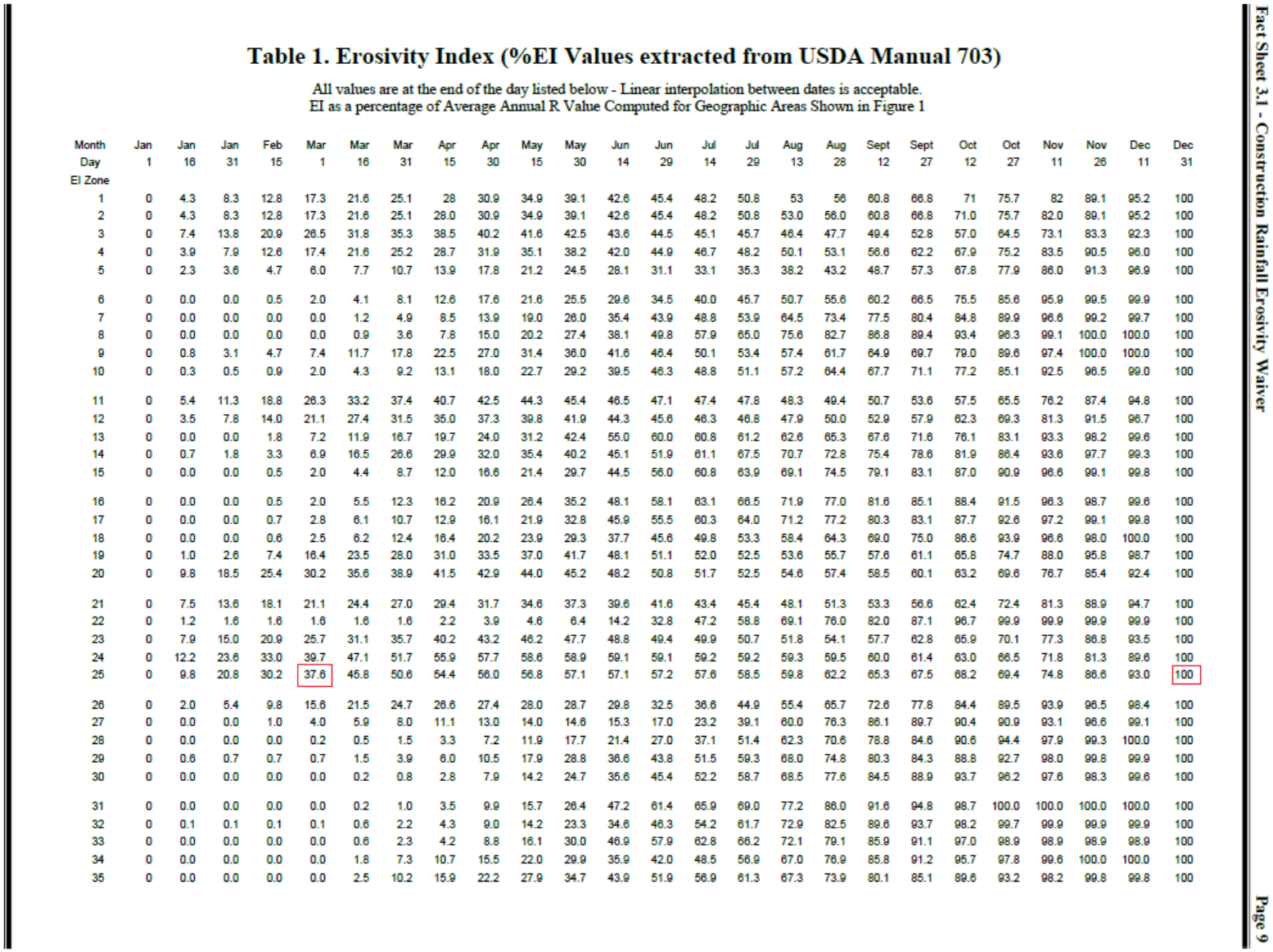


Table 1. Erosivity Index (%EI Values extracted from USDA Manual 703)

All values are at the end of the day listed below - Linear interpolation between dates is acceptable.
EI as a percentage of Average Annual R Value Computed for Geographic Areas Shown in Figure 1

Month	Jan	Jan	Jan	Feb	Mar	Mar	Mar	Apr	Apr	May	May	Jun	Jun	Jul	Jul	Aug	Aug	Sept	Sept	Oct	Oct	Nov	Nov	Dec	Dec
Day	1	16	31	15	1	16	31	15	30	15	30	14	29	14	29	13	28	12	27	12	27	11	26	11	31
EI Zone																									
1	0	4.3	8.3	12.8	17.3	21.6	25.1	28	30.9	34.9	39.1	42.6	45.4	48.2	50.8	53	56	60.8	66.8	71	75.7	82	89.1	95.2	100
2	0	4.3	8.3	12.8	17.3	21.6	25.1	28.0	30.9	34.9	39.1	42.6	45.4	48.2	50.8	53.0	56.0	60.8	66.8	71.0	75.7	82.0	89.1	95.2	100
3	0	7.4	13.8	20.9	26.5	31.8	35.3	38.5	40.2	41.6	42.5	43.6	44.5	45.1	45.7	46.4	47.7	49.4	52.8	57.0	64.5	73.1	83.3	92.3	100
4	0	3.9	7.9	12.6	17.4	21.6	25.2	28.7	31.9	35.1	38.2	42.0	44.9	46.7	48.2	50.1	53.1	56.6	62.2	67.9	75.2	83.5	90.5	96.0	100
5	0	2.3	3.6	4.7	6.0	7.7	10.7	13.9	17.8	21.2	24.5	28.1	31.1	33.1	35.3	38.2	43.2	48.7	57.3	67.8	77.9	86.0	91.3	96.9	100
6	0	0.0	0.0	0.5	2.0	4.1	8.1	12.6	17.6	21.6	25.5	29.6	34.5	40.0	45.7	50.7	55.6	60.2	66.5	75.5	85.6	95.9	99.5	99.9	100
7	0	0.0	0.0	0.0	0.0	1.2	4.9	8.5	13.9	19.0	26.0	35.4	43.9	48.8	53.9	64.5	73.4	77.5	80.4	84.8	89.9	96.6	99.2	99.7	100
8	0	0.0	0.0	0.0	0.0	0.9	3.6	7.8	15.0	20.2	27.4	38.1	49.8	57.9	65.0	75.6	82.7	86.8	89.4	93.4	96.3	99.1	100.0	100.0	100
9	0	0.8	3.1	4.7	7.4	11.7	17.8	22.5	27.0	31.4	36.0	41.6	46.4	50.1	53.4	57.4	61.7	64.9	69.7	79.0	89.6	97.4	100.0	100.0	100
10	0	0.3	0.5	0.9	2.0	4.3	9.2	13.1	18.0	22.7	29.2	39.5	46.3	48.8	51.1	57.2	64.4	67.7	71.1	77.2	85.1	92.5	96.5	99.0	100
11	0	5.4	11.3	18.8	26.3	33.2	37.4	40.7	42.5	44.3	45.4	46.5	47.1	47.4	47.8	48.3	49.4	50.7	53.6	57.5	65.5	76.2	87.4	94.8	100
12	0	3.5	7.8	14.0	21.1	27.4	31.5	35.0	37.3	39.8	41.9	44.3	45.6	46.3	46.8	47.9	50.0	52.9	57.9	62.3	69.3	81.3	91.5	96.7	100
13	0	0.0	0.0	1.8	7.2	11.9	16.7	19.7	24.0	31.2	42.4	55.0	60.0	60.8	61.2	62.6	65.3	67.6	71.6	76.1	83.1	93.3	98.2	99.6	100
14	0	0.7	1.8	3.3	6.9	16.5	26.6	29.9	32.0	35.4	40.2	45.1	51.9	61.1	67.5	70.7	72.8	75.4	78.6	81.9	86.4	93.6	97.7	99.3	100
15	0	0.0	0.0	0.5	2.0	4.4	8.7	12.0	16.6	21.4	29.7	44.5	56.0	60.8	63.9	69.1	74.5	79.1	83.1	87.0	90.9	96.6	99.1	99.8	100
16	0	0.0	0.0	0.5	2.0	5.5	12.3	16.2	20.9	26.4	35.2	48.1	58.1	63.1	66.5	71.9	77.0	81.6	85.1	88.4	91.5	96.3	98.7	99.6	100
17	0	0.0	0.0	0.7	2.8	6.1	10.7	12.9	16.1	21.9	32.8	45.9	55.5	60.3	64.0	71.2	77.2	80.3	83.1	87.7	92.6	97.2	99.1	99.8	100
18	0	0.0	0.0	0.6	2.5	6.2	12.4	16.4	20.2	23.9	29.3	37.7	45.6	49.8	53.3	58.4	64.3	69.0	75.0	86.6	93.9	96.6	98.0	100.0	100
19	0	1.0	2.6	7.4	16.4	23.5	28.0	31.0	33.5	37.0	41.7	48.1	51.1	52.0	52.5	53.6	55.7	57.6	61.1	65.8	74.7	88.0	95.8	98.7	100
20	0	9.8	18.5	25.4	30.2	35.6	38.9	41.5	42.9	44.0	45.2	48.2	50.8	51.7	52.5	54.6	57.4	58.5	60.1	63.2	69.6	76.7	85.4	92.4	100
21	0	7.5	13.6	18.1	21.1	24.4	27.0	29.4	31.7	34.6	37.3	39.6	41.6	43.4	45.4	48.1	51.3	53.3	56.6	62.4	72.4	81.3	88.9	94.7	100
22	0	1.2	1.6	1.6	1.6	1.6	1.6	2.2	3.9	4.6	6.4	14.2	32.8	47.2	58.8	69.1	76.0	82.0	87.1	96.7	99.9	99.9	99.9	99.9	100
23	0	7.9	15.0	20.9	25.7	31.1	35.7	40.2	43.2	46.2	47.7	48.8	49.4	49.9	50.7	51.8	54.1	57.7	62.8	65.9	70.1	77.3	86.8	93.5	100
24	0	12.2	23.6	33.0	39.7	47.1	51.7	55.9	57.7	58.6	58.9	59.1	59.1	59.2	59.2	59.3	59.5	60.0	61.4	63.0	66.5	71.8	81.3	89.6	100
25	0	9.8	20.8	30.2	37.6	45.8	50.6	54.4	56.0	56.8	57.1	57.1	57.2	57.6	58.5	59.8	62.2	65.3	67.5	68.2	69.4	74.8	86.6	93.0	100
26	0	2.0	5.4	9.8	15.6	21.5	24.7	26.6	27.4	28.0	28.7	29.8	32.5	36.6	44.9	55.4	65.7	72.6	77.8	84.4	89.5	93.9	96.5	98.4	100
27	0	0.0	0.0	1.0	4.0	5.9	8.0	11.1	13.0	14.0	14.6	15.3	17.0	23.2	39.1	60.0	76.3	86.1	89.7	90.4	90.9	93.1	96.6	99.1	100
28	0	0.0	0.0	0.0	0.2	0.5	1.5	3.3	7.2	11.9	17.7	21.4	27.0	37.1	51.4	62.3	70.6	78.8	84.6	90.6	94.4	97.9	99.3	100.0	100
29	0	0.6	0.7	0.7	0.7	1.5	3.9	6.0	10.5	17.9	28.8	36.6	43.8	51.5	59.3	68.0	74.8	80.3	84.3	88.8	92.7	98.0	99.8	99.9	100
30	0	0.0	0.0	0.0	0.0	0.2	0.8	2.8	7.9	14.2	24.7	35.6	45.4	52.2	58.7	68.5	77.6	84.5	88.9	93.7	96.2	97.6	98.3	99.6	100
31	0	0.0	0.0	0.0	0.0	0.2	1.0	3.5	9.9	15.7	26.4	47.2	61.4	65.9	69.0	77.2	86.0	91.6	94.8	98.7	100.0	100.0	100.0	100.0	100
32	0	0.1	0.1	0.1	0.1	0.6	2.2	4.3	9.0	14.2	23.3	34.6	46.3	54.2	61.7	72.9	82.5	89.6	93.7	98.2	99.7	99.9	99.9	99.9	100
33	0	0.0	0.0	0.0	0.0	0.6	2.3	4.2	8.8	16.1	30.0	46.9	57.9	62.8	66.2	72.1	79.1	85.9	91.1	97.0	98.9	98.9	98.9	98.9	100
34	0	0.0	0.0	0.0	0.0	1.8	7.3	10.7	15.5	22.0	29.9	35.9	42.0	48.5	56.9	67.0	76.9	85.8	91.2	95.7	97.8	99.6	100.0	100.0	100
35	0	0.0	0.0	0.0	0.0	2.5	10.2	15.9	22.2	27.9	34.7	43.9	51.9	56.9	61.3	67.3	73.9	80.1	85.1	89.6	93.2	98.2	99.8	99.8	100

Fact Sheet 3.1 - Construction Rainfall Erosivity Waiver

Page 9

Figure A-4: K Factor

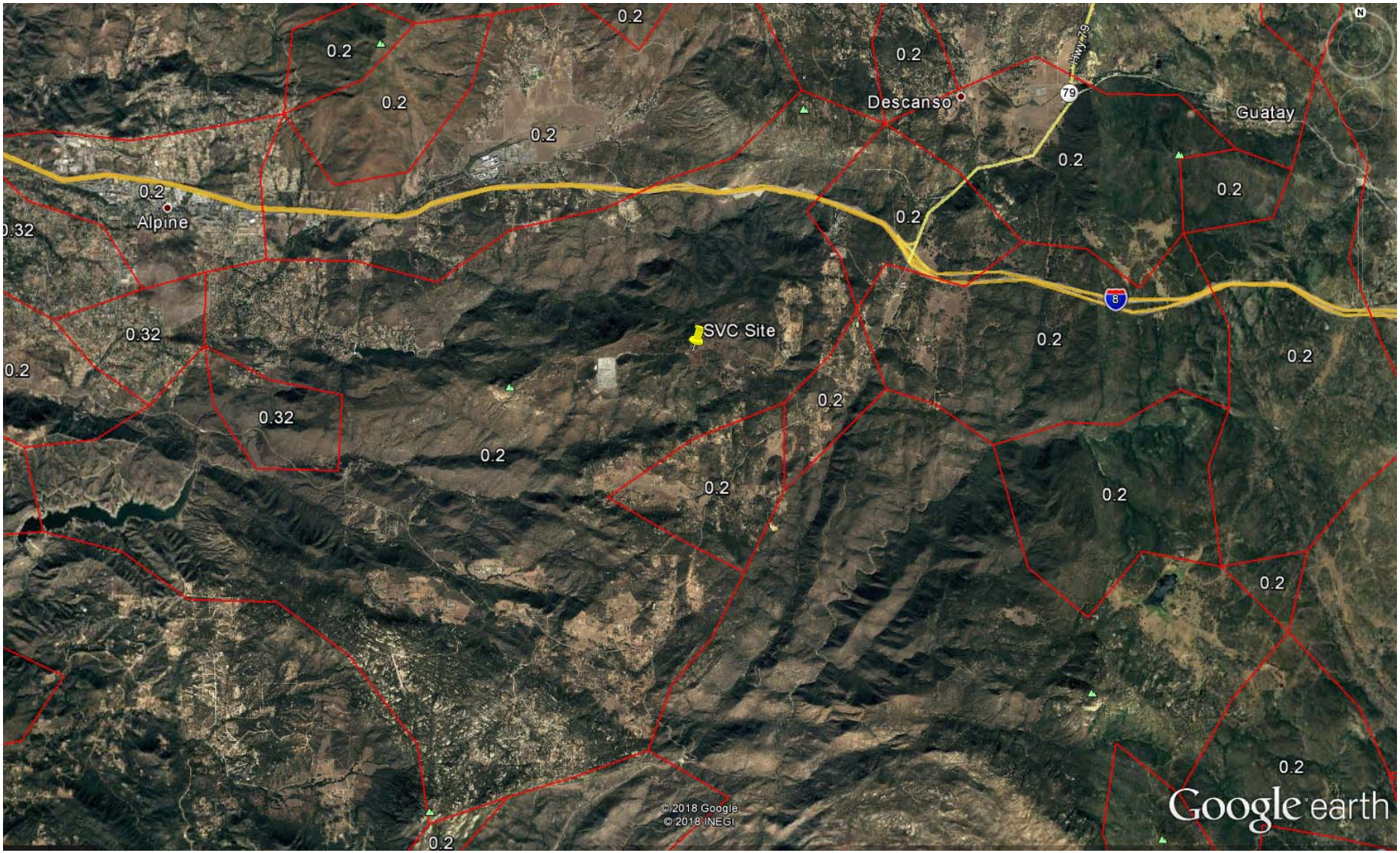


Figure A-5: Sheet Flow Length

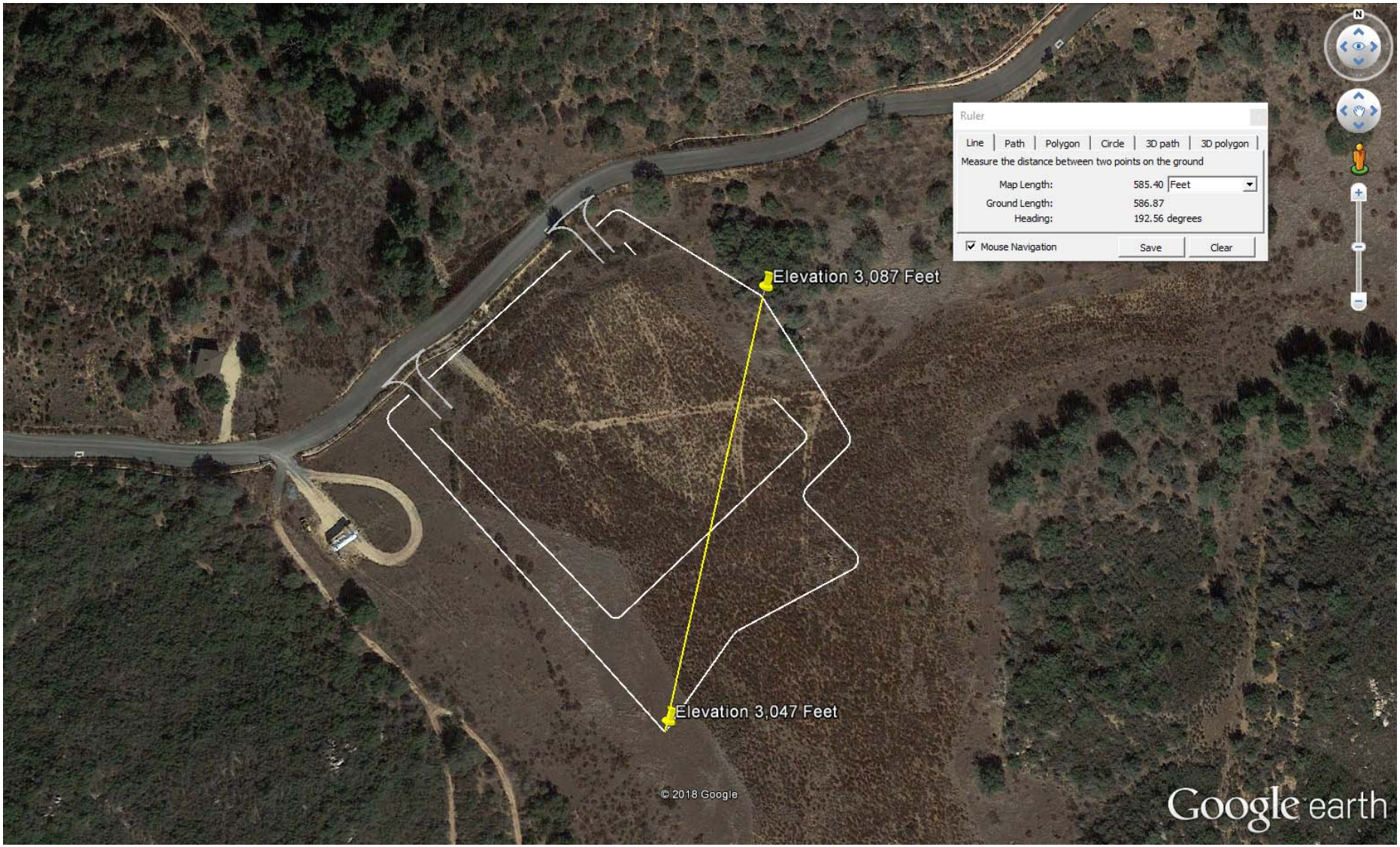


Figure A-6: Average Watershed Slope

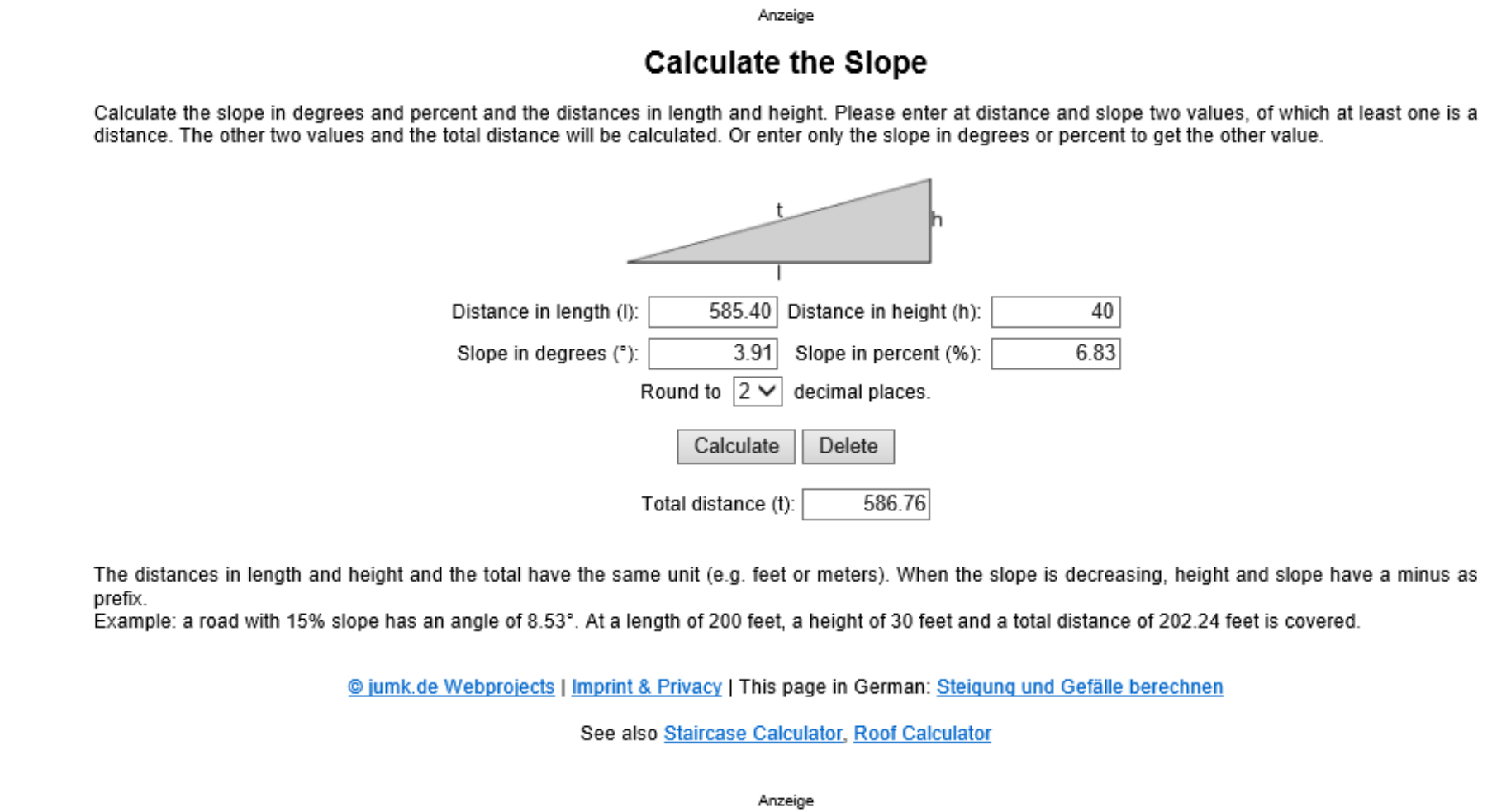


Figure A-7: LS Factor

Sheet Flow Length (ft)	Average Watershed Slope (%) 0.2	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0	25.0	30.0	40.0	50.0	60.0
<3	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.35	0.36	0.38	0.39	0.41	0.45	0.48	0.53	0.58	0.63
6	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.37	0.41	0.45	0.49	0.56	0.64	0.72	0.85	0.97	1.07
9	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.38	0.45	0.51	0.56	0.67	0.80	0.91	1.13	1.31	1.47
12	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.39	0.47	0.55	0.62	0.76	0.93	1.08	1.37	1.62	1.84
15	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.40	0.49	0.58	0.67	0.84	1.04	1.24	1.59	1.91	2.19
25	0.05	0.07	0.10	0.16	0.21	0.26	0.31	0.36	0.45	0.57	0.71	0.85	0.98	1.24	1.56	1.86	2.41	2.91	3.36
50	0.05	0.08	0.13	0.21	0.30	0.38	0.46	0.54	0.70	0.91	1.15	1.40	1.64	2.10	2.67	3.22	4.24	5.16	5.97
75	0.05	0.08	0.14	0.25	0.36	0.47	0.58	0.69	0.91	1.20	1.54	1.87	2.21	2.86	3.67	4.44	5.89	7.20	8.37
100	0.05	0.09	0.15	0.28	0.41	0.55	0.68	0.82	1.10	1.46	1.88	2.31	2.73	3.57	4.59	5.58	7.44	9.13	10.63
150	0.05	0.09	0.17	0.33	0.50	0.68	0.86	1.05	1.43	1.92	2.51	3.09	3.68	4.85	6.30	7.70	10.35	12.75	14.89
200	0.06	0.10	0.18	0.37	0.57	0.79	1.02	1.25	1.72	2.34	3.07	3.81	4.56	6.04	7.88	9.67	13.07	16.16	18.92
250	0.06	0.10	0.19	0.40	0.64	0.89	1.16	1.43	1.99	2.72	3.60	4.48	5.37	7.16	9.38	11.55	15.67	19.42	22.78
300	0.06	0.10	0.20	0.43	0.69	0.98	1.28	1.60	2.24	3.09	4.09	5.11	6.15	8.23	10.81	13.35	18.17	22.57	26.51
400	0.06	0.11	0.22	0.48	0.80	1.14	1.51	1.90	2.70	3.75	5.01	6.30	7.60	10.24	13.53	16.77	22.95	28.60	33.67
600	0.06	0.12	0.24	0.56	0.96	1.42	1.91	2.43	3.52	4.95	6.67	8.45	10.26	13.94	18.57	23.14	31.89	39.95	47.18
800	0.06	0.12	0.26	0.63	1.10	1.65	2.25	2.89	4.24	6.03	8.17	10.40	12.69	17.35	23.24	29.07	40.29	50.63	59.93
1000	0.06	0.13	0.27	0.69	1.23	1.86	2.55	3.30	4.91	7.02	9.57	12.23	14.96	20.57	27.66	34.71	48.29	60.84	72.15

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

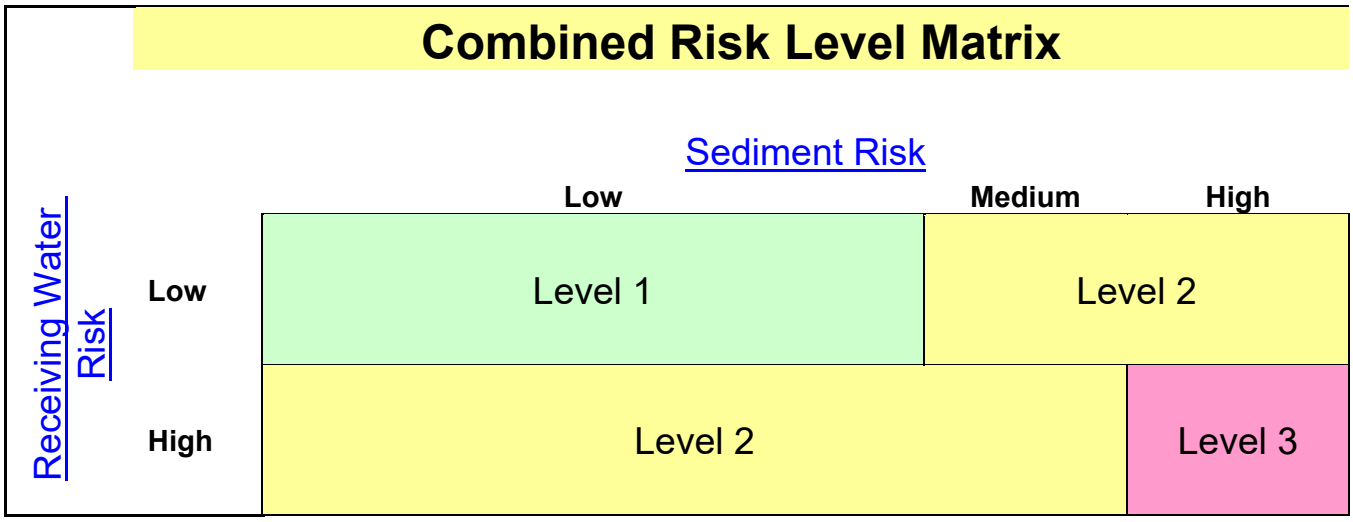
Figure A-8: Sediment Risk Factor

Sediment Risk Factor Worksheet	Entry
A) R Factor	
Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site. http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm	
R Factor Value	15.81
B) K Factor (weighted average, by area, for all site soils)	
The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted. Site-specific K factor guidance	
K Factor Value	0.2
C) LS Factor (weighted average, by area, for all slopes)	
The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction. LS Table	
LS Factor Value	3.52
Watershed Erosion Estimate (=RxKxLS) in tons/acre	11.13024
Site Sediment Risk Factor Low Sediment Risk: < 15 tons/acre Medium Sediment Risk: >=15 and <75 tons/acre High Sediment Risk: >= 75 tons/acre	**Low**

Figure A-9: Receiving Water Risk Factor

Receiving Water (RW) Risk Factor Worksheet	**Entry**	**Score**
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml	**no**	**Low**
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan) http://www.waterboards.ca.gov/waterboards_map.shtml		

Figure A-10: Combined Risk Level

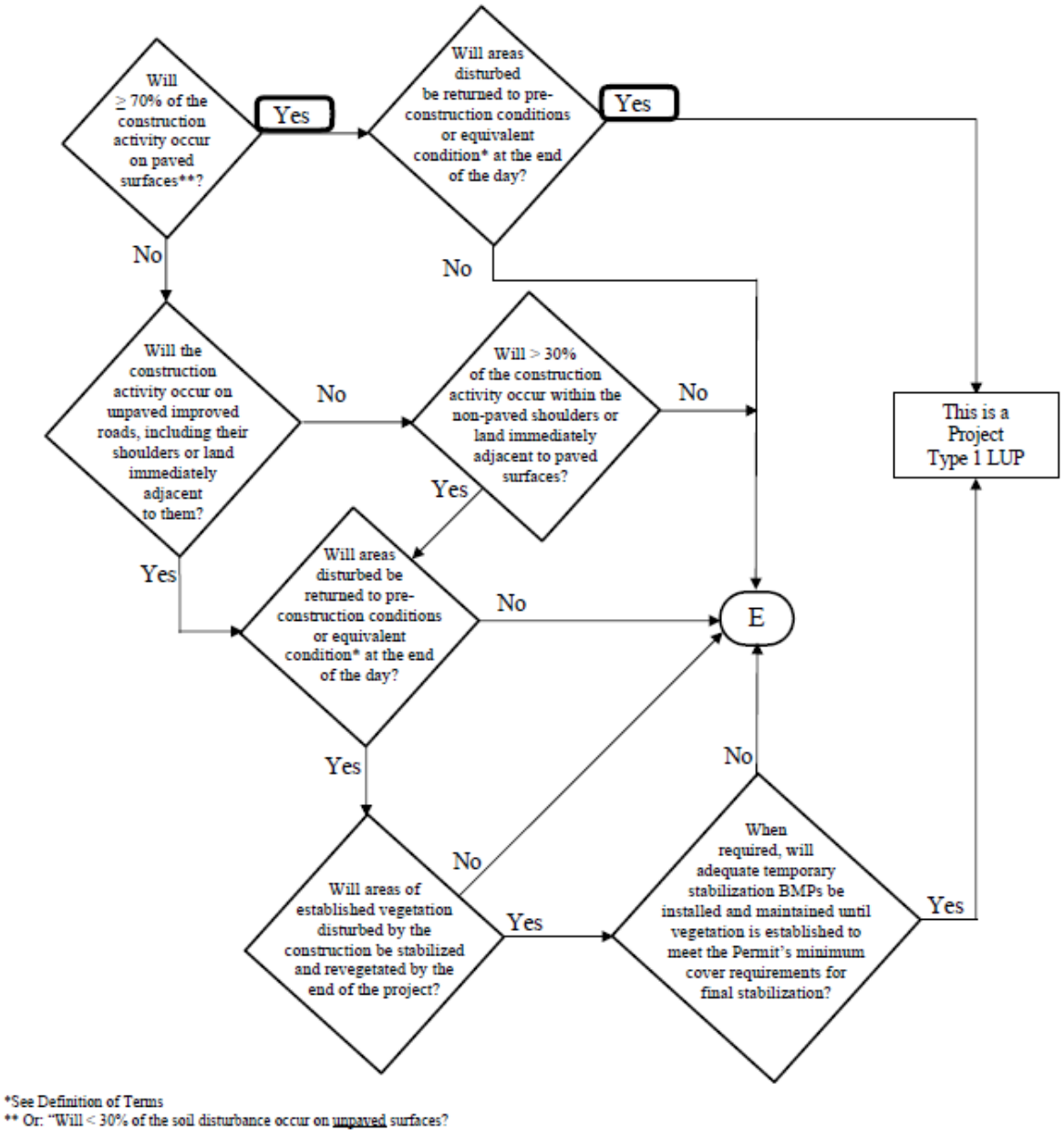


Project Sediment Risk: Low

Project RW Risk: Low

Project Combined Risk: Level 1

Figure A-11: LUP Type Determination Flowchart



2009-0009-DWQ as amended by 2010-0014-DWQ & 2012-0006-DWQ

1

Appendix B: Site Maps

INSERT SITE MAPS

Appendix C: Permit Registration Documents

Permit Registration Documents included in this Appendix

Y/N	Permit Registration Document
Y	Notice of Intent
Y	Risk Assessment (see Appendix A)
Y	Certification
N	Post Construction Water Balance
Y	Copy of Annual Fee Receipt
N	ATS Design Documents
Y	Site Map (see Appendix B)

INSERT PRDs AFTER SUBMITTAL IN SMARTS

Appendix D: SWPPP Amendment Certifications

SWPPP Amendment No. _____

Project Name: Suncrest Dynamic Reactive Power Support Project

Project Number: N/A

Qualified SWPPP Developer's Certification of the Stormwater Pollution Prevention Plan Amendment

"This Stormwater Pollution Prevention Plan and attachments were prepared under my direction to meet the requirements of the California Construction General Permit (SWRCB Order No. 2009-009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below."

QSD's Signature	Date
Erika Carrillo	23555
QSD Name	QSD Certificate Number
Senior Environmental Project Manager, SWCA Environmental Consultants	(650) 440-4160 x6403
Title and Affiliation	Telephone
60 Stone Pine Road, Suite 100 Half Moon Bay, California 94019	Erika.carrillo@swca.com
Address	Email

INSERT SWPPP AMENDMENT CERTIFICATIONS AS NEEDED

Appendix E: Submitted Changes to PRDs

Log of Updated PRDs

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs shall be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP shall be modified appropriately, with revisions and amendments recorded in Appendix C. Updated PRDs submitted electronically via SMARTS can be found in this Appendix.

This appendix includes all of the following updated PRDs (check all that apply):

☐ Revised Notice of Intent (NOI);

☐ Revised Site Map;

☐ Revised Risk Assessment;

☐ New landowner's information (name, address, phone number, email address); and

☐ New signed certification statement.

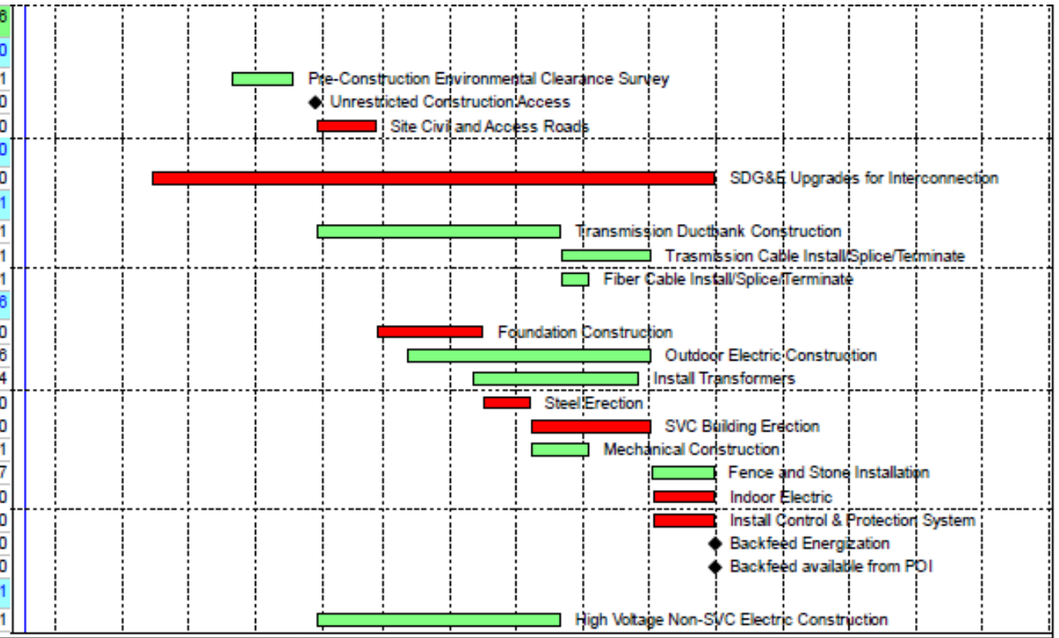
NextEra Energy Transmission West, LLC

Signature of Legally Responsible Person	Date
Brian McDonald	(415) 318-5929
Name of Legally Responsible Person	Telephone Number

INSERT UPDATED PRDs AS NEEDED

Appendix F: Construction Schedule

Construction		180	14-Nov-18	31-Jul-19	66	
Preliminary Site Work		44	21-Dec-18	25-Feb-19	0	
A7230	Pre-Construction Environmental Clearance Survey	18	21-Dec-18	18-Jan-19	1	
URCA	Unrestricted Construction Access	0		28-Jan-19	0	
A5290	Site Civil and Access Roads	20	29-Jan-19	25-Feb-19	0	
San Diego Gas & Electric Construction		180	14-Nov-18	31-Jul-19	0	
A5170	SDG&E Upgrades for Interconnection	180	14-Nov-18	31-Jul-19	0	
Transmission Construction		110	29-Jan-19	01-Jul-19	11	
A5240	Transmission Ductbank Construction	80	29-Jan-19	21-May-19	11	
A8230	Trasmission Cable Install/Splice/Terminate	30	22-May-19	01-Jul-19	11	
A8240	Fiber Cable Install/Splice/Terminate	10	22-May-19	03-Jun-19	31	
SVC Construction		111	26-Feb-19	31-Jul-19	66	
A5020	Foundation Construction	35	26-Feb-19	15-Apr-19	0	
A5030	Outdoor Electric Construction	80	12-Mar-19	01-Jul-19	36	
A5120	Install Transformers	55	11-Apr-19	26-Jun-19	24	
A5090	Steel Erection	15	16-Apr-19	07-May-19	0	
A5100	SVC Building Erection	40	08-May-19	01-Jul-19	0	
A5130	Mechanical Construction	20	08-May-19	03-Jun-19	41	
A5150	Fence and Stone Installation	20	02-Jul-19	30-Jul-19	67	
A5110	Indoor Electric	20	03-Jul-19	31-Jul-19	0	
A5140	Install Control & Protection System	20	03-Jul-19	31-Jul-19	0	
A8030	Backfeed Energization	0		31-Jul-19	0	
A5250	Backfeed available from POI	0		31-Jul-19	0	
High Voltage Non-SVC Construction		80	29-Jan-19	21-May-19	51	
A6870	High Voltage Non-SVC Electric Construction	80	29-Jan-19	21-May-19	51	



Remaining Level of Effort | Actual Work | Critical Remaining Work
Actual Level of Effort | Remaining Work | Milestone

Page 4 of 5

TASK filters: JWC - No RM/WBS Activities, JWC - Not 100%.

Appendix G: Construction Activities, Materials Used, and Associated Pollutants

Pollutant Testing Guidance Table[1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Analyses	
				Field[2]	Laboratory
Asphalt Products	Hot Asphalt Asphalt Emulsion Liquid Asphalt (tack coat) Cold Mix	Yes - Rainbow Surface or Brown Suspension	Visually Observable – No Testing Required		
	Crumb Rubber	No	Benzothiazole Al Hg	None	EPA 625 (SVOC-tic) EPA 200.8 (Metal) EPA 1631 (Hg)
	Shingles Bottom Ash Steel Slag Foundary Sand Fly Ash Municipal Solid Waste Incinerator Bottow Ash	No	Al Ca V Zn TOC	None	EPA 200.8 (Metal) EPA 415.1 (TOC)
	Asphalt Concrete (Any Type)	Yes - Rainbow Surface or Brown Suspension	Visually Observable – No Testing Required		
Cleaning Products	Acids	No	pH Acidity Anions (acetic acid, phosphoric acid, sulfuric acid, nitric acid, HCl)	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH) SM 2310B (Acidity) EPA 300.0 (Anion)
	Bleaches	No	**Residual Chlorine**	HACH SW-1 Test Kit (Chlorine)	SM 4500-CL G (Residual Chlorine)
	Detergents	Yes – Foam	Visually Observable – No Testing Required		
	TSP	No	Phosphate	HACH PO-24 Test Kit (Phosphate)	EPA 365.3 (Phosphate)
	Solvents	No	Phenol VOC SVOC	HACH PO-24 Test Kit (Phenol)	EPA 420.1 (Phenol) EPA 601/602 (VOC) EPA 625 (SVOC)

[1] Table will be updated periodically as more information is available

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Analyses	
				Field[2]	Laboratory
PCC and Masonry Products	Acid Wash	No	**pH**	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH)
	PCC	Yes – Milky Liquid	Visually Observable – No Testing Required		
PCC and Masonry Products (cont.)	Masonry products	No	**pH** Alkalinity	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH) SM 2320 (Alkalinity)
	MMA	No	N,4-Dimethyl-benzenamine **Cu** Zn	None	EPA 625 (SVOC-tic) EPA 200.8 (Metal)
	Solids and Mortar	No	Ca Alkalinity **pH**	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 200.8 (Metal) SM 2320 (Alkalinity) EPA 150.1 (pH)
	Concrete Rinse Water	Yes – Milky Liquid	Visually Observable – No Testing Required		
	Non-Pigmented Curing Compounds	No	Acidity Alkalinity **pH** VOC	HACH SW-1 Test Kit or Rental Meter (pH)	SM 2310B (Acidity) SM 2320 (Alkalinity) EPA 150.1 (pH) EPA 601/602 (VOC)
Landscaping Products	Aluminum Sulfate	No	TDS Alkalinity **pH**	Rental Meter (TDS) HACH SW-1 Test Kit or Rental Meter (pH)	EPA 160.1 (TDS) SM 2320 (Alkalinity) EPA 150.1 (pH)
	Sulfur-Elemental	No	**Sulfate**	None	EPA 300.0 (Sulfate)
	Fertilizers-Inorganic	No	NH_3 Phosphate TKN **K**	HACH NI-8 Test Kit (NH_3) HACH PO-24 Test Kit (Phosphate)	EPA 350.2 (NH_3) EPA 365.3 (Phosphate) EPA 351.3 (TKN) EPA 200.8 (Metal)
	Fertilizers-Organic	No	**TOC** COD	None	EPA 415.1 (TOC) EPA 410.4 (COD)
	Natural Earth (Sand, Gravel, and Topsoil)	Yes – Cloudiness and Turbidity	Visually Observable – No Testing Required		
	Herbicide	No	**Herbicide**	None	Check lab for specific herbicide
	Pesticide	No	**Pesticide**	None	Check lab for specific pesticide

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Analyses	
				Field[2]	Laboratory
Landscaping Products (cont.)	Lime and Gypsum	No	**pH** Alkalinity Al Ba Mn V	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH) SM 2320 (Alkalinity) EPA 200.8 (Metal)
Line Flushing Products	Chlorinated Waters	No	**Total Chlorine**	HACH SW-1 Test Kit (Chlorine)	SM 4500-CL G (Residual Chlorine)
Painting Products	Adhesives	No	COD **Phenols** SVOC	HACH SW-1 Test Kit (Phenol)	EPA 410.4 (COD) EPA 420.1 (Phenol) EPA 625 (SVOC)
	Paint Strippers	No	**VOC**	None	EOA 601/602 (VOC)
	Resins	No	**COD** SVOC	None	EPA 410.4 (COD) EPA 625 (SVOC)
	Solvents	No	**COD** VOC SVOC	HACH SW-1 Test Kit (Phenol)	EPA 410.4 (COD) EPA 601/602 (VOC) EPA 625 (SVOC)
	Thinners	No	**Phenols** VOC COD	HACH SW-1 Test Kit (Phenol)	EPA 420.1 (Phenol) EPA 601/602 (VOC) EPA 410.4 (COD)
Portable Toilet Waste Products	Portable Toilet Waste	Yes[3]	Fecal Coliform	None (Fecal Coliform)	SM 9221E (Fecal Coliform)
Soil Amendments/Soil Stabilization Products	Copolymer	No	BOD COD DOC Nitrate Sulfate **Ni**	HACH NI-24 Test Kit (Nitrate)	EPA 405.1 (BOD) EPA 410.4 (COD) EPA 415.1 (DOC) EPA 300.0 (Nitrate) EPA 300.0 (Sulfate) EPA 200.8 (Metal)
	Straw/Mulch	Yes – Solids	Visually Observable – No Testing Required		
	Lignin Sulfonate	No	Alkalinity **TDS**	Rental Meter (TDS)	SM 2320 (Alkalinity) EPA 160.1 (TDS)
	Psyllium	No	Water Quality Data is Low – No Testing Required		

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Analyses	
				Field[2]	Laboratory
Soil Amendments/Soil Stabilization Products (cont.)	Guar	No	COD **Ni**	None	EPA 410.4 (COD) EPA 200.8 (Metal)
	Petroleum Resin	No	COD TOC Fe **Mn** Ni	None	EPA 410.4 (COD) EPA 415.1 (TOC) EPA 200.8 (Metal)
	Gypsum	No	Al Ba **Mn** Ni	None	EPA 200.8 (Metal)
	Plant Gums	No	BOD	None	EPA 405.1 (BOD)
Dust Palliative Products	Salts (Magnesium Chloride, Calicium Chloride, and Natural Brines)	No	Acidity Alkalinity **pH** TDS Cations (Na, Mg, Ca)	Rental Meter (TDS) HACH SW-1 Test Kit or Rental Meter (pH)	SM 2310B (Acidity) SM 2320 (Alkalinity) EPA 150.1 (pH) EPA 160.1 (TDS) EPA 200.7 (Cations)
Treated Wood Products	ACZA, CCA	No	**Arsenic** Chromium^{+6} Cu Zn	None	EPA 200.8 (Metal) EPA 7196 (Chromium^{+6})
Vehicles	Antifreeze and Other Vehicle Fluids	Yes – Colored Liquid	Visually Observable - No Testing Required		
	Batteries	No	Sulfuric Acid Pb **pH**	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 300.0 (Sulfate) EPA 200.8 (Metal) EPA 150.1 (pH)
	Fuels, Oils, and Lubricants	Yes – Rainbow Surface Sheen and Odor	Visually Observable - No Testing Required		

Notes:

[1] For each construction material, test for one of the pollutant indicators. **Bolded** pollutant indicates lowest analysis cost.

[2] See www.hach.com for some of the test kits.

[3] No testing if visible (i.e., colored liquid, paper product).

ACZA = ammoniacal-copper-zinc-arsenate
Al = aluminum
Ba = barium
BOD = biochemical oxygen demand
Ca = calcium
CCA = copper-chromium-arsenic
COD = chemical oxygen demand
Cu = copper
EPA = Environmental Protection Agency
Fe = iron
HACH = Worldwide company that provides advanced analytical systems and technical support for water quality testing.
HCl = hydrogen chloride
Hg = mercury
K = potassium
Mg = magnesium
MMA = methyl methacrylate
Mn = manganese
Na = sodium
NH3 = ammonia
Ni = nickel
Pb = lead
PCC = Portland cement concrete
SM = standard method
SVOC = semi-volatile organic compounds
tic = tentatively identified compound
TDS = total dissolved solids
TKN = total kjeldahl nitrogen
TOC = total organic carbon
TSP = trisodium phosphate
V = vanadium
VOC = volatile organic compounds
Zn = zinc

Appendix H: CASQA Stormwater BMP Handbook Portal: Construction Fact Sheets

INSERT BMP FACT SHEETS

Appendix I: BMP Inspection Form

BMP INSPECTION REPORT

Date and Time of Inspection:			Date Report Written:	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name:			
Construction stage and completed activities:			Approximate area of site that is exposed:
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time)	Estimate storm duration: (hours)
Estimate time since last storm: (days or hours)	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name:	Inspector Title:
Signature:	Date:

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level _____ Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)			
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system			
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available on site			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters			
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level _____ Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use			
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented on site to control the air deposition of site materials and from site operations			
Non-Stormwater Management			
Non-stormwater discharges are properly controlled			
Vehicles are washed in a manner to prevent non-stormwater discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-stormwater discharges to surface waters or drainage systems			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Runoff Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas			
Other			
Are the project SWPPP and BMP plan up to date, available on site, and being properly implemented?			

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note -** Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do stormwater storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are stormwater storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description

Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

Part VI. Additional Post-Storm Observations. Visually observe (inspect) stormwater discharges at all discharge locations within 2 business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained stormwater that is derived from and discharged subsequent to a qualifying rain event producing precipitation of 0.5 inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

Appendix J: Training Reporting Form

Trained Contractor Personnel Log

Stormwater Management Training Log and Documentation

Project Name: Suncrest Dynamic Reactive Power Support Project
WDID #: _____

Stormwater Management Topic: (check as appropriate)

☐ Erosion Control ☐ Sediment Control
☐ Wind Erosion Control ☐ Tracking Control
☐ Non-Stormwater Management ☐ Waste Management and Materials Pollution Control
☐ Stormwater Sampling

Specific Training Objective: _____

Location: _____ Date: _____

Instructor:_____ Telephone: _____

Course Length (hours): _____

Attendee Roster (Attach additional forms if necessary)

Name	Company	Phone

As needed, add proof of external training (e.g., course completion certificates, credentials for QSP/QSD).

Appendix K: Responsible Parties

Authorization of Approved Signatories

Project Name: Suncrest Dynamic Reactive Power Support Project

WDID #: _____

Name of Personnel	Project Role	Company	Signature	Date
John Bulich	Director of Engineering and Construction	NEET West		

_____ _____

LRP's Signature Date

Brian McDonald, President (415) 318-5929

LRP Name and Title Telephone Number

Identification of QSP

Project Name: Suncrest Dynamic Reactive Power Support Project

WDID #: _____

The following are QSPs associated with this project

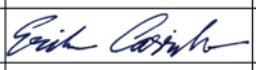
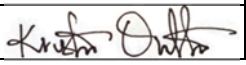
Name of Personnel(1)	**Company**	**Date**
Chennie Castañon	SWCA	October 19, 2018
Kristen Outten	SWCA	October 19, 2018

(1) If additional QSPs are required on the job site add additional lines and include information here.

Authorization of Data Submitters

Project Name: Suncrest Dynamic Reactive Power Support Project

WDID #: _____

Name of Personnel	Project Role	Company	Signature	Date
Erika Carrillo	QSD	SWCA		October 19, 2018
Chennie Castañon	QSP	SWCA		October 19, 2018
Kristen Outten	QSP	SWCA		October 19, 2018

_____ _____

Approved Signatory's Signature Date

John Bulich, Director of Engineering and Construction (561) 304-5632

Approved Signatory Telephone Number

Name and Title

Appendix L: Contractors and Subcontractors

Contractor

Name:	To Be Determined (TBD)
Title:	TBD
Company:	TBD
Address:	TBD
Phone Number:	TBD
Number (24/7):	TBD

Subcontractors

Name:	TBD
Title:	TBD
Company:	TBD
Address:	TBD
Phone Number:	TBD
Number (24/7):	TBD

Name:	TBD
Title:	TBD
Company:	TBD
Address:	TBD
Phone Number:	TBD
Number (24/7):	TBD

Appendix M:Construction General Permit

INSERT CONSTRUCTION GENERAL PERMIT