

Appendix G

Traditional SWPPP Template



CONSTRUCTION BMP ONLINE HANDBOOK

STORMWATER POLLUTION PREVENTION PLAN

TEMPLATE

FOR TRADITIONAL CONSTRUCTION SITES

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This template presents a recommended structure and content for a Stormwater Pollution Prevention Plan (SWPPP), including a Construction Site Monitoring Program (CSMP). The structure and content is based on a combination of specific General Permit requirements and other suggested content to meet the overall General Permit requirements.

STORMWATER POLLUTION PREVENTION PLAN

for

[Project Name]

RISK LEVEL _____

WASTE DISCHARGE IDENTIFICATION NUMBER (WDID):

Legally Responsible Person [LRP]:

[Company Name]

[Address]

[LRP's Name or LRP's Authorized Representative]

[Phone Number]

Approved Signatory:

[Approved Signatory if designated by LRP]

[Phone Number]

Prepared for: [if different then LRP]

[Company]

[Address]

Project Address:

[Address]

SWPPP Prepared by:

[Company Name]

[Address]

[QSD's Name]

SWPPP Preparation Date

[Date]

Estimated Project Dates:

Start of
Construction

Completion of
Construction

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Qualified SWPPP Developer

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name:

Project Number/ID [if
applicable]

“This Stormwater Pollution Prevention Plan and its appendices 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

Date

QSD Name

QSD Certificate Number

Title and Affiliation

Telephone Number

Email

Legally Responsible Person

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name:

[Project name]

Project Number/ID [if
applicable]

[WDID or other ID number]

Either the Legally Responsible Person (LRP) or Approved Signatory must electronically sign, certify, and submit via SMARTS to the SWRCB for Notice of Intent, Changes of Information, Annual Reports, and Notices of Termination. In doing so, the LRP or Approved Signatory is certifying:

“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.”

The LRP (and Approved Signatory, if applicable) for this project are:

[LRP name]

Legally Responsible Person

[Approved Signatory name, if applicable]

Approved Signatory

Amendment Log

Project Name:

Project Number/ID [if
applicable]

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

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 by 2010-0014-DWQ and 2012-006-DWQ)* (NPDES No. CAS000002) issued by the State Water Resources Control Board (State Water Board) **Appendix A**. This SWPPP has been prepared following the SWPPP Template provided on the California Stormwater Quality Association *Stormwater Best Management Practice Handbook: Construction* (CASQA 2019). 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 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;
- Calculations and design details, as well as BMP controls, are complete and correct.

The [name] project (Project, or Site) comprises [acres], of which [acres] will be disturbed. The Project is located at [address or description of location] in [city], California. The project's location is shown on the Site Map in **Appendix B**.

Identify and provide methods to implement Rain Event Action Plan (REAP).

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); and
6. SWPPP.
 - Post-construction water balance calculation;
 - Active Treatment System (ATS) plan; and

- Dischargers proposing an alternate soil erodibility factor must submit justification (documentation of methods used [e.g., soil particle size analysis]).

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 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 request by radio/telephone. (CGP 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 when:

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

Additionally, 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);
- There is a change in the project duration that changes the project's risk level; or
- When deemed necessary by the QSD. The QSD has determined that the changes listed in [Table 1.1](#) can be field determined by the 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.

Amendment shall be logged at the front of the SWPPP and certification 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 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/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	
<i>(1) Any field changes not identified for field location or field determination by QSP must be approved by QSD</i>	

1.5 RETENTION OF RECORDS

Paper or electronic records of documents required by this SWPPP shall be retained for a minimum of three years from the date generated or date submitted, whichever is later, for the following items:

- [LIST or State NONE]
- [LIST or State NONE]

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 three years shall be adhered to.

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 BMPs deployed before the discharge event, or prior to receiving notice or order.
- The date of deployment and type of BMPs deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence.

[Include any other relevant reporting requirements.]

Reporting requirements for NALs exceedances are discussed in [Section 7.7.2.7](#).

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.

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 (see Section 1.9); 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 shall be 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. According to the requirements of Section II.D.1 of the General Permit, the following method will be used to satisfy final cover requirements:

[Include final cover method, calculations, and any other supporting material.]

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 construction completion. 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 [name] project site comprises approximately [acres] and is located at [address or description of location], in [City], California. The project site is located approximately [distance and direction] of [describe major roads (e.g., Interstate-5), and/or community areas]. The project site is located approximately [distance and direction] of [describe nearby water bodies (e.g., San Diego Bay)]. The project is located at [Lat/Long] and is identified on the Site Map in [Appendix B](#).

2.1.2 Existing Conditions

As of the initial date of this SWPPP, the project site is [describe if site is undeveloped or describe existing development; include description of vegetated areas; or impervious areas such as parking lots]. The project site was previously developed with [describe previous land use]. Historic sources of contamination include: [describe known or potential contamination sources (e.g., contaminated soil, underground storage tanks) or former industrial operations or state “there are no known historic sources of contamination at the site”].

2.1.3 Existing Drainage

The project site is [describe topography (e.g., relatively level, slopes to the west, etc.)]. The elevation of the project site ranges from [elevation or range of elevations] feet above mean sea level (msl). Surface drainage at the site currently flows to the [direction], toward [describe discharge locations [storm drain inlet, bay, ocean, etc.)]. Stormwater is conveyed through [surface runoff, storm drain systems, etc.]. Stormwater discharges from the site [are/are not] considered direct discharges as defined by the State Water Board [into (list water body)]. Existing site topography, drainage patterns, and stormwater conveyance systems are shown on [names of drawings or plans].

The project discharges to [list name of receiving water body] that [is/is not] listed for water quality impairment on the most recent 303(d)-list [for:

- [LIST]
- [LIST]

2.1.4 Geology and Groundwater

The site is underlain by [describe underlying soil and geologic conditions (e.g., fill material, clay, sandy loam, alluvium, etc.), including approximate thickness of each material if known. Reference soils reports if applicable]. Groundwater occurs beneath the site at approximately [depth] feet below ground surface. The groundwater gradient is toward [direction].

2.1.5 Project Description

Project grading will occur on approximately [acres/square-feet] of the project, which comprises approximately [number] percent of the total area. The limits of grading are shown on [map/drawing name and number] in [Appendix B](#). Grading will include [both cut and fill activities], with the total graded material estimated to be [number] cubic yards. Approximately [number] cubic yards of fill material will be imported during grading activities. Graded

materials are expected to be [balanced onsite/hailed away]. Soil will be stockpiled [describe locations] as shown on [map/drawing name and number] in **Appendix B**. Construction activities will be [phased/not phased include description of each phase if appropriate and reference drawings that show limits of each phase].

2.1.6 Developed Condition

Post-construction surface drainage will be directed to the [direction] as surface flow through stormwater conveyance systems [and/or sheet flow] toward and will discharge [describe discharge points – If project discharges directly to a public storm drain system, state so and state owner of storm drain (e.g., city of county)].

Post-construction drainage patterns and conveyance systems are presented on [figure name and/or number] in **Appendix B**.

Table 2.1 Construction Site Estimates

Construction site area		acres
Percent impervious before construction		%
Runoff coefficient before construction		
Percent impervious after construction		%
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 Office
- State of California Endangered Species Act
- Clean Water Act Section 401 Water Quality Certifications and 404 Permits
- CA Department of Fish and Game 1600 Streambed Alteration Agreement

2.3 STORMWATER RUN-ON FROM OFFSITE AREAS

There is no anticipated offsite run-on to this construction site because [Describe reasons for no offsite run-on [e.g., existing BMPs or stormwater conveyance system to prevent onsite flow, no upgradient drainage area, etc.]].

Run-on to the site is generated by [describe sources of offsite run-on to the project, such sources may include one or more of the following: “point source discharges from upgradient developed land uses, creeks; streams or other water bodies that run through or discharge from the site; and upgradient non-point source discharges (dry weather and stormwater runoff)”].

The stormwater runoff drainage area contributing to offsite run-on is estimated to be approximately [acreage/square feet]. The anticipated runoff coefficients range from [range of runoff coefficients]. The anticipated off-site run-on to the project site is estimated to be [flow/volume]; calculations are included in Appendix N.

The General Permit requires that temporary BMPs be implemented to direct offsite run-on away from disturbed areas through the use of runoff controls. The following BMPs will be implemented [description of proposed BMPs (e.g., berms or lined channel) including flow capacity if appropriate]. These BMPs will be located [describe location of BMP]. The off-site drainage areas and associated stormwater conveyance facilities or BMPs are shown on [figure name and number] in Appendix B.

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, 2, 3].

The risk level was determined through the use of the [describe method (e.g., R-value determined from EPA’s *Rainfall Erosivity Factor Calculator for Small Construction Sites* at: <https://www.epa.gov/npdes/rainfall-erosivity-factor-calculator-small-constructionsites> and K and LS provided in SMARTS, a site-specific analysis, etc.)]. The risk level is based on project duration, location, proximity to impaired receiving waters, and soil conditions. A copy of the Risk Level 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		
K		
LS		
Total Predicted Sediment Loss (tons/acre)		
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

Runoff from the project site discharges into [description (e.g., moderately defined channels that are intercepted by irrigation canals)] that discharge into [water body, and eventually into the water body].

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⁾
[Enter name]	☐ 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			

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).

Risk Level 2 sites are subject to both the narrative effluent limitations and numeric effluent standards. 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. Discharges from Risk Level 2 site are subject to NALs for pH and turbidity shown in Table 2-4. This SWPPP has been prepared to address Risk Level 2 requirements (General Permit Attachment D).

Table 2.4 Numeric Action Levels

Parameter	Unit	Numeric Action Level Daily Average
pH	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	NTU	250 NTU

Risk Level 3 sites are subject to both the narrative and numeric effluent standards. 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. Discharges from Risk Level 3 sites are subject to NALs. Discharges from Risk Level 3 sites that have a direct discharge to the receiving water are subject to Receiving Water Monitoring Triggers for pH and turbidity. NALs [and Receiving Water Monitoring Triggers] are shown in Table 2-4. This SWPPP has been prepared to address Risk Level 3 requirements (General Permit Attachment E). This site [does] [does not] have direct discharges to a receiving water.

Table 2.4 Numeric Action Levels and Receiving Water Monitoring Triggers

Parameter	Unit	Numeric Action Level Daily Average	Receiving Water Monitoring Trigger Daily Average
pH	pH units	Lower NAL = 6.5 Upper NAL = 8.5	Lower Trigger = 6.0 Upper Trigger = 9.0
Turbidity	NTU	250 NTU	500 NTU

2.5 CONSTRUCTION SCHEDULE

The site sediment risk was determined based on construction taking place between [start date] and [end date]. 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 impact to the SWPPP. The estimated schedule for planned work can be found in Appendix F.

[Include additional descriptions of significant land disturbing activities and work near drainages or receiving water.]

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 Best Management Practices for the project. Locations of anticipated pollutants and associated BMPs are shown on the Site Map in **Appendix B**.

For sampling requirements for non-visible pollutants associated with construction activity, please refer to **Section 7.7.1**. For a full and complete list of onsite pollutants, refer to the 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 which 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 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:

- [LIST or State NONE]
- [LIST or State NONE]

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:

- [LIST or State NONE]
- [LIST or State NONE]

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

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.

The following discharge(s) have been authorized by (a) regional NPDES permit(s):

- [LIST Discharge and Governing Permit or State NONE]

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 Nos. where required elements are illustrated.

Table 2.5 Required Map Information

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

Notes: (1) Indicate maps or drawings that information is included on (e.g., Vicinity Map, Site Map, Drainage Plans, Grading Plans, Progress Maps, etc.)

Section 3 Best Management Practices

3.1 SCHEDULE FOR BMP IMPLEMENTATION

[Include additional descriptions of significant land disturbing activities and work near drainages or receiving water.]

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
Sediment Control			
Tracking Control			
Wind Erosion			

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 that are 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. Preserve 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. Stabilize non-active areas within 14 days of cessation of construction activities or sooner if stipulated by local requirements.
4. Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding, or alternate methods.
5. Prior to the completion of construction, apply permanent erosion control to remaining disturbed soil areas.

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

The following erosion control BMP selection table, 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 Factsheets provided in [Appendix H](#). If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map 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

[Provide description of the site-specific implementation or delete if not used]

Preservation of Existing Vegetation

[Provide description of the site-specific implementation or delete if not used]

Hydraulic Mulch

[Provide description of the site-specific implementation or delete if not used]

Hydroseed

[Provide description of the site-specific implementation or delete if not used]

Soil Binders

[Provide description of the site-specific implementation or delete if not used]

Straw Mulch

[Provide description of the site-specific implementation or delete if not used]

Geotextiles and Mats

[Provide description of the site-specific implementation or delete if not used]

Wood Mulching

[Provide description of the site-specific implementation or delete if not used]

Table 3.2 Erosion Control BMPs

CASQ A Fact Sheet	BMP Name	Considered for the Project ⁽¹⁾	BMP Used		If not used, state reason and alternate BMP, if applicable
			YES	NO	
EC-1	Scheduling	✓			
EC-2	Preservation of Existing Vegetation	✓			
EC-3	Hydraulic Mulch	✓ ⁽²⁾			
EC-4	Hydroseed	✓ ⁽²⁾			
EC-5	Soil Binders	✓ ⁽²⁾			
EC-6	Straw Mulch	✓ ⁽²⁾			
EC-7	Geotextiles and Mats	✓ ⁽²⁾			
EC-8	Wood Mulching	✓ ⁽²⁾			
EC-9	Earth Dike and Drainage Swales	✓ ⁽³⁾			
EC-10	Velocity Dissipation Devices	✓ ⁽³⁾			
EC-11	Slope Drains	✓ ⁽³⁾			
EC-12	Stream Bank Stabilization				
EC-14	Compost Blankets	✓ ⁽²⁾			
EC-15	Soil Preparation-Roughening				
EC-16	Non-Vegetated Stabilization	✓ ⁽²⁾			
WE-1	Wind Erosion Control	✓			
⁽¹⁾ The General Permit's Fact Sheet Section II.J.1.c through II.J.1.g describes various BMPs that should be considered for use on the construction site. ⁽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⁾ All run-on and runoff from the construction site shall be managed for LUP Types 2 and 3 and LUP Type 1 if the evaluation of quantity and quality of run-on and runoff deems them necessary or visual inspections show that the site requires these controls. Run-on from offsite shall be directed away from all disturbed areas, diversion of offsite flows may require design/analysis by a licensed civil engineer and/or additional environmental permitting.					

Earth Dike and Drainage Swales

[Provide description of the site-specific implementation or delete if not used]

Velocity Dissipation Devices

[Provide description of the site-specific implementation or delete if not used]

Slope Drains

[Provide description of the site-specific implementation or delete if not used]

Stream bank Stabilization

[Provide description of the site-specific implementation or delete if not used]

Compost Blankets

[Provide description of the site-specific implementation or delete if not used]

Soil Preparation-Roughening

[Provide description of the site-specific implementation or delete if not used]

Non-Vegetated Stabilization

[Provide description of the site-specific implementation or delete if not used]

Wind Erosion Control

[Provide description of the site-specific implementation or delete if not used]

3.2.2 Sediment Controls

Sediment controls are temporary or permanent structural measures that are 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.

The following sediment control BMP selection table 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 Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map 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

[Provide description of the site-specific implementation or delete if not used]

Sediment Basin

[Provide description of the site-specific implementation or delete if not used]

Table 3.3 Temporary Sediment Control BMPs

CASQ A Fact Sheet	BMP Name	Considered for the Project ⁽¹⁾	BMP used		If not used, state reason and alternate BMP, if applicable
			YES	NO	
SE-1	Silt Fence	✓ ⁽²⁾ (3)			
SE-2	Sediment Basin				
SE-3	Sediment Trap				
SE-4	Check Dams				
SE-5	Fiber Rolls	✓ ⁽²⁾ (3)			
SE-6	Gravel Bag Berm	✓ ⁽³⁾			
SE-7	Street Sweeping	✓			
SE-8	Sandbag Barrier				
SE-9	Straw Bale Barrier				
SE-10	Storm Drain Inlet Protection	✓ RL2&3			
SE-11	ATS				
SE-12	Manufactured Linear Sediment Controls				
SE-13	Compost Sock and Berm	✓ ⁽³⁾			
SE-14	Biofilter Bags	✓ ⁽³⁾			
TC-1	Stabilized Construction Entrance and Exit	✓			
TC-2	Stabilized Construction Roadway				
TC-3	Entrance Outlet Tire Wash				
⁽¹⁾ The General Permit's Fact Sheet Section II.J.1.c through II.J.1.g describes various BMPs that should be considered for use on the construction site. ⁽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⁾ All run-on and runoff from the construction site shall be managed. Risk Level 2 & 3 shall provide linear sediment control along toe of slope, face of slope, and at the grade breaks of exposed slope.					

Sediment Trap

[Provide description of the site-specific implementation or delete if not used]

Check Dams

[Provide description of the site-specific implementation or delete if not used]

Fiber Rolls

[Provide description of the site-specific implementation or delete if not used]

Gravel Bag Berm

[Provide description of the site-specific implementation or delete if not used]

Street Sweeping

[Provide description of the site-specific implementation or delete if not used]

Sandbag Barrier

[Provide description of the site-specific implementation or delete if not used]

Straw Bale Barrier

[Provide description of the site-specific implementation or delete if not used]

Storm Drain Inlet Protection

[Provide description of the site-specific implementation or delete if not used]

ATS

[Provide description of the site-specific implementation or delete if not used]

Manufactured Linear Sediment Controls

[Provide description of the site-specific implementation or delete if not used]

Compost Sock and Berm

[Provide description of the site-specific implementation or delete if not used]

Biofilter Bags

[Provide description of the site-specific implementation or delete if not used]

Stabilized Construction Entrance and Exit

[Provide description of the site-specific implementation or delete if not used]

Stabilized Construction Roadway

[Provide description of the site-specific implementation or delete if not used]

Entrance Outlet Tire Wash

[Provide description of the site-specific implementation or delete if not used]

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.

The following non-stormwater control BMP selection table 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 Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map 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

[Provide description of the site-specific implementation or delete if not used]

Dewatering Operation

[Provide description of the site-specific implementation or delete if not used]

Paving and Grinding Operation

[Provide description of the site-specific implementation or delete if not used]

Temporary Stream Crossing

[Provide description of the site-specific implementation or delete if not used]

Clear Water Diversion

[Provide description of the site-specific implementation or delete if not used]

Illicit Connection/Discharge

[Provide description of the site-specific implementation or delete if not used]

Potable Water/Irrigation

[Provide description of the site-specific implementation or delete if not used]

Vehicle and Equipment Cleaning

[Provide description of the site-specific implementation or delete if not used]

Vehicle and Equipment Fueling

[Provide description of the site-specific implementation or delete if not used]

Table 3.4 Temporary Non-Stormwater BMPs

CASQA Fact Sheet	BMP Name	Considered for the Project ⁽¹⁾	BMP used		If not used, state reason and alternate BMP, if applicable
			YES	NO	
NS-1	Water Conservation Practices	✓			
NS-2	Dewatering Operation	✓			
NS-3	Paving and Grinding Operation				
NS-4	Temporary Stream Crossing				
NS-5	Clear Water Diversion				
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				
NS-12	Concrete Curing				
NS-13	Concrete Finishing				
NS-14	Material and Equipment Use Over Water				
NS-15	Demolition Removal Adjacent to Water				
NS-16	Temporary Batch Plants				
⁽¹⁾ The General Permit's Fact Sheet Section II.J.1.c through II.J.1.g describes various BMPs that should be considered for use on the construction site.					

Vehicle and Equipment Maintenance

[Provide description of the site-specific implementation or delete if not used]

Pile Driving Operation

[Provide description of the site-specific implementation or delete if not used]

Concrete Curing

[Provide description of the site-specific implementation or delete if not used]

Concrete Finishing

[Provide description of the site-specific implementation or delete if not used]

Material and Equipment Use Over Water

[Provide description of the site-specific implementation or delete if not used]

Demolition Removal Adjacent to Water

[Provide description of the site-specific implementation or delete if not used]

Temporary Batch Plants

[Provide description of the site-specific implementation or delete if not used]

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 utilized 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 consist 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. [If applicable to the project site, waste management should be conducted in accordance with the Project's Construction 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 off-site. 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
- 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 **Section 2.6**. The following Materials and Waste Management BMP selection table, 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 Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map 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

[Provide description of the site-specific implementation or delete if not used]

Material Use

[Provide description of the site-specific implementation or delete if not used]

Stockpile Management

[Provide description of the site-specific implementation or delete if not used]

Spill Prevention and Control

[Provide description of the site-specific implementation or delete if not used]

Solid Waste Management

[Provide description of the site-specific implementation or delete if not used]

Hazardous Waste Management

[Provide description of the site-specific implementation or delete if not used]

Contaminated Soil Management

[Provide description of the site-specific implementation or delete if not used]

Concrete Waste Management

[Provide description of the site-specific implementation or delete if not used]

Sanitary-Septic Waste Management

[Provide description of the site-specific implementation or delete if not used]

Liquid Waste Management

[Provide description of the site-specific implementation or delete if not used]

Table 3.5 Temporary Materials Management BMPs

CASQA Fact Sheet	BMP Name	Considered for Project ⁽¹⁾	BMP used		If not used, state reason and alternate BMP, if applicable
			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				
⁽¹⁾ The General Permit's Fact Sheet Section II.J.1.c through II.J.1.g describes various BMPs that should be considered for use on the construction site.					

3.4 POST CONSTRUCTION STORMWATER MANAGEMENT MEASURES

Post construction BMPs are permanent measures installed during construction, 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, this project is exempt from provision XIII A of the General Permit.]

The following source control postconstruction BMPs to comply with General Permit Section XIII.B and local requirements have been identified for the site:

- [LIST or State NONE]
- [LIST or State NONE]

A plan for the post construction funding and maintenance of these BMPs has been developed to address at minimum five years following construction. The post construction BMPs that are described above shall be funded and maintained by the [LRP or other]. If required, post construction funding and maintenance will be submitted with the NOT.

Section 4 BMP Inspection, [and] 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 on-site 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 Appendix P “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 Factsheets in [Appendix H](#).

4.2 RAIN EVENT ACTION PLANS

- [Rain Event Action Plans \(REAPs\)](#) are not required for Risk Level 1 projects.

The REAP is a written document designed to be used as a planning tool by the QSP to protect exposed portions of project sites and to ensure that the discharger has adequate materials, staff, and time to implement erosion and sediment control measures. These measures are intended to reduce the amount of sediment and other pollutants that could be generated during the rain event. It is the responsibility of the QSP to be aware of precipitation forecast and to obtain and print copies of NOAA’s Forecast Weather Table Interface, available online at <http://forecast.weather.gov/>.

The SWPPP includes REAP templates but the QSP will need to customize them for each rain event. Site-specific REAP templates for each applicable project phase can be found in [Appendix J](#). The QSP shall maintain a paper copy of completed REAPs in compliance with the record retention requirements [Section 1.5](#) of this SWPPP. Completed REAPs shall be maintained in [Appendix J](#).

The QSP will develop an event specific REAP 48 hours in advance of a precipitation event forecast to have a 50 percent or greater chance of producing precipitation in the project area. The REAP will be onsite and be implemented 24 hours in advance of any the predicted precipitation event.

At minimum the REAP will include the following site and phase-specific information:

1. Site Address;
2. Calculated Risk Level (2 or 3);
3. Site Stormwater Manager Information including the name, company and 24-hour emergency telephone number;
4. Erosion and Sediment Control Provider information including the name, company and 24-hour emergency telephone number;
5. Stormwater Sampling Agent information including the name, company, and 24-hour emergency telephone number;
6. Activities associated with each construction phase;

7. Trades active on the construction site during each construction phase;
8. Trade contractor information; and
9. Recommended actions for each project phase.

Section 5 Training

Appendix L identifies the QSPs for the project. To promote stormwater management awareness specific for this project, periodic training of job-site 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 identify 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 tasks delegated, including SWPPP implementation, BMP inspection and maintenance, and recordkeeping.

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

Section 6 Responsible Parties and Operators

6.1 RESPONSIBLE PARTIES

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

Name	Title	Phone Number

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 that all BMPs are implemented, inspected, and properly maintained;
 - Performing non-stormwater and stormwater visual observations and inspections;
 - Performing non-stormwater and storm 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 clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than stormwater are discharged in quantities which 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 in order to make immediate repairs to the control measures.
- Coordinate with the Contractor(s) to assure all of the necessary corrections/repairs are made immediately and that the project complies with the SWPPP, General Permit, and approved plans at all times.
- Notifying the LRP or Authorized Signatory immediately of off-site discharges or other non-compliance events

6.2 CONTRACTOR LIST

Contractor

Name:

Title:

Company:

Address:

Phone Number:

Number (24/7):

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 [and Numeric Action Levels (NALs)] of the Construction 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 Best Management Practices (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in stormwater discharges and authorized non-stormwater discharges;
4. To determine whether BMPs included in the SWPPP [and REAP] 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 [Enter Number] project. The General Permit identifies the following types of monitoring as being applicable for a Risk Level [Enter Number] project.

Risk Level 1

- 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.

Risk Level 2

- 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 pH and turbidity;
- Sampling and analysis of construction site runoff for non-visible pollutants when applicable; and
- Sampling and analysis of non-stormwater discharges when applicable.

Risk Level 3

- 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 pH and turbidity;
- Sampling and analysis of construction site runoff for other parameters if applicable;
- Sampling and analysis of receiving waters if applicable;
- Sampling and analysis of non-stormwater discharges;

- Sampling and analysis of construction site runoff for non-visible pollutants when applicable;
- Sampling and analysis of non-stormwater discharges when applicable; and
- Bioassessment monitoring if 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 1/2 inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

Visual monitoring, inspections, and sampling 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 1/2 inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

For the purposes of assessing exceptions to the Receiving Water Monitoring Triggers the General Permit establishes the compliance storm event at the 5-year, 24-hour event. Based on the Western Regional Climate Center, the 5-year, 24-hour event for this project is [Enter Rainfall Amount in Inches].

7.3.1 Weather Tracking

The QSP should daily consult the National Oceanographic and Atmospheric Administration (NOAA) for the Forecast Weather Table Interface. These forecasts can be obtained at <http://forecast.weather.gov>. Weather reports should be printed and maintained with the SWPPP in Appendix O “Weather Reports”.

[Optionally, identify any other tools, in addition to NOAA probability of precipitation that the QSP will use to track weather.]

7.3.2 Rain Gauges

The QSP shall install [Enter Number and General Location for On-site Gauges] rain gauge(s) on the project site. Locate the gauge in an open area away from obstructions such as trees or overhangs. Mount the gauge on a post at a height of 3 to 5 feet with the gauge extending several inches beyond the post. Make sure that the top of the gauge is level. Make sure the post is not in an area where rainwater can indirectly splash from sheds, equipment, trailers, etc.

The rain gauge(s) 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. Log rain gauge readings in Appendix O “Weather Records”. 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. [Alternatively, include instructions for an automated recording rain gauge if used.]

For comparison with the site rain gauge, the nearest appropriate governmental rain gauge(s) is located at [Insert location and web site of the applicable governmental rain gauge(s)].

7.4 Monitoring Locations

Monitoring locations are shown on the Site Maps in Appendix B. Monitoring locations are described in the Sections 7.6 and 7.7.

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 [ENTER TITLE AND PUBLICATION DATE OF CONTRACTOR'S HEALTH AND SAFETY PLAN FOR THE PROJECT OR PROVIDE SPECIFIC REQUIREMENTS IN THIS SECTION]. A summary of the safety requirements that apply to sampling personnel is provided below.

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

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: [SPECIFY SITE BUSINESS DAYS AND HOURS].

If monitoring (visual monitoring or sample collection) of the site is unsafe because of the dangerous conditions noted above, then the QSP shall document the conditions for why an exception to performing the monitoring was necessary. The exemption documentation shall be filed in **Appendix P "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 storm water 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 **Section 7.6.3**.

Table 7.1 Summary of Visual Monitoring and Inspections

Type of Inspection	Frequency
<i>Routine Inspections</i>	
BMP Inspections	Weekly ¹
BMP Inspections – Tracking Control	Daily
[add rows for other BMPs as needed]	[Enter Frequency]
Non-Stormwater Discharge Observations	Quarterly during daylight hours
<i>Rain Event Triggered Inspections</i>	

Table 7.1 Summary of Visual Monitoring and Inspections

Type of Inspection	Frequency
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 Construction 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 on the Forecast Weather Table Interface.

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.

[BMP inspections and visual monitoring will be triggered by a NOAA prediction of rain in the project area.]

or

Consistent with guidance from the State Water Resources Control 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.

or

BMP inspections and visual monitoring will be triggered by a NOAA quantitative predicted forecast (QPF) that indicates 1/2-inch or more of rain will occur in the project area.]

7.6.2.2 *BMP Inspections During an Extended Storm Event*

During an extended rain event BMP inspection 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, 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 inches 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 name(s) and contact number(s) of the site visual monitoring personnel are listed below and their training qualifications are provided in [Appendix K](#).

Assigned inspector: NAME OF INSPECTOR Contact phone: TELEPHONE NUMBER

Alternate inspector: NAME OF INSPECTOR Contact phone: TELEPHONE NUMBER

Stormwater observations shall be documented on the *Visual Inspection Field Log Sheet* (see [Appendix Q “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 report and maintained with the Monitoring Records in Appendix P.

The QSP shall within [Enter Number] days of the inspection submit copies of the completed inspection report to [Name].

The completed reports will be kept in Appendix P “Monitoring Records”.

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 Appendix P “Monitoring Records”.

The QSP shall within [Enter Number] days of the inspection submit copies of the completed *Inspection Field Log Sheet* or *BMP Inspection Report* with the corrective actions to [Name].

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 locations identified in this section.

BMP locations are shown on the Site Maps in SWPPP Appendix B.

There are [Enter Number] drainage area(s) on the project site and the contractor’s yard, staging areas, and storage areas. Drainage area(s) are shown on the Site Maps in Appendix B and Table 7.2 identifies each drainage area by location.

Table 7.2 Site Drainage Areas

Location No.	Location

There are [Enter Number] stormwater storage or containment area(s) are on the project site. Stormwater storage or containment area(s) are shown on the Site Maps in Appendix B and Table 7.3 identifies each stormwater storage or containment area by location.

Table 7.3 Stormwater Storage and Containment Areas

Location No.	Location

There are [Enter Number] discharge location(s) on the project site. Site stormwater discharge location(s) are shown on the **Site Maps in Appendix B** and **Table 7.4** identifies each stormwater discharge location.

Table 7.4 Site Stormwater Discharge Locations

Location No.	Location

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; and (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.

The following construction materials, wastes, or activities, as identified in **Section 2.6**, 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**.

- [LIST or State NONE]
- [LIST or State NONE]

The following existing site features, as identified in **Section 2.6**, are potential sources of non-visible pollutants to stormwater discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the **Site Maps in Appendix B**.

- [DESCRIBE or State NONE]
- [DESCRIBE or State NONE]

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. Locations of soil amendment application are shown on the [Site Maps in Appendix B](#).

- [LIST or State NONE]
- [LIST or State NONE]

The project has the potential to receive stormwater run-on from the following locations with the potential to contribute non-visible pollutants to stormwater discharges from the project. Locations of such run-on to the project site are shown on the [Site Maps in Appendix B](#).

- [LIST or State NONE]
- [LIST or State NONE]

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 two 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 [Section 2.6](#), 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.
- 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 7.9**.

[Enter Number] sampling location(s) on the project site and the contractor's yard 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.

[If applicable]

Table 7.5 Non-Visible Pollutant Sample Locations – Contractors' Yard

Sample Location Number	Sample Location Description	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter number of locations] sampling locations have been identified for the collection of samples of runoff from drainage areas where soil amendments will be applied that have the potential to affect water quality.

[If applicable]

Table 7.6 Non-Visible Pollutant Sample Locations – Soil Amendment Areas

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter number of locations] sampling locations have been identified for the collection of samples of runoff from drainage areas contaminated by historical usage of the site.

[If applicable]

Table 7.7 Non-Visible Pollutant Sample Locations – Areas of Historical Contamination

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter Number] sampling location(s) 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(s) was selected such that the sample will not have come in contact with the operations, activities, or areas identified in **Section 7.7.1** or with disturbed soils areas.

[If applicable]

Table 7.8 Non-Visible Pollutant Sample Locations – Background (Unaffected Sample)

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter number of locations] sampling locations have been identified for the collection of samples of run-on to the project site. Run-on from these locations has the potential to combine with discharges from the site being sampled for non-visible pollutants. These samples are intended to identify potential sources of non-visible pollutants that originate off the project site.

[If applicable]

Table 7.9 Non-Visible Pollutant Sample Locations – Site Run-On

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude]

Table 7.9 Non-Visible Pollutant Sample Locations – Site Run-On

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
		[Enter Longitude]

If a stormwater visual monitoring site inspection conducted prior to or during a storm event identifies the presence of a material storage, waste storage, operations area with spills, or the potential for the discharge of non-visible pollutants to surface waters or a storm drain system that is at a location not listed above and has not been identified on the Site Maps, sampling locations will be selected by the QSP using the same rationale as that used to identify planned locations. Non-visible pollutant sampling locations shall be identified by the QSP on the pre-rain event inspection form [and/or Rain Event Action Plan] prior to a forecasted qualifying rain event.

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 the following contractor sampling personnel:

Name/Telephone Number:

Alternate(s)/Telephone Number:

An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, clean powder-free nitrile gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and *Effluent Sampling Field Log Sheets* and Chain of Custody (CoC) forms, which are provided in **Appendix Q “Example Forms”**.

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name:

Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 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 7.10 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 7.10 Potential Non-Visible Pollutants and Water Quality Indicator Constituents

Pollutant Source	Pollutant	Water Quality Indicator Constituent

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, and historical site usage areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the methods identified in the Table 7.11, "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" provided in Section 7.7.1.6. 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 the Table 7.11.

Samples will be analyzed by:

Laboratory Name:

Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

ELAP Certification
Number:

Samples will be delivered to the laboratory by:

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

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.

Table 7.11 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
Notes:						

The General Permit prohibits the storm water discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 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 C.F.R. §§ 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 Risk Level 1 projects.

Sampling and analysis of runoff for pH and turbidity is required for this project. This Sampling and Analysis Plan describes the strategy for monitoring turbidity and pH levels of stormwater runoff discharges from the project site and run-on that may contribute to an exceedance of a Numeric Action Level (NAL) [or the exceedance of a Receiving Water Monitoring Trigger].

Samples for pH and turbidity will be collected at all discharge points where stormwater is discharged off-site.

7.7.2.1 *Sampling Schedule*

Stormwater runoff samples shall be collected for pH and turbidity from each day of a qualifying rain event that results in a discharge from the project site. A minimum of three samples will be collected per day of discharge during a qualifying event. Samples should be representative of the total discharge from the project each day of discharge during the qualifying event. Typically, representative samples will be spaced in time throughout the daily discharge event.

Stored or collected water from a qualifying storm event when discharged shall be tested for turbidity and pH. Stored or collected water from a qualifying event may be sampled at the point it is released from the storage or containment area or at the site discharge location.

Run-on samples shall be collected whenever the QSP identifies that run-on has the potential to contribute to an exceedance of a NAL [or the exceedance of a Receiving Water Monitoring Trigger].

7.7.2.2 *Sampling Locations*

Sampling locations are based on the site runoff discharge locations and locations where run-on enters the site, accessibility for sampling, and personnel safety. Planned pH and turbidity sampling locations are shown on the **Site Maps in Appendix B** and include the locations identified in **Table 7.13** and **Table 7-14**.

[Enter Number] sampling location(s) on the project site and the contractor's yard have been identified for the collection of runoff samples. **Table 7.12** also provides an estimate of the site's area that drains to each location.

Table 7.12 Turbidity and pH Runoff Sample Locations

Sample Location Number	Sample Location	Estimate of Site [Factor] (%)
[Enter Number]	[Enter Location]	[Enter Percent]
[Enter Number]	[Enter Location]	[Enter Percent]

[Enter number of locations] sampling locations have been identified for the collection of run-on samples where the run-on has the potential to contribute to an exceedance of an NAL or a Receiving Water Monitoring Trigger. **Table 7.13** identifies the run-on sample locations.

[If applicable]

Table 7.13 Turbidity and pH Run-On Sample Locations

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

The project does not receive run-on with the potential to exceed NALs or Receiving Water Monitoring Triggers.

7.7.2.3 Monitoring Preparation

Turbidity and pH samples will be collected and analyzed by:

Contractor ☐ Yes ☐ No

Consultant ☐ Yes ☐ No

Laboratory ☐ Yes ☐ No

Samples on the project site will be collected by the following contractor sampling personnel:

Name/Telephone Number:

Alternate(s)/Telephone
Number:

An adequate stock of monitoring supplies and equipment for monitoring turbidity and will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, field meters, extra batteries, clean powder-free nitrile gloves, sample collection equipment, appropriate sample containers, paper towels, personal rain gear, and *Effluent Sampling Field Log Sheets* and CoC forms provided in **Appendix Q “Example Forms”**.

The contractor will obtain and maintain the field-testing instruments, as identified in **Section 7.7.2.6**, for analyzing samples in the field by contractor sampling personnel.

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name:

Street Address:

City, State, Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins to ensure that adequate sample collection personnel, supplies for monitoring pH and turbidity are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.2.4 Field Parameters

Samples shall be analyzed for the constituents indicated in the Table 7.14.

Table 7.14 Sample Collection and Analysis for Monitoring Turbidity and pH

Parameter	Test Method	Minimum Sample Volume ⁽¹⁾	Sample Collection Container Type	Detection Limit (minimum)
Turbidity	Field meter/probe with calibrated portable instrument	500 mL	Polypropylene or glass (Do not collect in meter sample cells)	1 NTU
pH	Field meter/probe with calibrated portable instrument or calibrated pH test kit	100 mL	Polypropylene	0.2 pH units
Notes: ¹ Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions. L – Liter mL – Milliliter NTU – Nephelometric Turbidity Unit				

7.7.2.5 Sample Collection

Samples of discharge shall be collected at the designated runoff and run-on sampling locations shown on the Site Maps in Appendix B. Run-on samples shall be collected within close proximity of the point of run-on to the project.

Only personnel trained in water quality sampling and field measurements working under the direction of the QSP shall collect samples.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.2.6 Field Measurements

Samples collected for field analysis, collection, analysis and equipment calibration shall be in accordance with the field instrument manufacturer's specifications.

Immediately following collection, samples for field analysis shall be tested in accordance with the field instrument manufacturer's instructions and results recorded on the *Effluent Sampling Field Log Sheet*.

The field instrument(s) listed in **Table 7.15** will be used to analyze the following constituents:

Table 7.15 Field Instruments

Field Instrument (Manufacturer and Model)	Constituent
	pH
	Turbidity

The manufacturers' instructions are included in **Appendix R "Field Meter Instructions"**. Field sampling staff shall review the instructions prior to each sampling event and follow the instructions in completing measurement of the samples.

- The instrument(s) shall be maintained in accordance with manufacturer's instructions.
- The instrument(s) shall be calibrated before each sampling and analysis event.
- Maintenance and calibration records shall be maintained with the SWPPP.

The QSP may authorize alternate equipment provided that the equipment meets the Construction General Permit's requirements and the manufacturers' instructions for calibration and use are added to **Appendix R "Field Meter Instructions"**.

7.7.2.7 Data Evaluation and Reporting

Immediately upon completing the measurements for the sampling event, provide the *Effluent Sampling Field Log Sheets* to the QSP for evaluation.

Numeric Action Levels

This project is subject to NALs for pH and turbidity (**Table 7.16**). Compliance with the NAL for pH and turbidity is based on a [weighted] daily average. Upon receiving the field log sheets, the QSP shall immediately calculate the [weighted] arithmetic average of the turbidity samples, and the [weighted] logarithmic average of the pH samples to determine if the NALs, shown in the table below, have been exceeded.

Table 7.16 Numeric Action Levels

Parameter	Unit	Daily Average
pH	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	NTU	250 NTU

The QSP shall within [Enter Number] days of the sample collection submit copies of the completed *Effluent Sampling Field Log Sheets* to [Name of Owners Representative].

In the event that the pH or turbidity NAL is exceeded, the QSP shall immediately notify [Name of Owners Representative] and investigate the cause of the exceedance and identify corrective actions.

Exceedances of NALs shall be electronically reported to the State Water Board by [Name of Owners Representative] through the SMARTs system within 10 days of the conclusion of the storm event. If requested by the Regional Board, a NAL Exceedance report will be submitted. The NAL Exceedance Report must contain the following information:

- Analytical method(s), method reporting unit(s), and MDL(s) of each parameter;
- Date, place, time of sampling, visual observation, and/or measurements, including precipitation; and
- Description of the current BMPs associated with the sample that exceeded the NAL and the proposed corrective actions taken.

Receiving Water Monitoring Triggers

This project is not subject to Receiving Water Monitoring Triggers because it does not have a direct discharge to the receiving water.

This project is subject to Receiving Water Monitoring Triggers for pH and turbidity (Table 7.17). Compliance with the Receiving Water Monitoring Triggers for pH and turbidity is based on a [weighted] daily average. The receiving water monitoring triggers for Risk Level 3 sites with direct discharges to surface waters are triggered when the daily average effluent pH values during any site phase when there is a high risk of pH discharge fall outside of the range of 6.0 and 9.0 pH units or when the daily average effluent turbidity exceeds 500 NTU.

Upon receiving the field log sheets, the QSP shall immediately calculate the [weighted] average of the turbidity samples, and the [weighted] logarithmic average of the pH samples. The SWRCB provides guidance and a spreadsheet for averaging pH in *Issue 2013.1-pH Excel*, located on this website, under the heading *Construction General Permit – Technical Bulletins*: http://www.waterboards.ca.gov/water_issues/programs/stormwater/gen_const_faq.shtml

The weighted averages are then to be used to determine if the Receiving Water Monitoring Triggers, shown in the table below, have been exceeded.

Table 7.17 Receiving Water Monitoring Triggers

Parameter	Unit	Daily Average
pH	pH units	Lower Trigger = 6.0 Upper Trigger = 9.0
Turbidity	NTU	500 NTU

All pH and turbidity data shall be electronically reported to the State Water Board by [Name of Owners Representative] through SMARTS within 10 days of the conclusion of each storm event.

In the event that the pH or turbidity Receiving Water Monitoring Trigger is exceeded, the QSP shall immediately notify [Name of Owners Representative].

Exceeding a Receiving Water Monitoring Trigger requires the implementation of receiving water monitoring described in Section 7.7.3 unless one of the follow two conditions existed:

- The exceedance occurred during a storm event equal to or larger than the compliance storm event ([Enter Number from Section 7.3] inches of rain in a 24-hour period) as demonstrated by the on-site rain gauge and confirmed with data from a nearby governmental rain gauge; or
- The exceedance was caused by run-on from a natural disaster (such as a forest fire).

Exceptions to the Receiving Water Monitoring Triggers will be documented in the SWPPP by the QSP and submitted to SMARTS when the data for the storm event is uploaded.

7.7.3 **Sampling and Analysis Plan for pH, Turbidity, and SSC in Receiving Water**

This project is not subject to Receiving Water Monitoring.

water monitoring is not required.

The project has a direct discharge to the following receiving water(s):

- [Enter name of receiving water]
- [Enter name of receiving water]

Following the exceedance of a Receiving Water Monitoring Trigger, receiving water monitoring is required.

7.7.3.1 **Sampling Schedule and Locations**

Following the exceedance of the pH receiving water monitoring trigger (when the daily average effluent pH values during any site phase when there is a high risk of pH discharge fall outside of the range of 6.0 and 9.0 pH units), receiving water samples shall be collected for pH and any parameters required by the RWQCB.

Following the exceedance of the turbidity Receiving Water Monitoring Trigger, receiving water samples shall be collected for turbidity, SSC, and any parameters required by the RWQCB.

Receiving water samples will be collected [Enter Sampling Frequency].

Sampling locations are based on the site discharge locations into the receiving water, location accessibility for sampling, and personnel safety. Planned sampling locations **Site Maps in Appendix B** and include the locations identified in **Table 7.18**.

[Enter Number] sampling location(s) have been identified for the collection of receiving water samples.

Table 7.18 Receiving Water Sample Locations

Upstream/Upgradient/Background <i>(This location(s) is a representative and accessible location located as close as possible and upstream from the runoff discharge point)</i>		
Sample location number(s)	Sample Location Description	Sample Location Latitude and Longitude
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
Downstream/downgradient <i>(This location(s) is a representative and accessible location located as close as possible and downstream from the runoff discharge point)</i>		

Table 7.18 Receiving Water Sample Locations

Sample location number(s)	Sample Location	Sample Location Latitude and Longitude
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

The receiving water locations are located on the project site. No special permissions are needed to access the site.

7.7.3.2 Monitoring Preparation

Receiving water samples will be collected by:

Contractor ☐ Yes ☐ No

Consultant ☐ Yes ☐ No

Laboratory ☐ Yes ☐ No

Samples on the project site will be collected by the following contractor sampling personnel:

Name/Telephone Number:

Alternate(s)/Telephone Number:

An adequate stock of monitoring supplies and equipment for monitoring the receiving will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, clean powder-free nitrile gloves, sample collection equipment, field meters, appropriate sample containers, paper towels, personal rain gear, and *Receiving Water Sampling Field Log Sheets* and CoC forms provided in **Appendix Q “Example Forms”**.

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name:

Street Address:

City, State, Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 24 hours prior to a planned receiving water sampling event to ensure that adequate sample collection personnel, supplies for monitoring are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.3.3 Sample Collection and Analysis

Receiving water samples shall be collected at the designated sampling locations shown on the Site Maps in Appendix B and as identified in Section 7.7.3.2.1.

Only personnel trained in water quality sampling under the direction of the QSP shall collect samples.

SSC grab samples for laboratory analysis shall be collected and preserved in accordance with the methods identified in the Table 7.19. Samples will be shipped to the laboratory identified below.

Table 7.19 Sample Collection, Preservation and Analysis for Monitoring Suspended Sediment Concentration (SSC)

Parameter	Test Method	Sample Preservation	Minimum Sample Volume (l)	Sample Bottle	Maximum Holding Time	Detection Limit (minimum)
Suspended Sediment Concentration (SSC)	ASTM D3977-97	Store at 4° C (39.2° F)	200 mL	Contact Laboratory	7 days	5 mg/L

Samples will be analyzed by:

Laboratory Name:

Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

Samples will be delivered to the laboratory by:

Driven by Contractor ☐ Yes ☐ No

Picked up by Laboratory Courier ☐ Yes ☐ No

Shipped ☐ Yes ☐ No

Samples for field parameters shall be analyzed for the constituents indicated in Section 7.7.2.4, "Sample Collection, and Analysis for Monitoring Turbidity and pH." Turbidity and pH samples shall be analyzed immediately.

Grab samples for parameters required by the Regional Water Board shall be collected and preserved in accordance with the methods identified [Section 7.7.5.5](#). Samples will be shipped to the laboratory identified in [Section 7.7.1.6](#).

Sample collection and handling requirements are described in [Section 7.7.7](#).

7.7.3.4 Data Evaluation and Reporting

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

Downgradient results shall be compared with the associated upgradient/background results and any associated construction runoff results. Should the downgradient sample show an increased level of the tested analyte relative to the upgradient/background sample, the QSP shall initiate an evaluation of the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase in the parameter concentration in the receiving water.

As determined by the 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.

Receiving water data shall be reported in the Annual Report.

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 Risk Level 1 project.

This Sampling and Analysis Plan for non-stormwater discharges describes the sampling and analysis strategy and schedule for monitoring pollutants in authorized and unauthorized non-stormwater discharges from the project site in accordance with the requirements of the Construction General Permit.

Sampling of non-stormwater discharges will be conducted when an authorized or unauthorized non-stormwater discharge is observed discharging from the project site. In the event that non-stormwater discharges run-on to the project site from offsite locations, and this run-on has the potential to contribute to a violation of a NAL, the run-on will also be sampled.

The following authorized non-stormwater discharges identified in [Section 2.7](#), have the potential to be discharged from the project site.

- [LIST or State NONE]
- [LIST or State NONE]

In addition to the above authorized stormwater discharges, some construction activities have the potential to result in an unplanned (unauthorized) non-stormwater discharge if BMPs fail. These activities include:

- [LIST or State NONE]
- [LIST or State NONE]

7.7.4.1 Sampling Schedule

Samples of authorized or unauthorized non-stormwater discharges shall be collected when they are observed.

7.7.4.2 Sampling Locations

Samples shall be collected from the discharge point of the construction site where the non-stormwater discharge is running off the project site. Site discharge locations are shown on the **Site Maps in SWPPP Appendix B** and include the locations identified below.

[Enter Number] sampling location(s) on the project site and the contractor's yard have been identified where non-stormwater discharges may runoff from the project site. (**Table 7.20**)

[If applicable]

Table 7.20 Non-stormwater Discharge Sample Locations

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter number of locations] sampling locations have been identified for the collection of non-stormwater discharges that run-on to the project site (**Table 7.21**).

Table 7.21 Non-stormwater Run-on Sample Locations

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

7.7.4.3 Monitoring Preparation

Non-stormwater discharge samples will be collected by:

Contractor ☐ Yes ☐ No
Consultant ☐ Yes ☐ No
Laboratory ☐ Yes ☐ No

Samples on the project site will be collected by the following contractor sampling personnel:

Name/Telephone Number:
Alternate(s)/Telephone Number:

An adequate stock of monitoring supplies and equipment for monitoring non-stormwater discharges will be available on the project site. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Personnel trained in sampling will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, clean powder-free nitrile gloves, sample collection equipment, field meters, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and *Effluent Sampling Field Log Sheets* and CoC forms provided in **Appendix Q “Example Forms”**.

The contractor will obtain and maintain the field-testing instruments, as identified in **Section 7.7.2**, for analyzing samples in the field by contractor sampling personnel.

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name:
Street Address:
City, State Zip:
Telephone Number:
Point of Contact:
Name of Sampler(s):
Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant], 24 hours prior to a planned non-stormwater discharge or as soon as an unplanned non-stormwater discharge is observed to ensure that adequate sample collection personnel, supplies for non-stormwater discharge monitoring are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.4.4 *Analytical Constituents*

All non-stormwater discharges that flow through a disturbed area shall, at minimum, be monitored for turbidity.

All non-stormwater discharges that flow through an area where they are exposed to pH altering materials shall be monitored for pH.

The QSP shall identify additional pollutants to be monitored for each non-stormwater discharge incident based on the source of the non-stormwater discharge. If the source of an unauthorized non-stormwater discharge is not known, monitoring for pH, turbidity, MBAS, TOC, and residual chlorine or chloramines is recommended to help identify the source of the discharge.

Non-stormwater discharge run-on shall be monitored, at minimum, for pH and turbidity. The QSP shall identify additional pollutants to be monitored for each non-stormwater discharge incident based on the source of the non-stormwater discharge. If the source of an unauthorized non-stormwater discharge is not known, monitoring for pH, turbidity, MBAS, TOC, and residual chlorine or chloramines is recommended to help identify the source of the discharge.

Table 7.22 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 7.22 Potential Non-Stormwater Discharge Pollutants and Water Quality Indicator Constituents

Pollutant Source	Pollutant	Water Quality Indicator Constituent
Disturbed Areas	Sediment	Turbidity
Concrete Work	pH	pH

7.7.4.5 Sample Collection

Samples shall be collected at the discharge locations where the non-stormwater discharge is leaving the project site. Potential discharge locations are shown on the **Site Maps in Appendix B** and identified in **Section 7.7.4.2**.

Grab samples shall be collected and preserved in accordance with the methods identified in **Table 7.23**. Only 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**.

7.7.4.6 Sample Analysis

Samples shall be analyzed using the analytical methods identified in **Table 7.23**.

7.7.4.7 Data Evaluation and Reporting

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

Turbidity and pH results shall be evaluated for compliance with NALs [and NELs] as identified in **Section 7.7.2.7**.

Runoff results shall also be evaluated for the constituents suspected in the non-stormwater discharge. Should the runoff sample indicate the discharge of a pollutant 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.

Non-storm water discharge results shall be submitted with the Annual Report.

The General Permit prohibits the non-storm water discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 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.

Table 7.23 Sample Collection, Preservation and Analysis for Monitoring Pollutants in Non-Stormwater Discharges

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Notes:						

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.

The Regional Water Board has specified monitoring for the following additional pollutants:

-
-

This Sampling and Analysis Plan describes the sampling and analysis strategy and schedule for monitoring additional pollutants as specified in the communication from the Regional Water Board dated [Enter Date]. This communication is included in **Appendix S “Supplemental Information”**.

7.7.5.1 ***Sampling Schedule***

Runoff samples shall be collected for [Enter Pollutants] from all qualifying rain events that result in a discharge from the project site. At minimum, samples will be collected from each site discharge location. A minimum of [Enter Number of Samples] samples will be collected per day of discharge from a qualifying event. Samples should be representative of the total discharge from the location each day of discharge during the qualifying event. Typically, representative samples will be spaced in time throughout the daily discharge event.

Stored or collected water from a qualifying storm event will be sampled when discharged. Stored or collected water from a qualifying event may be sampled at the point it is release from the storage or containment area or at the site discharge location.

7.7.5.2 ***Sampling Locations***

Sampling locations are based on the site discharge locations; accessibility for sampling; and personnel safety. Planned sample locations are shown on the **Site Maps in Appendix B** and include the locations identified below.

[Enter Number] sampling location(s) on the project site and the contractor’s yard have been identified for the collection of runoff samples (**Table 7.24**).

Table 7.24 Runoff Sample Locations for Other Pollutants Required by the Regional Water Board

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

7.7.5.3 Monitoring Preparation

Samples will be collected by:

Contractor ☐ Yes ☐ No

Consultant ☐ Yes ☐ No

Laboratory ☐ Yes ☐ No

Samples on the project site will be collected by the following contractor sampling personnel:

Name/Telephone Number:

Alternate(s)/Telephone
Number:

An adequate stock of monitoring supplies and equipment for monitoring [Enter Pollutants] will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, field meters and backup, extra batteries, clean powder-free nitrile gloves, sample collection equipment, appropriate sample containers, paper towels, personal rain gear, and *Effluent Sampling Field Log Sheets* and CoC forms provided in CSMP Appendix Q “Example Forms”.

The contractor will obtain and maintain the field-testing instruments, as identified in Section 7.7.2, for analyzing samples in the field by contractor sampling personnel.

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name:

Street Address:

City, State, Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins to ensure that adequate sample collection personnel, supplies for monitoring [Enter Pollutants] are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.5.4 Sample Collection

Runoff samples of discharge shall be collected at the designated sampling locations as identified above and shown on the Site Maps in Appendix B and as identified in Section 7.7.5.2.

Grab samples shall be collected and preserved in accordance with the methods identified in **Table 7.25**. Only 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**.

7.7.5.5 Sample Analysis

Samples shall be analyzed using the analytical methods identified in **Table 7.25**.

7.7.5.6 Data Evaluation and Reporting

Table 7.25 Sample Collection, Preservation and Analysis for Monitoring Regional Board Required Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Notes:						

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**.

The stormwater sampler(s) and alternate(s) have received the following stormwater sampling training:

Name	Training
	INSERT LIST OF TRAINING COURSES
	INSERT LIST OF TRAINING COURSES

The stormwater sampler(s) and alternates have the following stormwater sampling experience:

Name	Experience
	INSERT LIST OF STORMWATER SAMPLING EXPERIENCE
	INSERT LIST OF STORMWATER SAMPLING EXPERIENCE

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 Quality Assurance Program Plan (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.

- For small streams and flow paths, simply dip the bottle facing upstream until full.
- For 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 as to avoid any contamination by the sampler.
- For larger streams that cannot be safely waded, pole-samplers may be needed to safely access the representative flow.
- Avoid collecting samples from ponded, sluggish or stagnant water.
- Avoid collecting samples directly downstream from a bridge as 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.

SSC samples should be taken as a normal grab sample, where the bottle is submerged facing upstream and filled. SSC samples need to be collected in a separate bottle because the analysis requires the entire volume of the bottle. Do not collect in a larger container and partition into the laboratory sample 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 re-sealable 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 0-6 degrees Celsius 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:

Address:

City, State Zip:

Telephone
Number:
Point of Contact:

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.

The project specific Sampling and Analysis Plan for the ATS is provided in the ATS Monitoring and Sampling Plan (MSRP). The ATS MSRP is located

7.9 Bioassessment Monitoring

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

This project is Risk Level 3 ☐ Yes ☐ No

This project will disturb more than 30 acres ☐ Yes ☐ No

This project directly discharges runoff to a freshwater wadable stream (or streams) that is either: ☐ Yes ☐ No

a) Listed by the State Water Board or EPA as impaired due to sediment or is tributary to any downstream waterbody that is listed for sediment impairments

☐

or

b) Has the beneficial uses of SPAWN and COLD and
MIGRATORY



This project is not subject to bioassessment monitoring because it does not meet both of the permit specified trigger requirements.

This project is subject to bioassessment monitoring requirements. The bioassessment monitoring program is specified in [Insert the name of plan where the bioassessment monitoring plan is documented].

This project is subject to bioassessment monitoring requirements. The Regional Water Board has approved a bioassessment sampling exception for the project. Documentation of the sampling exception approval and payment to the SWAMP fund is included in Appendix S “Supplemental Information”.

7.10 Watershed Monitoring Option

This project is not participating in a watershed monitoring option.

This project is participating in a watershed monitoring option.

[Insert summary of the watershed monitoring and Regional Board approval of the program]

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 that were 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, an Effluent Sampling Field Log Sheet, [and a Receiving Water Sampling Field Log Sheet] are included in Appendix Q “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 **Appendix Q “Example Forms”**.

7.11.4 *QA/QC 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 [5 percent or 1 duplicate minimum per sampling event]

(Required for all sampling plans with field measurements or laboratory analysis)

☐ Equipment Blanks at a frequency of [Insert frequency required by method]

(Only needed if equipment used to collect samples could add the pollutants to sample)

☐ Field Blanks at a frequency of [Insert frequency required by method]

(Only required if sampling method calls for field blanks)

☐ Travel Blanks at a frequency of [Insert frequency required by 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 that has been cleaned after use at a contaminated site;
- Equipment that is 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 re-analyze samples where appropriate.
Sample re-analysis 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 three 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;
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections; [and]
 - [NAL Exceedance Reports].

Section 8 References

Project Plans and Specifications No. [Insert Number] dated [insert date], prepared by [entity preparing plans and specifications]

State Water Resources Control Board (2009). *Order 2009-0009-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (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.

State Water Resources Control Board (2010). *Order 2010-0014-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (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.

State Water Resources Control Board (2012). *Order 2012-0006-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (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.

[Include additional references as needed]

CASQA (2019). *Construction BMP Handbook*. Available online at: www.casqa.org

Appendix A: Construction General Permit

Appendix B: Site Maps

Appendix C: Permit Registration Documents

Permit Registration Documents included in this Appendix:

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

Appendix D: SWPPP Amendment Certifications

**SWPPP Amendment
No.**

Project Name:

Project Number:

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

"This Stormwater Pollution Prevention Plan and its appendices 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

QSD Name

QSD Certificate Number

Title and Affiliation

Telephone

Address

Email

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.

Legally Responsible Person [if organization]

Signature of [Authorized Representative of] Legally
Responsible Person or Approved Signatory

Name of [Authorized Representative of] Legally
Responsible Person or Approved Signatory

Date

Telephone Number

Appendix F: Construction Schedule

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

Table G.1 Construction Activities and Associated Pollutants

Phase	Activity	Associated Materials or Pollutants	Pollutant Category ⁽¹⁾
Grading and Land Development			
Streets and Utilities Phase			
Vertical Construction Phase			
Landscaping and Site Stabilization Phase			

⁽¹⁾ Categories per CASQA BMP Handbook (i.e., Sediment, Nutrients, Bacteria and Viruses, Oil and Grease, Metals, Synthetic Organics, Pesticides, Gross Pollutants / Debris, and Vector Production)

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

Appendix I: BMP Inspection Form

BMP INSPECTION REPORT

Date and Time of Inspection:		Date Report Written:		
Inspection Type: (Circle one)	<i>Weekly Complete Parts I, II, III and VII</i>	<i>Pre-Storm Complete Parts I, II, III, IV and VII</i>	<i>During Rain Event Complete Parts I, II, III, V, and VII</i>	<i>Post-Storm Complete Parts I, II, III, VI and VII</i>
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 onsite			
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	Action Required (yes/no)	Action Implemented (Date)

	(yes, no, N/A)		
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 onsite 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			
Linear sediment control along toe of slope, face of slope and at grade breaks (Risk Level 2 & 3 Only)			
Limit construction activity to and from site to entrances and exits that employ effective controls to prevent offsite tracking (Risk Level 2 & 3 Only)			
Ensure all storm, drain inlets and perimeter controls, runoff control BMPs and pollutants controls at entrances and exits are maintained and protected from activities that reduce their effectiveness (Risk Level 2 & 3 Only)			
Inspect all immediate access roads daily (Risk Level 2 & 3 Only)			
Run-On and Run-Off 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 onsite 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 two 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 ½ 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: Project Specific Rain Event Action Plan Template

Rain Event Action Plan (REAP)

Date:	☐ NOAA Report Attached	WDID Number:
Date Rain Predicted:	Predicted % chance of rain:	
Site Information:		
Site Name, City and Zip Code		Project Risk Level:
Site Stormwater Manager Information:		
Name, Company, Emergency Phone Number (24/7)		
Erosion and Sediment Control Contractor (labor force contracted for the Site):		
Name, Company, Emergency Phone Number (24/7)		
Stormwater Sampling Agent:		
Name, Company, Emergency Phone Number (24/7)		
Current Phase of Construction <i>(Check ALL the boxes below that apply to the site).</i>		
☐ Grading and Land Development	☐ Vertical Construction	☐ Inactive Site
☐ Streets and Utilities	☐ Final Landscaping/Site Stabilization	☐ Other:
Activities Associated with Current Phase(s) <i>Check ALL the boxes below that apply to the site (some apply to all Phases).</i>		
<u>Grading and Land Development:</u>		
☐ Demolition	☐ Vegetation Removal	☐ Vegetation Salvage-Harvest
☐ Rough Grade	☐ Finish Grade	☐ Blasting
☐ Soil Amendment(s):	☐ Excavation (_____ ft)	☐ Soils Testing
☐ Rock Crushing	☐ Erosion and Sediment Control	☐ Surveying
☐ Equip. Maintenance/Fueling	☐ Material Delivery and Storage	☐ Other:
<u>Streets and Utilities:</u>		
☐ Finish Grade	☐ Utility Install: water-sewer-gas	☐ Paving Operations
☐ Equip. Maintenance/Fueling	☐ Storm Drain Installation	☐ Material Delivery & Storage
☐ Curb and Gutter/Concrete Pour	☐ Masonry	☐ Other:
<u>Vertical Construction:</u>		
☐ Framing	☐ Carpentry	☐ Concrete/Forms/Foundation
☐ Masonry	☐ Electrical	☐ Painting
☐ Drywall/Interior Walls	☐ Plumbing	☐ Stucco
☐ Equip. Maintenance/Fueling	☐ HVAC	☐ Tile
☐ Exterior Siding	☐ Insulation	☐ Landscaping & Irrigation
☐ Flooring	☐ Roofing	☐ Other:
<u>Final Landscaping & Site Stabilization:</u>		
☐ Stabilization	☐ Vegetation Establishment	☐ E&S Control BMP Removal
☐ Finish Grade	☐ Storage Yard/ Material Removal	☐ Landscape Installation
☐ Painting and Touch-Up	☐ Irrigation System Testing	☐ Other:
☐ Drainage Inlet Stencils	☐ Inlet Filtration	☐ Perm. Water Quality Ponds
☐ Other:	☐ Other:	☐ Other:
<u>Inactive Construction Site:</u>		
☐ E & S Control Installation	☐ Routine Site Inspection	☐ Trash Removal
☐ E & S Control Maintenance	☐ Street Sweeping	☐ Other:

REAP (Continued)		
Active on Site during Current Phase(s) <i>(Check ALL the boxes below that apply to your site)</i>		
☐ Storm Drain Improvement	☐ Grading Contractor	☐ Surveyor- Soil Technician
☐ Street Improvements	☐ Water Pipe Installation	☐ Sanitary Station Provider
☐ Material Delivery	☐ Sewer Pipe Installation	☐ Electrical
☐ Trenching	☐ Gas Pipe Installation	☐ Carpentry
☐ Concrete Pouring	☐ Electrical Installation	☐ Plumbing
☐ Foundation	☐ Communication Installation	☐ Masonry
☐ Demolition	☐ Erosion and Sediment Control	☐ Water, Sewer, Electric Utilities
☐ Material Delivery	☐ Equipment Fueling/Maintenance	☐ Rock Products
☐ Tile Work- Flooring	☐ Utilities, e.g., Sewer, Electric	☐ Painters
☐ Drywall	☐ Roofers	☐ Carpenters
☐ HVAC installers	☐ Stucco	☐ Pest Control: e.g., Termites
☐ Exterior Siding	☐ Masons	☐ Water Feature Installation
☐ Insulation	☐ Landscapers	☐ Utility Line Testers
☐ Fireproofing	☐ Riggers	☐ Irrigation System Installation
☐ Steel Systems	☐ Utility Line Testers	☐ Other:
Trade Contractor Information Provided <i>(Check ALL the boxes below that apply to the site.)</i>		
☐ Educational Material Handout	☐ Tailgate Meetings	☐ Training Workshop
☐ Contractual Language	☐ Fines and Penalties	☐ Signage
☐ Other:	☐ Other:	☐ Other:

Predicted Rain Event-Triggered Actions

Below is a list of suggested actions and items to review for this project. Each active Trade should check all material storage areas, stockpiles, waste management areas, vehicle and equipment storage and maintenance, areas of active soil disturbance, and areas of active work to ensure the proper implementation of BMPs. Project-wide BMPs should be checked and cross-referenced to the BMP progress map.

Trade or Activity	Suggested action(s) to perform / item(s) to review prior to rain event
☐ Information & Scheduling	☐ Inform trade supervisors of predicted rain ☐ Check scheduled activities and reschedule as needed ☐ Alert erosion/sediment control provider ☐ Alert sample collection contractor (if applicable) ☐ Schedule staff for extended rain inspections ☐ Check Erosion and Sediment Control (ESC) material stock ☐ Review BMP progress map ☐ Hours of operation verified for upcoming storm event ☐ Other:
☐ Material storage areas	☐ Material under cover or in sheds (e.g., treated woods and metals) ☐ Perimeter control around stockpiles ☐ Stockpiles covered (as applicable) ☐ Other:
☐ Waste management areas	☐ Dumpsters closed and drain holes plugged ☐ Recycling bins covered ☐ Portable restrooms have secondary containment and protected from tipping over

Page 2 of
3

REAP (Continued)

Trade or Activity, Continued	Suggested action(s) to perform / item(s) to review prior to rain event
☐ Trade operations	☐ Exterior operations shut down for event (e.g., no concrete pours or paving) ☐ Soil treatments (e.g., fertilizer, soil binder) ceased within 24 hours of event ☐ Materials and equipment (e.g., tools) properly stored and covered ☐ Waste and debris disposed in covered dumpsters or removed from site ☐ Trenches and excavations protected ☐ Perimeter controls around disturbed areas ☐ Fueling and repair areas covered and bermed ☐ Other:
☐ Erosion and Sediment Control	☐ Adequate capacity in sediment basins and traps ☐ Site perimeter and slope controls in place ☐ Catch basin and drop inlet protection in place and cleaned ☐ Temporary erosion controls deployed ☐ Roads swept; site ingress and egress points stabilized ☐ Temporary perimeter controls deployed around disturbed areas and stockpiles ☐ Other:
☐ Concrete washout	☐ Adequate capacity for rain or covered ☐ Other:
☐ Spill and drips	☐ All incident spills and drips cleaned, including paint, stucco, fuel, and oil ☐ Drip pans emptied ☐ Other:
☐ Other / Discussion / Diagrams	☐ _____

I certify under penalty of law that this Rain Event Action Plan (REAP) will be performed in accordance with the General Permit by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, 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.

 Qualified SWPPP Practitioner

Date: _____

Appendix K: Training Reporting Form

Trained Contractor Personnel Log

Stormwater Management Training Log and Documentation

Project Name: _____

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 L: Responsible Parties

Identification of QSP

Project Name: _____

WDID #: _____

The following are QSPs associated with this project

Name of Personnel ⁽¹⁾	Company	Date

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

Appendix M: Contractors and Subcontractors

Appendix N: Calculations

Appendix O: Weather Reports

The discharger must obtain the precipitation forecast information from the National Weather Service Forecast Office (<http://forecast.weather.gov>). A printed copy should be retained in this Appendix.

Appendix P: Monitoring Records

Appendix Q: Example Storm Event Monitoring Forms

Rain Gauge Log Sheet

Construction Site Name:

WDID #:

[illegible]

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 % chance of rain:		
Estimate storm beginning: _____	Estimate storm duration: _____		Estimate time since last storm: _____	Rain gauge reading: _____		
(date and time)	(hours)		(days or hours)	(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/REAP change is needed)						
Inspector Information						
Inspector Name:				Inspector Title:		
Signature:					Date:	
Risk Level 2						

Effluent Sampling Field Log Sheets

Construction Site Name:		Date:	Time Start:
Sampler:			
Sampling Event Type:	☐ Stormwater	☐ Non-stormwater	☐ Non-visible pollutant
Field Meter Calibration			
pH Meter ID No./Desc.:		Turbidity Meter ID No./Desc.:	
Calibration Date/Time:		Calibration Date/Time:	
Field pH and Turbidity Measurements			
Discharge Location Description	pH	Turbidity	Time
Grab Samples Collected			
Discharge Location Description	Sample Type		Time
Additional Sampling Notes:			
Time End:			

Risk Level 3 Effluent Sampling Field Log Sheets			
Construction Site Name:		Date:	Time Start:
Sampler:			
Sampling Event Type:	☐ Stormwater	☐ Non-stormwater	☐ Non-visible pollutant
Field Meter Calibration			
pH Meter ID No./Desc.:		Turbidity Meter ID No./Desc.:	
Calibration Date/Time:		Calibration Date/Time:	
Field pH and Turbidity Measurements			
Discharge Location Description	pH	Turbidity	Time
Grab Samples Collected			
Discharge Location Description	Other (specify)		Time
Additional Sampling Notes:			
Time End:			

Risk Level 3 Receiving Water Sampling Field Log Sheets			
Construction Site Name:		Date:	Time Start:
Sampler:			
Receiving Water Description and Observations			
Receiving Water Name/ID:			
Observations:			
Odors	Yes ☐	No ☐	
Floating material	Yes ☐	No ☐	
Suspended Material	Yes ☐	No ☐	
Sheen	Yes ☐	No ☐	
Discolorations	Yes ☐	No ☐	
Turbidity	Yes ☐	No ☐	
Field Meter Calibration			
pH Meter ID No./Desc.:		Turbidity Meter ID No./Desc.:	
Calibration Date/Time:		Calibration Date/Time:	
Field pH and Turbidity Measurements and SSC Grab Sample			
Upstream Location			
Type	Result	Time	Notes
pH			
Turbidity			
SSC	Collected Yes ☐ No ☐		
Downstream Location			
Type	Result	Time	Notes
pH			
Turbidity			
SSC	Collected Yes ☐ No ☐		
Additional Sampling Notes:			
Time End:			

NAL Exceedance Evaluation Summary Report		Page ___ of ___
Project Name		
Project WDID		
Project Location		
Date of Exceedance		
Type of Exceedance	NAL Daily Average ☐ pH ☐ Turbidity ☐ Other (specify) _____	
Measurement or Analytical Method	☐ Field meter (Sensitivity: _____) ☐ Lab method (specify) _____ (Reporting Limit: _____) (MDL: _____)	
Calculated Daily Average	☐ pH _____ pH units ☐ Turbidity _____ NTU	
Rain Gauge Measurement	_____ inches	
Compliance Storm Event	_____ inches (5-year, 24-hour event)	
Visual Observations on Day of Exceedance		

NAL Exceedance Evaluation Summary Report		Page ____ of ____
Description of BMPs in Place at Time of Event		
Initial Assessment of Cause		
Corrective Actions Taken (deployed after exceedance)		
Additional Corrective Actions Proposed		
Report Completed By	 (Print Name, Title)	
Signature		

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								
				#	Type	Pres.						
SENDER COMMENTS:							RELINQUISHED BY					
							Signature:					
							Print:					
							Company:					
							Date:				TIME:	
LABORATORY COMMENTS:							RECEIVED BY					
							Signature:					
							Print:					
							Company:					
							Date:				TIME:	

Appendix R: Field Meter Instructions

Appendix S: Supplemental Information
