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# STORMWATER POLLUTION PREVENTION PLAN

Inland Empire Energy Center
Decommissioning and Demolition

**RISK LEVEL** ***1***

## Legally Responsible Person [LRP]:

Frank Escobedo
Inland Empire Energy Center, LLC
26226 Antelope Road, Menifee, CA 92585
951-928-5941

## Approved Signatory:

Not Applicable

## Prepared for:

Inland Empire Energy Center, LLC
26226 Antelope Road, Menifee, CA 92585

## Project Address:

26226 Antelope Road
Menifee, CA 92585

## SWPPP Prepared by:

ATC Group Services
25 Cupania Circle
Monterey Park, CA 91755
Jay Schneider

## SWPPP Preparation Date

1/8/2020

## Estimated Project Dates:

| | | | |
|---|---|---|---|
| Start of Construction | **February 10, 2020** | Completion of Construction | **December 31, 2020** |

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# Qualified SWPPP Developer

Approval and Certification of the Stormwater Pollution Prevention Plan

| | |
|---|---|
| Project Name: | *Inland Empire Energy Center Decommissioning and Demolition* |
| Project Number/ID [if applicable] | |

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

| | |
|---|---|
| *QSD Signature* | *Date* |
| *Jay Schneider* | *20608* |
| *Senior Geologist* | *323-517-9648* |
| *ATC Group Services* | |
| *25 Cupania Circle,* | |
| *Monterey Park, CA 91755* | |
| *jay.schneider@atcgs.com* | |

# Legally Responsible Person

Approval and Certification of the Stormwater Pollution Prevention Plan

| | |
|---|---|
| Project Name: | Inland Empire Energy Center Decommissioning and Demolition |
| Project Number/ID [if applicable] | |

"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."

Inland Empire Energy Center LLC

Legally Responsible Person

| | |
|---|---|
| Signature of Authorized Representative of Legally Responsible Person or Approved Signatory | Date |
| Frank Escobedo | 951-928-5941 |
| Name of Authorized Representative of Legally Responsible Person or Approved Signatory | Telephone Number |

# Amendment Log

Project Name: Inland Empire Energy Center Decommissioning and Demolition

Project Number/ID [if applicable]

| Amendment No. | Date | Brief Description of Amendment, include section and page number | Prepared and Approved By |
|---|---|---|---|
| | | | Name:<br>QSD# |
| | | | Name:<br>QSD# |
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| | | | Name:<br>QSD# |

# Section 1 SWPPP Requirements

## 1.1 INTRODUCTION

The Inland Empire Energy Center Decommissioning and Demolition project comprises approximately 35 acres of a 45.8-acre site, of which 6.45 acres will be ground disturbance. The IEEC is located at 26226 Antelope Road in Menifee, California. The property is owned by Inland Empire Energy Center, LLC (IEEC), which is an indirectly wholly-owned subsidiary of General Electric Company. The project's location is shown on the Site Map in Appendix B.

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

- Pollutants and their sources, including sources of sediment associated with construction, construction site erosion and other activities associated with construction activity are controlled;
- Where not otherwise required to be under a Regional Water Quality Control Board (Regional Water Board) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
- Site 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. These are included in Appendix A.

## 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.

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. The original SWPPP will be located in the onsite construction trailer of the Engineer (ATC). The SWPPP shall be implemented concurrently with the start of ground disturbing activities.

## 1.4 SWPPP AMENDMENTS

The SWPPP should be revised when:

- 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
- 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.

The 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 | *X* |
| Relocate/Add stockpiles or stored materials | *X* |
| Relocate or add toilets | *X* |
| Relocate vehicle storage and/or fueling locations | *X* |
| Relocate areas for waste storage | *X* |
| Relocate water storage and/or water transfer location | *X* |
| Changes to access points (entrance/exits) | *X* |
| Change type of Erosion or Sediment Control Measure | *X* |
| Changes to location of erosion or sediment control | *X* |
| Minor changes to schedule or phases | *X* |
| Changes in construction materials | *X* |
| *(1) Any field changes not identified for field location or field determination by QSP must be approved by QSD* | |

## 1.5 RETENTION OF RECORDS

Paper or electronic records of 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:

- SWPPP and all of the documents as required by the SWPPP, including updates and amendments

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

## 1.7 ANNUAL REPORT

The General Permit requires that permittees prepare, certify, and electronically submit an Annual Report no later than September 1st 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 on-line 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; 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 changes shall be logged at the front of the SWPPP. Certification of SWPPP amendments are to be kept in Appendix D. Updated PRDs submitted electronically via SMARTS can be found in Appendix E.

## 1.9 NOTICE OF TERMINATION

A Notice of Termination (NOT) must be submitted electronically by the LRP via SMARTS to terminate coverage under the General Permit. The NOT must include a final Site Map and representative photographs of the project site that demonstrate final stabilization has been achieved. The NOT shall be submitted within 90 days of completion of construction. The Regional Water Board will consider a construction site complete when the conditions of the General Permit, Section II.D have been met.

# Section 2 Project Information

## 2.1 PROJECT AND SITE DESCRIPTION

### 2.1.1 Site Description

The project is located at 26226 Antelope Road in the City of Menifee, Riverside County, California 92585, on approximately 45.8 acres. The Project Site is located approximately six miles west of the City of Hemet, four miles east of the City of Perris, and 30 miles southeast of the City of Riverside.

The project is located 250 feet south of California Highway 74, and 1.0 miles east of Interstate Highway 215. The project site is located approximately 100 feet north of the Riverside County Flood Control District (RCFC) Romoland MDP Flood Control Channel. This channel drains to other RCFC flood control structures that eventually discharge into Canyon Lake, located approximately 6.58 miles southwest of the project site. The site is generally flat, with an approximate elevation of 1,450 feet above mean sea level. The site is not within a projected 100-year flood plain designated by the Federal Emergency Management Agency. The project is located at latitude 33.73930556 north and longitude -117.16861111 west 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 the location of the Inland Empire Energy Center (IEEC), an existing natural gas-fired, combined-cycle generating facility located in Riverside County, California. The Project is owned and operated by IEEC, which is an indirectly wholly-owned subsidiary of General Electric Company. The Project occupies approximately 35 acres within the 45.8-acre Project Site. Ground disturbance comprises 6.45 acres.

Approximately 24 fenced acres accommodate the power generation facility, a switchyard, a water treatment facility, storage tank areas, a parking area, a control room building, and two storm water retention basins. The remaining 11 acres of the 35 disturbed acres are comprised of landscaped areas and access roads. The project site was previously developed with cultivated agricultural land used for growing wheat.

URS (2005) investigated soil, at the Project Site in 2005 to evaluate potential areas of concern for contamination as a result of the Project Site's previous agricultural activities. URS reported that no contaminants were detected above the EPA preliminary remediation goals (PRGs) or California Office of Environmental Health hazard Assessment (OEHHA) soil screening levels (SSLs). The concentrations of metals in the surface soil samples were also found to be below the PRGs and SSLs. Concentrations of arsenic in surface soil were found to exceed the SSL, but were within background concentration levels for California soil. Comparison of these results to current EPA screening levels indicates that concentrations of contaminants and metals measured by URS in 2005 are below current screening levels for commercial and industrial properties. These concentrations are also below current Environmental Screening levels (ESLs) for commercial properties promulgated by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB, 2019).

There were no significant releases of contaminants during IEEC operations, and any minor spills were promptly addressed in accordance with applicable requirements (ATC, 2019).

### 2.1.3 Existing Drainage

The project site is relatively level, with a very slight slope to the south and west. The elevation of the project site ranges from 1,349 to 1,448 feet above mean sea level (msl). Surface drainage at the site currently flows to the south towards storm drain inlets. Stormwater is conveyed through a site storm drain system that drains to two sediment basins on the southwestern and southeastern corners of the site, respectively. Stormwater discharges from the site are not considered direct discharges, as defined by the State Water Board. Existing site topography, drainage patterns, and stormwater conveyance systems are shown on drawings C101-9SPI-001 and -001A in Appendix B.

The project indirectly discharges to Canyon Lake that is listed for water quality impairment on the most recent 303(d)-list for:

- Nutrients

### 2.1.4 Geology and Groundwater

Menifee lies in the northern part of the Peninsular Ranges Geomorphic Province, which is characterized by northwest-trending mountains and valleys extending from the Los Angeles Basin on the north southeast into Baja California. The province is bounded by the San Andreas fault zone on the east and extends offshore to the west. The northern, onshore part of the province is divided into three major fault-bounded blocks that are, from west to east, the Santa Ana Mountains block, the Perris block, and the San Jacinto Mountains block. The Perris block, where Menifee is located, is bounded by the Elsinore fault zone on the southwest and the San Jacinto fault zone on the northeast. In spite of being surrounded by active fault systems and growing mountain ranges, the Perris block is an area of lower relief that has remained relatively stable and undeformed for thousands of years.

The property is located in the Perris-South Subbasin of the San Jacinto Groundwater Basin and is situated on older alluvial fan deposits of middle to late Pleistocene age that were derived from erosion of the local highlands. The maximum depth of valley fill in the western San Jacinto Basin is approximately 900 feet. Six borings advanced on the property (URS, 2005) to depths between 70 and 80 feet below ground surface (bgs) classified the subsurface generally as alternating beds of silty sand, sand, and clayey silt. Generally the clay content increased with depth (USGS, 2003a; USGS, 2003b; CDWR, 2006).

According to a 2005 subsurface investigation of the property conducted by URS prior to development, the depth to groundwater as measured in six temporary monitoring wells evenly distributed over the property ranged from 65 to 72 feet below ground surface. The primary direction of groundwater flow was toward the northwest, with a secondary gradient across the southern half of the property to the south-southwest. A northwest gradient is consistent with a regional groundwater flow diagrams in an earlier study reviewed by ATC (USGS, 2003b).

### 2.1.5 Project Description

Ground disturbance will occur on approximately 6.45 acres of the project, which comprises approximately 14 percent of the total area. The limits of excavation and grading are shown on Figures M301-9UGC-002 through -017, and C101-9SPI-001C in Appendix B. Grading will include excavation of trenches to remove selected subsurface piping and utility conduits. The maximum acreage that will be exposed to perform piping and utility conduit removal will be 5.40 acres. This figures assumes that there will be a maximum of two (2) feet of soil exposure on both sides of any piping/conduit exposed for removal purposes. These trenching activities will be conducted sequentially, with only small portions of the site to have open trenches at any one time. Trenches will be backfilled with native soil, then resurfaced with non-vegetative stabilization BMPs such as decomposed granite or compacted gravel within 24 hours after backfill.

The cooling tower basin walls will be removed to six inches below grade and the remaining basin will be filled to grade level with recycled concrete and clean fill and compacted. The area of clean fill is 1.05 acres. Following compaction, the area of the former cooling tower basin will be resurfaced with non-vegetative stabilization BMPs such as decomposed granite or compacted gravel.

The total graded material is estimated to be a maximum of 44,407 cubic yards. This figure assumes that the average depth of the excavations are five (5) feet bgs. This figure includes the approximately 847 cubic yards of fill material that will be imported to be placed above the recycled concrete in the former cooling tower basin. Therefore, graded materials are expected to be balanced onsite. No graded soil is expected to be hauled away from the site. Soil will be stockpiled on site, in proximity to the areas where trenching is being conducted. These stockpiles will be short-term, as the soil excavated from the trenches will be backfilled into the trenches as soon as the subsurface components are removed. A stockpile will also be used for material to be placed into the cooling tower basin in lifts between lifts of recycled concrete. This stockpiles will be located near the cooling tower basin. The locations of these stockpiles are shown on Figures M301-9UGC-002 through -017, and C101-9SPI-001B, and C101-9SPI-001C in Appendix B.

The decommissioning and demolition of the Project will be completed in three consecutive phases. The work in each phase is described below:

**Phase 1 (3 Month Estimated Duration)**

The initial activities under Phase 1 will include disconnection of the Project from primary utilities including gas supply and electrical supply from the switchyard. Once on-site systems and piping scheduled for demolition are confirmed purged and free of natural gas and high voltage electricity, additional Phase 1 activities will proceed as follows:

- Mobilization and emplacement of BMPs intended for entire duration of project;
- Demolition of the Balance of Plant (BOP) structures (outside of the main Power Block), including foundations and subsurface utilities. This work will include:

- Any pipes that are 0-12 feet below ground surface (bgs) and are accessible (i.e., not located below foundations that are not removed) will be removed;
- Circulating water pipe that is not below foundations but underneath existing duct banks will be filled with flowable fill and not excavated;
- All cabling from underground duct bank conduits will be removed and duct banks will be left in place with empty conduit;
- Piping for water (fire, potable, service) and sewer, that does not impact the operations of utilities within the control room building, control room and warehouse, will be removed back to the Project Site boundary or closest flanged connection and secured with a blanking plate as described below or an existing valve if near the Project Site boundary;
- For piping left in place, service will be blanked off with ASME type weld-end/weld-on caps or flanges; Gas Service will be terminated at the boundary of the Southern California Fuel Gas metering station;
- Drain lines located within the power block foundations will be capped in place;
- Electrical service that routes to the Project from the power block will be terminated once the power block is disconnected from the switchyard. This will de-energize the water treatment building and electric fire pump. Once electrical service is terminated temporary fire protection measures will be utilized during decommissioning and demolition;
- The stormwater drainage and retention system will be left in place and remain operable.

Phase 1 BOP demolition work will require the following types of equipment and may not include all specialty types of equipment:

- Excavators with Concrete Processors (breaking / sizing of concrete foundations / pedestals and complete rebar removal);
- Excavators with Hydraulic Metal Shears (demolition and sizing of metal structural components, tanks, and any unsold equipment);
- Excavators with Thumbs / Magnets (loading trucks, containers, and rail cars with sized ferrous and non-ferrous material);
- Water Truck (site dust control (12,000 gallons per day estimated – as required to maintain compliance with applicable requirements);
- Roll-off Container Drop Truck (stockpile / segregate ferrous and non-ferrous material);
- Skid-steer Loaders (stockpile / segregate ferrous and non-ferrous material);
- Wheel Loader (stockpile/segregate ferrous, non-ferrous, and pulverized concrete;
- Fuel / Lube / Mechanic Truck (equipment support);
- 4WD Project Pickups (personnel transport); and,
- 160 Ton All Terrain Crane as needed.

All C&D waste and recyclable material generated during Phase 1 will be loaded in approved and properly labelled containers and transferred from the Project Site to a California licensed and approved waste disposal or recycling facility in properly placarded transport vehicles.

**Phase 2 (8 Month Estimated Duration)**

Phase 2 consists of the demolition of the main Power Block structures and all remaining ancillary structures to existing grade. The main Power Block structures, equipment, and ancillary structures include:

- Units 1 & 2 Steel Support Structures;
- Units 1 & 2 Combustion Turbine;
- Units 1 & 2 Generators;
- Units 1 & 2 Steam Turbines;
- Units 1 & 2 Natural Gas Conditioning Structures;
- Units 1 & 2 Heat Recovery Steam Generators (HRSG);
- Units 1 & 2 HRSG Stack Structures;
- Units 1 & 2 Combustion Turbine Air Inlet System Structures and Foundations;
- Units 1 & 2 Power Block Pumps and Related Valves / Piping; and,
- Units 1 & 2 Power Block Electrical, buses, and Control Cabling / Cable Trays.

This demolition work will be completed utilizing the same equipment used in Phase 1, all performing the same functions. C&D waste and recyclable material generated during Phase 2 will be loaded in approved and properly labelled containers and transferred from the Project Site to a California licensed and approved waste disposal facility in properly placarded transport vehicles.

**Phase 3 (1 Month Estimated Duration)**

Phase 3 consists of the placement and compaction to project specifications of existing site backfill material (processed concrete) and imported engineered backfill material in the Cooling Tower Basin and any areas excavated during the demolition phases. Final grading of disturbed areas will be completed and non-vegetative stabilization BMPs (crushed rock, EC-16) erosion control measures will be installed. This work will be completed utilizing the following types of equipment:

- Water Truck (site dust control and backfill moisture control per compaction specifications);
- Excavators with Buckets (loading processed concrete in the container truck during the demolition phases);
- Roll-off Container Drop Truck (dumping processed concrete in the Cooling Tower Basin and areas requiring backfill following demolition);

- Skid-steer Loaders (spreading processed concrete in eight-inch lifts in the Cooling Tower Basin and areas requiring backfill and spreading imported backfill between the processed concrete lifts to fill void spaces and achieve compaction specifications);
- Sheepsfoot Vibratory Compactor (achieve compaction specifications);
- Fuel / Lube / Maintenance Truck (equipment support); and,
- 4WD Project Pickups (personnel transport).

Waste material generated during Phase 3 will be loaded in approved and properly labelled containers and transferred from the Project Site to a California licensed and approved waste disposal facility in properly placarded transport vehicles.

Phase 3 includes purchasing approved backfill and hauling / placing / compacting the fill between all processed concrete lifts. The work consists of the following tasks:

- Approved fill will be loaded and transported to the Project Site and placed in eight inch lifts over each processed concrete lift;
- Compaction will be gained by utilizing a vibratory compactor to achieve project compaction specifications with moisture requirements being within specified percentage points of optimum moisture;
- Confirmation testing will be completed; and,
- The final survey will be completed to ensure final design for fill elevations in all site areas was achieved.

The final grading involves the following:

- Importing approved backfill and spreading / compacting to gain final specified elevations and grading / contouring of the backfill to maintain positive slope to storm water drains, and,
- Installation of all permanent erosion control measures (crushed rock, EC-16) will be completed by the demolition contractor.

Phase 3 also includes demobilization of all equipment, removal of any temporary safety fences, removal of silt fences (SE-1), complete demobilization of all demolition personnel, and any subcontractor equipment and personnel. The work generally consists of the following:

- Temporary safety and silt fence removal;
- Sanitary facilities (WM-09) demobilization;
- Complete equipment demobilization; and,
- Demolition contractor and any subcontractor personnel demobilization.

Drawings of each phase can be located on Figures C101-9SPI-001 and -001A, -001B, -001C, M301-9UGC-002 through -017, in Appendix B. Decommissioning and demolition laydown and parking areas will be located within the 45.8-acre Project Site, as indicated on Diagram C101-9SPI-001A, 001B, and -001C in Appendix B.

### 2.1.6 Developed Condition

Post construction surface drainage will be directed into the storm drain system, as it has been since the original construction of the IEEC. As indicated above, the site's storm drain system will remain in place and not be decommissioned. The storm drain system ultimately leads to the two sediment basins located on the southwestern and southeastern corners of the site.

Most of the subsurface component removal activities will take place below areas of pervious soil top-dressed with pervious gravel. Upon removal of the components, the trenches will be backfilled with the native soil that had been removed, and will once-again be top-dressed with gravel Those areas of subsurface component removal that will take place below asphalt roadways will be completed at the surface with replacement asphalt roadway material. Therefore, the proposed Decommissioning and Demolition project will not result in an increase of impervious area at the Site.

Post construction drainage patterns and conveyance systems are presented on Figure C101-9SPI-001A, -001B, and -001C in Appendix B. Drainage patterns and conveyance systems, including the entire storm drain system and sediment basins, will not be decommissioned during this process and drainage patterns will remain the same as previous to decommissioning and demolition.

Table 2.1 includes an estimate of the percentage of the construction site area that is impervious. The impervious area includes building footprints, parking lots, asphalt roadways, and the cooling tower basin. The estimates are based on site reconnaissance, examination of site maps (Appendix B), and aerial views of the site from Google Earth. It is estimated that the impervious area both before and after construction is 11.5 acres, or 25.1% of the construction site area. The runoff coefficient of 0.75 CFS is derived from guidelines produced by the California State Water Resources Control Board (2009).

**Table 2.1 Construction Site Estimates**

| | | |
|---|---|---|
| Construction site area | 45.8 | acres |
| Percent impervious before construction | 25.1 | % |
| Runoff coefficient before construction | 0.75 | CFS |
| Percent impervious after construction | 25.1 | % |
| Runoff coefficient after construction | 0.75 | CFS |

## 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

- Inland Empire Energy Center Decommissioning and Demolition Plan
- Contract Documents
- Federal Endangered Species Act
- State of California Endangered Species Act
- Clean Water Act Section 401 Water Quality Certifications and 404 Permits
- South Coast Air Quality Management District (SCAQMD) Rule 403 – Fugitive Dust
- Superfund Amendments and Reauthorization Act
- California Uniform Building Code
- California Fire Code
- Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- California Hazardous Waste Control Act of 1972
- Stephen's Kangaroo Rat Habitat Conservation Plan
- California Constitution Article X, Section 2
- Porter Cologne Water Quality Control Act of 1967
- Safe Drinking Water and Toxic Enforcement Act of 1986
- County of Riverside grading and erosion control regulations
- Eastern Municipal Water District regulations

## 2.3 STORMWATER RUN-ON FROM OFFSITE AREAS

There is no anticipated offsite run-on to this construction site because there are no upgradient drainage areas. The site is 1) protected on its east and west sides by existing landscape berms (EC-9), 2) the site's southern perimeter is at a greater elevation than the adjoining property (the Riverside County Flood Control District's Romoland MDP Flood Channel, and 3) the northernmost areas of soil disturbance of this project are at a higher elevation than the northernmost portion of the IEEC, which will not be disturbed during the planned decommissioning and demolition activities (see diagrams C101-9SPI-001, -001A, 001B, and -001C, 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.

The risk level was determined through the use of the USEPA Rainfall Erosivity Factor Calculator for Small Construction Sites and the Google Earth RUSLE application. 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 | 21.17 | Rainfall Erosivity Factor Calculator for Small Construction Sites https://lew.epa.gov/ |
| K | 0.24 | Google Earth RUSLE K Factor application |
| LS | 1.05 | Google Earth RUSLE LS Factor application |
| **Total Predicted Sediment Loss (tons/acre)** | | **5.33484** |
| **Overall Sediment Risk**<br>Low Sediment Risk < 15 tons/ acre<br>Medium Sediment Risk >= 15 and < 75 tons/acre<br>High Sediment Risk >= 75 tons/acre | | X **Low**<br>☐ **Medium**<br>☐ **High** |

Runoff from the project site discharges into the Riverside County Flood Control and Water Conservation District Romoland MDP channel that discharges into Canyon Lake. Canyon Lake is 303(d) listed for nutrients but not any sediment-related pollutant. It does not have beneficial uses of COLD, SPAWN, and MIGRATORY (SARWQCB, 2019).

**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)** |
|---|---|---|---|
| Canyon Lake | ☐ Yes X No | ☐ Yes X No | ☐ Yes X No |
| **Overall Receiving Water Risk** | | | X **Low**<br>☐ **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).

## 2.5 CONSTRUCTION SCHEDULE

The site sediment risk was determined based on construction taking place between February 10, 2020 and December 31, 2020. Modification or extension of the schedule (start and end dates)

may affect risk determination and permit requirements. The LRP shall contact the QSD if the schedule changes during construction to address potential impact to the SWPPP. The estimated schedule for planned work can be found in Appendix F.

## 2.6 POTENTIAL CONSTRUCTION ACTIVITY AND POLLUTANT SOURCES

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

The anticipated activities and associated pollutants were used in Section 3 to select the Best Management Practices for the project. Location of anticipated pollutants and associated BMPs are show 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 Material Safety Data Sheets (MSDS), 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:

- 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:

- Runoff from dust control applications
- Sanitary and septic wastes
- Inadequate containment of hazardous materials such as gasoline, diesel, oil, lubricants
- Fuel oil or hydraulic oil leaks or spills

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):

- 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 |
|---|---|
| Figure 1 | The project's surrounding area (vicinity) |
| Figure 2 | Site layout |
| Figure 2, C101-9SPI-001, -001A, 001B, -001C | Construction site boundaries |
| C101-9SPI-001, -001A, -001B, -001C | Drainage areas |
| C101-9SPI-006 | Discharge locations |
| C101-9SPI-006 | Sampling locations |
| M301-9UGC-002 through -017; | Areas of soil disturbance (temporary or permanent) |
| M301-9UGC-002 through -017; C101-9SPI-001C | Active areas of soil disturbance (cut or fill) |
| C101-9SPI-001A, -001B, -001C | Locations of runoff BMPs |
| C101-9SPI-001A, -001B, -001C; M301-9UGC-002 through -017 | Locations of erosion control BMPs |
| C101-9SPI-001A, -001B, -001C; M301-9UGC-002 | Locations of sediment control BMPs |

**Table 2.5 Required Map Information**

| Included on Map/Plan Sheet No. (1) | Required Element |
|---|---|
| through -017 | |
| NA | AST location (if applicable) |
| NA | Locations of sensitive habitats, watercourses, or other features which are not to be disturbed |
| C101-9SPI-001C | Locations of all post construction BMPs |
| C101-9SPI-001A, -001B, -001C | Waste storage areas |
| C101-9SPI-001A, -001B, -001C | Vehicle storage areas |
| C101-9SPI-001A, -001B, -001C | Material storage areas |
| C101-9SPI-001A, -001B, -001C | Entrance and Exits |
| C101-9SPI-001A, -001B, -001C | 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

**Table 3.1 BMP Implementation Schedule**

| | BMP | Implementation | Duration |
|---|---|---|---|
| **Erosion Control** | EC-1, Scheduling | Prior to Construction | Entirety of Project |
| | EC-2, Preservation of Existing Vegetation | Start of Construction | Entirety of Project |
| | EC-9, Earth Dike and Drainage Swales | Start of Construction | Entirety of Project |
| | EC-16, Non-vegetative Stabilization (crushed stone or gravel) | Within 24 hours of backfill of utility trenches; after soil compaction at former cooling tower basin | Entirety of Project |
| **Sediment Control** | SE-1, Silt Fence | Start of Construction | Entirety of Project |
| | SE-2, Sediment Basins | Start of Construction | Entirety of Project |
| | SE-5, Fiber rolls | Start of Construction | Entirety of Project |
| | SE-6, Gravel Bags | Stockpile Emplacement | Stockpile Removal |
| | SE-7, Street Sweeping and Vacuuming | Start of Construction | Entirety of Project |
| | SE-10, Storm Drain Inlet Protection | Prior to Construction | Entirety of Project |
| **Tracking Control** | TC-1, Stabilized Construction Entrance/Exit | Start of Construction | Entirety of Project |
| | TC-2, Stabilized Construction Roadway | Start of Construction | Entirety of Project |
| **Wind Erosion** | WE-1, Wind Erosion Control | Start of Construction | Entirety of Project |
| **Non-Storm Water** | NS-1, Water Conservation Practices | Start of Construction | Entirety of Project |
| | NS-3, Paving and Grinding Operations | Roadway Repair following trench backfill below roadway | Roadway Repair following trench backfill below roadway |
| | NS-6, Illicit Connection/Discharge | Start of Construction | Entirety of Project |

**Table 3.1 BMP Implementation Schedule**

| | BMP | Implementation | Duration |
|---|---|---|---|
| | NS-9, Vehicle and Equipment Fueling | Start of Construction | Entirety of Project |
| | NS-10, Vehicle and Equipment Maintenance | Start of Construction | Entirety of Project |
| **Materials Management** | WM-01, Material Delivery and Storage | Start of Construction | Entirety of Project |
| | WM-02, Material Use | Start of Construction | Entirety of Project |
| | WM-03, Stockpile Management | Start of Construction | Entirety of Project |
| | WM-04, Spill Prevention and Control | Start of Construction | Entirety of Project |
| | WM-05, Solid Waste Management | Start of Construction | Entirety of Project |
| | WM-06, Hazardous Waste Management | Start of Construction | Entirety of Project |
| | WM-08, Concrete Waste Management | Start of Construction | Entirety of Project |
| | WM-09, Sanitary-Septic Waste Management | Start of Construction | Entirety of Project |
| | WM-10, Liquid Waste Management | Start of Construction | Entirety of Project |

## 3.2 EROSION AND SEDIMENT CONTROL

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

### 3.2.1 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures 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 temporary erosion control BMP selection table 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 I.

**Table 3.2 Temporary Erosion Control BMPs**

| CASQA Fact Sheet | BMP Name | Meets a Minimum Requirement[1] | BMP Used | | If not used, state reason |
|---|---|---|---|---|---|
| | | | YES | NO | |
| EC-1 | Scheduling | ✓ | X | | |
| EC-2 | Preservation of Existing Vegetation | ✓ | X | | |
| EC-3 | Hydraulic Mulch | ✓[2] | | X | Site will be redeveloped following decommissioning project |
| EC-4 | Hydroseed | ✓[2] | | X | Site will be redeveloped following decommissioning project |
| EC-5 | Soil Binders | ✓[2] | | X | Site will be redeveloped following decommissioning project |
| EC-6 | Straw Mulch | ✓[2] | | X | Site will be redeveloped following decommissioning project |
| EC-7 | Geotextiles and Mats | ✓[2] | | X | Backfilled soil will be capped with gravel or crushed stone |
| EC-8 | Wood Mulching | ✓[2] | | X | Site will be redeveloped following decommissioning project |
| EC-9 | Earth Dike and Drainage Swales | ✓[3] | X | | |
| EC-10 | Velocity Dissipation Devices | | | X | Not applicable |
| EC-11 | Slope Drains | | | X | Area is flat |
| EC-12 | Stream Bank Stabilization | | | X | Not applicable |
| EC-14 | Compost Blankets | ✓[2] | | X | Site will be redeveloped following decommissioning project |
| EC-15 | Soil Preparation-Roughening | | | X | Not applicable |
| EC-16 | Non-Vegetated Stabilization | ✓[2] | X | | |
| WE-1 | Wind Erosion Control | ✓ | X | | |
| **Alternate BMPs Used:** | | | | | **If used, state reason:** |
| | | | | | |
| | | | | | |

**Table 3.2 Temporary Erosion Control BMPs**

| CASQA Fact Sheet | BMP Name | Meets a Minimum Requirement[1] | BMP Used | | If not used, state reason |
|---|---|---|---|---|---|
| | | | YES | NO | |

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

These temporary erosion control BMPs shall be implemented in conformance with the following guidelines and as outlined in the BMP Factsheets provided in Appendix I. 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**

This best management practice (BMP) involves developing, for every project, a schedule that includes sequencing of construction activities with the implementation of construction site BMPs such as temporary soil stabilization (erosion control) and temporary sediment controls measures. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Trenching to exposure subsurface components will take place sequentially, with only one or several sections of subsurface utilities exposed at any one duration of time. After subsurface conduits are removed, trenches will be backfilled with native soil and the excavation will be capped with non-vegetative stabilization (EC-16; either compacted gravel or decomposed granite) within 24 hours after backfill.

During the final month of the year-long project, the cooling tower basin walls will be removed to six inches below grade and the remaining basin will be filled to grade level with recycled concrete and clean fill and compacted. The soil will then be stabilized with crushed stone (EC-16). As the site is planned for redevelopment, and construction activities are subsequently planned for this portion of the site, hydraulic mulch or hydroseeding is not a preferred BMP for soil stabilization at the former cooling tower basin.

**Preservation of Existing Vegetation**

Preservation of existing vegetation is the identification and protection of desirable vegetation that provides erosion and sediment control benefits. Areas outside the disturbed soil area will be left undisturbed, and will act as filters to remove and reduce sediment loads in stormwater runoff.

The sediment basins (SE-2) that were constructed during the original construction of the IEEC will remain as sediment basins for the current decommissioning and demolition project. Since their construction, these basins and their perimeters have become naturally vegetated. There will be no disturbance of vegetation in these areas by installation of additional BMPs, as the natural vegetation serves as erosion and sediment control.

**Earth Dike and Drainage Swales**

The site is protected on its east and west sides by existing landscape berms (EC-9), These berms have served to prevent any run-on from entering the Site since its construction.

**Non-Vegetated Stabilization**

Trenches will be excavated to expose those subsurface utilities for removal. Following conduit removal, each trench will be backfilled with native soil and a layer of compacted gravel or crushed stone will be emplaced on top. Trench excavation will occur in phases; only a small portion of the subsurface conduits will be exposed at any one time.

Likewise, following the emplacement of compacted soil on top of the recycled concrete in the fomer Cooling Tower Basin, a layer of crushed stone will be placed on top of the compacted soil as a permanent BMP.

**Wind Erosion Control**

Wind erosion control consists of applying water and/or other dust palliatives as necessary to prevent or alleviate erosion by the forces of wind. Dust control shall be applied in accordance with SCAQMD Rule regulations. Covering of small stockpiles or areas is an alternative to applying water or other dust palliatives.

### 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.

Sufficient quantities of temporary sediment control materials shall be maintained on-site throughout the duration of the project. Allowing for implementation of temporary sediment controls in the event of predicted rain and for rapid response do to failures or emergencies, in conformance with other General Permit requirements and as described in this SWPPP.

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 I.

**Table 3.3 Temporary Sediment Control BMPs**

| CASQA Fact Sheet | BMP Name | Meets a Minimum Requirement[1] | BMP used | | If not used, state reason |
|---|---|---|---|---|---|
| | | | YES | NO | |
| SE-1 | Silt Fence | ✓[2] [3] | X | | |
| SE-2 | Sediment Basin | | X | | |
| SE-3 | Sediment Trap | | | X | Not necessary |
| SE-4 | Check Dams | | | X | Not necessary |
| SE-5 | Fiber Rolls | ✓[2][3] | X | | |
| SE-6 | Gravel Bag Berm | ✓[3] | X | | |
| SE-7 | Street Sweeping | ✓ | X | | |
| SE-8 | Sandbag Barrier | | | X | |
| SE-9 | Straw Bale Barrier | | | X | Long-term project; straw bales would degrade over duration of project. |
| SE-10 | Storm Drain Inlet Protection | ✓ RL2&3 | X | | |
| SE-11 | ATS | | | X | Not necessary |
| SE-12 | Manufactured Linear Sediment Controls | | | X | Described in SE-1 |
| SE-13 | Compost Sock and Berm | ✓[3] | | X | Risk Level 1 project |
| SE-14 | Biofilter Bags | ✓[3] | | X | Risk Level 1 project |
| TC-1 | Stabilized Construction Entrance and Exit | ✓ | X | | |
| TC-2 | Stabilized Construction Roadway | | X | | |
| TC-3 | Entrance Outlet Tire Wash | | | X | Not necessary |
| **Alternate BMPs Used:** | | | | | **If used, state reason:** |
| | | | | | |

[1] Applicability to a specific project shall be determined by the QSD
[2] The QSD shall ensure implementation of one of the minimum measures listed or a combination thereof to achieve and maintain the Risk Level requirements
[3]Risk Level 2 &3 shall provide linear sediment control along toe of slope, face of slope, and at the grade breaks of exposed slope

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 I. 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**

Silt fencing will be installed at the southern perimeter of the site, and along the eastern and western perimeters of the site as far north as the northern perimeters of the sediment basins on that exist on the southwest and southeast corners of the site. Silt fencing will allow sediment to settle from runoff before water leaves the construction site.

**Sediment Basin**

The two sediment basins were constructed on site during original construction of the IEEC. These basins are located in the southwest and southeast corners of the site. These sediment basins have subsequently operated as stormwater collection devices since the construction of the IEEC. The site's stormwater drainage and retention system will not be decommissioned; it will remain in place and remain operable. Should any water remain in the basins after 96 hours following a rain event, it will be pumped out, as per CASQA (2012) recommendations. Water will be pumped into water trucks from the outlet structures indicated on Figures C101-9SPI-001 and C101-9SPI-006. This water may be recycled and used for dust suppression, as per California Water Code, Section 13551.

In the event that any stormwater from the sediment basins would exit the basins, stormwater runoff would sheet-flow to the south, as it did prior to the construction of the IEEC. Any sheet flow would therefore enter the Riverside County Flood Control Romoland MDP channel, located immediately south of the IEEC. The Romoland MDP channel discharges into Canyon Lake, a waterbody that is not 303(d) listed for any sediment-related pollutants and is not listed for beneficial uses of COLD, SPAWN, and MIGRATORY.

The combined volume of the two sediment basins is 9.38 acre-feet, or 409,000 cubic feet. The average rainfall in the vicinity is 11.13 inches per year (National Stormwater Calculator modeling program [https://www.epa.gov/water-research/national-stormwater-calculator)]). The National Storm water Calculator has automatic inputs for location, soil type, soil drainage, topography, precipitation, evaporation, land use, land cover, and storm water management practices. The results produced by the National Storm water Calculator indicate that 94 percent of the rainfall would evaporate or infiltrate, leaving 6 percent of the rainfall (111,024 cubic feet) as storm water runoff. This is well within the capacity of the sediment basin design.

The basin specifications are indicated on Figures C101-9SPI-006, C101-9SPI-020, and C101-9SPI-026. These figures, the basin discharge, depths and storage, and result of the National Stormwater Calculator Report are presented in Appendix A. According to figure C101-9SPI-026, the top elevation of the west basin is 1443.0 feet above mean sea level (msl), and the top elevation of the east basin is 1443.6 feet msl. The basin volume at water depth of 3.50 feet (water surface elevation of 1443.0 msl) is 9.380 acre-feet. The post-developed flood volume

from a 100-year 24-hour storm is 8.00 acre-feet. Therefore, the basins are designed to accommodate a 100-year 24-hour storm.

**Fiber Rolls**

Fiber rolls will be emplaced inside the base of the silt fence that will be erected in the southern, southeastern, and southwestern perimeter of the site. This will prevent sediment from leaving the site due to stormwater runoff.

Fiber rolls will also be used at the base of temporary soil stockpiles to prevent soil from running off into the Site. Fiber rolls may be weighed down by gravel bags, below. Also see WM-03, Stockpile Management, below.

**Gravel Bags**

Gravel bags will be used to weigh down fiber rolls used in stockpile management.

**Street Sweeping**

A vacuum street sweeping water truck will be used to sweep Antelope Road as needed. The water truck will be present onsite daily for dust control within the project area.

**Storm Drain Inlet Protection**

Storm drain sediment traps will be installed at all of the site's storm drain inlets to prevent sediment from entering inlets and therefore the sediment basins.

**Stabilized Construction Entrance and Exit and Stabilized Construction Roadway**

The entrance and exit to the project site is through the IEEC entrance on Antelope Road. All construction vehicles will use this location to enter and exit the site. The entrance to the IEEC is paved, and leads to a paved parking lot. A system of paved roads in the site's interior lead to the remainder of the site. These paved roads constitute a stabilized construction entrance and exit, as well as a stabilized construction roadway.

## 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 I.

**Table 3.4 Temporary Non-Stormwater BMPs**

| CASQA Fact Sheet | BMP Name | Meets a Minimum Requirement[(1)] | BMP used | | If not used, state reason |
|---|---|---|---|---|---|
| | | | YES | NO | |
| NS-1 | Water Conservation Practices | ✓ | X | | |
| NS-2 | Dewatering Operation | | | X | Dewatering will not occur |
| NS-3 | Paving and Grinding Operation | | X | | |
| NS-4 | Temporary Stream Crossing | | | X | Not necessary |
| NS-5 | Clear Water Diversion | | | X | Not necessary |
| NS-6 | Illicit Connection/Discharge | ✓ | X | | |
| NS-7 | Potable Water/Irrigation | | | X | Not necessary |
| NS-8 | Vehicle and Equipment Cleaning | ✓ | | X | Vehicles will be cleaned offsite |
| NS-9 | Vehicle and Equipment Fueling | ✓ | X | | |
| NS-10 | Vehicle and Equipment Maintenance | ✓ | X | | |
| NS-11 | Pile Driving Operation | | | X | Will not occur |
| NS-12 | Concrete Curing | | | X | Will not occur |
| NS-13 | Concrete Finishing | | | X | Will not occur |
| NS-14 | Material and Equipment Use Over Water | | | X | Will not occur |
| NS-15 | Demolition Removal Adjacent to Water | | | X | Will not occur |
| NS-16 | Temporary Batch Plants | | | X | Not to be used |
| **Alternate BMPs Used:** | | | **If used, state reason:** | | |
| | | | | | |

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

Non-stormwater BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix I. 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**

Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and/or the transport of pollutants off site. Stormwater at the site is directed into the storm drain system that leads to the two sediment basins. Water that accumulates in the basins will be pumped out and used for dust control during decommissioning and demolition activities.

**Paving and Grinding Operations**

Some removal of asphalt from internal project roadways will be necessary to remove some of the subsurface utility conduits. Upon removal and backfill of the conduits, the asphalt roadways will be returned to their previous condition. Pavement removal and paving operations will be limited in wet weather. Material removed from roadways will be stockpiled away from storm drain inlets, consistent with WM-3, Stockpile Management. Disposal of asphalt concrete will be consistent with WM-8, Concrete Waste Management. Paving equipment parked onsite will be parked over plastic to prevent soil contamination. Drip pans or absorbent materials will be placed under paving equipment when not in use. Paving equipment will be cleaned offsite.

**Illicit Connection/Discharge**

Illicit connection/discharge and reporting is applicable anytime an illicit connection or discharge is discovered or illegally dumped material is found on the construction site.

**Vehicle and Equipment Fueling**

Vehicles and equipment will be fueled in the construction yard located in the northern portion of the site. Absorbent spill cleanup materials and spill kits will be available in fueling areas and on fueling trucks. Drip pans or absorbent pads will be used during vehicle and equipment fueling. Fueling areas will be protected by berms and dikes to prevent run-off, run-on, and to contain spills. The fueling activities will be situated greater than 50 feet from the downstream drainage course and any storm drains. All fuel trucks will carry spill kits.

**Vehicle and Equipment Maintenance**

Vehicles and equipment maintenance may occur in the construction yard located in the northern portion of the site. Maintenance activities will take place greater than 50 feet from the downstream drainage course and any storm drains. Drip pans or absorbent pads will be used during vehicle and equipment maintenance work that involves fluids. Spill kits will be available in the warehouse portion of the maintenance area. Vehicles will be inspected daily for leaks, and will have drip pans placed underneath them when not in use.

### 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. Waste management will be conducted in accordance with the Inland Empire Energy Center Decommissioning and Demolition Plan, Section 4.7, Other Waste.

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 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 I.

**Table 3.5 Temporary Materials Management BMPs**

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

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

Material management BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix I. 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**

The storage of hazardous materials onsite will be minimized. Materials will be stored in watertight containers, with secondary containment. Containers and storage areas will be inspected regularly. Employees and subcontractors will be trained on proper storage techniques and procedures.

**Material Use**

The use of hazardous materials onsite will be minimized. Safety Data Sheets (SDS) will be kept onsite in the contractor's trailer and/or the IEEC office. Employees and subcontractors will be trained on proper material use.

**Stockpile Management**

Decommissioned materials and soil will be stockpiled. Stockpiles will be placed on visqueen, and the perimeter base bermed on all sides by fiber rolls weighed down by gravel bags. In the event of a predicted rain event, or if stockpiles are not going to be used or material will remain onsite for more than 14 days, then the stockpiles will be covered with visqueen weighed down by gravel bags.

**Spill Prevention and Control**

To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately. Hazardous materials and wastes will be stored in covered containers. Spill control kits will be available onsite. Employees will be trained in spill prevention and cleanup.

**Solid Waste Management**

All waste will be managed in accordance with the Inland Empire Energy Center Decommissioning and Demolition Plan, Section 6.5, Waste Management. Trash containers with lids will be located in areas of decommissioning and demolition. These trash containers will be regularly emptied into dumpsters and/or bins that will be located onsite. All trash receptacles will be covered at night and during rain events. Employees will be trained on proper solid waste disposal procedures. Littering on site will be prohibited. Full dumpsters will be removed from the project site by the contractor's trash hauler. Potentially hazardous waste and non-hazardous waste will be disposed of in separate designated receptacles.

Solid waste generated will include lumber, plastic, metal, glass, concrete, and empty non-hazardous containers. Management and disposal of these wastes will be the responsibility of the decommissioning contractor. Typical management practices for this material include mainly recycling and proper storage of waste to prevent wind dispersion. The majority of the non-hazardous solid wastes, including ferrous and non-ferrous metals, concrete, and wood waste, will be recycled. Consideration will also be given to recycling plastic, glass, and insulation if suitable

recycling options are identified for these materials. Any remaining non-hazardous solid wastes that are not suitable for recycling will be transported to approved local Class III landfills for disposal.

**Hazardous Waste Management**

All hazardous waste will be disposed of in accordance with the Inland Empire Energy Center Decommissioning and Demolition Plan, Section 6.4, Hazardous Materials Management, and Section 6.5, Waste Management. Wastes will be stored in sealed containers constructed of a suitable material and should be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179. All hazardous waste should be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263.

Most of the hazardous wastes generated during decommissioning (e.g., solvents and vehicle and equipment maintenance-related materials) will be recycled. Empty containers will be returned to the appropriate vendor, if possible. Any hazardous waste generated during decommissioning that cannot be recycled will be transported off-site by a licensed and permitted hazardous waste transporter to a permitted treatment, storage, and disposal facility (TSDF).

**Concrete Waste Management**

To the extent possible, concrete waste generated during decommissioning and demolition activities will be used as onsite fill in the former cooling tower basin. Any concrete waste stockpiles will be managed according to WM-3 Stockpile Management.

**Sanitary-Septic Waste Management**

The site is equipped with sanitary facilities (potable chemical toilets) located throughout the facility. Additional sanitary facilities will be installed at the commencement of the project, and will be removed at the termination of the project. Sanitary wastes, collected in portable self-contained chemical toilets, will be pumped periodically. All sanitary waste will be disposed of in accordance with the Inland Empire Energy Center Decommissioning and Demolition Plan, Section 6.5, Waste Management.

**Liquid Waste Management**

All liquid waste will be disposed of in accordance with the Inland Empire Energy Center Decommissioning and Demolition Plan, Section 6.5, Waste Management. Wastewater generated will include sanitary wastes, dust suppression drainage, and equipment wash water. Potentially contaminated equipment wash water will be contained at designated wash areas and transported to an authorized wastewater treatment facility via a licensed hauler.

## 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. X 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 post construction BMPs to comply with General Permit Section XIII.B and local requirements have been identified for the site:

- 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. If required, post construction funding and maintenance will be submitted with the NOT.

# Section 4 BMP Inspection and Maintenance

## 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 with the SWPPP. The inspection checklist includes the necessary information covered in Section 7.6. A blank inspection checklist can be found in Appendix H. Completed checklists shall be kept in CSMP Attachment 2 "Monitoring Records".

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

Specific details for maintenance, inspection, and repair of Construction Site BMPs can be found in the BMP Factsheets in Appendix I.

## 4.2 RAIN EVENT ACTION PLANS

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

# 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 identifies the site-specific stormwater topics covered as well as the names of site personnel who attended the meeting. Tasks may be delegated to trained employees by the QSP provided adequate supervision and oversight is provided. Training shall correspond to the specific task delegated including: SWPPP implementation; BMP inspection and maintenance; and record keeping.

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

# Section 6 Responsible Parties and Operators

## 6.1 RESPONSIBLE PARTIES

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

| Name | Title | Phone Number |
|---|---|---|
| Jay Schneider | QSD/QSP | 323-517-9648/ 626-841-2667 |
| | | |
| | | |
| | | |

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

- Implementing all elements of the General Permit and SWPPP, including but not limited to:
    - Ensuring all BMPs are implemented, inspected, and properly maintained;
    - Performing non-stormwater and stormwater visual observations and inspections;
    - Performing non-stormwater and 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 to assure all of the necessary corrections/repairs are made immediately and that the project complies with the SWPPP, the General Permit and approved plans at all times.

- Notifying the LRP or Authorized Signatory immediately of off-site discharges or other non-compliance events.

## 6.2 CONTRACTOR LIST

**Contractor**

| | |
|---|---|
| Name: | Jim Nuccio |
| Title: | National Program Manager |
| Company: | ATC Group Services |
| Address: | 25 Cupania Circle, Monterey Park, CA |
| Phone Number: | (732) 859-0525 |
| Number (24/7): | (732) 859-0525 |

# Section 7 Construction Site Monitoring Program

## 7.1 Purpose

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

1. To demonstrate that the site is in compliance with the Discharge Prohibitions of the 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 are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges.

## 7.2 Applicability of Permit Requirements

This project has been determined to be a Risk Level 1 project. The General Permit identifies the following types of monitoring as being applicable for a Risk Level 1 project.

Risk Level 1

- Visual inspections of Best Management Practices (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.

## 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 ½ inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

### *7.3.1 Weather Tracking*

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

### *7.3.2 Rain Gauges*

The QSP shall install one rain gauge(s) on the project site in the vicinity of the IEEC office. The gauge will be located in an open area away from obstructions such as trees or overhangs. The gauge will be mounted on a post at a height of 3 to 5 feet with the gauge extending several inches beyond the post. The top of the gauge will be made level. The post will not be 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. Rain gauge readings will be logged in CSMP Attachment 1 "Weather Records". The rain gauge instructions will be followed to obtain accurate measurements.

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

For comparison with the site rain gauge, the nearest appropriate governmental rain gauge(s) is located at Perris (SPDRR), California, latitude 33.82 north, longitude -117.195 west (National Weather Service).

## 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 ATC Health and Safety Handbook, 2018. 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.

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

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

Scheduled site business hours are: Monday through Friday, 7 am – 5 pm, excluding holidays.

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 CSMP Attachment 2 "Monitoring Records".

## 7.6 Visual Monitoring

Visual monitoring includes observations and inspections. Inspections of BMPs are required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Visual observations of the site are required to observe 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 |
|---|---|
| *Routine Inspections* | |
| BMP Inspections | Weekly[1] |
| BMP Inspections – Tracking Control | Daily |
| Waste Management | Daily |
| Non-Stormwater Discharge Observations | Quarterly during daylight hours |
| *Rain Event Triggered Inspections* | |
| 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% or greater probability of precipitation has been predicted.

#### *7.6.2.1 Visual Observations Prior to a Forecasted Qualifying Rain Event*

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

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

Consistent with guidance from the State Water 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% or more in the project area.

#### *7.6.2.2 BMP Inspections During an Extended Storm Event*

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

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

If the construction site is not accessible during the rain event, the visual inspections shall be performed at all relevant outfalls, discharge points, 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 names and contact numbers of the site visual monitoring personnel are listed below and their training qualifications are provided in Appendix K.

Assigned inspector: Jay Schneider Contact phone: 323-517-9648/626-841-2667

Alternate inspector: Scott Williams Contact phone: 323-517-9670/707-332-5837

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

As the QSP is also the QSD, the QSD shall retain copies of the completed inspection report, and completed reports will be kept in CSMP Attachment 2 "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 CSMP Attachment 2 "Monitoring Records".

As the QSP is also the QSD, the QSD shall retain copies of the completed inspection report, and will enter compile *Inspection Field Log Sheet* or *BMP Inspection Report* forms.

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 is one (1) drainage area for the entire project site. All water is conducted to the onsite storm drain system. Drainage areas 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 |
|---|---|
| 1 | Site |

There are two (2) stormwater storage or containment areas on the project site. Stormwater storage or containment areas 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 |
|---|---|
| 1 | Southwest sediment basin |
| 2 | Southeast sediment basin |

There are two (2) discharge locations on the project site. Site stormwater discharge locations are shown on the Site Maps in Appendix B and Table 7.4 identifies each stormwater discharge location. No discharge from the site is expected for the duration of the project; the sediment basins are designed for a capacity of 9.380 acre-feet, above the 100-year 24-hour storm volume of 8.00 acre-feet (Appendix A).

**Table 7.4 Site Stormwater Discharge Locations**

| Location No. | Location |
|---|---|
| 1 | Southwest sediment basin |
| 2 | Southeast sediment basin |

## 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.

- Concrete demolition
- Metal structure demolition
- Motor oil
- Hydraulic oil
- Lubricating oil
- Diesel fuel
- Ethylene glycol (anti-freeze)
- Batteries (lead acid)

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.

- 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.

- 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.

- 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.

Two sampling locations 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.

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

| Sample Location Number | Sample Location Description | Sample Location Latitude and Longitude (Decimal Degrees) |
|---|---|---|
| SB-1 | Southwestern corner of site, outside fence line, south of southwestern sediment basin | 33.73693333<br>-117.17138889 |
| SB-2 | Southeastern corner of site, outside fence line, south of southeastern sediment basin | 33.73701667<br>-117.16805556 |

No 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.

No sampling locations have been identified for the collection of samples of runoff from drainage areas contaminated by historical usage of the site.

No sampling locations 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.

#### *7.7.1.3 Monitoring Preparation*

Non-visible pollutant samples will be collected by:

| | | |
|---|---|---|
| Contractor | ☐ Yes | X No |
| Consultant | X Yes | ☐ No |
| Laboratory | ☐ Yes | X No |

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

| | |
|---|---|
| Name/Telephone Number: | Jay Schneider/323-517-9648/626-841-2667 |
| Alternate/Telephone Number: | Scott Williams//323-517-9670/707-332-5837 |

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 CSMP Attachment 3 "Example Forms".

Samples on the project site will be collected by the following:

| | |
|---|---|
| Company Name: | ATC Group Services |
| Street Address: | 25 Cupania Circle |
| City, State Zip: | Monterey Park, CA 91755 |
| Telephone Number: | 323-517-9648 |
| Point of Contact: | Jay Schneider |
| Name of Sampler(s): | Jay Schneider |
| Name of Alternate(s): | Scott Williams |

The QSP or his/her designee will mobilize to the Site 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 |
|---|---|---|
| Asphalt | asphalt | VOCs |
| Concrete dust | concrete | pH |
| Motor oil | Motor oil | TPH |
| Diesel | Diesel | TPH |
| Lubricating oil | Lubricating oil | TPH |
| Hydraulic oil | Hydraulic oil | TPH |
| Batteries | Battery acid | Pb, pH |
| Ethylene glycol (anti-freeze) | Ethylene glycol (anti-freeze) | Ethylene glycol (anti-freeze) |

#### *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, "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 delivered to the laboratory by:

| | | | | |
|---|---|---|---|---|
| Driven by Contractor | X | Yes | ☐ | No |
| Picked up by Laboratory Courier | X | Yes | ☐ | No |
| Shipped | ☐ | Yes | X | No |

Samples will be analyzed by:

| | |
|---|---|
| Laboratory Name: | Eurofins Calscience |
| Street Address: | 7440 Lincoln Way |
| City, State Zip: | Garden Grove, CA 92841 |
| Telephone Number: | 714-895-5494 |
| Point of Contact: | Don Burley |
| ELAP Certification Number: | 2944 |

Samples will be analyzed for ethylene glycol by

| | |
|---|---|
| Laboratory Name: | Advanced Technology Laboratories |
| Street Address: | 3725 Walnut Avenue |
| City, State Zip: | Signal Hill, CA 90755 |
| Telephone Number: | 562-989-4045 |
| Point of Contact: | Molky Brar |
| ELAP Certification Number: | 1838 |

**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 |
|---|---|---|---|---|---|---|
| TPHcc/TPHd/DRO | EPA 8015B (M) | 500 ml | 500 ml amber glass jar | none | 50 µg/L | 7 days |
| VOCs | EPA 8260B | 40 ml | 3 x 40 ml glass VOA vials | HCl | 0.5 - 50 µg/L | 14 days |
| Pb | EPA 200.8 | 100 ml | Plastic bottle | Nitric acid | 1.0 µg/L | 180 days |
| Oil & Grease | EPA 1664A | 500 ml | 500 ml amber glass jar | Sulfuric acid | 1.0 mg/L | 28 days |
| Ethylene glycol | EPA 8015M | 40 ml | VOA vial | none | PQL = 200 mg/L, MDL = 42 mg/L | 14 days |
| pH | SM 4500 H+B | NA | Portable meter | none | NA | NA |
| Notes: | | | | | | |

#### *7.7.1.7 Data Evaluation and Reporting*

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

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

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

The General Permit prohibits 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.

**Receiving Water Monitoring Triggers**

This project is not subject to Receiving Water Monitoring.

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

This project is not subject to Receiving Water Monitoring.

### *7.7.4 Sampling and Analysis Plan for Non-Stormwater Discharges*

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

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

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

## 7.8 Active Treatment System Monitoring

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

☐ Yes X No

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

## 7.9 Bioassessment Monitoring

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

## 7.10 Watershed Monitoring Option

This project is not participating in a watershed monitoring option.

## 7.11 Quality Assurance and Quality Control

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

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

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

### *7.11.1 Field Logs*

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples 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 and an Effluent Sampling Field Log Sheet are included in CSMP Attachment 3 "Example Forms".

### *7.11.2 Clean Sampling Techniques*

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

### *7.11.3 Chain of Custody*

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

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

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

### *7.11.4 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:

X Field Duplicates at a frequency of 5 percent or one duplicate minimum per sampling event (Required for all sampling plans with field measurements or laboratory analysis)

☐ Equipment Blanks at a frequency of NA
(Only needed if equipment used to collect samples could add the pollutants to sample)

☐ Field Blanks at a frequency of NA
(Only required if sampling method calls for field blanks)

☐ Travel Blanks at a frequency of NA
(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-ioninzed 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-ioninzed 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.