

APPENDIX 5.11A

Draft Construction SWPPP

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This Storm Water Pollution Prevention Plan (SWPPP) has been prepared to support the Application for Certification (AFC) submitted to the California Energy Commission (CEC) (CEC Docket No. 01-AFC-16) for the GWF Tracy Combined Cycle Project (GWF Tracy). The project owner is required to prepare a Storm Water Pollution Prevention Plan under the General Permit for Storm Water Discharges Associated With Construction Activity, adopted by the State Water Resources Control Board (SWRCB) on August 19, 1999 (Order No. 99-08 DWQ; National Pollutant Discharge Elimination System General Permit No. CAS000002).

Rather than presenting it as a stand-alone document, an erosion control and revegetation plan for the GWF Tracy has been incorporated into this SWPPP and can be found in Sections 4.1 and 4.2.

NOTICE OF INTENT will be provided upon issuance from Agency

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Storm Water Pollution Prevention Plan

Project Name and Location:

GWF Tracy Combined Cycle Project
San Joaquin County, California

Owner Name and Address:

GWF Energy LLC
4300 Railroad Avenue
Pittsburg, California 94565

Site Contact:

Name: TBD
Telephone: TBD

Contractor Name and Addresses:

General Contractor:

TBD

Contact:

TBD

Engineer's Name and Address:

Project Engineer - TBD
GWF Energy LLC
4300 Railroad Avenue
Pittsburg, CA 94565
(925) 431-1444

STORM WATER POLLUTION PREVENTION PLAN

CERTIFICATION

Owner

I certify under penalty of law that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES General Permit No. CAS000002) that authorizes storm water discharges associated with construction activity from the site identified as part of this certification.

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 gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

OWNER

Signature: _____

Name (printed): Mark Kehoe

Title and Company:
Director, Environmental and Safety Programs
GWF Energy LLC

Address and Phone:
GWF Energy LLC
4300 Railroad Avenue
Pittsburg, CA 94565
(925) 431-1440

Date: _____

CERTIFICATION

General Contractor

I certify under penalty of law that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES General Permit No. CAS000002) that authorizes storm water discharges associated with construction activity from the site identified as part of this certification.

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 gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

General Contractor

Signature: _____

Name (printed): TBD

Title and Company:
Construction Manager
TBD.

Address and Phone:
TBD

Date: _____

STORM WATER POLLUTION PREVENTION PLAN

CERTIFICATION

Subcontractor

Responsible for Implementing Storm Water Control Measures

I certify under penalty of law that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES General Permit No. CAS000002) that authorizes storm water discharges associated with construction activity from the site identified as part of this certification.

Subcontractor

Signature: _____

Name (printed): _____

Title and Company: _____

Address:

Phone number: _____

Date: _____

1.0 INTRODUCTION

1.1 Purpose

This draft construction Storm Water Pollution Prevention Plan (SWPPP) identifies best management practices to control storm water pollution and prevent degradation of water quality as a result of construction activities on the GWF Tracy Combined Cycle Project (GWF Tracy) site. GWF Tracy is a modification of the existing Tracy Peaker Plant (TPP) and will minimize the construction activities to previously disturbed land. The GWF Tracy SWPPP has the following objectives utilizing the existing TPP SWPPP as base document:

- a. Identify all pollutant sources, including sediment sources, which may affect the quality of storm water discharges associated with construction activity (“storm water discharges”) from the construction site.
- b. Identify non-storm water discharges.
- c. Identify and implement in accordance with a time schedule, maintain, and inspect Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction.
- d. Develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (“post-construction BMPs”).

1.2 Regulatory Requirements

Under Section 402(p) of the Clean Water Act National Pollutant Discharge Elimination System (NPDES), California issues authorizations to use the statewide General Permit for Storm Water Discharges Associated with Construction Activity (“General Permit”). This General Permit was reissued by the State Water Resources Control Board on August 19, 1999, with modifications issued on April 26, 2001. Coverage under the General Permit is contingent upon following and implementing the conditions outlined in the permit and this SWPPP. The preparation of this plan is also required by the California Energy Commission to ensure that the project is in compliance with applicable laws, ordinances, regulations, and standards.

The project has complied with the General Permit by filing a Notice of Intent (NOI) with the SWRCB. By letter dated September 7, 2001, the SWRCB acknowledged receipt and processing of the NOI and assigned Waste Discharge Identification (WDID) number 5S39S316469 to the project. The Central Valley Regional Water Quality Control Board (RWQCB) in Sacramento will administer the permit. The General Permit authorizes the discharge of storm water associated with construction activities and sets waste discharge requirements, as outlined in the SWPPP. The General Permit explicitly prohibits all other discharges, including discharge of fresh concrete or grout, water containing contaminants or hazardous substances (including oil, fuel, or any petroleum derivative), water that may adversely affect receiving water quality, or placement of any material or direct discharges into drainage channels of any kind. A copy of the

SWPPP shall remain on the construction site while the site is under construction, commencing with the initial construction activity and ending with termination of coverage under the General Permit.

Permits issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act are not required for the GWF Tracy since no surface water discharges will occur either during or following project construction.

The CEC, which has exclusive jurisdiction, will issue a grading permit for the power plant site work, including the construction laydown area and the site access road. If not for the CEC's exclusive jurisdiction the San Joaquin County Community Development Department would implement the rules and regulations of Chapter 9-1400 of the San Joaquin County Ordinance through a permit process designed to control excavation, grading, and earthwork during construction.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) addresses emissions of fugitive particulate matter of less than 10 microns (PM₁₀) in its Regulation VIII. The purpose of this regulation is to prevent, reduce, or mitigate PM₁₀ emissions. Wind erosion, the primary source of fugitive PM₁₀ emissions during construction, will be minimized by compliance with the BMPs (see Section 4.1 and Appendix E of this SWPPP).

1.3 Scope

The scope of this SWPPP covers all activities associated with the construction of the power plant and construction lay-down areas. GWF Tracy will utilize the existing site access road. There are no additional linear facilities to be added to the project. Since the general scope of the SWPPP broadly overlaps the narrower scope of the erosion control and site revegetation plans, elements of these plans have been incorporated into appropriate sections of the SWPPP.

The construction contractor(s) will be required to sign the appropriate certification statements as described in Section 6.0 and keep the SWPPP on file in their project construction office. This SWPPP will not be final until adopted and certified by the construction contractor(s), as described in Section 6.0.

1.4 Plans Incorporated by Reference

This SWPPP incorporates the Application for Certification (AFC) and all supplemental filings prepared by the applicant for the CEC.

In addition, the SWPPP incorporates elements of the California Storm Water Best Management Practices Handbook for Construction Activities ("Construction Handbook") published in March 1993 by the joint state-industry Storm Water Quality Task Force. Fact sheets from the Construction Handbook for the BMPs referenced in subsequent sections of this SWPPP are included in Appendix E.

GWF Tracy's Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) describe biological mitigation measures to be implemented during construction and operation of the power plant and associated facilities. The GWF Tracy site is currently occupied by the TPP and surrounding previously disturbed land that include landscape vegetation and fallow ground and has no habitat features that would be of value to any sensitive species. Previous biological surveys conducted during the construction of TPP did not reveal the presence of sensitive biological resources (potential kit fox dens; nesting hawks, owls, and falcons) within the vicinity of the TPP site. GWF Tracy will update and utilize the existing BRMIMP during the new construction-phase of the project. Where these requirements overlap with erosion control, site revegetation, and storm water management, they have been included in this SWPPP.

1.5 Project Description

GWF Tracy is a modification to an existing 169-megawatt (MW) TPP simple-cycle power plant on a 10.3-acre, fenced site within a 40-acre parcel owned by GWF Energy LLC, in an unincorporated portion of San Joaquin County. The site is located immediately southwest of Tracy, California, and approximately 20 miles southwest of Stockton, California. GWF Tracy would consist of the addition of two heat recovery steam generators (HRSG) each equipped with 324 MMBtu/hr, HHV capacity natural gas-fired duct burners and selective catalyst reduction systems and 150-foot stacks; a net 145-megawatt (MW) steam turbine generator (STG); an air-cooled (dry) condenser system (ACC) for system heat rejection; a new 85 MMBtu/hr capacity natural gas-fired auxiliary boiler equipped with ultra low NOx burner(s) and 90-foot tall stack; a new STG lube oil cooler; a new 400,000 gallon fire / service water storage tank and a modification to increase the existing 250,000 gallon fire water tank to 300,000 gallons; a new nominal 300 horsepower diesel-fired emergency firewater pump; addition of an onsite 115 kilovolt (kV) overhead transmission line from the steam turbine generator step up transformer to the existing 115 kV switchyard and construction of a new storm water evaporation-percolation basin sized accordingly to contain the additional plant acreage. GWF Tracy would occupy 16.4 acres within the fenced site. An area of approximately 11.7 acres within the 40-acre parcel would be used for construction laydown and parking. Figure 1 in Appendix A shows the immediate site location of the GWF Tracy project, including the location of the proposed generating facility and the proposed water supply and access routes. A complete description of the project is presented in Section 2.0 of the AFC, as amended.

1.6 Setting

GWF Tracy is located in a region with moderate rainfall (approximately 10 inches per year) and dry, hot summers (see AFC Section 8.14). Wind speeds are generally higher in the summer than in the winter.

Located in the San Joaquin Valley to the east of the Coast Ranges, GWF Tracy is relatively flat with a moderate slope of 1.6 percent toward the northeast. The elevation of the site ranges from approximately 172 feet to 182 feet above sea level. Observed soils at the site consist mostly of clay loams.

The only surface water body in the immediate vicinity of the proposed power plant site is the Delta-Mendota Canal. The Delta-Mendota Canal, which is owned and operated by the U.S. Bureau of Reclamation’s Central Valley Project (CVP), passes adjacent to GWF Tracy on the west as it travels southeast toward the CVP’s Mendota Pool in Fresno County. It is estimated that groundwater at the site is about 50 feet below the surface, though levels in local wells vary from around 30 feet to 200 feet below ground surface.

Most of the soil that would be disturbed during construction activity is characterized by a moderate to high wind-erosion susceptibility and low water-erosion susceptibility (see AFC Section 8.9 for a description of soil types). A summary of total land disturbance for the plant site, construction laydown area and storm water containment basin is presented in Table 1.

1.7 Construction Site Information

As shown in Table 1, approximately 32 acres of the 40-acre parcel will be disturbed by the GWF Tracy construction. Individual areas of disturbance are as follows: plant site (16.4 acres), construction laydown and parking areas (11.7 acres), storm water containment basin (3.3 acre), and the construction sediment basin (0.6) acres. Once construction is complete, approximately 16.4 acres of the 40-acre parcel will be permanently dedicated to project operations for the plant site. The temporarily disturbed areas will be re-graded to restore the original drainage contours.

Project Component	Unit Area Construction	Proposed Length of Units	Construction Right-of-Way
Plant Site	13.1 acres	N/A	N/A
Storm Water Retention Basin and Equipment Storage Area	3.3 acres	N/A	N/A
Construction Lay-down and Parking Area	11.7 acres	N/A	N/A
Construction Sediment Basin	0.6 acres	N/A	N/A

1.8 Project Schedule

A list of the key events in project construction and an estimated timetable for each appears in Table 2. The project construction schedule will be determined at a future date and the SWPPP will be revised accordingly to provide the required information.

Clearing and grading for the construction laydown area is scheduled to begin at a future date. Improvements to the existing access road are scheduled to take place at a future date.

Construction of the water supply pipeline is to be completed at a future date. Construction of the plant facilities is scheduled to begin at a future date and to be completed at a future date.

Event Description	Date Assigned
Date of Certification	TBD
Initial Construction Mobilization (temporary power and temporary construction offices)	TBD
Start of Permanent Access Road Improvement Work	TBD
Start of Rough Grading of the Plant Site	TBD
Start of Water Supply Line Construction	TBD
Completion of Water Supply Line Construction	TBD
Completion of Construction	TBD
Start of Operation (1st Turbine Roll)	TBD

2.0 RESPONSIBILITIES AND COORDINATION

The construction contractor's responsibilities are as follows:

- Certify the SWPPP according to instructions provided in Section 6.0 (Contractor's Certification).
- Implement the performance requirements described in Sections 3.0 and 4.0 of this SWPPP.
- Designate a member of its staff as the Erosion Control Supervisor (ECS) with full authority and responsibility over erosion control and waste management.
- In consultation with the project Environmental Inspector, install the appropriate erosion- and sediment-control measures described in this SWPPP and shown on the site maps in Appendix B for specific construction work areas to handle the peak discharge volume resulting from two (2) 10-year frequency, 24-hour storm event for the project area.
- In consultation with the project Environmental Inspector, design and install appropriate waste management facilities described in Section 3.0 of this SWPPP prior to the initiation of construction.
- Notify the Environmental Inspector of any changes that would require an amendment to the SWPPP to keep the plan up to date (see Section 7.0, Project Changes).
- Maintain an up-to-date SWPPP with all amendments at the construction field office.

GWF Energy LLC's responsibilities are as follows:

- Ensure that all performance requirements identified in this plan are incorporated into the construction specifications for the project.
- Brief the contractors on their responsibilities relevant to this plan.
- Provide an Environmental Inspector to monitor performance, amend the SWPPP, issue the contractor copies of all amendments, and ensure that all General Permit requirements and best management practices identified in this SWPPP and the construction specifications are implemented.
- Maintain an up-to-date copy of the SWPPP in the construction field office with all amendments, and make the SWPPP available to the RWQCB or CEC upon request.

Agency responsibilities are as follows:

- As the principal permitting agency, the CEC will be responsible for contracting the third-party monitor who will report on compliance with the performance criteria identified in this plan. The CEC responsibilities referenced in this SWPPP may be delegated to the monitors.
- Other jurisdictional agencies may also periodically inspect or monitor construction activities for compliance, including the RWQCB, the California Department of Fish and Game (CDFG), the United States Fish and Wildlife Service (USFWS), the SJVAPCD, and San Joaquin County.

3.0 GENERAL PERFORMANCE REQUIREMENTS

This section describes specific housekeeping practices and other measures that are to be implemented at the project site. Site-specific erosion control, spill control, post-construction storm water management, and revegetation measures are described in Section 4.0 of this SWPPP.

The requirements of the General Permit shall be implemented on a year-round basis, not just during the part of the year when there is a high probability of precipitation that results in storm water runoff. The SWPPP must be implemented at the appropriate level to protect water quality at all times throughout project construction. Non-storm water BMPs must be implemented year-round. At a minimum, an effective combination of erosion control and sediment control must be implemented on all disturbed areas during the rainy season from November through May.

3.1 Mapping

Appendix A contains a map that illustrates the project location, site characteristics, facility locations, surface water drainage channels, and general topography. Site maps showing the location of non-storm water and erosion/sediment-control BMPs, the site drainage system, post-construction site storm water management, and construction site grading and drainage are included in Appendix B.

3.2 Non-Storm Water Pollutant Sources

This section describes the most likely sources of non-storm water discharges to surface waters associated with construction of the project.

3.2.1 Hazardous Materials and Wastes

Hazardous materials and wastes to be used or generated during construction will likely include:

- Gasoline and diesel fuel
- New and used oil and other lubricants
- Solvents, paint, and adhesives
- Oily rags and absorbent material
- Spent batteries
- Pipe cleaning waste
- Empty hazardous material containers

Small volumes of these materials will be stored on-site. Solvents and paint will be stored in a locked utility shed or secured in a fenced area. The refueling trucks containing the fuels and lubricants will be parked inside the plant site security fence during nonworking hours. There are no feasible alternatives to these materials for project construction or operation of construction vehicles and equipment. No acutely hazardous materials will be used or stored on-site during construction, except small volumes of welding gases.

Only minimal potential exists for environmental impacts from hazardous material incidents during construction and maintenance, and service personnel will be trained in handling these materials. The most likely incidents involving these hazardous materials are associated with minor spills or drips. Impacts from such incidents will be avoided by implementing spill prevention and control measures specified in BMP Fact Sheet CA12 (see Appendix E) and thoroughly cleaning up minor spills as soon as they occur. An accident involving the release of one of these products from a service truck during equipment maintenance or storage container loading is the worst-case scenario. The risk of such occurrence will be mitigated through the emergency response training program and procedures. In the case of a large spill, contaminated soil would be excavated and stored in approved containers and disposed of properly either offsite or on-site, if on-site treatment is warranted.

On-site hazardous waste storage areas will be specifically designated and appropriately labeled. Outside storage areas where storm water may contact hazardous wastes will be bermed or otherwise prepared to direct storm water runoff to catch basins that will deliver the runoff to the designated holding tank for eventual offsite disposal via truck. Consistent with BMP Fact Sheet CA21 (see Appendix E), the contractor will provide timely removal of construction wastes; store all liquid wastes in sound, covered containers; and maintain Material Safety Data Sheets (MSDS) at the construction field office for each chemical used on-site. All hazardous wastes will be taken off-site to a licensed hazardous waste disposal or recycling center.

3.2.2 Construction Equipment Fueling, Servicing, Cleaning, Maintenance, and Storage

The types of equipment typically used for this project will consist of track and rubber-tired diesel-powered vehicles (e.g., tracked hoes, front-end loaders, backhoes, graders, scrapers, bulldozers, and cranes), trucks, pumps, compressors, generators, and light vehicles. Equipment storage, cleaning, and maintenance areas are described and mapped on the site maps included in Appendix B. Consistent with BMP Fact Sheets CA30, 31, and 32, the following measures will be implemented:

- All equipment will be parked and/or operated within the approved and designated construction right-of-way or in staging areas.
- The contractor will monitor daily for leaking equipment. Equipment parked overnight will be inspected by the contractor and absorbent pads will be placed to catch all leaks, as necessary. If leaks are detected by the Environmental Inspector, the contractor will be notified and contaminated soil will be cleaned up immediately.
- Major equipment cleaning and maintenance will be conducted in the contractor's offsite construction yard(s), at commercial cleaning facilities, or at commercial repair shops.
- Refueling and servicing of vehicles or equipment, and minor maintenance such as oil changes and minor repairs for large equipment that cannot be easily moved, will be permitted on the construction site or right-of-way only as necessary, and must be conducted at least 100 feet away from any drainage channel.

- Vehicle or equipment fueling, service, and maintenance will be conducted only by authorized trained personnel using approved pumps, hoses, and nozzles.
- Hoses, nozzles, connectors, and pumps used for fueling will be inspected regularly by trained personnel.
- Catch-pans or absorbent pads will be placed under vehicles or equipment to catch potential spills during refueling, servicing, or maintenance.
- Service trucks will be equipped with spill-containment equipment, and all spills will be cleaned up immediately.

3.2.3 Contaminated Soil

The GWF Tracy site is an existing industrial site. During the construction of TPP there were no contaminated soil found on-site. However, should contaminated soil unexpectedly be encountered during the GWF Tracy construction excavation activities, the soil will be segregated, sampled, and tested to determine appropriate disposal treatment options. It is anticipated that all such soils in the project area would be considered nonhazardous and would be recycled or disposed of at a Class 3 landfill. In the unlikely event the soil is classified as hazardous (according to the Resource Conservation and Recovery Act and/or California Code of Regulations Title 22), the San Joaquin County Community Development Department will be notified immediately and the soil will be hauled to a Class 1 landfill or other appropriate soil treatment and recycling facility. BMP Fact Sheet CA22 provides additional guidance on this topic (see Appendix E).

3.2.4 Domestic Wastes

Domestic sanitary wastes generated during construction will be accumulated in portable self-contained chemical toilets and disposed off-site by a licensed contractor, consistent with BMP Fact Sheet CA24 (see Appendix E).

3.3 Storm Water Pollutant Sources

This section describes the most likely sources of pollutants to storm water associated with construction of the project.

3.3.1 Construction Materials

Construction materials that may come in contact with storm water include packaging/coating materials, welding and cutting materials, electrical wiring, concrete, paper, insulation, and excavated materials (e.g., spoil, concrete, and asphalt). Practices that will be implemented by the contractor to minimize contact of construction materials with storm water are described in BMP Fact Sheets CA10 and CA23 (see Appendix E), and may include the following.

- As many materials as feasible will be salvaged, reused, or recycled.
- Construction debris will not be placed adjacent to drainage channels.
- All trash and hazardous waste will be kept in closed containers in the contractor's yard and removed on a regular basis and whenever needed.
- Metal and wood wastes will be segregated in open bins.
- On-site wash-out of concrete trucks will occur only in lined and bermed areas. Accumulated storm water will be naturally evaporated. After construction is completed, accumulated concrete will be recycled off-site.

In general, cement, concrete, or related washout; asphalt, paint and other coating material; oil and other petroleum products; and all other substances that could be hazardous to fish or wildlife resulting from project-related activities will be prevented from contaminating the soil or storm water.

3.3.2 Solid Wastes

Solid wastes generated during construction include packaging/crating materials, electrical wiring, miscellaneous pipe materials and fittings, paper, and insulation. Unless otherwise approved by the Environmental Inspector, the contractor will remove from the construction area all solid waste generated during construction. Nonrecyclable wastes will be kept in a covered dumpster and will be removed from the construction site on a weekly or more frequent basis. Recyclable or reusable wastes will be segregated, stored, and processed in compliance with all state and local requirements. Solid wastes will not be disposed of in any other fashion, such as unpermitted dumping, burying, or burning. See BMP Fact Sheet CA20 in Appendix E for additional measures.

4.0 SITE-SPECIFIC EROSION, SEDIMENT, AND SPILL CONTROL MEASURES; POST-CONSTRUCTION STORM WATER MANAGEMENT

This section describes specific BMPs selected for the project in greater detail. The practices described in this section are also shown on the site maps in Appendix B (Figures 5 through 24). Practices were selected based upon their ability to capture the storm water flows expected to exist on the project site during two (2) 10-year, 24-hour storm events. The site currently contains 1.4 acres of impervious areas. Following construction of the GWF Tracy facility, 11 percent of the site will be impervious.

No GWF Tracy features will cross any surface water drainages or other surface water bodies. The GWF Tracy site generally slopes toward the northeast. No major surface water drainages are present on the site. Storm water runoff currently runs by sheet flow across the site toward the northeast, but it is prevented from continuing in that direction by the Union (Southern) Pacific railroad tracks. The nearest drainage ditch to the east is along the west side of Lammers Road, though it is doubtful that sheet flow from the GWF Tracy site continues that far. The gradual slope and intervening features (pipeline, farm fields) likely encourage infiltration by slowing flow velocities in all but the most extreme storm events.

The presence of the Delta-Mendota Canal along the upslope (western) boundary of the site means that offsite runoff from upslope areas is prevented from flowing onto the GWF Tracy site. Thus, the majority of the storm water crossing the GWF Tracy site is runoff generated by rain falling on the site itself, as opposed to surrounding properties.

Grading during construction of GWF Tracy would alter existing drainage patterns on the site. Surface water runoff would be directed around the construction site to the maximum extent feasible to minimize excess erosion and pollutant loading. After plant construction, approximately 16.4 acres of the 40-acre site will be covered with impervious surfaces, chiefly the GWF Tracy itself and related structures and access roads. It is anticipated that the remainder of the property site will continue to be used for agricultural production. The runoff generated from all storms up to and including the two (2) 10-year, 24-hour events will be captured by the GWF Tracy site's drainage system and routed to the on-site evaporation/percolation basin.

The drainage patterns of the area disturbed during the construction of the water line and the construction laydown, parking and soil management areas will be reestablished after construction. Existing roadways will be used to the maximum extent possible; if additional roadways must be established, they will be sited and graded to minimize erosion and disturbance to runoff patterns.

Following the completion of construction activity, both contact and noncontact storm water will be controlled and contained within GWF Tracy, and will not be discharged to surface waters. Both storm water runoff from the immediate plant area (contact storm water) and industrial wastewater will be stored in an on-site holding tank and eventually recycled or transported offsite via truck for disposal by GEM, a licensed waste management company under current

contract to GWF. GEM will arrange for the shipment and disposal of both project wastewater slurry (the nonrecyclable portion) and contact storm water at the Liquid Waste Management, Inc., McKittrick Waste Treatment site in Kern County (WMU ID# 50152041001). This facility accepts RCRA, non-RCRA, nonhazardous waste and is permitted as a Class II landfill.

The noncontact storm water drainage system for other portions of GWF Tracy will be designed to accommodate runoff from a maximum of two (2) 10-year, 24-hour rainfall events (approximately 2.8 inches). The drainage system will consist of a network of berms, drainage pipes, and culverts installed to collect and direct noncontact storm water runoff originating on the upslope, western portion of the site into the evaporation/percolation basin to be located directly northwest of GWF Tracy. This system will also receive runoff from areas around the plant site that are not in contact with equipment or other sources of potentially hazardous substances. Contact runoff from exterior areas inside the plant footprint will be directed to a series of catch basins that will deliver it to the holding tank for eventual recycling or offsite disposal. Drainage at GWF Tracy will be designed to prevent flooding of permanent facilities and roads.

The storm water runoff collected from outside bermed or graded storm water collection areas (contact runoff) would be controlled through a storm water collection system. The noncontact storm water would be directed to an evaporation/percolation basin inside the facility fenceline.

4.1 Measures to Be Implemented at the Power Plant Site, Construction Laydown Areas, Water Supply Line, Access Road, and Temporary Access Road

The typical rainy season for the project area is November through April, during which time over 90 percent of the rainfall occurs. Except for the year-round provision of wind-erosion/dust-control measures, the erosion- and sediment-control measures described in this section will be implemented by November 1 of each year of construction and may usually be removed by early May unless otherwise stated in the descriptions below for each project facility. The contractor will implement permanent post-construction measures to prevent erosion, including drainage and infiltration systems and slope stabilization.

Construction of the proposed project will proceed along the following general schedule:

- Survey in the limits of clearing and grubbing
- Install sediment basins and sediment traps
- Install temporary and permanent diversion ditches
- Complete site clearing in phases as drainage features are installed
- Install silt fences
- Install water supply line to provide water for remaining construction activity
- Clear, grub, and rough grade the plant site and laydown area
- Stockpile topsoil
- Construct drainages, install storm water inlets and pipe
- Grade perimeter slopes to final grade
- Install underground utilities and construct foundations

- Erect buildings, tanks, and equipment
- Complete final grading
- Complete permanent site landscaping and surfacing
- Remove temporary erosion and sediment control structures

The 11.7-acre construction lay-down area adjacent to the power plant (see Figure 1 in Appendix A) will be used for material laydown, office trailers, and construction worker parking. The area will have gravel added to facilitate its use during construction. After construction, the gravel will be removed and the disturbed area re-vegetated.

The temporary storage of excavated soil is expected to be minimal and localized to the areas under excavation. At the end of GWF Tracy construction, any excess soil will be redistributed over the 23 acres of the 40-acre parcel not occupied by GWF Tracy. The majority of construction activities associated with the power plant facility will be limited to the 16.4-acre power plant site and the adjacent construction laydown/worker parking areas (see Section 4.2).

4.1.1 Power Plant Site

Post-construction site grading and drainage will be achieved through a balanced cut-and-fill approach. The cut is associated primarily with the excavation needed for the on-site storm water percolation/evaporation basin. The final site grading and drainage will be designed to contain all runoff or drainage within the plant fence line. Runoff and noncontact storm water will be directed by grading to drains or to a culvert system that will drain into the storm water percolation/evaporation basin. The natural drainage outside of the plant fence line will not be altered.

Site preparation will consist of clearing and grubbing, excavating soils to design grade, and preparing fill slopes and embankments designed so as to be stable and capable of carrying anticipated loads. Root mats or stumps, if any, will be removed to a depth of not less than 2 feet below existing grade, and holes will be refilled with material suitable for embankment and compacted. Materials from clearing and grubbing operations will either be removed from the site or, if suitable, reused on-site.

Excavation work will consist of the removal, storage, and/or disposal of earth, sand, gravel, vegetation, organic matter, loose rock, boulders, and debris to the lines and grades necessary for construction. Excavated soil will be stored in stockpiles at designated locations using proper erosion-protection methods until it is reused on the GWF Tracy site or redistributed on the remainder of the 23-acre parcel not occupied by the GWF Tracy. Graded areas will be smooth, compacted, free from irregular surface drainages, and sloped to drain. Slopes for embankments will be no steeper than 2:1 (horizontal: vertical). Areas to be backfilled will be prepared by removing unsuitable material and rocks. Backfilling will be done in layers of uniform, specified thickness. To verify compaction, representative field density and moisture-content tests will be taken during compaction.

Runoff from possible oil contamination areas, such as the lube oil storage area and transformer areas will be contained and routed to an oil/water separator. The storm sewer system within the limits of the plant site will consist of a system of drop inlets and storm drain pipes. Inlets will be constructed of cast-in-place or precast concrete with top grates. The minimum cover requirement, loading, and material selection for pipes will be adequate for water truck loading. The storm drain piping for noncontact storm water runoff will discharge to ditches along the perimeter of the plant site and then to the on-site evaporation/percolation basin.

During construction, approximately 2 acres of the 16.4-acre plant site will be covered with impervious surfaces. The remaining area within the plant site limits will be covered with gravelly surfaces or native soil. During initial site work, the project's operational storm water management system will be installed, consisting of ditches, culverts, and the unlined storm water evaporation/percolation basin. The basin will collect noncontact runoff from the site. Consistent with San Joaquin County requirements, the site drainage system will be designed to handle the two (2) 10-year, 24-hour storm events. Figures 5 through 10 in Appendix B illustrate the proposed post-construction contours and storm water management system at the power plant site.

4.1.2 Access Road

Access to the plant site uses an existing asphalt-paved private road from Schulte Road, the existing public road to the west of the power plant site. Access within the plant site is provided by an asphalt-paved loop road. The temporary access road to the construction lay-down area and parking will be a gravel roadway. Periodic watering or applications of a dust palliative material will be used to minimize dust during access road construction. The minimum radius to the inside edge of pavement or aggregate surface at intersections of the roads will be 40 feet. Because of the flat terrain of the site, grades for all roads will be minimal.

4.1.3 Construction Lay-down/Parking Area

The 11.7-acre construction lay-down and parking area is shown on Figures 4, 9, 13, and 24 in Appendix B. The area will have temporary gravel roadways constructed to facilitate construction traffic access and to reduce dust. Storm water runoff will be collected from the entire area via ditches on the north, east, and west area boundaries. These ditches will route runoff into the temporary sediment trap located on the northern boundary of the area, as shown on Figure 9. Sediment fencing will also be installed around the perimeter of the area.

4.1.4 Erosion and Sediment Control

Storm water control during construction will include installation of silt fences, temporary sediment basins, culverts, and construction of a permanent evaporation/infiltration basin as described above. The silt fences will be put in place before the start of seasonal rains. The location of these construction erosion-control measures is shown on Figures 5 through 11 in Appendix B. The temporary and permanent basins will be constructed during site-grading operations and initial construction operations, and they will be used to capture storm water runoff during construction and minimize offsite discharges.

All of these structures will be monitored and maintained as necessary. Whenever possible, the primary protection measures at the site will be erosion-control BMPs with sediment-control BMPs used as a backup. All perimeter sediment-control practices will be installed prior to any major soil disturbances and maintained until permanent protection is established.

Erosion-control BMPs will include the following, as needed (numbers refer to BMP Fact Sheets in the California Storm Water Best Management Practice Handbook; copies of the relevant fact sheets are contained in Appendix E):

- Mulching on disturbed soils or in combination with temporary or permanent seeding strategies: Apply to all disturbed areas that will lie dormant for more than 45 days and not be subject to construction traffic; apply within 7 days of date area becomes inactive (ESC11).
- Direct runoff away from disturbed areas by means of temporary drainage ways (ESC31, ESC40).
- Stabilize plant site roadways with compaction or gravel (ESC23).
- Use soil stabilizers (most common is water) as appropriate and as required in Air Permit conditions.
- Cover topsoil stockpiles with plastic to prevent wind erosion. Plastic will be stabilized with tires to prevent removal by the wind. Utilize temporary seeding and mulching to stabilize the topsoil stockpile if necessary (ESC11) (see Figure 5 in Appendix B).

Sediment-control BMPs will include installation of the following:

- Temporary sediment basin to retain runoff and allow excessive sediment to settle out (ESC56).
- Storm water evaporation/percolation basin to retain runoff post-construction and provide sediment control during construction (ESC56).
- Silt fences along the downslope edge of disturbed areas to intercept sediment-laden runoff and aid in directing it to sediment basins (ESC50, ESC51).
- Silt fences around topsoil stockpiles if needed (ESC50, ESC51).

4.1.5 Wind Erosion/Dust Control (ESC21)

Wind erosion and dust control measures at the TPP site will include the following:

- Apply water or other dust palliatives, beginning with the initial clearing and continuing until the disturbed area is restored.

- Cover open-haul trucks with tarps both on and off the work site.
- Limit vehicle speeds to 20 mph within the unpaved construction areas.
- Remove any soil or mud deposited by construction equipment near the egress from unpaved areas.

4.1.6 Spill Prevention and Containment Measures (CA10, CA12, CA21)

4.1.7.1 General Scope

The measures listed in this section will be performed by the contractor in case of any inadvertent spill of hazardous material that will be harmful to human health and the environment. These measures will comply with all applicable local, state, or federal regulations concerning protection of the environment and all personnel at the GWF Tracy.

The contractor will perform spill control through three methods: education, inspection, and cleanup. When assigned to the GWF Tracy project, all employees will receive initial training on the use, storage, and handling of hazardous materials, and spill prevention information will be addressed in weekly safety meetings to reinforce proper handling of hazardous materials and prompt spill notification.

The Safety Department, Superintendents, and General Foreman will look for any inadvertent spills or indications that a spill has occurred during their weekly site walk-downs. These inspections will be documented and maintained at the Safety Department to be used to evaluate all possible hazards associated with these materials.

When a spill occurs, every attempt will be made to clean up the spill immediately. The spill cleanup and management of the waste will meet local, state and federal requirements under Title 40, Code of Federal Regulations Sections 302 (Designation, Reportable Quantities and Notification), 261, and 265, as well as Title 22, California Code of Regulations, Division 4.5.

4.1.7.2 Fluid Transfers

During the construction phase, there will be numerous fluid transfers for such items as transformers, generators, and cooling units. These transfers will take place at various locations throughout the site but will be most common within the plant site area. During these operations, the following steps will be followed:

- A temporary secondary containment will be placed around the transfer vehicle.
- All hoses and connections will be inspected prior to the fluid transfer.
- Continuous monitoring will be in place during the fluid transfer.

- Spill kits will be located at the site of the fluid transfer for emergency response.
- The contractor's Safety Department will be notified prior to performing these transfers to provide spill response training and monitoring.

4.1.7.3 Bulk Storage of Hazardous Materials

Hazardous materials used during construction will be stored in a site designated by the contractor. An MSDS will be furnished for each hazardous material that is brought onto the GWF Tracy site. Fueling, for example, will be conducted using service trucks that are based off-site. During the last stages of construction/startup, the transformers, generator reservoirs, and aqueous ammonia tanks will be filled. These facilities will be constructed with secondary containment as described in the GWF Tracy AFC, and filling activities will be conducted by trained personnel.

4.1.7.4 Spill Control and Cleanup

The contractor's Safety Department will be the central contact point for all construction personnel to report any spills that occur. Although a spill can occur anywhere where fluid transfers, hazardous material storage and transfers, or waste disposal activities occur on the site, they would be considered most likely to occur in the vicinity of the equipment storage, maintenance, and fueling areas. These locations are generally concentrated near the access road entrance to the plant site, shown on Figure 13 in Appendix B. The most likely types of spills are the following:

- Hydraulic fluids and petroleum products from heavy-equipment operations.
- Fuel spillage during refueling or accidental puncture to the equipment fuel tanks.
- Accidental spillage from fluid transfer from the filling of any new transformers and turbine tanks.
- Accidental spillage of any products from normal use of a hazardous material necessary for the construction of the power plant. This could include solvent, paints, oils, and fuels.

The following procedure will be used for any spill that requires cleanup. The Contractor will perform the following:

- Stop or control the flow of material as soon as the spill occurs.
- Notify the Safety Department that a spill has occurred.
- The Safety Department's Environmental Coordinator will take over supervision of cleanup and determine what steps are needed for cleanup and reporting requirements.

- Proceed with cleanup of the spill.

If a spill occurs, every attempt will be made to perform proper characterization of the waste for proper handling. If there is not enough data (MSDS or process knowledge) to properly characterize the material, it will be declared a hazardous waste. Samples will be taken and shipped to a certified laboratory and the waste will be containerized, labeled, and managed according to applicable regulations.

An incident report will be completed for any spill that requires further action. The report will be maintained with this SWPPP in the contractor's Safety Department office. This report will detail as much information as possible to keep a historical record for review as needed.

4.2 Post-Construction Restoration and Storm Water Management

Permanent erosion and sedimentation-control measures within the plant site will include the runoff collection system (inlets and drainage piping) and surfaced traffic areas. Final grading within the limits of the new facilities will include aggregate and compacted soil surfacing. These measures will minimize the possibility of any appreciable erosion and resulting sedimentation.

As previously noted, the project area is potential habitat for sensitive species. As such, the restoration requirements for this habitat have been specified in the BRMIMP and are based on extensive experience in this area of San Joaquin County by the state and federal resource agencies charged with managing and protecting these species.

4.2.1 Power Plant Site

The existing system of storm water sewer pipelines within the plant would be modified to accommodate new storm water evaporation/percolation basin to allow for a controlled discharge into the natural environment. The watershed that will drain into the evaporation/percolation basin consists of the plant site as well as the areas adjacent to the access road south of the railroad crossing and will be divided into a series of sub-areas, described as follows (and shown on Figure 1, Appendix B):

- C-4: drains the area south of the access road, west of the plant site via culvert
- CB-10: drains the area immediately south of the plant via catch basin and drainage pipe
- CB-09: drains the area immediately south and east of the plant via catch basin and drainage pipe
- CB-07: drains the area immediately south and east of CB09 via catch basin and drainage pipe
- Trench 1: drains the northeast portion of the plant site (including the substation) via trench drain and drainage pipe

- CB-06: drains the southeast quadrant of the plant site via catch basin and drainage pipe
- CB-08: drains the southwest quadrant of the plant site via catch basin and drainage pipe
- CB-05: drains the northeast quadrant of the plant site via catch basin and drainage pipe
- C-5: drains the northwest quadrant of the plant site via culvert
- CB-11: drains the far southwest quadrant of the plant site via catch basin and drainage pipe

Drainage pipes/storm sewers will be located beneath the plant loop road, and the four drainage quadrants on the plant site will be graded and sloped to drain to each catch basin or culvert. Some drawings of these features are shown in Figure 22, Appendix B.

Calculations for times of concentration, channel sizing, and pipe sizing are included in Appendix B. The TR-55 program was used to determine an appropriate storage volume for the evaporation/percolation basin and to develop runoff hydrographs for both the pre-construction and post-construction cases. The evaporation/percolation basin will have a volume of 4.4 acre-feet. All storm water conveyed to the basin from the site will be noncontact water. Any small spills or potentials for contamination will be treated as point sources and contained and cleaned up upon notification of such incidents. Runoff from machinery that could produce hazardous pollutants to storm water will be channeled into oil/water separators for treatment as described below.

Many of the measures implemented during construction of GWF Tracy will extend into the post-construction and start-up phase. Figures 5 through 11 in Appendix B provide an illustration of the post-construction drainage system on the plant site. At the power plant site, the storm water drainage and collection system described above will segregate contact versus noncontact runoff.

Contact runoff derives from the power islands and other contained facilities where there is potential for rainwater contact with oils, greases, and solvents normally used at such facilities. This runoff will be contained and routed through the oil/water separator for handling with other facility process wastes. Oil collected by the separators will be removed by a vacuum truck and recycled by a designated licensed used-oil recycler. Any other potentially contaminated runoff, as in tank containment cells and contained or bermed hazardous material storage areas, will be routed to a holding tank for eventual offsite disposal by a designated licensed contractor.

Noncontact runoff derives from the balance of the power plant site and is typically sheet runoff collected in ditches, culverts, and other drainage structures for delivery to the on-site storm water evaporation/percolation basin. GWF operations staff at the plant will be responsible for the long-term maintenance of these facilities.

4.2.2 Revegetation

Most of the fenced power plant site will be covered with aggregate surfacing. For the balance of the site, topsoil stockpiled during initial site grading will be spread over remaining disturbed soil areas around the plant perimeter. The lay-down area will be cleaned up, all gravel will be removed, and the stockpiled topsoil will be spread over the site. The culverts installed in the laydown area will be removed and the temporary drainage channels restored to their pre-construction configuration.

The power plant site will be covered by plant equipment and associated buildings, parking areas, and landscaping. Therefore, no revegetation measures are provided for this area. Upon completion of construction, all areas subject to temporary ground disturbance (e.g., slopes and drainage ditch embankments), including the laydown area, will be recontoured as necessary.

4.2.3 Notice of Termination

A Notice of Termination will be filed with the RWQCB following final stabilization of all areas disturbed by construction. The CEC and CDFG will determine the suitability of the final stabilization via the annual monitoring program described in the BRMIMP. This determination will be documented and included with the Notice of Termination filing.

5.0 MONITORING, MAINTENANCE, INSPECTION, AND REPAIRS

5.1 Erosion Control

The contractor will assign an Erosion Control Supervisor (ECS), who will be responsible for preparation and installation of temporary erosion control and waste management measures. Stockpiling of erosion-control materials will begin prior to project construction. Monitoring for compliance with the requirements of this SWPPP will begin immediately after the start of construction activity. Examples of the ECS's responsibilities may include the following:

- Maintaining a sufficient stock of erosion- and sediment-control materials to handle anticipated weather conditions and for ongoing maintenance of these structures.
- Implementing appropriate erosion- and sediment-control measures prior to the beginning of the rainy season on November 1, and/or prior to earth-disturbing activities for specific project components.
- Monitoring short- and long-term weather forecasts.
- Implementing adequate precautions in anticipation of stormy weather conditions.
- Inspecting all containment areas for hazardous materials and/or wastes and other designated containment locations and all erosion-control measures before and after storm events of 0.5 inch or more, and at least once every 24-hour period during sustained storm events. The pre-storm inspections should ensure that the BMPs are properly installed and maintained. The post-storm inspections should ensure the BMPs have functioned adequately.
- Ensuring that equipment, materials, and workers are available for rapid response to failures and emergencies.
- Inspecting temporary erosion-control devices in all construction areas on at least a weekly basis and ensuring replacement of damaged or missing structures within a reasonable time frame.
- Removing sediment from silt fences when accumulation has reached one-third of the height of the barrier.
- Inspecting silt fences for depth of accumulated sediment, tears, attachment to post, and stability on a weekly basis.
- Inspecting riprap and aggregate surfaces for bare spots and washouts.
- Repairing and correcting damaged erosion-control measures as soon as feasible following the storm, depending on field conditions.

- Implementing corrective maintenance to erosion-control measures as soon as possible following each storm, depending on worker safety.
- Dictating appropriate wetness when watering a road or soil stockpile for dust suppression.
- Ensuring removal of any soil or mud deposited by construction equipment on paved roads near the egress from unpaved areas.
- Developing remedial erosion controls for problem areas, if necessary.
- Notifying the Environmental Inspector when any suspected water or soil contamination is encountered.
- Taking immediate corrective action when an instance of noncompliance is identified, and notifying the Environmental Inspector as soon as possible.
- Working with the Designated Biologist or Biological Monitors on pre-construction, construction, and post-construction surveys to ensure compliance with mitigation measures.

The ECS must have received training in erosion and sedimentation control and in management of construction materials, wastes, and equipment from the RWQCB or other recognized agencies. The ECS will also participate in ongoing training provided by these agencies. Documentation of this training will be provided by the ECS prior to start of construction, as described in Appendix D.

5.2 General Site Inspection

General site inspections conducted for SWPPP compliance will be coordinated with those required in the BRMIMP. The intensity and frequency of this monitoring depends on the surface water or biological resources in and near the work area and the kind of activity underway. When trenches and holes are open, large volumes of supplies are deployed for installation, construction traffic is very heavy, and/or sensitive resources are common in the area, full-time environmental compliance monitoring will be necessary. During such periods, daily (or more frequent) inspections will:

- Identify areas contributing to a storm water discharge.
- Implement a water quality monitoring program to evaluate the storm water discharges to the evaporation/percolation basin for constituents of concern to groundwater quality. Sampling should be undertaken during all storm events of 0.5 inch or more. Include monitoring results in SWPPP compliance reporting.
- Evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly installed and are functioning in accordance with the terms of the General Permit.

- Determine whether additional control practices or corrective maintenance activities are needed.
- Ensure that disturbance or removal of vegetation within the agreed work area will not exceed the minimum necessary to complete operations. Precautions will be taken to avoid other damage to vegetation by people or equipment.
- Ensure that fill will be limited to the minimal amount necessary to accomplish the agreed activities. Excess fill will be moved offsite at project completion.
- Ensure that raw cement, concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to fish or wildlife and that result from project-related activities, will be prevented from contaminating the soil.
- Ensure that all excess project materials are removed from the project site.
- Evaluate that all construction and operation workers in the project area have completed an employee orientation program. Training will be offered at the start of work. New workers joining the work force will be trained within 3 days of arrival on the job site.

Although the inspections listed below may be done at any time a monitor is in the construction area, inspections will be conducted at least once a week to ensure that:

- Weekly compliance inspection reports are maintained for review by USFWS, CEC, and CDFG upon request.
- Avoidance area flagging and fencing is in place where needed and has been removed in areas where construction is completed.
- Construction area boundaries are clearly delineated by fencing or staking and flagging and/or rope or cord.
- Speed limit signs and messages are in place and accurate.
- Equipment storage and parking are confined to the designated areas.
- All food-related trash items are disposed of in closed containers and removed at least once a week from the site.

5.3 Post-Construction Monitoring

Inspection and reporting of site reclamation actions will be accomplished by the Designated Biologist and will be included with construction monitoring and reporting. A final reclamation

inspection and report, separate from construction monitoring reporting, will be necessary, depending upon the final construction and reclamation schedule.

5.4 Reporting

Within 45 days of completion of the project, a brief post-construction compliance report will be submitted to the CEC.

Records of all inspections will be kept for a minimum period of 3 years from the date prepared. Each inspection will be documented with an inspection report on the form provided in Section 8.0.

The Environmental Inspector will ensure full compliance with the General Permit and implementation of all elements of the SWPPP. As part of these responsibilities, the Environmental Inspector will provide a certification by July 1 of each year the General Permit is active, affirming that the project construction activities are in compliance with the General Permit.

Instances of noncompliance will be reported to the RWQCB by the Environmental Inspector within 30 days. The notifications shall identify the noncompliance event, including an initial assessment of any impact caused by the event, describe the actions necessary to achieve compliance, and include a time schedule (subject to modification by the RWQCB) indicating when compliance will be achieved. In addition, the Environmental Inspector will give advance notice to the CPM and the RWQCB of any planned changes in the construction activity that may result in noncompliance with General Permit requirements.

6.0 CONTRACTOR'S CERTIFICATION

The ECS will ensure that each contractor completes the SWPPP as follows:

- Read and sign the Certification Statement, and submit a signed copy of the signature page to the Environmental Inspector.
- Supplement or replace the site maps in Appendix B with revised drawings whenever changes to the location of specific BMPs are made during the construction period or other changes are made as outlined in Section 7.0, and submit them to the Environmental Inspector.
- Ensure that the List of Subcontractors (Appendix C) is updated whenever changes are made, and submit all revisions to the Environmental Inspector.

7.0 PROJECT CHANGES

The storm water pollution prevention measures in this plan have been developed using the best information available at the time this SWPPP was prepared. However, refinements to the project design and unanticipated field conditions could affect the effectiveness or implementation of these mitigation measures.

The SWPPP will be amended whenever there is:

- Any material change or proposed change in the character, location, or volume of discharge;
- Any change to the contractor's site map; or
- Any surface-disturbing activity that is not currently covered in the SWPPP.

The SWPPP will also be amended if it is in violation of any condition of the General Permit or has not achieved the general objective of reducing pollutants in storm water discharges. In addition, the CEC and the RWQCB, may require that the SWPPP be amended.

Amendments to the SWPPP based on site-specific conditions may be initiated by the contractor, the GWF Tracy Construction Manager, or the Environmental Inspector. All changes must be approved by the GWF Tracy Project Manager (or his/her designee) in consultation with the Environmental Inspector (or his/her designee). For minor, procedural changes that do not affect the scope, intent, or success of the mitigation measures, the Environmental Inspector will document the change and forward copies of the change to the CPM. Significant changes will require review and approval by the CPM. Amendments will be processed in a timely manner but in no case more than 14 days after the change in conditions is identified or it is determined that the plan is in violation of the General Permit. All amendments will be dated and inserted into the SWPPP under Appendix F. An updated copy of the SWPPP will be kept by the Environmental Inspector at the construction field office and will be made available to the CEC and the RWQCB upon request.

8.0 INSPECTION FORM

The following inspection checklist form will be used to record the results of all SWPPP inspections conducted by the ECS. The form may be modified to accommodate project- or site-specific situations and circumstances, but at a minimum should include the following:

- a. Inspection date.
- b. Inspector's name, title, and signature.
- c. Weather information: best estimate of beginning of storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall (inches).
- d. A description of any inadequate BMPs.
- e. If it is possible to safely access the site during inclement weather, list observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the result of each post-storm visual inspection at relevant outfalls, discharge points, or downstream locations and projected required maintenance activities.
- f. Describe any corrective actions required, including changes to the SWPPP and their implementation dates.

Original inspection forms shall be retained by the ECS for the prescribed period and copies shall be provided to the Environmental Inspector within 24 hours of completion of the inspection.

**Construction Storm Water Inspection Checklist
GWF Tracy Project**

Location: _____ (Facility, Component)	
<input type="checkbox"/> Regular inspection <input type="checkbox"/> Pre-storm inspection <input type="checkbox"/> During-storm inspection <input type="checkbox"/> Post-storm Inspection <ul style="list-style-type: none"> • Storm began: _____ / _____ (date, time) • Storm duration: _____ hours • Rainfall amount: _____ inches • Days since previous storm/rainfall event: _____ 	Date: ____/____/____ Time: _____ a.m./p.m. Current weather: _____ Inspector: _____ Title: _____ Signature: _____

YES	NO	N/A	
			Are all storm and non-storm water BMPs called for in the SWPPP or Site Maps installed in the proper location and to the specifications in the BMP fact sheet? IF NO, indicate which ones require correction and date correction will be made:
			Do any structural BMPs require corrective action, repair or clean-out to maintain adequate function? IF YES, indicate which ones and date correction will be made:
			Are construction access routes, parking and storage of equipment and supplies restricted to approved/designated areas?
			Are locations of temporary soil stockpiles or construction materials in approved areas?
			Is there any evidence of sediment leaving the site?
			Is there any evidence of erosion on disturbed slopes?
			Is there any evidence of sediment, debris, or mud on public roads at intersections with construction access roads?
			Does the SWPPP require revisions to correct deficiencies noted above? IF YES, explain:
Other comments/observations:			

(if necessary, continue comments on back =>)

9.0 PLAN PREPARATION

This SWPPP was prepared by GWF Energy LLC.

Plan amendments are included as Appendix F.

Appendix A includes the following figure:

- Figure 1 – Project Location Map

The following information is provided on this figure:

- General site layout with proposed plant configuration
- Site Grading and Drainage Plan
- Existing topography
- Existing streams within site vicinity

Insert Figure 1 here and discard this page

Appendix B includes the following figures:

To be included in the GWF Tracy SWPPP prior to construction.

- Calculation sheets for storm water run-on and evaporation basin/drainage channel sizing
- Figure 1 – Drainage Delineations
- Figure 2 – Drainage Delineations
- Figure 3 – Drainage Delineations
- Figure 4 – Drainage Delineations
- Figure 5 – Site Erosion and Sediment Control: General Notes, Legend, and Key Plan
- Figure 6 – Site Erosion and Sediment Control Plan
- Figure 7 – Site Erosion and Sediment Control Plan
- Figure 8 – Site Erosion and Sediment Control Plan
- Figure 9 – Site Erosion and Sediment Control Plan
- Figure 10 – Site Erosion and Sediment Control Plan
- Figure 11 – Site Erosion and Sediment Control: Sections and Details
- Figure 12 – Site Arrangement
- Figure 13 – Site Arrangement: Construction Facilities
- Figure 14 – Site Arrangement: Construction Facilities
- Figure 15 – Site Grading and Drainage: Overall Plan
- Figure 16 – Site Grading and Drainage Plan
- Figure 17 – Site Grading and Drainage Plan
- Figure 18 – Site Grading and Drainage Plan
- Figure 19 – Site Roads and Fencing Alignment Plan
- Figure 20 – Site Grading and Drainage Plan
- Figure 21 – Site Grading and Drainage Plan
- Figure 22 – Site Grading and Drainage: Sections and Details
- Figure 23 – Site Grading and Drainage: Entrance Road Plan and Profile
- Figure 24 – Site Grading and Drainage: Phase I Excavation Plan

The site maps in this appendix have been provided by the contractor(s) for their specific construction area, construction yard(s), and any facilities where hazardous materials or wastes will be stored. The following information is provided on these maps:

- Construction detail of existing and planned paved areas and buildings (Figure 13)
- Areas used to store/stockpile soils (Figure 13)
- Construction material loading/unloading areas (Will be determined by contractor; details will be provided to the CEC CPM before start of construction.) (Figures 9, 13, and 24)
- Areas used to handle, store, and dispose of wastes (Will be determined by contractor; details will be provided to the CEC CPM before start of construction.)

APPENDIX B CONTRACTOR'S SITE MAPS

- Proposed temporary construction building/trailer locations (Will be determined by contractor; details will be provided to the CEC CPM before start of construction.) (Figure 13)
- Proposed employee staging/parking areas (Will be determined by contractor; details will be provided to the CEC CPM before start of construction.) (Figure 13)
- Proposed construction equipment and vehicle storage, refueling, cleaning, and service areas (Will be determined by contractor; details will be provided to the CEC CPM before start of construction.)
- Existing and proposed roads and access routes (Figures 10, 13, 14, 18, 19, 20, 21)
- Existing and proposed paved or graveled areas (Figures 13 and 24)
- Temporary on-site drainage designed to carry/divert concentrated flow during construction (Figures 5 through 11)
- Existing drainage patterns and drainage patterns and slopes anticipated after major grading activities are completed (Figures 3 through 6)
- Storm water collection and discharge locations and an outline of the drainage area for each location (Figures 1 through 4 and 6 through 8)
- Locations of post-construction erosion-control practices and identification of specific BMPs to be implemented (Figures 15 through 18)
- Calculations for anticipated storm water run-on and design of storm water detention ponds and drainage channels (following this page)
- Location of erosion and sediment control BMPs for the construction laydown area (Figure 9)
- Retention pond elevations and design (Figure 17)

Insert B&V calc sheets and Figures 1-24 here and discard this page

APPENDIX C
CONTRACTOR'S LIST OF SUBCONTRACTORS

This appendix includes a tabular matrix for logging key data for construction subcontractors at the GWF Tracy.

To be included in the GWF Tracy SWPPP prior to construction.

APPENDIX C
 CONTRACTOR'S LIST OF SUBCONTRACTORS

**GWF Tracy – Storm Water Pollution Prevention Plan
 APPENDIX C
 Contractor's List of Subcontractors**

Prime Contractor _____

Subcontractor Name	Specific Construction Responsibility	Office Address	Office Phone Number	Emergency Contact and Phone Number

**APPENDIX D
TRAINING DOCUMENTATION**

This appendix includes a tabular matrix for documenting training of construction personnel related to storm water pollution prevention.

To be included in the GWF Tracy SWPPP prior to construction.

**APPENDIX D
TRAINING DOCUMENTATION**

TRAINING DOCUMENTATION

Training topic/item	Date(s) of training	Name of personnel	Authorized signature	
			Trainer	Trainee

**APPENDIX E
BEST MANAGEMENT PRACTICES
FACT SHEETS**

This appendix includes pertinent Best Management Practices Fact Sheets. The measures and procedures that are presented on the Fact Sheets for preventing storm water pollution apply to a variety of construction activities. These Fact Sheets provide minimum standards for the application of these BMPs to the project site.

To be included in the GWF Tracy SWPPP prior to construction.

**APPENDIX E
BEST MANAGEMENT PRACTICES
FACT SHEETS**

Insert BMP Fact Sheets here and discard this page

This appendix contains amendments to the SWPPP, as applicable.