

**BIOGAS RENEWABLE GENERATION PROJECT  
FINAL INITIAL STUDY / MITIGATED NEGATIVE DECLARATION**

ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURE  
March 9, 2018

## **3.9 HYDROLOGY AND WATER QUALITY**

### **3.9.1 Setting**

#### **Regional Hydrogeology**

According to the CDWR Bulletin 118 Report, the Project site is not located within a mapped groundwater basin. The closest groundwater basin is the San Fernando Valley Groundwater Basin of the South Coast Hydrologic Region (Number 4-12), located to the west of the Project site. The basin is approximately 226 square miles and is bounded on the north and northwest by the Santa Susana Mountains, on the north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by the Simi Hills (DWR, 2004).

The surface and ground waters of this basin are used extensively for domestic, agricultural, and industrial purposes. The water-bearing sediments consist of the lower Pleistocene Saugus Formation, Pleistocene and Holocene age alluvium. The ground-water in this basin is mainly unconfined with some confinement within the Saugus Formation in the western part of the basin and in the Sylmar and Eagle Rock areas. Regional groundwater flow direction is generally reported toward the south southwest (DWR Bulletin 118, 2004).

Third Quarter 2015 quarterly groundwater monitoring results at the adjacent site (Inactive Scholl Canyon Landfill) reported the depth to water to be approximately 50 feet below ground surface (bgs) (SCS Engineers, 2015).

The SCLF and Project site are part of the Los Angeles River Watershed, which receives drainage from an 834 square-mile area of Los Angeles County, with headwaters in the Santa Monica Mountains, Simi Hills, Santa Susana Mountains and San Gabriel Mountains. The upper watershed contains a network of flood control dams and debris basins that flow to the Los Angeles River. The lower part of the river flows in a concrete-lined channel through a heavily urbanized portion of the county before becoming a soft bottom channel as it discharges into the San Pedro Bay. The Los Angeles River passes the SCLF and project site approximately four miles to the west. Stormwater from the SCLF enters the Los Angeles River south of the Glendale Narrows via a storm drain system with a tributary in Glen Oaks Boulevard just west of the SCLF (AECOM, 2014).

#### Flood Zones

The Project site is located in a Federal Emergency Management Agency (FEMA) National Flood Insurance Program Category Zone D on the Flood Insurance Rate Map, indicating the absence of any flood hazard.

The SCLF is at the headwaters of the Scholl Canyon sub-watershed. The majority of the annual rainfall in the region occurs from November through April. The Los Angeles Department of Public

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Works (LADPW) estimates the average seasonal rainfall of Los Angeles County to be 15.65 inches. Typical rainfall at SCLF averages approximately 18.32 inches per year (based on actual rainfall measurements recorded by an on-site precipitation gauge between 1982 and 2010).

### Local Stormwater Infrastructure

In accordance with State requirements, the current permanent stormwater diversion and control facilities at the SCLF have been designed to accommodate a calculated 100-year, 24-hour storm. The system of down drains and drainage structures transport stormwater via a concrete box culvert under Scholl Canyon Park to the Scholl Debris Basin. The debris basin has a design debris capacity of 8,400 cubic yards and an 80-foot wide concrete spillway that discharges to a concrete box culvert at the upstream end of a branch of the LADPW's stormwater collection and conveyance system (AECOM, 2014).

### **Regulatory Setting**

Stormwater quality and quantity at municipal landfills is subject to comprehensive federal, state, and local regulations. The surface water drainage system at the SCLF directly adjacent to the Proposed Project site has been optimized to comply with these regulatory requirements by implementing measures such as preventing run-on into the active landfill area, minimizing surface water contact with refuse, diverting stormwater from the active disposal area away from the local storm drain, and minimizing the erosion potential of surface water drainage. The Proposed Project, which will be located within the inactive portion of the landfill, will be subject to many of the same regulations regarding hydrology and water quality as the adjacent active landfill, as included below.

### Federal Regulations

#### Industrial Discharges

Subtitle D (Title 40 CFR Part 258) prohibits a municipal solid waste landfill (MSWLF) from discharging pollutants into waters of the United States, including wetlands, which would result in a violation of any requirement of the Clean Water Act. In addition, it prohibits a MSWLF from discharging non-point sources of pollution into waters of the United States that would result in a violation of any requirement of an area-wide or State-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act (AECOM, 2014).

In 1972, the Federal CWA was amended to prohibit the discharge of pollutants in waters of the United States from any point source unless the discharge is in compliance with the National Pollution Discharge Elimination System Permit (NPDES). The 1987 amendments to the CWA added Section 402 (p) that established a framework for regulating municipal and industrial stormwater discharges under the NPDES program. In 1990, the Environmental Protection Agency (EPA) published final regulations (Title 40, CFR, Parts 122-124) that established application requirements for stormwater permits. The regulations require that stormwater associated with

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industrial activities, if discharged to surface waters directly or indirectly through municipal storm sewers, must be regulated by an NPDES permit. Relevant industrial activities include municipal solid waste disposal operations and LFG processing for energy generation. Therefore, an NPDES permit is required for the Proposed Project site. The existing facility currently carries NPDES permit No. CAS000001.

### State Regulations

The state of California is authorized by Federal EPA regulations to issue general NPDES permits to regulate stormwater discharges. The Sanitation Districts of Los Angeles County (Sanitation Districts) filed a Notice of Intent with the SWRCB on March 27, 1992 to obtain coverage under the General Permit for continued and future stormwater discharges from SCLF.

In 1997, the SWRCB adopted a revised General Permit as a replacement for the expired 1992 NPDES General Permit. Pursuant to the revised General Permit, the Sanitation Districts revised the SWPPP and Monitoring Program and filed a Notice of Intent (NOI) on May 22, 1997. According to the BMPs in the SWPPP at the SCLF, and pursuant to the General Permit, the Sanitation Districts have implemented a stormwater run-off monitoring program during each wet season (October through May). Monitoring results as well as records of site inspections and evaluations of all BMPs, conducted during both the wet and dry seasons, are submitted to the RWQCB by July 1 of each year in the Annual Report for Storm Water Discharges Associated with Industrial Activities.

For groundwater protection and monitoring, the RWQCB has issued WDRs and a monitoring and reporting program (MRP) for the SCLF. Landfill operations are regulated by the conditions in WDRs Order No. 01-132 and MRP No. 2846. In addition, Order No. 93-062 implements the federal regulations and applies to the entire landfill.

### Local Regulations

The Glendale Building Code (2016) contains provisions for BMPs, preparation of a SWPPP, and requirements for engineered grading requirements, including proposed drainage structures, for all grading permit applications.

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**3.9.2 Impact Analysis**

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b><u>HYDROLOGY AND WATER QUALITY:</u> Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Violate any water quality standards or waste discharge requirements?*

**Less than significant Impact**

The Proposed Project will include the installation of structures which will increase the area of impervious surfaces on the Proposed Project site, which will have the potential to result in an increased volume and velocity of surface water runoff.

Construction Impacts

Construction activities could result in the degradation of water quality, releasing sediment, oil and greases, and other chemicals into the existing storm drain system. Construction materials such as fuels, solvents, and paints may present a risk to surface water quality. Refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

To minimize these potential impacts, the Project will be required to comply with the NPDES General Construction Permit (GCP) as well as prepare a SWPPP that requires the incorporation of BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The SWRCB mandates that projects that disturb one or more acres must obtain coverage under the Statewide GCP. Since the Proposed Project will involve development of approximately 3-acres, it will be subject to these requirements.

Per the provisions of the SWPPP and the NPDES Permit, stormwater flow from the Project site would either be routed to the existing storm drains within the existing project footprint or into temporary energy dissipating structures or silt traps, all of which ultimately drain in to the active landfill's permanent drainage system. These measures would ensure no violations to water quality standards or waste discharge requirements would occur. Therefore, construction impacts would be less than significant.

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### Operational Impacts

Potential runoff from the project site would be limited to oils, grease, fuel, antifreeze, and byproducts of combustion (such as cadmium, nickel, and other metals) generated by onsite personnel vehicles. Runoff will be collected in a catch basin on the north side of the facility and into a 10-inch underground pipe that will drain into the adjacent landfill drainage system. Runoff originating from the Proposed Project will be subject to the provisions of the existing NPDES permit carried by the SCLF. In addition, the project would comply with the waste discharge prohibitions and water quality objectives established by the RWQCB that are incorporated into the project as design features. As such, it is not anticipated that the Proposed Project would violate any water quality standards or waste discharge requirements. Therefore, operational impacts would be less than significant.

### **Mitigation Measures**

None required.

- b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

### **No impact**

As described above, the Project site is not located within a mapped groundwater basin. The closest groundwater basin is the San Fernando Valley Groundwater Basin of the South Coast Hydrologic Region (Number 4-12), located to the west of the site. Considering the fact that no groundwater recharge potential exists at the existing site and expansion of the existing facility would have no bearing on groundwater recharge capabilities, there would be no impact.

### **Mitigation Measures**

None required.

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

### **Less than Significant Impact**

The Proposed Project is located within the boundaries of an existing landfill. Some grading would be required in order to expand the footprint of the existing facility. The Proposed Project includes permanent drainage structures that will direct all site drainage into the existing landfill

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drainage system. Temporary erosion control measures will be implemented during the construction phase, as described in "a)", above. No streams or rivers would be affected as there are none located within the Project vicinity. Therefore, impacts would be less than significant.

**Mitigation Measures**

None required.

*d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

**Less than Significant Impact**

As discussed above, the Proposed Project is located within the boundaries of an existing landfill. Some grading would be required in order to expand the footprint of the existing facility. The Proposed Project includes permanent drainage structures that will direct all site drainage into the existing landfill drainage system. Temporary erosion control measures will be implemented during the construction phase, as described in "a)", above. No streams or rivers would be affected as there are none located within the Project vicinity. Therefore, impacts would be less than significant.

**Mitigation Measures**

None required.

*e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

**Less than Significant Impact**

The Proposed Project would represent an expansion of approximately 2.0 acres over the existing facility. The Proposed Project design would not result in a substantial increase in runoff compared to existing conditions, which are primarily impervious surfaces.

As required by the site-specific SWPPP provisions of the NPDES permit, BMPs and permanent drainage systems will be implemented across the site, during both the construction and operational phases. These BMPs and permanent drainage systems will control and prevent the release of sediment, debris, and other pollutants from entering the storm drain system.

As described in impact analysis descriptions, a), b), and c), above, stormwater runoff during construction would be required to comply with all of the requirements in the State GCP, including and submittal of a SWPPP to the SWRCB prior to the start of construction activities. All

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operational Project-generated runoff will be collected into the proposed facility catch basin and routed into the existing landfill drainage system. Chemicals stored onsite will have redundant collection systems capable of trapping the maximum 100 percent of storage vessel volumes so that no accidentally spilled chemicals inadvertently enter the storm drain system. Therefore, impacts would be less than significant.

**Mitigation Measures**

None required.

f) *Otherwise substantially degrade water quality?*

**Less than Significant Impact**

The Project has no other pollutant sources than those analyzed above. As such, the Project would not result in substantial degradation of water quality. Therefore, impacts would be less than significant.

**Mitigation Measures**

None required.

g) *Place housing within a 100-year flood hazard area as mapped on a federal flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

**No Impact**

No housing is included as part of the Proposed Project. In addition, the Proposed Project site is located outside the 100-year flood hazard zone in the hazard zone "D". Therefore, there would be no impact.

**Mitigation Measures**

None.

h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

**No impact**

The Proposed Project site is located outside the 100-year flood hazard zone in the hazard zone "D". Therefore, there would be no impact.

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**Mitigation Measures**

None required.

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

**No impact**

The Project site is not located downstream of or within any dam inundation areas and would not expose people or structures to hazards associated with flooding. Therefore, there would be no impact.

**Mitigation Measures**

None.

- j) *Inundation by seiche, tsunami, or mudflow?*

**No impact**

The Project area is located over 20 miles from the Pacific Ocean, at an elevation of 1,410 feet above mean sea level (AMSL). Tsunamis typically affect coastlines and areas up to ¼-mile inland. Due to the Project's distance from the coast, potential impacts related to a tsunami are non-existent. Additionally, the Project site is not susceptible to impacts resulting from a seiche because of its distance from any enclosed bodies of water. The Project site is located within a highly engineered and controlled environment. Slopes within the SCLF have been compacted to Title 27 specification and designed and optimized to control erosion. Examples of BMPs used at the SCLF to control erosion include check dams, compaction by bull dozers, erosion control fencing, and silt fences. Considering these measures are in place throughout the SCLF, the project site is not susceptible to inundation by mudflow. There would be no potential impact.

**Mitigation Measures**

None required.

