

ENVIRONMENTAL IMPACT ANALYSIS

4.8 HYDROLOGY AND WATER QUALITY

Acronyms

| | |
|------------|--|
| AB | Assembly Bill |
| Basin Plan | Los Angeles Region Water Quality Control Plan |
| bgs | Below ground surface |
| BMPs | Best Management Practices |
| CDWR | California Department of Water Resources |
| CCR | California Code of Regulations |
| CWA | Clean Water Act |
| ERAs | Exceedance Response Actions |
| FEMA | Federal Emergency Management Agency |
| GCP | General Construction Permit |
| GWP | Glendale Water and Power |
| LADPW | Los Angeles Department of Public Works |
| MRP | Monitoring and reporting program |
| NALs | Numeric action levels |
| NECs | No Exposure Certifications |
| NOI | Notices of Intent |
| NOT | Notices of Termination |
| NPDES | National Pollutant Discharge Elimination System |
| NSWDs | Non-stormwater discharges |
| PRDs | Permit Registration Documents |
| ROWD | Report of waste discharge |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |
| SCLF | Scholl Canyon Landfill |
| SGMA | Sustainable Groundwater Management Act |
| SMARTS | Stormwater Multiple Application and Report Tracking System |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| WDRs | Waste discharge requirements |



ENVIRONMENTAL IMPACT ANALYSIS

4.8.1 Environmental Setting

4.8.1.1 Regional Setting

According to the California Department of Water Resources (CDWR) Bulletin 118 Report, the proposed 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 (CDWR, 2003).

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 groundwater 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 (CDWR, 2003).

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

The SCLF and proposed 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 Glenoaks Boulevard just west of the SCLF (Sanitation District of Los Angeles County Planning Section and AECOM, 2014).

4.8.1.2 Existing Conditions

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 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).



ENVIRONMENTAL IMPACT ANALYSIS

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 (Sanitation District of Los Angeles County Planning Section and AECOM, 2014).

4.8.2 Laws, Ordinances, Regulations and Standards

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 a non-filled 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.

4.8.2.1 Federal

Clean Water Act Section 402 National Pollutant Discharge Elimination System Permit

The Clean Water Act (CWA) (33 USC Section 1251 et seq.), formally the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA required states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain nonpoint – source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). The proposed Project site is within the Los Angeles RWQCB. Projects that disturb one or more acres, including the proposed Project, are required to obtain NPDES coverage under the Construction General Permit. The applicable NPDES regulations are described further below.

General Construction Permit

Section 402 of the CWA authorizes the State Water Resources Control Board (SWRCB) to issue a NPDES General Construction Storm Water Permit (Water Quality Order 2009-0009-DWQ), referred to as the "General Construction Permit." Construction activities can comply with and be covered under the General Construction Permit provided that they:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting



**DRAFT ENVIRONMENTAL IMPACT REPORT
CITY OF GLENDALE BIOGAS RENEWABLE GENERATION PROJECT**

ENVIRONMENTAL IMPACT ANALYSIS

stormwater and with the intent of keeping all products of erosion from moving off site into receiving waters.

- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
- Perform inspections of all BMPs.
- Certify and submit all permit-related compliance documents via the Storm Water Multiple Application and Report Tracking System (SMARTS). Dischargers shall certify and submit these documents which include, but are not limited to, Permit Registration Documents (PRDs) including Notices of Intent (NOI), SWPPPs, as well as Annual Reports, and Notices of Termination (NOT).

NPDES regulations are administered by the Los Angeles RWQCB. Projects that disturb one or more acres, including the proposed Project, are required to obtain NPDES coverage under the Construction General Permit.

Industrial General Permit

Section 402 of the CWA authorizes the SWRCB to issue a NPDES Industrial General Storm Water Permit (Water Quality Order 2014-0057-DWQ), referred to as the "Industrial General Permit." Industrial activities can comply with and be covered under the Industrial General Permit provided that they:

1. Eliminate unauthorized non-storm water discharges (NSWDs);
2. Develop and implement a SWPPP that includes BMPs;
3. Implement minimum BMPs, and advanced BMPs as necessary, to achieve compliance with the effluent and receiving water limitations of the Industrial General Permit;
4. Conduct monitoring, including visual observations and analytical storm water monitoring for indicator parameters;
5. Compare monitoring results for monitored parameters to applicable numeric action levels (NALs) derived from the USEPA 2008 Multi-Sector General Permit for Storm Water Discharge Associated with Industrial Activity and other industrial storm water discharge monitoring data collected in California;
6. Perform the appropriate Exceedance Response Actions (ERAs) when there are exceedances of the NALs; and,
7. Certify and submit all permit-related compliance documents via the SMARTS. Dischargers shall certify and submit these documents which include, but are not limited to, PRDs including NOIs, No Exposure Certifications (NECs), and SWPPPs, as well as Annual Reports, NOTs, Level 1 ERA Reports, and Level 2 ERA Technical Reports.

NPDES regulations are administered by the Los Angeles RWQCB. Industrial storm water dischargers from the proposed Project would be regulated under the Industrial General Permit for the Scholl Canyon Landfill.



ENVIRONMENTAL IMPACT ANALYSIS

4.8.2.2 State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 et seq.), passed in 1969, requires protection of water quality by appropriate designing, sizing, and construction of erosion and sediment controls. The Porter-Cologne Act established the SWRCB and divided California into nine regions, each overseen by a RWQCB. The SWRCB is the primary State agency responsible for protecting the quality of the State's surface and groundwater supplies and has delegated primary implementation authority to the nine RWQCBs.

The Porter-Cologne Act assigns responsibility for implementing the CWA Sections 401 through 402 and 303(d) to the SWRCB and the nine RWQCBs. The Porter-Cologne Act requires the development and periodic review of water quality control plans (basin plans) that designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters, provide the technical basis for determining waste discharge requirements, identify enforcement actions, and evaluate clean water grant proposals. The basin plans are updated every three years. Compliance with basin plans is primarily achieved through implementation of the NPDES, which regulates waste discharges as discussed above.

The Porter-Cologne Water Quality Control Act requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the "waters of the State," file a report of waste discharge (ROWD). Absent a potential effect on the quality of "waters of the State," no notification is required. However, the RWQCB encourages implementation of BMPs similar to those required for NPDES storm water permits to protect the water quality objectives and beneficial uses of local surface waters as provided in the Los Angeles Region Water Quality Control Plan (Basin Plan) (RWQCB, 2014).

Waste Discharge Requirements

Waste discharges that can be exempted from the California Code of Regulations (CCR) requirements are issued waste discharge requirements (WDRs) and are regulated by the SWRCB WDR Program. 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 Nos R4-2019-0037 and R4-2011-0052.

Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act (SGMA) consists of a three-bill legislative package (Assembly Bill [AB] 1739, Senate Bill [SB] 1168, and SB 1319) that is collectively known as the SGMA. It provides a framework for sustainable groundwater management in California, by requiring governments and water agencies with high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Groundwater basins are prioritized based on a variety of factors identified in the legislation, such as population and the number of wells in a basin. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans.



ENVIRONMENTAL IMPACT ANALYSIS

Critically overdrafted basins would be required to comply with SGMA limitations by 2040, with the remaining high- and medium-priority basins required to comply by 2042. SGMA empowers local agencies to form Groundwater Sustainability Agencies to manage basins sustainably, requiring them to adopt Groundwater Sustainability Plans for crucial groundwater basins in California. Furthermore, CDWR provides ongoing support to local agencies through guidance and financial and technical assistance.

There are no high- or medium-priority basins that are under the jurisdiction of GWP or located within the City of Glendale and other cities surrounding it. Under the latest basin reprioritization plans, portions of the City of Glendale are located in a very low priority zone. As such, the SGMA groundwater drafting limitations are not applicable to Glendale Water and Power (GWP) and wells in its jurisdiction.

4.8.2.3 Local

City of Glendale Building Code

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.

City of Glendale Municipal Code; Chapter 13.42, Storm Water and Urban Runoff Pollution Prevention Control

Chapter 13.42 of the Glendale Municipal Code, Storm Water and Urban Runoff Pollution Prevention Control, contains provisions to address storm water pollution issues in development and construction projects. The regulations are designed to protect the environment, improve water quality of receiving waters, and protect the health, safety and general welfare of the citizens by:

1. Complying with all federal and state laws, lawful standards, and orders applicable to stormwater and urban runoff pollution control;
2. Prohibiting any discharges which may interfere with the operation of, or cause any damage to the storm drain system;
3. Prohibiting any eliminating illicit discharges and illegal connections to the storm drain system;
4. Reducing stormwater runoff pollution to the maximum extent practicable;
5. Reducing pollutant loads in stormwater and urban runoff from land uses and activities identified in the municipal NPDES permit; and
6. Providing regulations and giving legal effect to certain requirements of that certain NPDES permit issued to Los Angeles County and eighty-five (85) cities by the Los Angeles Regional Water Quality Control Board, Los Angeles Region, on November 8, 2012, and as may subsequently be amended (Ord. 5857 § 3, 2015; 5268 § 5, 2001).



ENVIRONMENTAL IMPACT ANALYSIS

4.8.3 Methodology and Thresholds of Significance

4.8.3.1 Methodology

Potential hydrology and water quality impacts of the proposed Project are analyzed in consideration of the thresholds of significance below and compliance with applicable water quality-related regulations promulgated to protect water quality.

4.8.3.2 Thresholds of Significance

As determined in the Biogas Renewable Generation Project Initial Study, the proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge, as the proposed Project site is not located within a mapped groundwater basin, nor is there any recharge potential existing at the proposed Project site. The proposed Project site is not located in FEMA National Flood Insurance Program Category Zone D on the Flood Insurance Rate Map, indicating the absence of any flood hazard. In addition, the proposed Project site is over 20 miles from the Pacific Ocean, so there is no potential impact related to tsunamis. The Project site is also not susceptible to impacts resulting from seiche because of the distance from any enclosed bodies of water. As there would be no resulting impacts related to these three topics, only the following six checklist questions were determined to result in potentially significant impacts and are evaluated in this EIR.

In accordance with Appendix G of the State CEQA Guidelines, the proposed Project would have a significant impact related to hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - Result in substantial erosion or siltation on- or off-site;
 - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or
 - Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.



ENVIRONMENTAL IMPACT ANALYSIS

4.8.4 Project Impacts

Threshold: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

4.8.4.1 Construction

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 proposed 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 an area greater than one acre 2.2, it will be subject to these requirements.

Per the provisions of the SWPPP and the NPDES Permit, stormwater flow from the proposed 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 into the active landfill's permanent drainage system. These measures would ensure no violations to water quality standards or waste discharge requirements or conflict with the Basin Plan would occur during construction of the facility. Therefore, construction impacts would be less than significant.

Mitigation Measures

No Mitigation Measures Required

Level of Significance After Mitigation

Less than Significant Impact

4.8.4.2 Operation

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 or conflict with the Basin Plan. Therefore, operational impacts would be less than significant.



ENVIRONMENTAL IMPACT ANALYSIS

Mitigation Measures

No Mitigation Measures Required

Level of Significance After Mitigation

Less than Significant Impact

Threshold: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

4.8.4.3 Construction

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. No streams or rivers would be affected as there are none located within the proposed Project vicinity. Therefore, impacts would be less than significant.

Mitigation Measures

No Mitigation Measures Required

Level of Significance After Mitigation

Less than Significant Impact

4.8.4.4 Operation

The proposed Project includes permanent drainage structures that will direct all site drainage into the existing landfill drainage system. No streams or rivers would be affected as there are none located within the proposed Project vicinity. Therefore, impacts would be less than significant.

Mitigation Measures

No Mitigation Measures Required

Level of Significance After Mitigation

Less Than Significant Impact



ENVIRONMENTAL IMPACT ANALYSIS

Threshold: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

4.8.4.5 Construction

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. No streams or rivers would be affected as there are none located within the proposed Project vicinity. Therefore, impacts would be less than significant.

Mitigation Measures

No Mitigation Measures Required

Level of Significance After Mitigation

Less than Significant Impact

4.8.4.6 Operation

The proposed Project includes permanent drainage structures that will direct all site drainage into the existing landfill drainage system. No streams or rivers would be affected as there are none located within the proposed Project vicinity. Therefore, impacts would be less than significant.

Mitigation Measures

No Mitigation Measures Required

Level of Significance After Mitigation

Less than Significant Impact

Threshold: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which substantially increase the rate or amount of surface runoff in a manner which would Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems of provide substantial additional sources of polluted runoff?



ENVIRONMENTAL IMPACT ANALYSIS

4.8.4.7 Construction

The proposed Project would be developed on approximately 2.2 acres. 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, 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. Therefore, impacts would be less than significant.

Mitigation Measures

No Mitigation Measures Required

Level of Significance After Mitigation

Less than Significant Impact

4.8.4.8 Operation

All 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

No Mitigation Measures Required

Level of Significance After Mitigation

Less than Significant Impact

Threshold: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

4.8.4.9 Construction

As discussed in Section 4.8.4.1, the proposed Project would not violate a water quality standard and would be consistent with the Basin Plan. The proposed Project is limited to beneficial use of LFG at the existing LFG collection site proposed for improvement and does not involve substantial water use. Water use during construction would be limited to dust suppression and compliance with fire protection preparedness requirements. Construction of the proposed Project would not conflict with or obstruct



ENVIRONMENTAL IMPACT ANALYSIS

implementation of a water quality control plan or sustainable groundwater management plan and potential impacts would be less than significant.

Mitigation Measures

No mitigation Measure are required.

Level of Significance After Mitigation

Less than Significant Impact.

4.8.4.10 Operation

As discussed in Section 4.8.4.1, the proposed Project would not violate a water quality standard and would be consistent with the Basin Plan. The proposed Project is limited to beneficial use of LFG at the existing LFG collection site proposed for improvement and does not involve substantial water use. Water use during operation would be limited to sanitary use for employees and compliance with fire protection preparedness requirements. A substantial increase in personnel necessary to operate the proposed Project beyond those that already occur for existing LFG management is not anticipated. Operation of the proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and potential impacts would be less than significant.

Mitigation Measures

No mitigation Measure are required.

Level of Significance After Mitigation

Less than Significant Impact.

4.8.5 Cumulative Impacts

During construction, the proposed Project would be required to comply with the NPDES 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 proposed 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. The proposed Project includes permanent drainage structures that will direct all site drainage into the existing landfill drainage system. The proposed Project would not have cumulatively considerable hydrology and water quality impacts.

