CHAPTER 2.0

Project Description

The Chiquita Canyon Landfill (CCL) Master Plan Revision (Proposed Project) is described in detail in this chapter. The location of the Proposed Project is described in Section 2.1. Specific elements of the Proposed Project are addressed in Section 2.2. Section 2.3 addresses landfill closure and post-closure.

2.1 Location

CCL, located in the northwestern portion of unincorporated Los Angeles County, is approximately 3 miles west of the intersection of Interstate 5 (I-5) and State Route 126 (SR-126) (Figure 1-1). The site is located in Section 15, Township 4 North, Range 17 West, San Bernardino Baseline and Meridian. The site latitude and longitude are 34°25'N and -118°39'E, respectively.

CCL is located within the planning area of the City of Santa Clarita, but outside its city limits and sphere of influence. The landfill site is also located within the Santa Clarita Valley Area Plan of the Los Angeles County General Plan and in the Castaic Area Community Standards District.

Much of the area surrounding CCL consists of undeveloped open space as a result of steep topography. Surrounding land uses include primarily open lands to the north and rural residential development to the west and northwest along Chiquito Canyon Road and in the Val Verde area. The closest of these residential dwellings is located approximately 500 feet from the northwest site boundary and 1,200 feet from the landfill footprint, and intervening topography prevents residential views of the operating landfill from these locations. The United States Postal Service has a general mail facility adjacent to the eastern edge of the landfill property boundary. The property immediately west and south of the landfill is owned by the Newhall Land and Farming Company (NLF) and is currently either vacant or used for agricultural activities.

Limited suburban residential areas are located further to the northeast, and industrial/commercial uses are also located further to the northeast, east, and southeast. Oil extraction fields and associated storage areas are located less than 1 mile from the landfill to the west and south. Valencia Travel Village, a short- and long-term recreational vehicle resort, is located approximately 1 mile east of the landfill on the south side of SR-126.

2.2 Project Elements

The Proposed Project includes the following elements: development of new entrance and support facilities; better utilization of the landfill's potential disposal capacity through a lateral extension of the existing waste footprint and increased maximum elevation; increased daily disposal limits; acceptance of all nonhazardous wastes permitted at a Class III solid waste disposal landfill; continued operation of the landfill; new design features; environmental monitoring; development of a Household Hazardous Waste Facility (HHWF); mixed organics composting operation; and set-aside of land for potential future conversion technology. In addition, the Proposed Project includes the relocation of a portion of Southern California Edison's (SCE) existing Saugus-Elizabeth Lake-Fillmore 66 kilovolt (kV) Subtransmission Line in order to accommodate landfill improvements. Each of these project elements is described in detail below.

2.2.1 Entrance and Support Facilities

CCL is located on the north side of SR-126, a four-lane paved highway running east-west along the southern boundary of CCL. As part of the Proposed Project, the primary landfill entrance will be located at Wolcott Way, as shown in Figure 2-1. Vehicles traveling to the site will turn from SR-126 onto Wolcott Way, which is a signalized intersection, and then west into the new landfill entrance. The new entrance location will provide a safe entrance and exit from the landfill.

Access to the site will be controlled by a gate located at the entrance, along with a video surveillance system for security. In addition to the access gate, existing (and proposed) perimeter fencing prevents unauthorized

access and warning signs are attached to the fencing. The terrain and location of the site limits its accessibility to unauthorized entry from areas other than the SR-126 entrance. Security fencing between the landfill and the adjacent United States Postal Service facility prevents access to the landfill from the postal facility and vice versa.

Signage similar to the existing signs will be provided, identifying the facility, hours of operations, tipping fees, and notification of unacceptable wastes. The signs will continue to provide appropriate contact information for relevant permitting agencies.

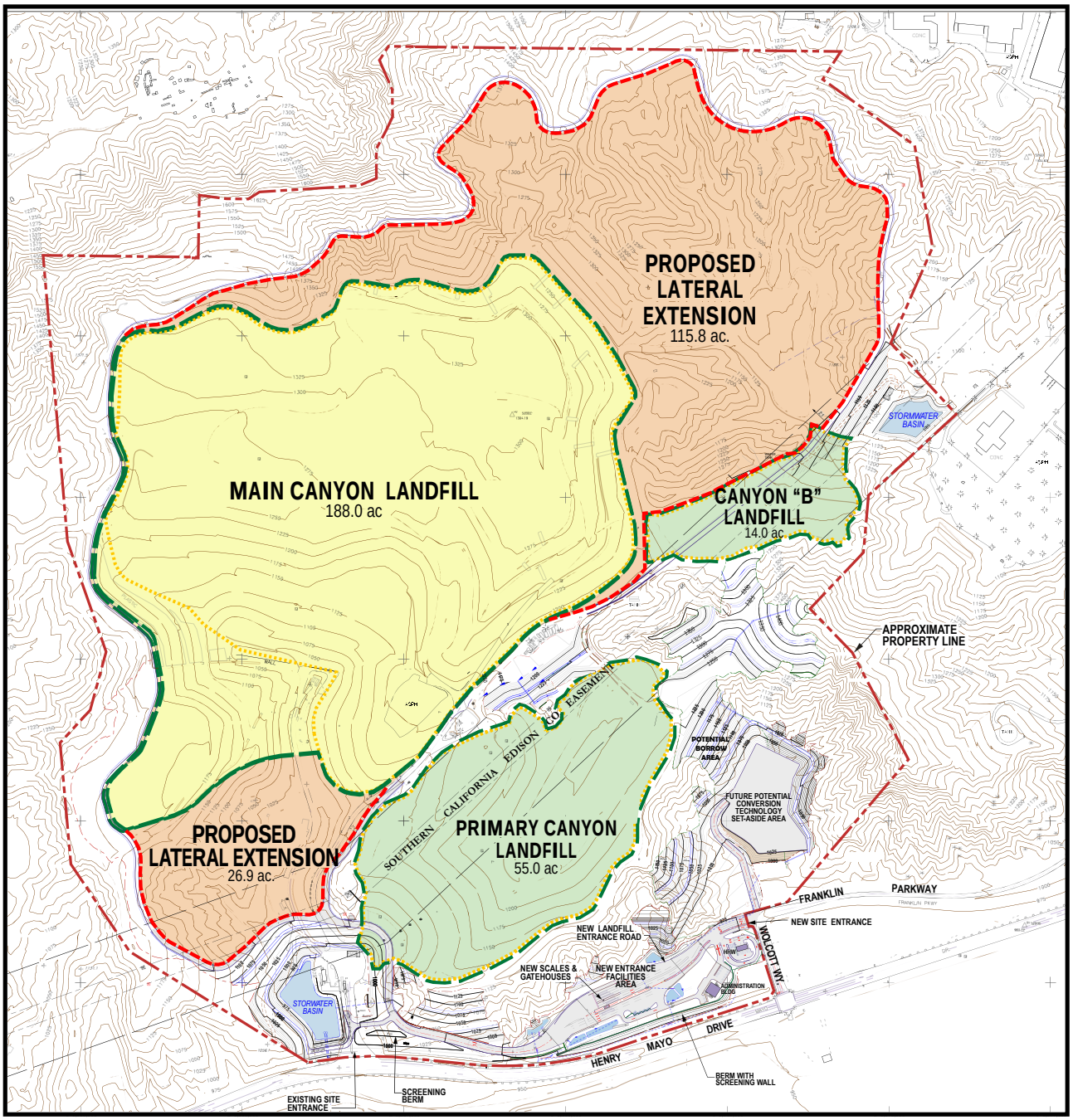
Once through the gate, vehicles will enter the facility via a new entrance road to reach the scale house and administrative offices, as shown in Figure 2-1. The new entrance road will extend west from Wolcott Way and will provide additional onsite queuing space for landfill customers—more than 1,000 feet of multi-lane queuing (compared to the existing 400 feet of queuing length) to ensure that vehicles are able to queue onsite. The new entrance will include administration buildings, a scale house, scales, and parking. A combination of landscaped screening berm and screening wall along the perimeter of the entrance facilities will screen views from SR-126 and Wolcott Way.

The area along Wolcott Way between SR-126 and the site entrance will require street lighting. The light fixtures installed here will meet County standards and will be similar in design and appearance to lighting along SR-126 and at nearby commercial developments. This lighting will have full cutoff design and will be directed to the roadway. Lighting for the new entrance facilities will be limited, consisting of several low wattage fixtures on the administration building; pole lights and low wattage fixtures at the scale house; and pole lights and low wattage fixtures at the shop area. All of these fixtures would be fully shielded and designed to direct the light downward and limit illumination to only the areas where the light is needed. Other than the street lights at the site entrance, light fixtures and lights are anticipated to be shielded from view by the berm and landscaping that will be installed along the eastern and southern sides of the entrance area. While CCL is not within the boundary of the Los Angeles County Rural Outdoor Lighting District, lighting will be designed to be consistent with the lighting provisions of the County ordinance, as feasible.

The entrance will include four inbound scales and two outbound scales. The scale house will continue to serve as an initial waste-control screening point and as a fee and waste stream data collection point (e.g., tonnage, customer, and jurisdictional generator). The method of processing vehicles at the scales will remain the same as the current process. Attendants at the scale house monitor incoming and outgoing traffic. Trucks wait in front of the scale until signaled to pull onto the scale. Trucks are weighed and the drivers sign a weigh ticket before proceeding. Non-waste-hauling vehicles may use a bypass lane to enter the site, if there are trucks on or waiting for the scales. After processing at the scale house, vehicles proceed on a paved access road to the perimeter of the existing landfill. From there, vehicles will be directed to the active disposal area.

Speed bumps along the access road limit vehicle speeds, which keeps people safe and controls dust. “Rumble strips” along the outbound lanes of the access road help remove dirt and mud from exiting vehicles, minimizing dirt and mud being tracked onto Wolcott Way. The rumble strips also limit vehicle speeds as vehicles leave the site. Vehicles that do not have tare weights on file are required to stop to be weighed at the exit scale before leaving the site.

The California Department of Transportation (Caltrans) is proposing to widen SR-126 from four lanes to eight lanes. The entrance facility layout takes into account the widening based on currently available information from Caltrans. As Caltrans continues to refine the SR-126 widening design, it may be necessary to modify the entrance facility design. For example, a wall may replace the screening berm along the site frontage due to space constraints.



LEGEND

- LIMIT OF EXISTING LANDFILL (4/6/10)
- LIMIT OF PERMITTED LANDFILL
- PROPOSED PROJECT LIMIT OF EXTENSION
- CLOSED LANDFILL AREA
- PERMITTED LANDFILL AREA
- PROPOSED LATERAL EXTENSION

N

0 400 800
Feet

FIGURE 2-1
Existing and Proposed Landfill Footprint
Chiquita Canyon Landfill Master Plan Revision

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

Source: Golder Associates, 2014

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SCE's existing Saugus-Elizabeth Lake-Fillmore 66 kV Subtransmission Line currently runs parallel to SR-126 near CCL in an existing easement that is set back in locations ranging from approximately 100 to 300 feet north of SR-126. In order to accommodate the Proposed Project, CCL has requested SCE to relocate an approximately 3,260-foot portion of the 66 kV line between the east side of Wolcott Way to a location approximately 880 feet west of the current CCL entrance. The current and proposed locations of the 66 kV line is shown in Figure 2-2. The portion of the existing 66 kV line to be relocated consists of approximately 7 wood poles and approximately 2 wood "H-frame" structures, which range in height between 70 and 100 feet. The 66 kV line will be relocated approximately 300 feet to the north of the existing 66 kV line into a new easement to be provided by CCL. SCE anticipates that the relocated 66 kV line will consist of approximately eight to ten new lightweight steel and/or tubular steel poles, which will range in height between 70 and 110 feet, and that the length of the relocated line will be approximately 3,700 feet.

2.2.2 Lateral Extension of the Waste Footprint and Increased Maximum Elevation

The Proposed Project will increase the permitted waste footprint within the existing property line by approximately 143 acres by extending it slightly south toward the existing landfill entrance and to the north and east (Figure 2-1). The waste footprint will increase from the currently permitted acreage, approximately 257 acres, to approximately 400 acres. The Proposed Project also will increase the permitted height of the landfill by 133 feet to a maximum elevation of 1,573 feet. The final grading plan and the excavation plan for the Proposed Project are shown in Figures 2-3 and 2-4 and described in further detail in Section 2.2.6.3. Figure 2-5 depicts the proposed limit of disturbance, limit of earthwork, and limit of landfill.

Table 2-1 shows the estimated site capacity and earthwork for the Proposed Project.

TABLE 2-1
Estimated Proposed Project Site Capacity and Earthwork

	Proposed Project[a]
Capacity	
Air Space (Cubic Yards)	72,941,000
Estimated Additional Site Life (Years)	21-38[b]
Final Elevation	1,573 feet
Earthwork (Cubic Yards)	
Daily and Intermediate Cover[c]	6,785,000
Final Cover[d]	789,000
Liner[e]	494,000
Earthfills	2,374,000
Project Earthwork Total (Cubic Yards)	10,442,000
Excavation (Cubic Yards)	9,955,000[f]

[a] Quantities based on a comparison of the permitted final grading plan (CUP Exhibit A) and proposed final grading plan as of May 2013.

[b] Based on the proposed additional capacity and disposal tonnages ranging from the current permitted tonnage of 30,000 tons per week to 60,000 tons per week, assumed to "ramp up" over a 7-year period beginning in January 2016.

[c] Daily and intermediate cover assumes a 9.75-to-1 waste-to-soil ratio and continued use of alternative daily cover.

[d] Assumes an additional 3 feet of cover over the top deck and side slope areas.

[e] Assumes a 2-foot-thick clay low-permeability layer, leachate collection layer on the base, 2-foot-thick operations layer on the base, and a 2-foot-thick operations layer on the side slopes. The soil quantity does not include the 2-foot-thick clay low-permeability layer or leachate collection layer, which are assumed to be imported.

[f] Includes set-aside area, entrance road, and borrow areas outside the landfill footprint.

2.2.3 Disposal Rate and Volume

The Proposed Project will increase daily and weekly disposal tonnage. The permitted maximum daily disposal tonnage will increase from 6,000 to 12,000 tons. As specified in the current conditional use permit (CUP), the "disposal" tonnage refers to the waste disposed only and does not include materials that are diverted from disposal or beneficially re-used. The permitted maximum weekly disposal tonnage will increase from 30,000 to 60,000 tons. This increase in daily and weekly disposal tonnage will allow CCL to be flexible and responsive to the current and anticipated disposal needs of the residents of the Santa Clarita Valley and the greater Los Angeles area. Assuming the maximum disposal rates under the Proposed Project were to begin in 2023, the landfill would reach capacity in approximately 2037 and would commence the closure process at that time. As noted in Table 2-1, this change in tonnage received will not occur all at one time, but rather in response to increased demand over a period of time. The 21-year site life shown in Table 2-1 assumes the disposal rate would "ramp-up" from 30,000 tons per week to 60,000 tons per week over a 7-year period. The actual site life and corresponding closure date is dependent on a number of factors, including the disposal rate actually achieved over time.

CCL proposes to fully utilize the capacity associated with the final grading plan as shown in Figure 2-3. The total airspace available for disposal associated with the final grading plan is approximately 88.9 million cubic yards. Approximately 16 million cubic yards is capacity within the currently permitted final grading plan Exhibit A that will remain when the CUP disposal limit is reached. The Proposed Project will add approximately 72.9 million cubic yards of air space above the current CUP Exhibit A final grading plan.

Consistent with the current CUP, Condition 9i, CCL will continue to operate the landfill in a manner to maximize the quantity of waste placed in the landfill.

2.2.4 Wastes to Be Received

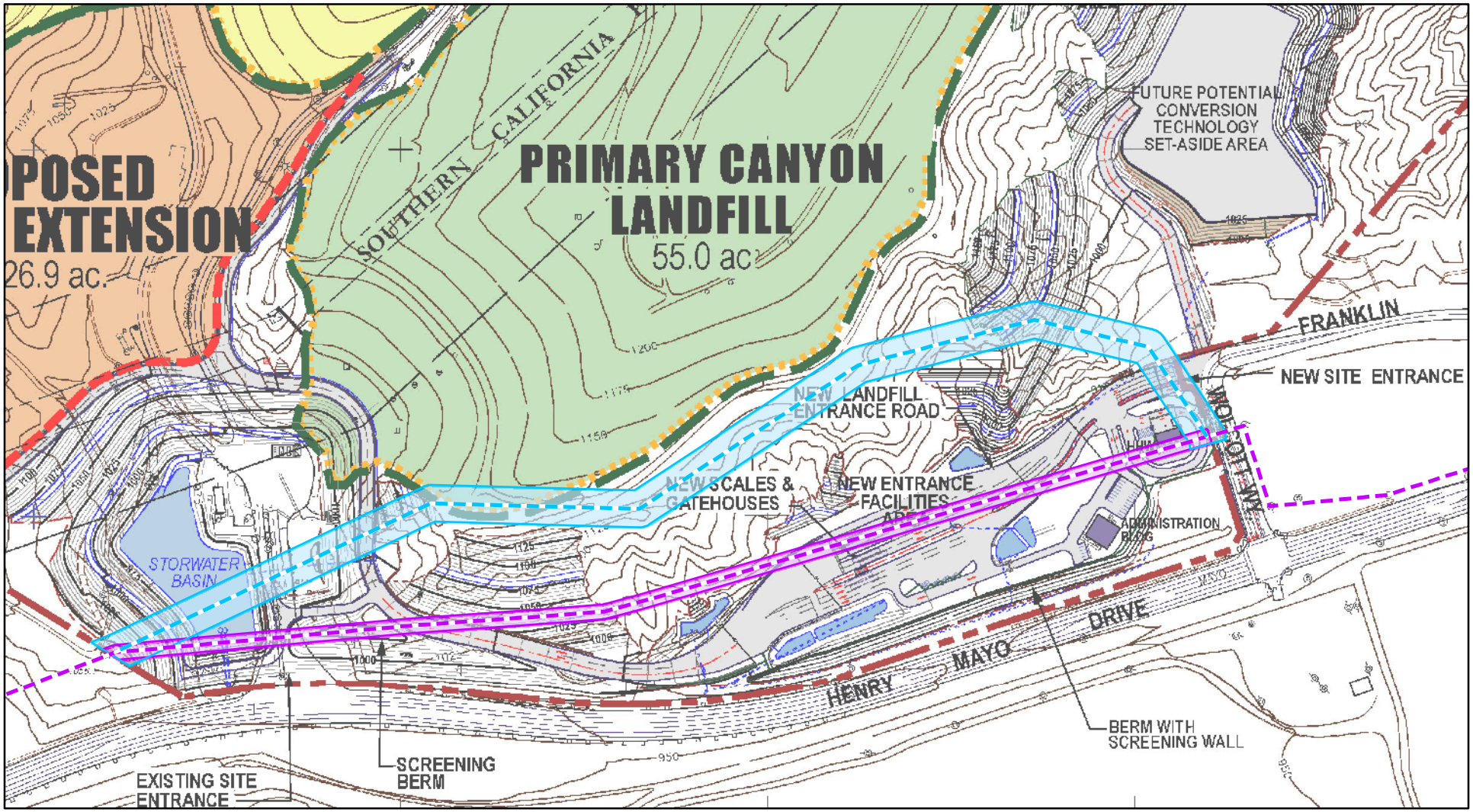
In accordance with 27 CCR Section 20220, Waste Discharge Requirement (WDR) Order No. 98-086, and Solid Waste Facility Permit No. 19-AA-052 for CCL, Class III nonhazardous solid wastes and inert solid wastes are accepted for disposal at CCL. Discharge of nonhazardous contaminated soil and related wastes at CCL is currently permitted under WDR Order No. R4-11-0052.

The definition of nonhazardous solid waste from 27 CCR Section 20220 (also defined in WDR Order No. 98-086) is:

> Nonhazardous solid waste includes all putresible and nonputresible solid, semi-solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances (except e-wastes), manure, vegetable or animal solid and semi-solid wastes, and other discarded waste (whether of solid and semi-solid consistency); provided such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives or could cause degradation of wastes of the state (i.e., designated waste).

Treated auto shredder waste, if nonhazardous, may also be accepted.

The applicant proposes to accept for disposal all nonhazardous wastes acceptable at a Class III solid waste disposal landfill.



LEGEND

66 kV Subtransmission Line
- Existing
- Proposed

Right-of-Way
- Existing
- Proposed

- Limit of Existing Landfill (4/6/10)
- Limit of Permitted Landfill
- Proposed Project Limit of Extension
- Closed Landfill Area
- Permitted Landfill Area
- Proposed Lateral Extension

Base compiled by photogrammetric methods
by Don Read Corporation, Brea, Ca
Date of Photography: April 6, 2010
Source: Golder Associates, 2014

N

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Feet

FIGURE 2-2
Existing and Proposed
SCE 66 kV Subtransmission Line
Chiquita Canyon Landfill
Master Plan Revision

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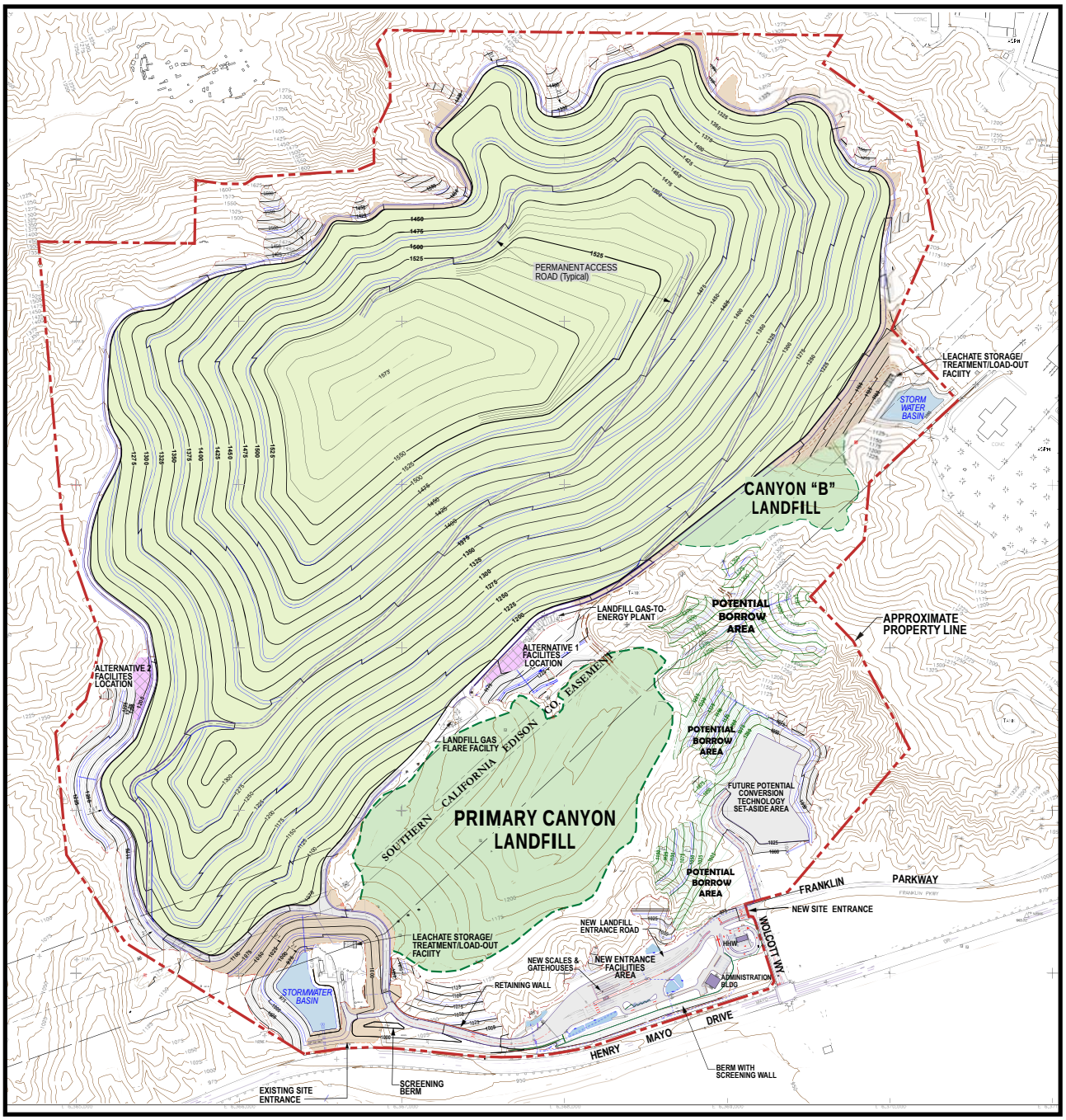

LEGEND

CLOSED LANDFILL AREA

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Feet

FIGURE 2-3
Proposed Project Final Grading Plan
Chiquita Canyon Landfill Master Plan Revision

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

Source: Golder Associates, 2014

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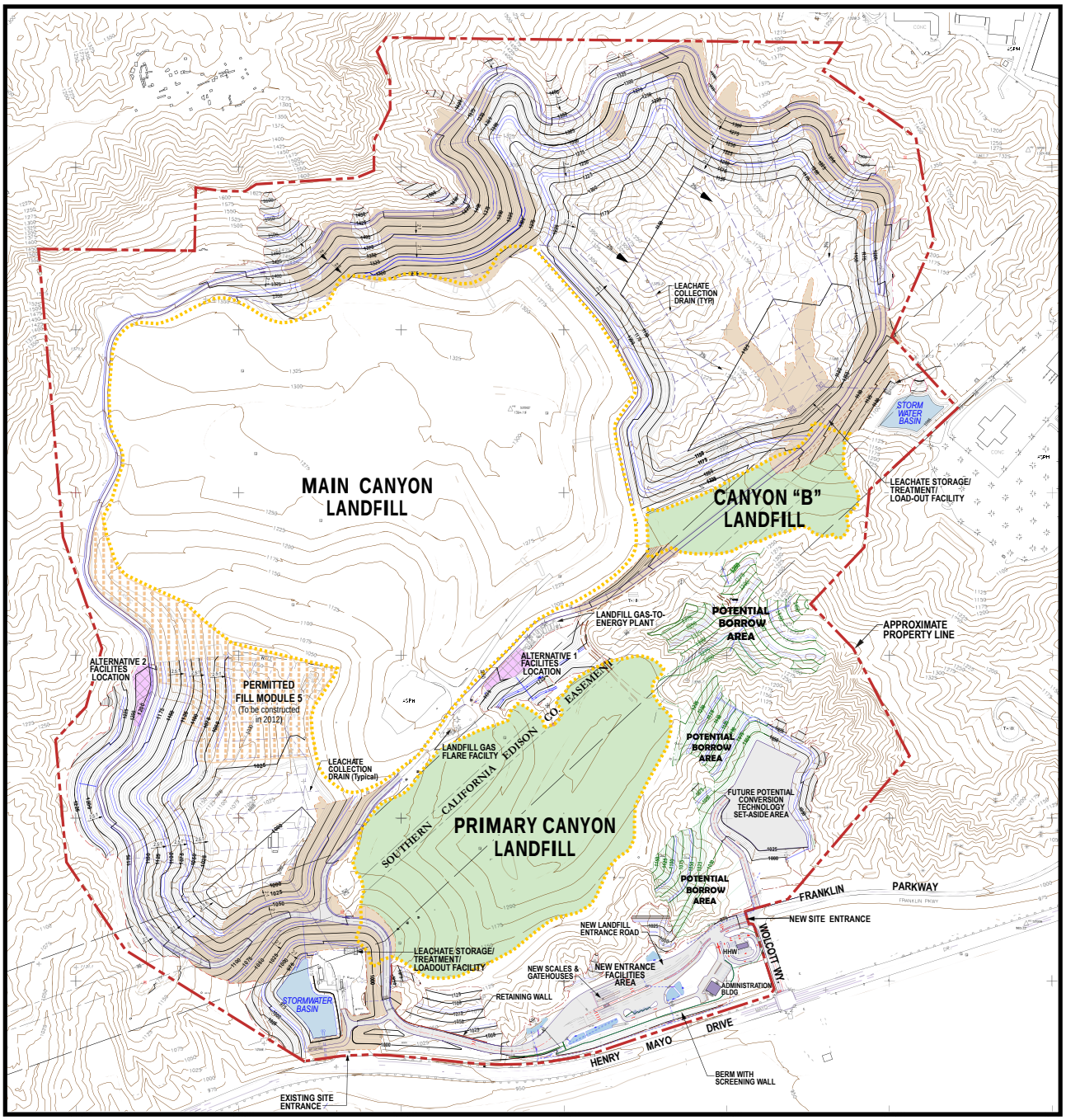

LEGEND

- LIMIT OF EXISTING LANDFILL (4/6/10)
- CLOSED PERMITTED LANDFILL AREA
- POTENTIAL BORROW AREA
- EARTHFILL
- ALTERNATIVE EQUIPMENT/MAINTENANCE AREA

N

0 400 800
Feet

FIGURE 2-4
Proposed Project
Excavation Plan
Chiquita Canyon Landfill
Master Plan Revision

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

Source: Golder Associates, 2014

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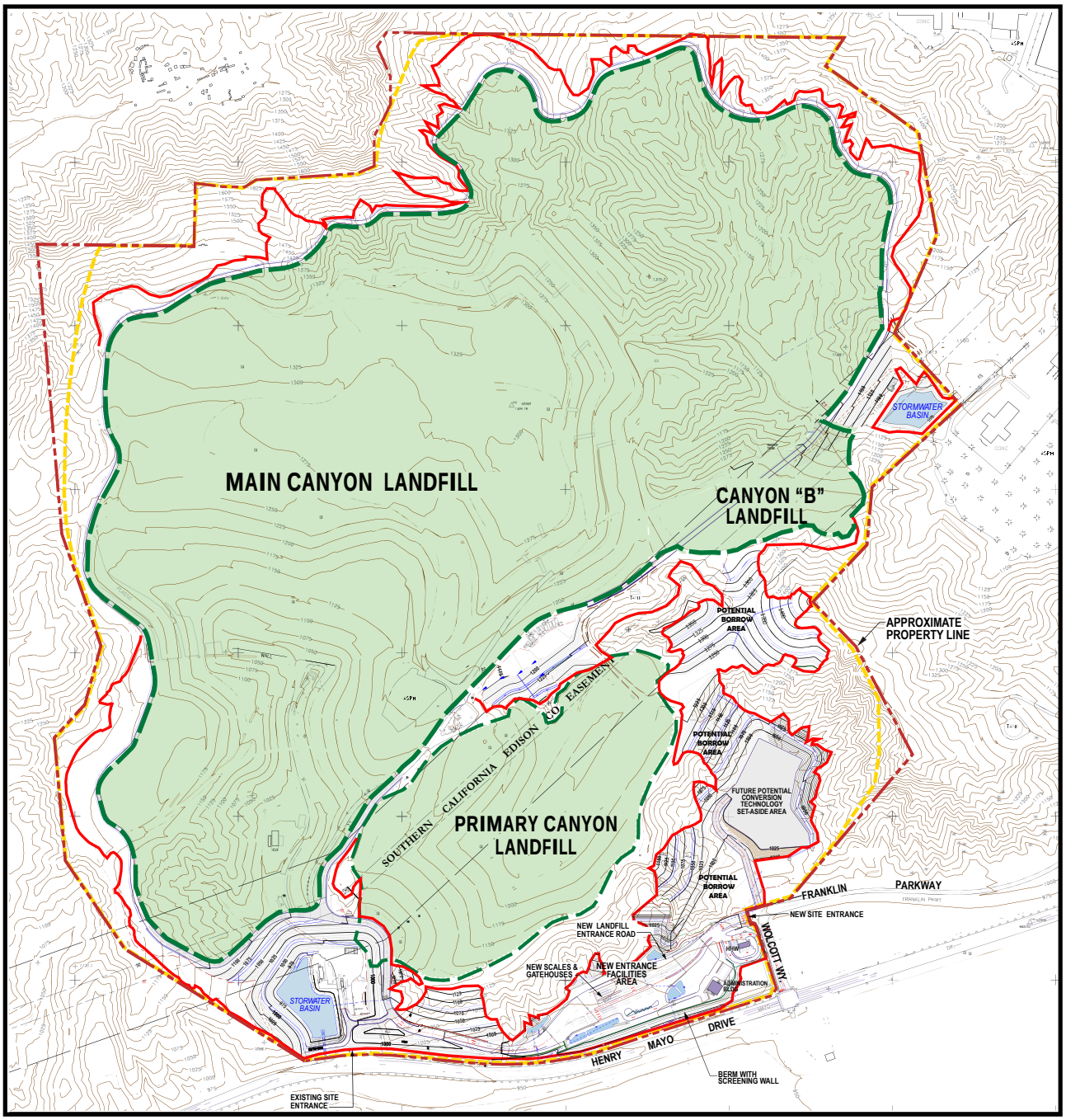

LEGEND

- LIMIT OF DISTURBANCE
- LIMIT OF LANDFILL
- EXCAVATION/EARTHFILL
- LANDFILL AREA

N

0 400 800
Feet

FIGURE 2-5
Proposed Project Limits
Chiquita Canyon Landfill
Master Plan Revision

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

NOTE: Any area within the limit of disturbance
can be used for soil stockpiling

Source: Golder Associates, 2014

ES050411114300SCO432307.11.01 CCL_proposed_projlimits_v8.2014.ai 7/14

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2.2.5 Materials to Be Diverted from Waste Disposal

CCL is actively engaged in waste diversion activities; that is, diverting materials from waste disposal and putting them to beneficial reuse. This activity preserves CCL's disposal capacity for municipal solid waste (MSW) to the maximum extent feasible. Materials diverted from waste disposal are not calculated as part of the disposal tonnage for the Proposed Project, but are considered when evaluating potential truck trips and traffic volume for the project. The type of materials diverted from waste disposal and volume of material is highly variable and depends on local activities that would produce these materials. A list of materials received by CCL and diverted for beneficial reuse, along with how the materials are typically reused at CCL, is provided in Table 2-2:

TABLE 2-2
Materials Diverted from Waste Disposal and Typical Beneficial Reuse at CCL

Material Type Diverted from Waste Disposal	Beneficial Reuse at CCL
Shredded Curbside Green Waste	Used for temporary slope stabilization, erosion control, fugitive dust control and alternative daily cover
Clean Soil	Used as daily cover
Contaminated Soil	Used as daily cover
Treated Auto Shredded Waste (TASW)	Used as alternative daily cover
MRF Fines	Used to protect methane gas pipeline system
Tire Shred	Used to protect the methane gas pipeline system as trench backfill
C&D Fines	Used to protect methane gas pipeline system and liner system
Concrete	Used to build all-weather surfaces onsite (roads and tipping pads at working face); reduces dust and water use; used for landfill gas trench construction
Asphalt	Used to build all-weather surfaces onsite (roads and tipping pads at working face); reduces dust and water use
Processed C&D Material	Used to build all-weather surfaces onsite (roads and tipping pads at working face); reduces dust and water use; used as alternative daily cover

The type and volume of material diverted from waste disposal is highly variable on a daily basis. However, on a potential peak day, the Proposed Project may take in up to 20,505 cubic yards of materials diverted from waste disposal, which represents approximately 1,065 vehicles. These vehicles are addressed in Section 2.2.7.9, Traffic. The potential peak day is a hypothetical scenario wherein the historical maximum quantity of each type of diverted material received at CCL would arrive on the same day. The estimated volume of material received at CCL and diverted from waste disposal is not anticipated to increase for the Proposed Project under a potential peak day scenario.

In addition to the above described materials, diversion activities at CCL also include a composting operation that previously operated at the landfill and is anticipated to restart at the landfill. Details of the composting operation are provided in Section 2.2.11.

The combination of waste diversion, composting operation, household hazardous waste facility, and future waste conversion at CCL will continue to provide a robust contribution to landfill waste diversion programs that are relied upon by many local cities and communities in achieving state-mandated goals, including Assembly Bill 939 (current 50% diversion goal) and Senate Bill 341 (75% diversion by 2020). All materials received at CCL are tracked by source and reported by origin, so that the contributing communities can track their own waste diversion success.

2.2.6 Landfill Construction

Construction for the CCL MPR includes development of the entrance and support facilities and landfill cell construction. CCL will ensure that contractor bid specifications for construction projects require offsite pressure washing of construction vehicles and equipment prior to being brought onsite, and verification of this

activity before equipment enters the site. Further, the bid specifications will require that equipment is pressure washed after leaving the site and prior to being used elsewhere.

2.2.6.1 Entrance and Support Facilities Construction

Construction of the site entrance and associated support facilities would occur immediately upon project approval, and would take approximately 10 months to complete. Construction working hours would generally be daylight hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. The HHWF would be constructed at the same time as the site entrance and support facilities. Pre-construction activities include staking the new entrance area and conducting biological surveys of the disturbance area. Ground-disturbing activities will be monitored for biological and cultural resources, as appropriate.

2.2.6.2 Cell Construction

The landfill is developed in a series of cells. Construction of cells and associated environmental monitoring features would occur periodically over the life of the landfill. Generally, cell construction would occur every 18 months to 5 years over the life of the Project, for approximately 10 months each time. Construction working hours would generally be daylight hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. Monitoring wells will be installed prior to cell development, so that background water quality can be established for each well. Generally, the area identified for cell construction would be staked, and pre-construction biological surveys would be conducted for the disturbance area. Once cleared for construction, the cell would be excavated (Section 2.2.8.1) and liner would be installed (2.2.8.2). Concurrently, any necessary expansion of the LCRS would be installed, as well as LFG collection systems, including LFG monitoring probes. Ground-disturbing activities will be monitored for biological and cultural resources, as appropriate.

2.2.7 Landfill Operation

The Proposed Project includes continued landfill operations, as described below.

2.2.7.1 Access and Site Security

As part of the Proposed Project, the site entrance will be located at Wolcott Way, as shown in Figure 2-1 and described in Section 2.2.1.

2.2.7.2 Load Checking and Waste Screening

As described above, as a Class III landfill, CCL is prohibited from disposing hazardous waste, including household hazardous waste. To prevent hazardous waste from being disposed, CCL will continue to implement its existing load checking program as part of the Proposed Project. The program is summarized below.

Load checking is required at all Class III landfills and transfer stations, as specified in state regulations. WDRs for the landfill, issued by the California Regional Water Quality Control Board (RWQCB), Los Angeles Region, incorporate load checking requirements; as does the Solid Waste Facility Permit, issued by the LEA after concurrence by the California Department of Resources Recycling and Recovery (CalRecycle), which administers the programs formerly managed by the California Integrated Waste Management Board (CIWMB). CCL's load checking program has been reviewed and approved by applicable regulatory agencies.

Established procedures at CCL are used to prevent hazardous waste entering the landfill. These procedures include posting of signs, education of existing and new customers, verbal and visual screening at the scale house, and daily random checks of incoming vehicles. Signs are posted at the landfill entrance notifying customers that no hazardous wastes are accepted at the facility, and that there are applicable policies and procedures for disposing of unacceptable waste.

Visual inspections are conducted on a daily basis by scale house operators, and they may question drivers for possible indications of unacceptable wastes. Should scale house operators discover a load that contains suspicious looking wastes, they summon the appropriate supervisory or load-checking personnel for a determination of the acceptability of waste. Records are kept to document any discoveries. In the absence of requests from the scale house operators, the load-check technician selects random vehicles to perform a

minimum of five load checks each day. The load checks are performed as close as possible to the working face. The material is inspected for any prohibited waste after unloading. The observations of the random inspection are recorded on a data sheet, and photographs and samples of the load are taken if necessary.

The Proposed Project includes construction of a Household Hazardous Waste Facility (see Section 2.2.10). In the event hazardous waste is inadvertently brought to the landfill and identified during load checking at the landfill, if the driver is not otherwise directed to take the waste to a licensed hazardous waste disposal facility, the HHWF would provide a secure and approved location to store these materials in preparation for shipment to markets that will recycle the materials or shipment to a hazardous waste disposal site.

2.2.7.3 Support Facilities

In addition to the new scale house and scales, an administration building, storage, and employee parking will be constructed at the new site entrance, as shown in Figure 2-1. An equipment maintenance facility will also be provided onsite; however, the facility location is dependent on site operations, and the equipment maintenance facility may be relocated more than once. This maintenance facility will include a shop building, an office trailer, fuel storage tank, and an equipment wash area. Additionally, various materials used for equipment maintenance (e.g., solvents, waste oil, oil, and other fluids) are stored adjacent to the shop building. Equipment is stored onsite, either adjacent to the working face of the landfill or at the equipment maintenance area. As allowed by CUP No. 89-081(5), hauling trucks and/or containers for waste collection may be stored on landfill property. An employee break room may be located in the equipment maintenance facility or in a trailer on the site.

Also, one or more additional landfill gas (LFG) flares will be required to handle increased LFG generation in the future. Potential locations for the equipment maintenance facility and the LFG flare are shown in Figure 2-3.

The permanent access road will be lengthened, as necessary, to provide access to the East Canyon and North Canyon. Temporary haul roads will also be constructed to provide access to active landfill areas as is currently done for the existing operation.

2.2.7.4 Hours of Operation

Hours of operation for the Proposed Project will be the same as the currently permitted operating hours. Based on CUP No. 89-081(5), the following hours of operation are permitted:

- Landfill operations 24 hours per day, except from 5:00 p.m. Saturday through 4:00 a.m. Monday. Access to the landfill by both commercial and general public vehicles is allowed during all hours the landfill is operating. Landfill maintenance activities may occur 24 hours per day, 7 days per week.
- Option to operate a maximum of four Sundays per year, if desired, for the quarterly Val Verde cleanup days. If CCL exercises the option of Sunday operation, the schedule of operation will be tailored to the specific need of the situation.
- Composting facility operations 24 hours per day, 7 days per week.

2.2.7.5 Personnel

Full-time staff for the Proposed Project will increase by approximately 25, for a total of approximately 50, including additional administrative staff, maintenance personnel, equipment operators, scale house personnel, spotters, LFG technicians, and laborers. Because the volume of incoming waste may vary, the number of staff may fluctuate to some degree. In all cases, staffing will be set to provide for an occupationally and environmentally safe landfill operation at CCL.

2.2.7.6 Equipment

Equipment at CCL for the Proposed Project will increase by 15 to 20 additional pieces. Anticipated additional equipment includes two motor graders, three bulldozers, three compactors, two scrapers, two water trucks, five trailer-mounted light plants, and one water wagon. Consistent with existing practices, at all times, CCL will provide sufficient types and numbers of equipment to properly operate in accordance with applicable permits,

approvals, safety considerations, and industry standards. CCL will also periodically review its equipment complement based on operating and maintenance costs, air quality regulations, and performance, and compare it with other available equipment. This review process may result in future equipment changes designed to achieve lower operating and maintenance costs, lower air emissions, or better performance. All landfill equipment will be maintained on a regular basis to remain in good working order. Equipment will be routinely inspected and maintained with tune-ups and replacement of worn-out mechanical and electrical parts on an as-needed basis and as recommended by the manufacturer.

2.2.7.7 Disposal and Cover Procedures

No change to disposal and cover procedures will occur as a result of the Proposed Project.

Waste will continue to be delivered to CCL in transfer vehicles, collection trucks, and various other vehicles by commercial haulers and the general public. After being processed at the scale house, vehicles follow signs to the active disposal area. When necessary (generally when atypical routing is required), traffic is temporarily directed in the appropriate direction by a flagger. For safety purposes, site personnel direct traffic at the working face. To prevent accidents, site personnel separate large hauling vehicles from smaller general public vehicles at the active working face.

CCL will continue to be constructed by the area fill method, wherein waste is spread and compacted in approximately 2-foot-thick layers on a working face of approximately 200 feet by 300 feet and sloped at 3:1 (horizontal:vertical) or flatter. The compaction equipment traverses the entire length of the working face, making three to five passes over each 2-foot-thick (minimum) layer of waste to obtain adequate compaction of all wastes. To prevent bridging of the surrounding waste, large or bulky wastes are separated and placed in the lower portion of the advancing lift, and thoroughly crushed by compaction equipment.

The work area over which waste is spread is minimized to control odor and litter. Additionally, the waste is covered at least daily with a layer of compacted soil or alternative daily cover (ADC). As needed, CCL covers portions of the working face multiple times during the day to minimize potential odors. Consistent with Title 27, types of ADC that may be used at CCL include geosynthetic materials, foam, processed green material, ash and cement kiln dust materials, treated auto shredder waste (TASW), contaminated sediment, dredge spoils, foundry sands, energy resource exploration and production waste, compost materials, construction and demolition wastes, shredded tires, and spray applied cementitious products. The source of ADC depends on the availability of materials available for beneficial reuse that are approved for use as ADC This practice will continue with implementation of the Proposed Project. Materials used for alternative daily cover are approved for use by the LEA and CalRecycle; if regulatory guidance changes regarding the use of any of these materials for ADC, CCL will comply with the revised guidance.

2.2.7.8 Sewage and Water

No changes to the water uses onsite or sewage disposal are proposed as a result of the Proposed Project.

CCL currently does not have sewage or water service provided by a public utility system. Sanitary facilities at the landfill office are connected to a permitted septic system, and portable toilets are used for other areas of the site. Unless a sewer line becomes available in the future, the Proposed Project will continue to rely on these facilities. A new septic system may be constructed to support the entrance facilities.

Bottled drinking water will continue to be provided at the scale house, landfill office, and equipment maintenance facility for employees. Employees can fill their personal containers for their own use when on the landfill.

Water for routine landfill operation, including dust control and irrigation, will continue to be supplied from an offsite irrigation well south of the landfill on Newhall Ranch. During periodic construction of new landfill disposal cells, additional construction water will be supplied via a separate water supply line from storage tanks located north of the landfill. Currently, this line is only used during construction projects. However, when the Newhall Ranch Project is developed, the irrigation well on Newhall Ranch that currently supplies the

landfill will be removed. At that time, CCL will begin using the water supply line north of the landfill, which is connected to Valencia Water Company's system, for both construction and routine operation.

Water for dust control, irrigation, and fire prevention will continue to be pumped to and stored in various onsite storage tanks located throughout the site. The total onsite water storage capacity at CCL is currently about 150,000 gallons. Water usage is expected to increase to approximately 150 acre-feet per year (afy) with implementation of the Proposed Project, up from an average of approximately 77 afy. The amount of water required may vary according to the season and rainfall amounts, with more water being required during the hot, dry summer months and during years with limited rainfall. Additional water storage tanks may be required in response to the increase in water usage at CCL as a result of the Proposed Project. As these tanks are portable; the size and number and location of tanks onsite will vary to meet operational efficiency.

2.2.7.9 Traffic

In addition to traffic at CCL that results from incoming waste, there are several other sources of in- and outbound traffic at CCL. A wide variety of material that is diverted from disposal and put to beneficial use will continue to be accepted at CCL, including but not limited to alternative daily cover, road base, concrete, asphalt, green waste, and erosion control material. Material from CCL, including clean soil, compost products, and recycled materials, may also be trucked from the site to other locations. Additionally, periodic fill module construction will continue to occur at CCL, during which time additional traffic related to construction activity will occur. Table 2-3 details the net change in the average daily traffic volume at CCL with implementation of the Proposed Project, and Table 2-4 details the net change in the potential maximum daily traffic volume at CCL with implementation of the Proposed Project. Although the estimates are based on historical records and future estimates for different vehicle types and material types, they do not represent a specific day or an average day. The total traffic shown is likely greater than the actual traffic that would be expected at the site on an "average" day.

TABLE 2-3
Summary of Net Change in Average Daily Inbound and Outbound Traffic with Proposed Project

	Average Daily Number of Vehicles[a, b]		
Traffic Source	**Proposed**	**Baseline**	**Net Change**
Inbound			
Trash (Disposal)[c]			
Transfer	465	231	234
Route	110	51	59
Roll-offs	102	62	40
Self Haul	14	10	4
Other Materials (Beneficial Reuse)			
Shredded Curbside Green Waste	12	15	-3
Clean Soil	14	5	9
Contaminated Soil[d]			
Large Trucks	20	20	0
10-Wheelers	17	17	0
Protective Cover			
TASW	40	24	16
MRF Fines	15	10	5
Tire Shred	0	0	0
C&D Fines	20	10	10
Road Base			
Concrete	5	1	4
Asphalt	0	0	0
Processed C&D Material	14	8	6
Composting[e]	0	0	0

TABLE 2-3
Summary of Net Change in Average Daily Inbound and Outbound Traffic with Proposed Project

Traffic Source	Average Daily Number of Vehicles[a, b]		
	Proposed	Baseline	Net Change
Outbound			
Clean Soil	2	1	1
Compost Products	0	0	0
Other	2	1	1
Special Projects[f]			
Cell Construction			
Mobilize/Demobilize Traffic	20	20	0
Contractor Employees	80	80	0
Employees			
Landfill – Permanent	55	34	21
Landfill – Temporary	14	7	7
LFGTE Plant	2	2	0
Transfer Drivers	0	0	0
Total	**1,023**	**609**	**414**

[a] These numbers represent one-way trips, based on 5 days per week.

[b] The maximum number of trash vehicles in each category does not happen simultaneously. The daily maximum disposal tonnage would not exceed 12,000 tons per day.

[c] Regardless of actual vehicle mix, incoming disposal tonnage would not exceed 12,000 tons per day.

[d] Contaminated soils may also be disposed and not put to beneficial reuse.

[e] The existing CUP allows for operation of up to a 560-tons-per-day composting facility for windrow or in-vessel technology composting operation.

[f] These projects occur periodically, typically once every 2 to 3 years.

Notes:

MRF = Material Recovery Facility

TASW = treated auto shredder waste

C&D = construction and demolition

TABLE 2-4
Summary of Net Change in Peak Potential Daily Inbound and Outbound Traffic with Proposed Project

Traffic Source	Peak Potential Daily Number of Vehicles[a, b]		
	Proposed	Baseline	Net Change
Inbound			
Trash (Disposal)[c]			
Transfer	545	273	272
Route	600	300	300
Roll-offs	460	460	0
Self Haul	500	500	0
Other Materials (Beneficial Reuse)			
Shredded Curbside Green Waste	40	40	0
Clean Soil	200	200	0
Contaminated Soil[d]			
Large Trucks	300	300	0
10-Wheelers	60	60	0
Protective Cover			
TASW	200	200	0
MRF Fines	40	40	0
Tire Shred	15	15	0
C&D Fines	25	25	0

TABLE 2-4
Summary of Net Change in Peak Potential Daily Inbound and Outbound Traffic with Proposed Project

Traffic Source	Peak Potential Daily Number of Vehicles[a, b]		
	Proposed	Baseline	Net Change
Road Base			
Concrete	50	50	0
Asphalt	50	50	0
Processed C&D Material	30	30	0
Composting[e]	55	55	0
Outbound			
Clean Soil	100	100	0
Compost Products	8	8	0
Other	25	25	0
Special Projects[f]			
Cell Construction			
Mobilize/Demobilize Traffic	20	20	0
Contractor Employees	80	80	0
Employees			
Landfill – Permanent	55	34	21
Landfill – Temporary	25	25	0
LFGTE Plant	3	2	1
Transfer Drivers	4	4	0
Total	**3,490**	**2,896**	**594**

[a] These numbers represent one-way trips, based on 5 days per week.

[b] The maximum number of trash vehicles in each category does not happen simultaneously. The daily maximum disposal tonnage would not exceed 12,000 tons per day.

[c] Regardless of actual vehicle mix, incoming disposal tonnage would not exceed 12,000 tons per day.

[d] Contaminated soils may also be disposed and not put to beneficial reuse.

[e] The existing CUP allows for operation of up to a 560-tons-per-day composting facility for windrow or in-vessel technology composting operation.

[f] These projects occur periodically, typically once every 2 to 3 years.

Notes:
MRF = Material Recovery Facility
TASW = treated auto shredder waste
C&D = construction and demolition

2.2.8 Landfill Design Features

Design of the landfill is premised on prescriptive and performance standards set forth in state and federal regulatory requirements that establish environmental protection standards to prevent harm to the environment. These design standards and requirements are referenced throughout in the discussion of the landfill's design. A central feature of the environmental protection standards is the composite liner system, designed to prevent waste from contacting water, and to prevent the escape of leachate or landfill gas to the air or to waters of the state. The state and federal landfill design requirements also create redundancy and protective measures to prevent harm to the environment.

2.2.8.1 Excavation

Site excavation is divided into a series of excavation areas associated with fill modules. The excavation sequence is designed for efficient excavation and handling of soils, access, drainage, liner preparation, and controlled waste placement.

Landfill areas are excavated sequentially in a series of cells to create new space for placing trash. Excavation generates the soils necessary for landfill operations (cover soils) and allows the base and side slopes of the excavated cells to be prepared for lining. Typically the next landfill fill module is constructed adjacent to the

active fill module that is accepting waste. In most instances, excavated soils are stockpiled onsite to allow timely preparation of the next fill module.

The excavation and base preparation plan (Figure 2-4) shows the design of the landfill base for the Proposed Project. The horizontal limits of excavation, excavation contours, and slopes are shown in Figure 2-4. The East Canyon, North Canyon, and the South Footprint will be excavated in a series of construction projects over many years. Excavation and earth fill are also required for the facility. In addition to excavation from areas to be developed, potential soil borrow areas are shown in Figure 2-4. The soil borrow areas are utilized to meet soil requirements not met by other excavation areas.

The excavation layout sequence is designed for efficient excavation and handling of soils, access, drainage, liner preparation, and controlled waste placement. The planned excavations typically provide the soil required for site operations. Excavation quantities for the Proposed Project were shown previously in Table 2-2. Soils not needed for immediate landfill operations will be stockpiled onsite for subsequent use or exported. Figure 2-5 shows the limit of excavation and earthfill, limit of landfill disposal area, and limit of disturbance (areas outside of excavation, earthfill, and landfill where activity may still occur in order to construct the various stages of the landfill or to support landfill operations). Any area within the limit of disturbance may be used for soil stockpiling.

As currently planned, the proposed excavation quantity balances the landfill soil requirements. The soil quantities shown in Table 2-2 do not include soil delivered to the landfill by contractors and from other sources.

2.2.8.2 Liner System

No change to the landfill liner system is anticipated as a result of the Proposed Project, but the liner system remains subject to the requirements of RWQCB. The existing liner system that will be implemented by the Proposed Project as well is described below.

A liner system that meets or exceeds the standards of Title 27 *California Code of Regulations* 20340 (Title 27), WDR Order No. 93-062, implementing the United States Environmental Protection Agency (EPA) Subtitle D requirements, and WDR Order No. 98-086, is constructed on the excavated base and side slopes of each fill module. Historically, composite base liners using either a bentonite admix or geosynthetic clay liner (GCL) in conjunction with a high-density polyethylene (HDPE) geomembrane have been used at CCL. RWQCB has recently approved a low-permeability soil layer in conjunction with an HDPE geomembrane. The liner system is consistent with strength requirements and meets the stability criteria previously developed for CCL and approved by RWQCB. Pursuant to WDR Order No. 93-062, the side slope liner consists of HDPE geomembrane placed over a prepared subgrade (Figure 2-6). Prior to construction of each fill module, the liner design is subject to review and approval by RWQCB pursuant to Title 27 and WDR Order No. 98-086.

Both Subtitle D and California regulations implementing Subtitle D allow an alternative liner design if it can be demonstrated that the alternative liner design provides protection to groundwater equivalent to the prescriptive standard liner design. RWQCB has previously approved an engineered alternative liner design, incorporating a GCL, for the last several disposal modules.

The liner system is designed to contain liquid (leachate) that accumulates in the landfill and direct it to the leachate collection and removal system (LCRS). The LCRS is composed of a drainage layer and perforated collection pipes. The collection pipes intercept leachate flowing through the drainage layer and convey the leachate to collection points. Leachate is pumped from the collection points periodically, and depending on quality, either used onsite for dust control or transported offsite for disposal. The LCRS is designed to withstand deformations of the foundation materials anticipated during the design earthquake so that any permanent displacement of the foundation slopes does not impair the integrity of the liner and LCRS. A 2-foot soil layer, or approved alternative, termed the “operations layer,” is placed over the base liner and on the side slope liner to protect the liner system before waste is placed.

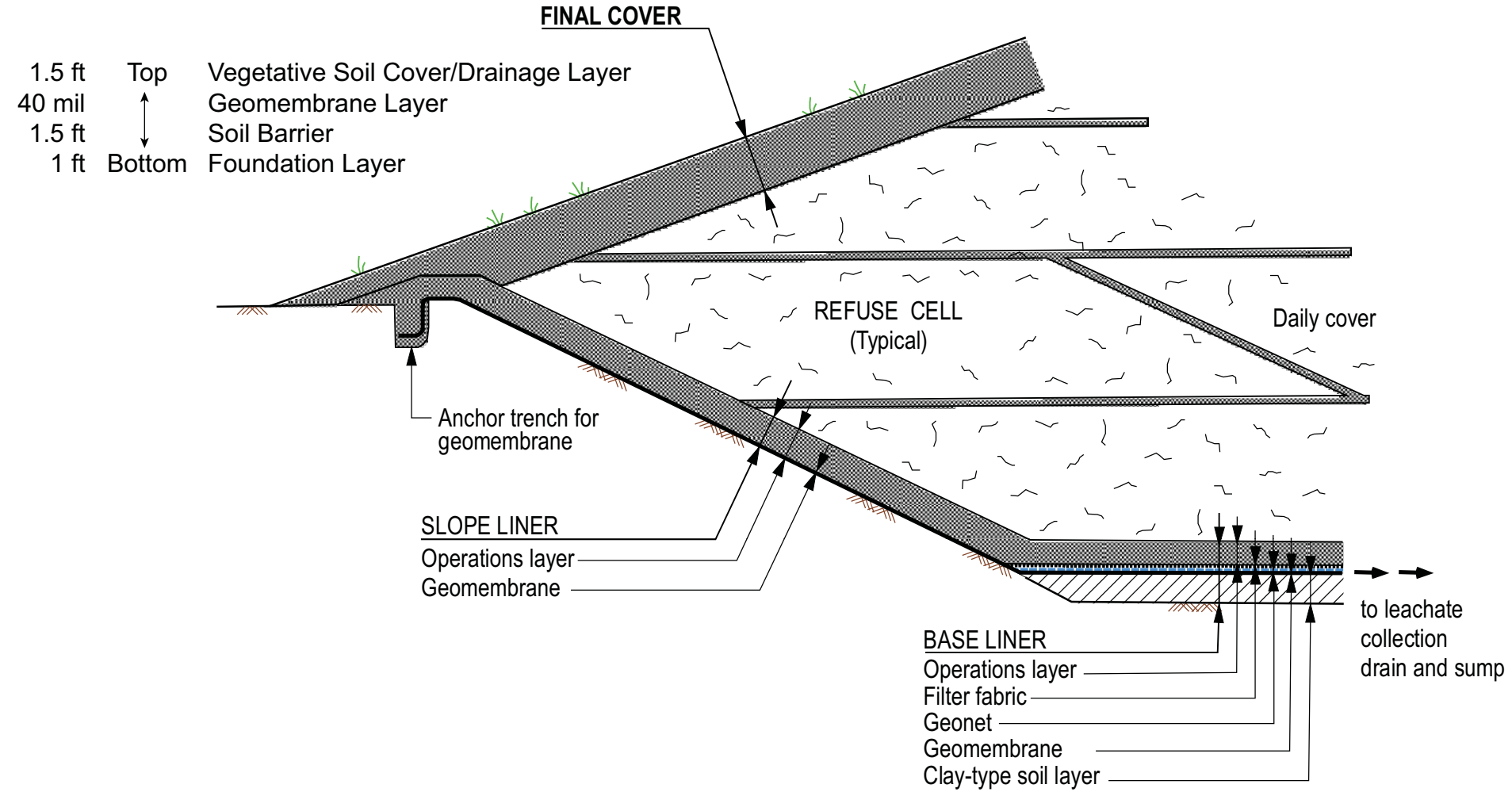


FIGURE 2-6
Base and Slide Slope Liner
Chiquita Canyon Landfill
Master Plan Revision

Before construction of the liner system, a detailed construction quality assurance (CQA) plan for the installation of the liner and LCRS must be developed and subsequently submitted to and reviewed and approved by RWQCB. The CQA plan defines the extensive testing to be performed during construction to ensure the liner and LCRS are constructed in accordance with the plans and specifications.

2.2.8.3 Final Grading Plan

The landfill final grading plan for the Proposed Project, shown in Figure 2-3, shows the proposed contours for landfill development. Consistent with the existing landfill grading plan, the design of the landfill final grading plan is controlled by surrounding topography, existing limits of the waste fill, waste and soil consolidation and settlement considerations, slope stability requirements, minimum surface gradients required to adequately drain the completed fill, drainage requirements of stormwater drainage control facilities, aesthetics, and site end use considerations.

Final landfill slopes will be constructed no steeper than 3:1. An earthfill berm will be constructed at the south end of the Main Canyon area to serve as a buttress. A screening berm is proposed near the existing scale house to provide a visual screen from SR-126. (As noted in Section 2.2.1, the screening berm may be replaced by a wall depending on the Caltrans SR-126 widening design.) To create a slope designed to minimize erosion and future maintenance, 20-foot-wide benches will be constructed at approximately 50-foot-elevation change intervals. The top deck final grades will be no flatter than 3 percent to provide sufficient slope for surface water runoff after anticipated settlement of the underlying waste fill. The entire landfill will be covered with a final cover designed to minimize infiltration of precipitation. Landfill top deck and side slope areas will receive a final cover designed to meet the requirements of the regulation applicable at the time of construction. As discussed in further detail in Section 2.2.6.4, the final cover will be placed and vegetated as individual areas of the landfill are brought to final grade. A Final Closure Plan, with all the details of the final cover design and revegetation plan, will be submitted to RWQCB and CalRecycle for approval. State law requires the Final Closure Plan to be submitted and approved before actual closure construction begins.

The fill module layout plan (Figure 2-7) presents a staged sequence of fill placement to achieve the final grades shown in Figure 2-3. The landfill is developed sequentially, considering the effects of landfill stability, allowing the final cover and drainage facilities to be completed as the fill progresses. The remaining Main Canyon area and the South Footprint are proposed to be developed in three fill modules, Fill Modules 5, 6, and 7. The East Canyon and North Canyon are proposed to be developed in five fill modules, Fill Modules 8 through 12. (The fill modules shown in Figure 2-7 represent the lined footprint of each module. In most cases, the module will “lie” against an adjacent module or go “up and over” an adjacent module.)

The development sequence shown in Figure 2-7 is a concept drawing that represents a logical site development plan with inherent assumptions about what might happen in the future. However, many factors at any future point in time may require changes to the execution of the development plan. Fill modules may be developed in phases, or combined, or not developed sequentially. Factors that affect the actual timing and sequence of future cell development include: market conditions that dictate incoming waste volumes, interim soil handling requirements (temporary stockpile locations), availability of alternative cover materials, internal access roads and traffic flow, interim stability, temporary drainage patterns, optimum control of waste placement, fill module construction costs, and other related operational aspects. These factors are reevaluated many times during the life of the landfill and are used to develop the actual fill sequence plans.

2.2.8.4 Final Cover Design

The Proposed Project will follow the final cover design included in the *Preliminary Closure and Postclosure Maintenance Plan, Chiquita Canyon Landfill, Los Angeles County, California,* prepared by Golder Associates, Inc. in April 2010 and revised in July 2010 and September 2011. No change to the landfill final cover design is anticipated as a result of the Proposed Project, unless approved by the appropriate regulatory agencies.

When the current landfill reaches capacity, it will be covered with a final cover designed to minimize water infiltration into the landfill and meet or exceed appropriate regulatory standards. The landfill final cover will consist of two major areas: the top deck and the side slopes. Consistent with Title 27 requirements, the final

cover of the top deck and side slope areas of the completed landfill will be designed by a registered civil engineer or certified engineering geologist, and placed in a manner consistent with an approved CQA program. Specifically, the final cover design will consist of the following layers from bottom to top:

- A minimum 1-foot-thick foundation layer, which will be placed as intermediate cover during waste disposal operations
- A minimum 1.5-feet-thick soil barrier with a maximum hydraulic conductivity of 1×10^{-5} centimeters per second
- A minimum 40-mil-thick geomembrane liner
- A minimum 1.5-foot-thick vegetative soil cover/drainage layer, suitable to support good vegetation of native plant species

The vegetative soil layer and the drainage layer will be capable of providing adequate rooting depth for drought-resistant vegetation that will aid in minimizing erosion. Current regulations allow alternative final cover designs, if approved by RWQCB, the LEA, and CalRecycle. As part of the final closure and post-closure maintenance plan, CCL may propose an alternative final cover design that conforms to regulatory performance standards. If an alternative final cover is proposed, the engineered alternative proposal will demonstrate that the engineered alternative is consistent with the performance goals of the final cover system specified in current regulations. The RWQCB has previously approved an alternative final cover for Canyon B and the Primary Canyon.

Final cover will be placed as significant portions of the landfill reach final grade, consistent with Title 27. The quantity of final cover soils required was presented previously in Table 2-2. Final cover will be placed within 180 days after placement of the final lift of waste or in accordance with the closure schedule contained in the final closure and post-closure maintenance plan to be approved by RWQCB, the LEA, and CalRecycle. The final closure and post-closure maintenance plan will be submitted to RWQCB, the LEA, and CalRecycle 2 years before any final closure activities. At that time, a CQA program will be proposed. Final cover construction will be conducted under the supervision of a registered civil engineer.

2.2.9 Environmental Monitoring

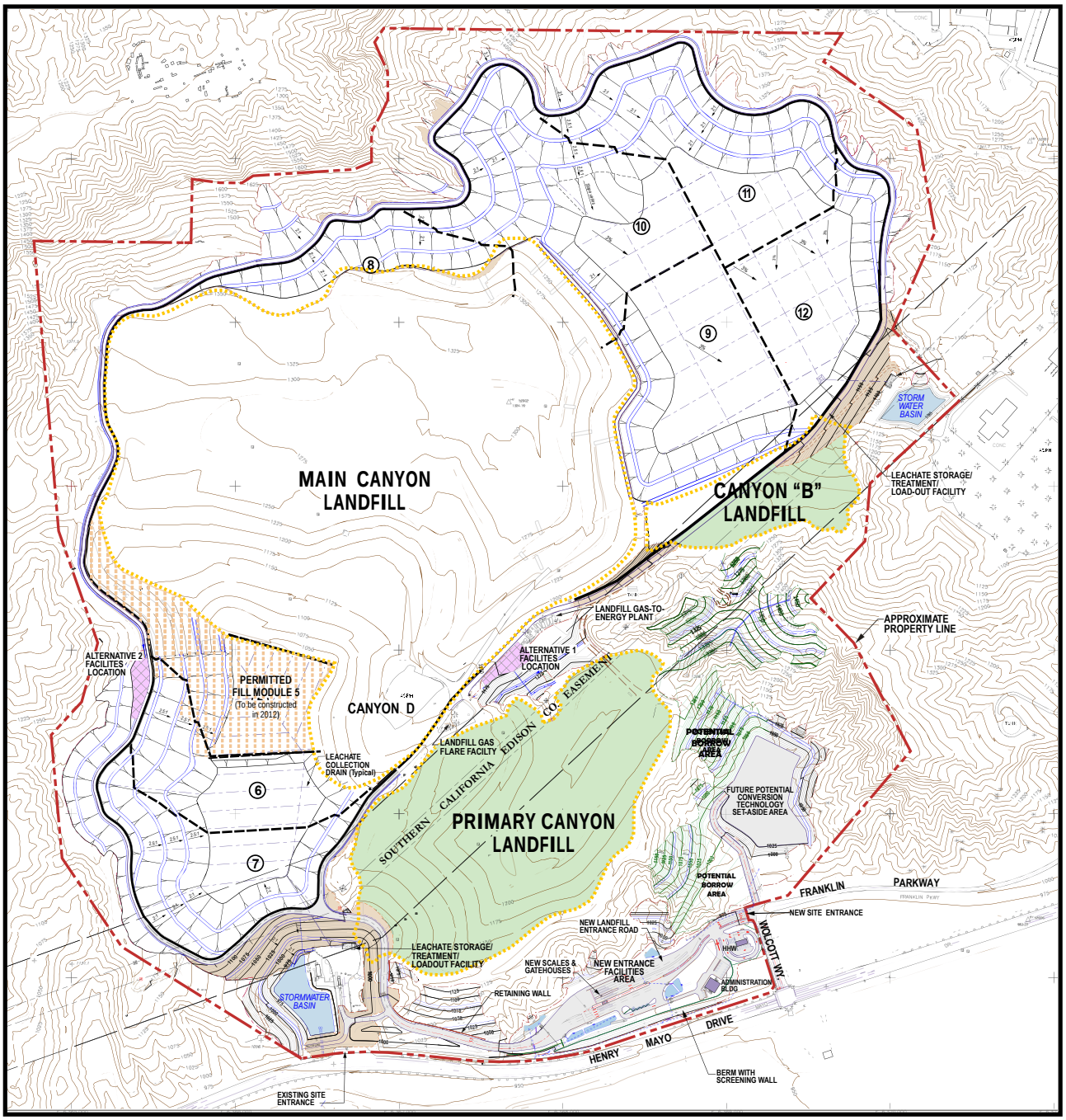
The landfill environmental monitoring systems are a component of the overall landfill design and operating standards established by state and federal regulations and work in conjunction with the landfill design standards to provide a key assurance of early detection of any potential for impairment of groundwater or air quality.

2.2.9.1 Water Quality Monitoring

Stringent regulations regarding landfill design and operation, in particular liner design, are intended to prevent water quality impacts. As described above, the liner system for CCL meets the strength requirements and meets the stability criteria previously developed for CCL and approved by RWQCB.

Water quality monitoring has been conducted at CCL since January 1986. The current program requires monitoring of the groundwater and the unsaturated (vadose) zone, monitoring for leachate production, monitoring of surface water, and monitoring of the incoming waste stream. The monitoring program is conducted in accordance with the current Monitoring and Reporting Program (MRP) contained in RWQCB Order No. 98-086. Quarterly monitoring is required by the current WDRs and MRP for the landfill, and data are reported in semiannual and annual reports submitted to RWQCB.

The monitoring program for the Proposed Project will be similar to the existing program and will require approval by the RWQCB under the landfill facility WDRs. A summary of the existing program and proposed minor modifications under the new program is provided below.



LEGEND

- ⑤ FILL MODULE DESIGNATION
- MODULE LIMIT LINE
- LIMIT OF EXISTING LANDFILL (4/6/10)
- CLOSED PERMITTED LANDFILL AREA
- MRF AND HOUSEHOLD HAZARDOUS WASTE FACILITIES LOCATION
- ALTERNATIVE EQUIPMENT/MAINTENANCE AREA

FIGURE 2-7
Proposed Fill Module Layout Plan
Chiquita Canyon Landfill Master Plan Revision

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

Source: Golder Associates, 2014

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2.2.9.2 Groundwater and Vadose Zone Monitoring

The Proposed Project will require modification of the existing monitoring network. Based on the extended waste footprint, replacement of existing monitoring points and installation of new monitoring points are necessary to comply with Title 27 monitoring requirements.

Groundwater and Vadose Monitoring Network

The current groundwater quality monitoring network consists of 14 groundwater monitoring wells (DW-1, DW-3, DW-7, DW-8, DW-12, DW-14, DW-15, DW-16, DW-17, DW-18, DW-20, DW-21, DW-28, and PZ-4). Additional points DW-9, DW-23, DW-24, DW-25, DW-26, DW-27, PZ-3, PZ-5, PZ-6, PZ-7, GP-15, GP-16, GP-17, GP-21, GP-22, GP-24, and GP-25 provide groundwater elevation data only.

Wells DW-24, DW-26, PZ-5, and PZ-6, which are northeast of the landfill, are not part of the groundwater monitoring program specified in the WDRs and MRP, but are monitored for potential future use as background water quality data.

The extension of the landfill footprint into the South Footprint, East Canyon, and North Canyon will require abandoning monitoring wells DW-3, DW-6, DW-12, DW-20, DW-24, and DW-25, and piezometers PZ-3, PZ-5, PZ-6, and PZ-7. These will be replaced by seven new monitoring wells (DW-29 through DW-35). The proposed locations for the new monitoring wells are shown in Figure 2-8.

Monitoring wells DW-30, DW-31, DW-32, DW-33, and DW-34 will provide downgradient monitoring locations for the East Canyon and the North Canyon. Monitoring well DW-29 will provide downgradient monitoring for the South Footprint. Monitoring well DW-35 will replace DW-12 and will provide a downgradient monitoring location for the Primary Canyon. Piezometer PZ-4 will be converted to a monitoring well and added to the monitoring network to provide a downgradient monitoring location for Canyon B.

The proposed monitoring well network will consist of monitoring wells DW-1, DW-7, DW-8, DW-14 through DW-18, DW-23, DW-26, DW-28 through DW-35, and piezometer PZ-4. Monitoring wells DW-9, DW-21, and DW-27 will be used for groundwater elevations only. The proposed groundwater monitoring network is summarized in Table 2-5.

TABLE 2-5
Proposed Groundwater Monitoring System

Area	Downgradient Monitoring Points	Upgradient Monitoring Points
Main Canyon	DW-1 DW-15 DW-16 DW-18 DW-21[a] DW-29	DW-8 DW-9[a] DW-17 DW-28
East and North Canyons	DW-23 DW-26 DW-30 DW-31 DW-32 DW-33 DW-34	DW-27[a] DW-28
Primary Canyon	DW-1 DW-7 DW-18 DW-21[a] DW-35	DW-16 DW-17
Canyon B	DW-30 DW-31 PZ-4	DW-14

[a] Measured for groundwater elevation only.

The vadose zone monitoring system consists of vacuum lysimeter LP-1, vadose well SW-1, and multi-level LFG monitoring probes GP-9 and GP-10. (The highest monitoring level of GP-9 is the vadose zone monitoring point. The lowest monitoring level of GP-10 is vadose zone monitoring point VP-1.)

Vadose zone monitoring points LP-1, GP-9, and VP-1 (GP-10) are replaced with groundwater monitoring well DW-30 (vadose zone monitoring point VP-3) and LFG monitoring probe GP-29 (vadose zone monitoring point VP-2), as shown in Figure 2-8. The proposed vadose zone monitoring system comprises SW-1, VP-2 (GP-29), and VP-3 (DW-30). GP-29 is a multi-level probe. Only the shallow probe will be monitored as part of the proposed vadose zone monitoring system.

The proposed monitoring well network will be submitted to and approved by RWQCB before implementation.

The groundwater samples collected from the existing and proposed monitoring wells will represent the quality of groundwater passing the points of compliance, in accordance with Title 27, and will allow for early detection of a release from each waste management unit.

Monitoring Well Installation

The new monitoring wells will be installed prior to landfill development, so that background water quality can be established for each well. Piezometer PZ-4 will be converted to a monitoring well, and new wells will be installed at least 1 year before the development of the adjacent landfill area.

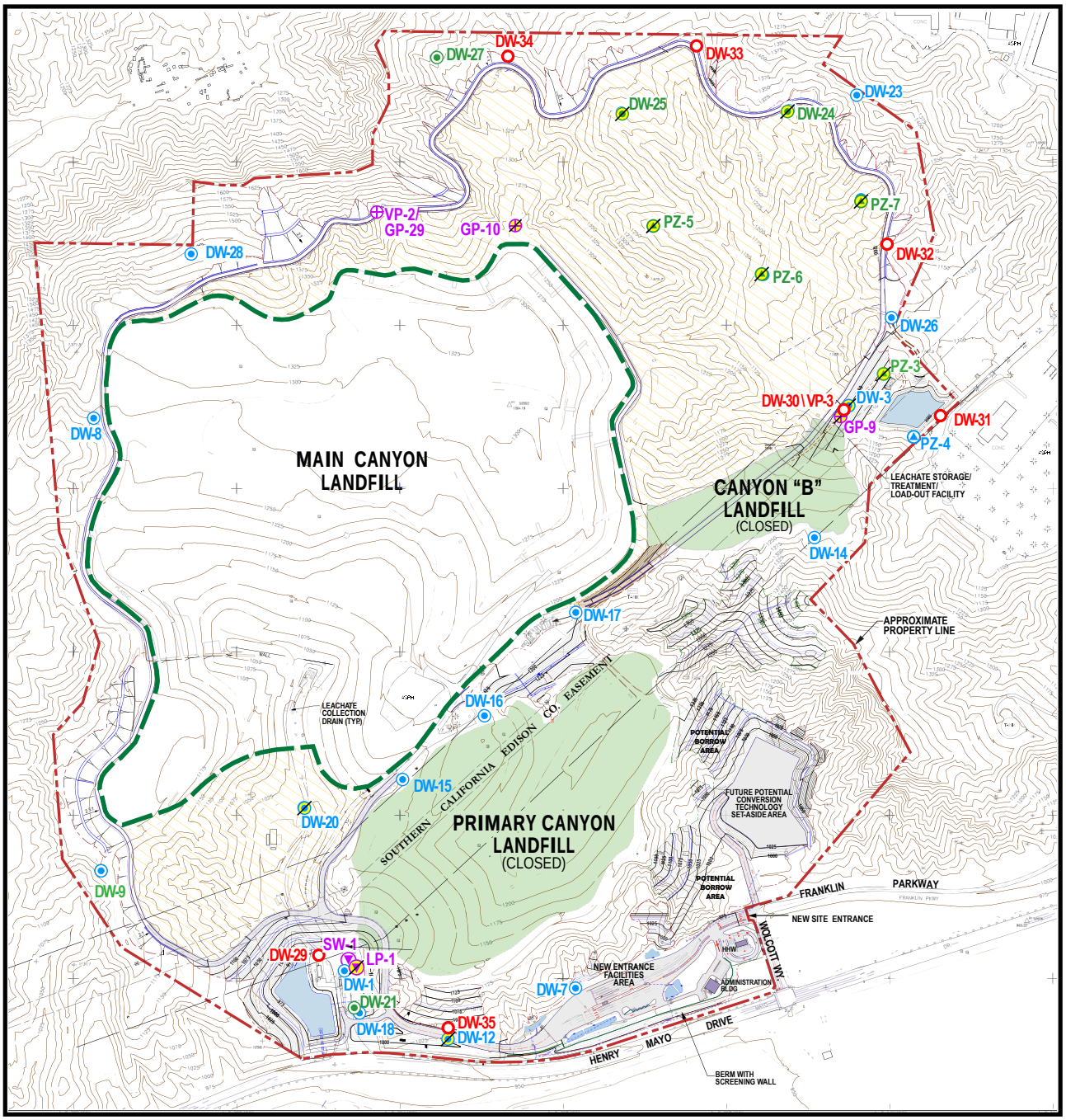
As required by RWQCB, all drilling, soil sampling, logging, well construction, and development is conducted under the direction of a California-registered professional geologist. A California-licensed drilling company will drill, construct, and develop the monitoring wells.

Sampling, Analysis, and Reporting Requirements

The current monitoring parameters, sampling, and analysis procedures will be continued for the expanded monitoring program. Procedures and techniques for groundwater sample collection, chemical analysis, and chain-of-custody control will be performed as specified in the groundwater monitoring program approved by RWQCB. In conjunction with the Proposed Project, sampling and reporting will be semiannual, if approved by RWQCB. After RWQCB approval, the MRP will be continued until modified or terminated.

The current monitoring parameters, sampling and analysis procedures, and reporting schedules to be followed are described below:

- Groundwater and vadose zone samples are collected and analyzed quarterly at a state-certified analytical laboratory. Constituents of concern (COC) are analyzed every 5 years with the next COC event scheduled for the fourth quarter of 2016. Procedures and techniques for groundwater and vadose zone sample collection, chemical analysis, and chain-of-custody control are performed as specified in the groundwater monitoring program approved by RWQCB. The groundwater and vadose zone samples are analyzed in accordance with accepted quantitative analytical procedures. Only laboratories certified by the California Department of Health Services perform the analytical work.
- In addition to collecting groundwater samples from the monitoring wells, other tasks are performed for a typical monitoring event. These tasks include measuring the depth to water in each well, performing and documenting quality assurance/quality control procedures, and visually inspecting the wells to see that they are in proper working order. Groundwater flow at the landfill is evaluated based on the water levels measured in the wells. A potentiometric surface map is constructed, and the groundwater flow direction and gradient are estimated.
- Monitoring reports are submitted to RWQCB semiannually: in June for the January-to-June period, and in December for the July-to-December period. An annual report is submitted in March.



LIMIT OF PERMITTED LANDFILL
CLOSED PERMITTED LANDFILL AREA
PROPOSED PROJECT LATERAL EXPANSION

GROUNDWATER MONITORING NETWORK

DW-14 GROUNDWATER MONITORING WELL
DW-29 PROPOSED GROUNDWATER MONITORING WELL
PZ-4 PIEZOMETER

VADOSE ZONE MONITORING NETWORK

SW-1 VADOSE WELL
GP-9 LANDFILL GAS MONITORING PROBE

GROUNDWATER ELEVATION MONITORING NETWORK

DW-9 GROUNDWATER WELL

WELL, PIEZOMETER OR PROBE TO BE DECOMMISSIONED

N

0 400 800
Feet

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

Monitoring Locations Source:
R.T. Frankian & Associates

FIGURE 2-8
Proposed Groundwater Quality Monitoring System
Chiquita Canyon Landfill
Master Plan Revision

Source: Golder Associates, 2014

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2.2.9.3 Leachate Monitoring

Consistent with Title 27, and the WDRs and MRP for CCL, the existing LCRS is monitored by periodic observation and sampling of collected leachate. The existing leachate monitoring program will continue to be in effect for the Proposed Project.

The landfill liner system is designed to contain leachate that may accumulate in the landfill and direct it to an LCRS sump or storage tank. The LCRS at CCL is a gravity system, with the main leachate collection pipe sloping toward a collection point or a storage tank. The Proposed Project will add one leachate collection point in the East Canyon area. However, because leachate tanks are a mobile facility that move as cells are developed, the location of the proposed tank will likely change over time. The leachate collection point at the southerly boundary of the existing permitted landfill will be relocated down canyon.

The collected leachate will continue to be transported offsite regularly for disposal. Leachate is collected and evaluated annually for COCs specified for groundwater monitoring. The leachate samples will be analyzed in accordance with accepted quantitative analytical procedures. Only laboratories certified by the California Department of Health Services will perform the analytical work. If collected leachate meets reuse requirements contained in the WDRs established by WDR Order No. 98-086 (or as amended or issued in the future), CCL may use it for dust control at the landfill on a lined module equipped with an LCRS. Otherwise, leachate can be either treated onsite or transported offsite to an approved facility for disposal. If the leachate is determined to be hazardous, a licensed hazardous waste hauler will transport it to an approved treatment and disposal facility. CCL conducted a pilot scale test program to determine the technical feasibility and cost-effectiveness of treating leachate onsite for reuse as dust control water and found that onsite treatment and reuse is not technically feasible or cost effective. The WDRs for CCL allow the use of leachate onsite only if it is treated to near drinking water quality. If the WDRs for CCL are revised such that onsite treatment or reuse of leachate is feasible, CCL would use leachate onsite for dust control in a lined module equipped with an LCRS.

Currently 2-3 trucks of leachate per day are transported offsite to one of two waste water plants for treatment: Southern California Waste Water in Santa Paula, CA, and South West Processing in Vernon, CA. The Department of Transportation regulates the transport of waste water on the highway, while the waste water plants are regulated by the applicable City or County for the discharge of industrial waste water, by the applicable Air Pollution Control District or Air Quality Management District, by the applicable City or County for a conditional use permit, and by the California State Resources Control Board for management of storm water.

2.2.9.4 Surface Water Monitoring

The Proposed Project will continue to implement the existing surface water monitoring program, including compliance with the existing CCL Stormwater Pollution Prevention Plan (SWPPP), the Stormwater Monitoring Program (SWMP), and the Spill Prevention, Control, and Countermeasure (SPCC) Plan, as described below.

The MRP requires stormwater monitoring consistent with the requirements of Water Quality Order No. 97-03-DWQ (Waste Discharge Requirements for Discharge of Storm Waster Associated with Industrial Activities Excluding Construction Activities), adopted by the California State Water Resources Control Board under the National Pollutant Discharge Elimination System General Permit No. CAS000001, as well as the SWPPP for the site. The purpose of the SWPPP is to identify stormwater control methods that reduce site erosion and pollutant transport from landfill operations. The SWPPP was also used in developing the SWMP for CCL. The SWMP has four objectives: (1) to monitor the quality of stormwater discharges, (2) to evaluate changing conditions and practices at the site to control pollutants in stormwater discharges, (3) to aid in the implementation of the SWPPP, and (4) to measure the effectiveness of best management practices, mandated by the state, in removing pollutants in stormwater discharge.

In addition to the SWPPP and SWMP, CCL has a SPCC Plan. The SPCC Plan was prepared pursuant to Title 40, Part 112 of the *Code of Federal Regulations* and establishes the procedures and equipment required to prevent discharge of oil and hazardous substances in quantities that violate applicable water quality standards. The SPCC Plan also establishes the activities required to mitigate such discharges if they occur.

Stormwater discharge from the site will continue to be sampled and analyzed in a manner consistent with the monitoring program outlined in the SWPPP and SWMP. Stormwater discharge samples will be analyzed for ammonia, biochemical oxygen demand, cyanide (total), nitrate and nitrite nitrogen, hydrogen ion concentration (pH), phosphorous (total), total suspended solids, specific conductance, oil and grease, volatile organic compounds, sulfate, chemical oxygen demand, total dissolved solids, and the following metals (total): antimony, arsenic, beryllium, cadmium, chromium, copper, iron, lead, magnesium, mercury, nickel, selenium, silver, thallium, and zinc.

2.2.9.5 Air and Landfill Gas Monitoring

The owners or operators of all municipal solid waste landfill units must implement routine LFG monitoring programs. The monitoring program is based on site-specific factors, including soil conditions, hydrogeologic and hydraulic conditions, and the location of facility structures and property boundaries. The air and LFG monitoring program for CCL will continue in effect for the Proposed Project. The area to be monitored and the number of monitoring points increase with the larger landfill footprint. The monitoring program is described in further detail below.

CCL has extensive LFG collection systems designed and operated in compliance with SCAQMD Rule 1150.1 requirements for control of LFG emissions, EPA New Source Performance Standards/Emission Guidelines, and Landfill Methane Capture regulations. These LFG collection systems effectively eliminate the pressure gradients that could result in gas migration through the cover soil and underlying soils.

All landfill areas are monitored regularly to detect onsite LFG surface emissions or subsurface migration of LFG. In accordance with SCAQMD Rules and EPA regulations, CCL has a site-specific Rule 1150.1 Compliance Plan, and has a Title V permit issued by SCAQMD. The Rule 1150.1 Compliance Plan requires CCL to evaluate the performance of the LFG collection and control system by monitoring monthly for the emission or migration of LFG from the landfill. Other parts of the Title V permit place performance standards and testing requirements on the LFG flare.

In addition to the SCAQMD requirements, Title 27 requires all landfills to have an approved LFG monitoring plan that includes multi-level LFG monitoring probes around the site boundary. CCL has a Title 27 LFG monitoring plan approved by the LEA and CalRecycle. Monitoring is performed in a manner consistent with this Title 27 LFG monitoring plan.

LFG monitoring activities in Title 27 and Rule 1150 include:

- Monthly monitoring of perimeter probes to evaluate subsurface offsite migration
- Continuous onsite facility monitoring to evaluate potential buildup of LFG in onsite confined spaces
- Monthly instantaneous landfill surface monitoring to evaluate potential emissions on the landfill surfaces
- Quarterly integrated landfill surface monitoring to evaluate potential emissions on the landfill surfaces
- Ambient air sampling at the landfill site boundaries to evaluate the potential offsite migration of landfill emissions
- LFG sampling to evaluate the quality and components of the LFG being generated
- LFG collection and control system inspections to evaluate the efficiency and performance of the systems, including annual source tests of the control system
- Quarterly and annual reporting to present the results of the preceding activities to the SCAQMD for review

The entire LFG emissions and migration monitoring program is designed for CCL to identify emissions or migration of LFG at the earliest possible moment. This compliance program requires CCL to mitigate or correct any such identified emissions or migration in a timely fashion, and to reinspect the suspect area within a stated time period to confirm attainment of the standards.

Currently, there are 25 perimeter LFG monitoring probes. Some of the probes are included in the SCAQMD monitoring program, some of the probes are included in the Title 27 monitoring program, and some are included in both. With development of the Proposed Project, existing monitoring probes GP-9, GP-10, GP-11, GP-12, GP-24, GP-25, GP-A, and W-2 will be abandoned. New perimeter monitoring probes will be installed to monitor the potential for gas migration east and north of the East Canyon and within the property boundary. Nine additional multi-level monitoring probes (GP-27 through GP-35) will be installed along the eastern and northern boundaries of East Canyon as shown in Figure 2-9. Prior to decommissioning existing perimeter gas monitoring probes and installation of replacement gas monitoring probes for the purposes of compliance with Title 27, approval will be obtained from the LEA and CalRecycle.

EPA has issued a rule requiring certain facilities, including landfills, to monitor and report greenhouse gas (GHG) emissions. The rule became effective January 1, 2010. The new rule requires a monitoring plan that identifies the key individuals collecting the data, data collection methods, calculation procedures, quality assurance protocols, equipment logs, and repair procedures. The Proposed Project will implement the existing GHG monitoring plan and will monitor and report GHG emissions as required by the rule.

In addition to the EPA GHG monitoring and reporting rule, the California Air Resources Board (CARB) has adopted regulations requiring the reporting of GHG emissions from certain facilities, including LFGTE facilities. Reports are required following 1 year of operation and annually thereafter. The SCAQMD has incorporated the regulations into Rule 1150.1. The Proposed Project will comply with these regulations and submit a monitoring report after 1 year of operation of the extended landfill facilities.

2.2.9.6 Nuisance and Health Hazard Monitoring

The existing nuisance, health hazard monitoring, and community outreach programs, described below, will continue in effect for the Proposed Project.

Odor

There are two potential sources of odor from landfill operations: aerobic (with air) decomposition of incoming organic waste, and gases produced by anaerobic (without air) bacterial digestion of buried waste.

Odors may result from incoming waste after it is emptied from the truck and before it is completely covered in the landfill. Any resulting odor is from the aerobic decomposition of organic waste materials. Most of the organic matter that enters the landfill, including cooked and uncooked foods and garden wastes, has begun to decompose before being delivered to the landfill. These wastes are aggressively managed to minimize odors potentially leaving the landfill area during the day.

The odors from the aerobic decomposition of waste will continue to be controlled through the sanitary landfill method of disposal. The process of covering the waste significantly reduces odors. The surface area of the active disposal area over which waste is spread is minimized to control odor. This is accomplished by covering the waste at least daily with a layer of compacted soil or alternative daily cover. CCL covers portions of the working face multiple times during the day to minimize the potential escape of odors. Any odors that are produced before covering are typically at low levels and are dispersed into the atmosphere with little or no impact. Atmospheric conditions may occasionally occur in which odors reach sensitive receptors.

Anaerobic digestion of the buried waste produces LFG, the second source of odor. LFG consists primarily of carbon dioxide and methane, which are generally odorless, as well as trace amounts of volatile organic gases, which contain odors. As these natural gases are produced within the landfill, internal pressures move the gases along the paths offering the least resistance, which can be vertically through a permeable cover.

Odor problems may occur when cracks develop in the landfill surfaces due to landfill settlement or drying of cover soils, which allow the gases to escape into the environment. To prevent the release of odor-causing gases, an extensive LFG collection and control system (GCCS) has been installed at CCL. The collected LFG is either used as fuel in the onsite power plant (LFGTE plant) or combusted in a LFG flare. Landfill surfaces are monitored regularly for evidence of gas emissions. When emissions are detected, they are corrected by

adjusting the GCCS or recompacting cover soils, or both. Proper maintenance of the soil cover (e.g., repairing any cracks) and the GCCS are proven to be effective at controlling LFG odors.

In addition to the proper management of trash at the landfill working face, maintenance of the soil cover, and operation of the GCCS, potential odors are also controlled by several other means. CCL has a landfill perimeter odor control system that is used to neutralize odors before they migrate offsite due to wind direction. The landfill perimeter odor control system consists of a meteorological station located on the western boundary of the landfill that provides real-time information on wind speed and wind direction, plus a system of pipes and nozzles attached to the litter fence that is located along the western and northern boundaries of the waste disposal area. When the combination of weather conditions and odorous loads have the potential to result in offsite migration of odors, CCL disperses odor neutralizing agents through the nozzles. Large fans that can move nearly 1 million cubic feet per minute of air are also strategically placed on the landfill to disperse odors. However, the most effective method used to control odors from incoming trash is CCL's waste exclusion program. CCL selectively chooses to exclude trash loads from specific locations and on specific days of the week if there is a history of highly odorous loads.

During compost processing, odors are controlled by maintaining aerobic conditions in the windrows where yard waste is deposited for composting. The compost windrows are monitored for temperature, oxygen content, and moisture on a daily basis to provide odor and process control.

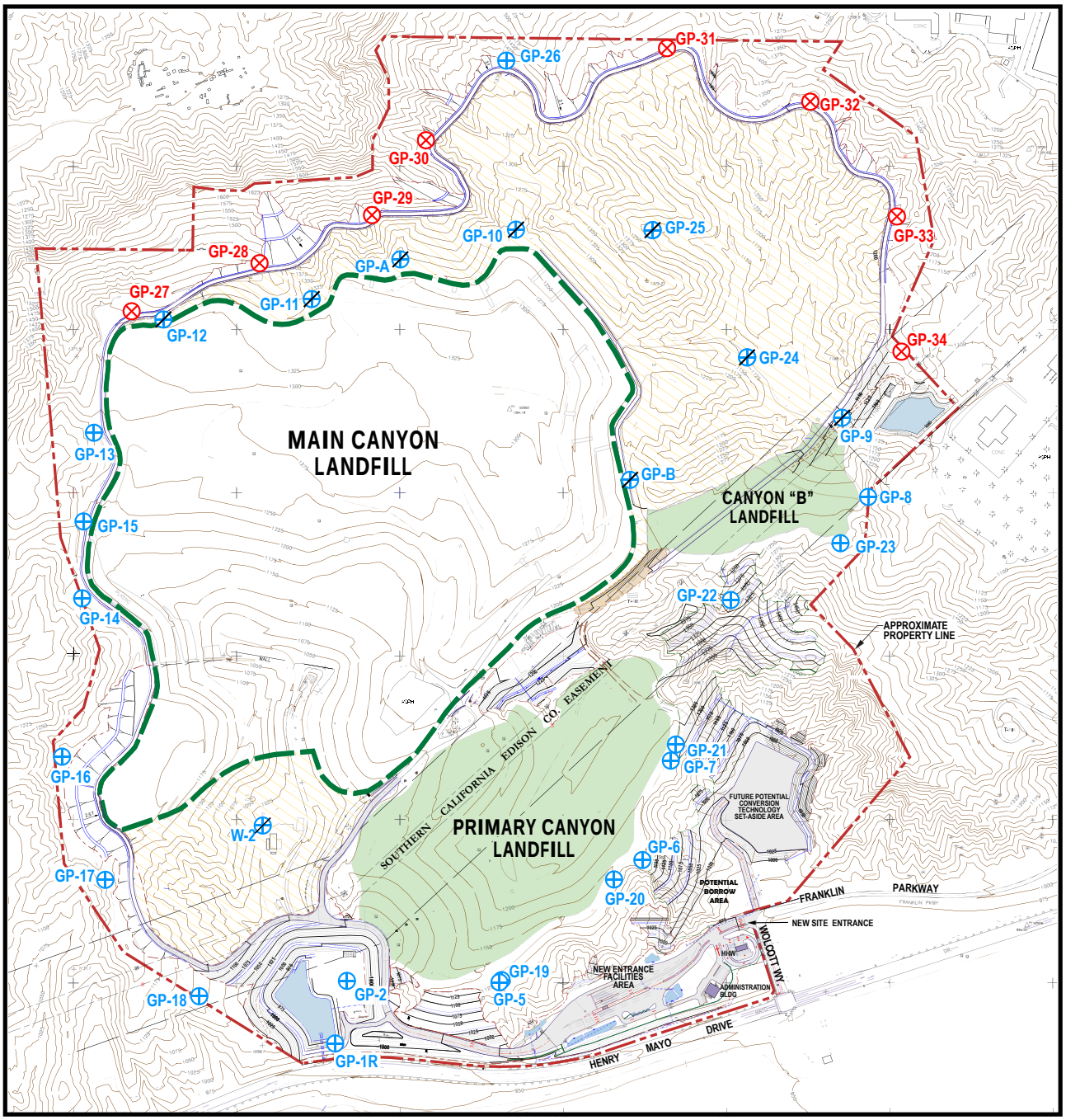
Fire Control

CCL is located within Los Angeles County Fire Zone No. 4, which is a rugged, undeveloped area covered with chaparral, sage scrub, and non-native grassland. These vegetation communities can provide a heavy fuel-load fire hazard when mature. The climate of the region is characterized as Mediterranean. Winters are generally cool and moderately wet, while summers tend to be hot and dry. The area receives an average annual precipitation of 13 to 14 inches. The period of concern is during the summer and fall months when soil moisture is reduced and periods of Santa Ana winds combine with extremely low humidity occur.

Although very infrequent, the most common cause of a fire at a landfill is the dumping of a "hot load" or the spontaneous combustion of waste materials. Hot loads occur when people dispose of smoldering materials (e.g., coals) in their trash. That material is then transported to the landfill in a collection vehicle, and is re-ignited when dumped from the truck and exposed to air. If a hot load is received, the waste is deposited in a safe area and extinguished. If a hot load has been placed in an active face, the burning waste is immediately excavated, spread, and extinguished. These types of small fires are easily extinguished by landfill personnel using water and/or soil. These situations do not typically require the assistance of the Los Angeles County Fire Department.

Landfill fires can also result when uncontrolled LFG is ignited by an external source. LFG contains methane, which is combustible when mixed with a specific amount of air and exposed to an external ignition source (e.g., a spark or flame). LFG mitigation is controlled at CCL by the landfill liner, landfill cover, and the GCCS that operates 24 hours a day, 7 days per week. Therefore, the risk of a fire associated with LFG is minimal. However, in the event of a subsurface fire, the following actions would be taken:

1) the portion of GCCS of concern would be shut down along with any wells in the area;
2) water would be applied to the area and a dozer would track and pack the soil in place;
3) more soil would be added and watered and tracked again;
4) the impacted area and vicinity would be monitored for a period of several days or weeks to confirm corrective action success.



LEGEND

- LIMIT OF PERMITTED LANDFILL
- CLOSED PERMITTED LANDFILL AREA
- PROPOSED PROJECT LATERAL EXPANSION
- GP-9 EXISTING LANDFILL GAS MONITORING PROBE
- GP-27 PROPOSED LANDFILL GAS MONITORING PROBE
- EXISTING LANDFILL GAS MONITORING PROBE TO BE DECOMMISSIONED

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Feet

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

Monitoring Locations Source:
R.T. Frankian & Associates

FIGURE 2-9
Proposed Landfill Gas Monitoring System
Chiquita Canyon Landfill Master Plan Revision

Source: Golder Associates, 2014

ES050411114300SCO432307.11.01 CCL_proposed_gas_monitoring_v8.2014.ai 7/14

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CCL will comply with applicable Los Angeles County Fire Department regulations. CCL will work closely with the fire department during development of the final site plan for CCL and when obtaining building permits for the new entrance facilities.

Fire prevention for landfill equipment and vehicles is provided by frequent cleaning of the equipment to remove combustible material. This involves removing debris and dust from undercarriages and engine compartments, regular washing of equipment, and checking for and repairing oil and fuel leaks. In addition, all of the heavy equipment that routinely operates in the trash has a built-in fire suppression system that automatically detects and extinguishes equipment fires. Also, portable fire extinguishers are carried in all landfill equipment and vehicles. The entrance facilities and maintenance buildings are also equipped with fire extinguishers suitable for extinguishing any minor fires and for maintaining personnel safety.

CCL currently maintains mobile firefighting equipment onsite 24 hours a day, 7 days per week. This equipment currently includes one 10,000-gallon water wagon, two 4,000-gallon water trucks, and four bulldozers. CCL has about 150,000 gallons of onsite water storage in various water storage tanks located throughout the site. Two of the tanks are connected to fire hydrants at the administrative office and the maintenance shop. Additionally, the water line from the Valencia Water Company tanks on the north end of the site has the ability to supply 50,000 gallons of water per hour and is equipped with multiple fire hydrants along the line.

As previously stated, minor fires that may occur in a waste fill are extinguished by landfill personnel using appropriate landfill equipment, stockpiled soil cover, and when necessary, a water truck. The Los Angeles County Fire Department is summoned if landfill personnel are unable to control and extinguish a fire or if specialty firefighting techniques are necessary.

Fire protection service for CCL is provided by the Los Angeles County Fire Department. CCL is within the area served by Station 76 at 27223 Henry Mayo Drive in Valencia. Station 76 is approximately 2.5 miles east of CCL, with an average response time of approximately 3 to 4 minutes (Hernandez, pers. comm., 2010).

In past fire seasons, CCL has been identified by Cal Fire and the Los Angeles County Fire Department as a resource to assist them during the fire season. Having a large open area, CCL could be used as a staging area for firefighting crews or as a landing area for helicopter assets. In addition, the 150,000 gallons of onsite water storage is also a resource for fire crews.

Dust Control

Landfill operations have the potential to create dust and are subject to SCAQMD Rule 403. Dust can be generated from earthwork, travel on unpaved roads, unloading trash from vehicles, and wind erosion of soil surfaces. CCL has a plan to mitigate fugitive dust emissions in compliance with SCAQMD Rule 403. Fugitive dust is controlled at CCL by paving permanent access roads, proper maintenance of haul roads (grading and watering), and frequent application of fine water spray or dust palliatives on soil-covered work areas, excavation areas, and stockpile areas, where conditions may cause the formation of fugitive dust. Controls also include timely placement of intermediate and final cover over the waste fill, application of water to intermediate soil cover when conditions might cause recurrent problems with fugitive dust; and maintenance of vegetative cover on completed fill slopes.

Additional dust control measures implemented at CCL include limiting onsite vehicle speed; directing onsite traffic by the most direct route possible; surfacing temporary unpaved onsite haul roads with low dust materials (e.g., rock material); applying mulch to inactive areas where soil has been disturbed and/or to any other unvegetated areas; requiring covers on all inbound and outbound trucks; replacing ground cover in disturbed areas as quickly as possible; and using street sweepers on paved onsite haul roads and SR-126 on a daily basis.

Vector Control

A properly operated landfill does not present health hazards to adjacent land users because the sanitary landfill method minimizes the conditions for attracting or allowing the breeding of potential disease carriers such as birds, rodents, and flies. There is no history of vector problems or vector complaints at CCL.

Seagulls attracted to exposed waste are the primary vector control focus at CCL. The seagull population at the landfill varies during the summer and winter months. During the winter months (November through April), seagulls are generally present at the landfill. In the summer months (May through October), however, the seagull population is minimal to non-existent. No bird complaints have been received from waste haulers or adjacent landowners, and when present, site users and personnel do not consider the birds to be a nuisance or a problem.

Falcons are the primary method used to deter seagulls at CCL during active disposal operations. The falcons are not predatory, but their presence frightens the seagulls. When frightened, the birds take flight and are deterred from access to the exposed waste at the working face. When the falcons are not present, site personnel have the option to utilize a handheld device to launch whistling projectiles specially designed to frighten the birds without the risk of injuring them. These operational practices minimize the opportunities for birds to feed at the site, which minimizes bird populations, thus mitigating problems in the vicinity of the site. The use of falcons and other vector control measures also discourage scavenging by other nuisance birds, such as cowbirds and starlings.

The work area over which waste is spread is minimized, and the waste is properly compacted and covered each day. Thoroughly compacting the incoming wastes, covering wastes, and minimizing the work area over which waste is spread prevents the emergence of flies from eggs that are normally present in household waste. Fly problems have not existed at CCL.

Rodents normally cannot survive because the compaction and covering of waste eliminates both habitat and food. Site personnel frequently inspect site areas for signs of rodent activity. Rodent problems have not existed at CCL. If such activity is observed, site personnel will contact pest control specialists for professional advice and any services needed to ensure that a rodent nuisance does not develop.

Litter

Operation of a sanitary landfill has the potential to increase the presence of litter in and around the site. Moderate winds can distribute lightweight waste such as paper and plastic over quite a large area. Two sources of litter result from the operation of the landfill; litter can escape from the trucks entering or exiting the site, and litter can be blown off the working face of the landfill.

CCL has an ongoing litter collection and tarping program to minimize litter in active areas and areas surrounding the site. Currently, portable and stationary litter control fences are utilized near the landfill working face. CCL personnel regularly patrol the landfill access road and perimeter and pick up litter blown from the site during high winds. All debris found on or along the entrance and access roads is removed as soon as possible. Temporary personnel are also hired, as necessary, to pick up litter. Additionally, CCL personnel patrol SR-126 near the landfill entrance on an as-needed basis, collecting illegally or inadvertently dumped waste. CCL is a sponsor of the Adopt-A-Highway program for approximately 3 miles of SR-126, from I-5 to Chiquito Canyon Road, as part of the Caltrans highway litter cleanup program.

Before leaving the landfill, open-bed trucks are required to either be swept clean of loose debris or covered with a tarp to minimize litter along SR-126. CCL has also instituted a tarping program that requires all incoming loads to be tarped. Improperly tarped loads are generally not a problem at CCL, but CCL is permitted by Condition 21 of the existing CUP to sell tarps to offenders, enforce punitive fines to offenders, and exclude repeat offenders from the landfill. Appropriate signs are posted at the site entrance notifying customers of the tarping requirements. Untarping is only allowed in the vicinity of the working face.

Condition 20 of the existing CUP includes policing a stretch of Chiquito Canyon Road from SR-126 to the entrance of Val Verde at Rancho Avilos for litter at a minimum of once per month, and providing quarterly free cleanup days to residents of Val Verde.

Litter is generally limited to the working face and slopes around the working face within the landfill's boundary. Typical landfill operations, such as compacting waste immediately after disposal and minimizing the working face, have limited the occurrence of fugitive litter.

Noise Control

The primary noise sources at CCL are the heavy equipment operating in the landfill and disposal trucks that deposit waste at the active face daily. Sound levels of onsite equipment are minimized through a vehicle maintenance program, which among other goals, ensures mufflers are properly maintained. Additionally, site topography aids in containing sound related to landfill operations within the limits of the site boundary. Offsite sound levels have not been a problem evidenced by the lack of any filed complaints with the LEA or LADRP.

The closest noise sensitive area is the rural residential community of Val Verde, which, at its closest point, is approximately 500 feet as the crow flies from the property boundary and approximately 0.50 miles from the existing landfill activities. The Val Verde community is separated from the landfill by a significant ridgeline which blocks the line of sight and serves as a very effective noise barrier. This feature will not change as a result of this project. Noise generated at CCL was not noticeable in Val Verde.

2.2.10 Household Hazardous Waste Facility

A Household Hazardous Waste Facility (HHWF) will be constructed at CCL. While the facility will be located in the same area as the new landfill entrance and support facilities, the HHWF will be physically separate from the landfill and will have its own entrance and exit. The HHWF will be a joint effort between CCL and Los Angeles County. CCL will design and construct the HHWF; the County will permit and operate the facility.

The HHWF will be constructed and permitted to receive the following general materials:

- Household Hazardous Waste: paint and solvents; used motor oil and filters, anti-freeze, and other automotive fluids; cleaning products; pool and garden chemicals; aerosol cans; all medicine except controlled substances; auto batteries; household batteries

The HHWF would receive and store these materials in preparation for shipment to markets that would recycle the materials or shipment to a hazardous waste disposal site. Materials would be stored in quantities considered acceptable to the State Department of Toxic Substances Control. The HHWF will include areas for receiving, sorting, consolidation, and packing. The total area of the facility will be approximately 2,100 square feet. Secondary containment would be provided by sloped surfaces within the storage bays, a containment trench in the front of each storage bay, and concrete/masonry barriers around three sides of the storage bays. Facility personnel will inspect loads to determine whether the materials received are one of the recyclable HHW specified in Section 25218.8(b) of the California Health and Safety Code. Figure 2-1 shows the location of the HHWF within the new entrance area, while Figure 2-10 illustrates the HHWF layout.

Operating hours for the HHWF will be 24 hours per day, 7 days per week, for purposes of processing materials, operating equipment, and/or maintaining the facility. Delivery of material to the HHWF by members of the general public will be limited to 6:00 a.m. to 8:00 p.m., 7 days per week. However, actual operating hours for the HHWF would be set by the County, and are anticipated to be one or two weekend days per month. The HHWF will be staffed continuously during operation by an individual trained in hazardous materials management.

Operation of the HHWF will be managed in accordance with state hazardous waste laws, specifically Title 22 of the California Code of Regulations Chapters 23 and 26, and Section 25218 of the California Health and Safety Code. The HHWF would also be required to obtain:

- Health Permits for Storage of Recyclable Hazardous Materials from the Los Angeles County Health Department
- Hazardous Waste Identification Number from the State Department of Toxic Substances Control
- Finding of Conformance from the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
- Air Quality permit from the South Coast Air Quality Management District

2.2.11 Mixed Organics Composting Facility

The Proposed Project includes continued green waste processing and composting operations allowed under the current CUP. The processing and composting operation that was located at the landfill since 1997 suspended operations in 2009 as a result of the economic downturn. Although it is currently inactive, CCL intends to resume operation in some manner in the future, likely in late 2014 or early 2015.

When it resumes operation, the facility is likely to be located on the landfill surface. As the landfill develops, the composting facility may be relocated periodically to accommodate landfill operations. The composting facility is permitted under the current CUP to receive up to 560 tons per day. The vehicles associated with 560 tons per day have been accounted for in the traffic analysis for the Proposed Project. The composting facility permitted in the current CUP is a green material composting facility; no food waste or sewage sludge is included. The green material is ground in a tub grinder and then formed into windrows. Windrows are turned periodically to prevent the windrows from becoming anaerobic. Water is added, as necessary, to maintain the proper moisture content. The composting material is typically kept in the windrows for 30 to 90 days. When the desired level of composting has been achieved, the compost material is moved to the curing area and formed into curing piles. The cured compost is screened to remove any large particles. The finished product is then transported offsite for sale or used onsite for erosion control. Small quantities are available to the general public at a steeply discounted price. The current CUP allows for either an open, “windrow system” as was previously employed, or an “in-vessel system”.

The feedstock for the composting operation under the current CUP is limited to shredded green waste, and prohibits waste water biosolids (sludge or sludge components). In addition to shredded green waste from curb-side pick up or commercial landscape operations, the Proposed Project would also include pre- and post-consumer food waste as part of a “mixed organics” composting process and may also include a “static pile system”.

A diversion berm designed to handle runoff from a 24-hour, 25-year storm will be installed on the up-gradient side of the composting area to divert storm water around the area. Storm runoff and excess liquid from the composting process from this area will flow to the site drainage system.

Operating hours for the composting operation will be 24 hours per day, 7 days per week. Access by customers for purposes of removing finished mulch biomass fuel, and compost will be limited to 6:00 a.m. to 8:00 p.m., 7 days per week, although actual hours may vary within this window.

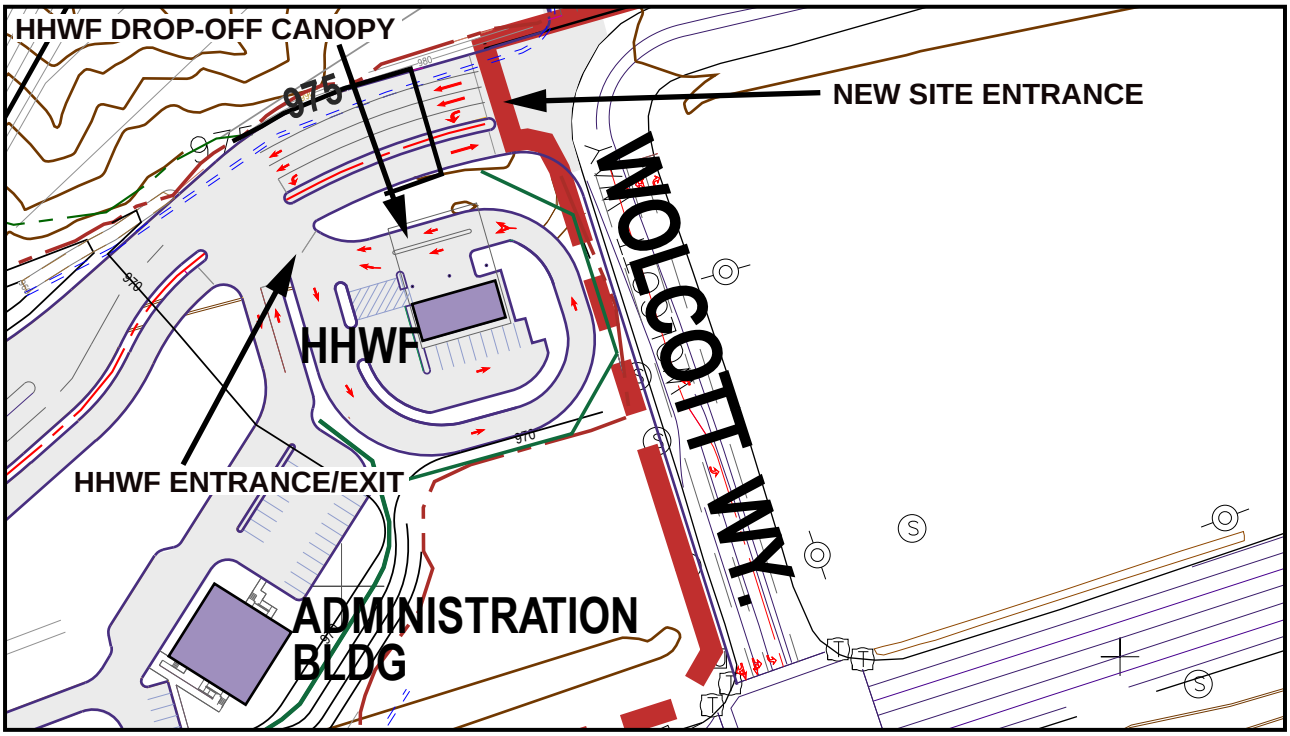

FIGURE 2-10
Household Hazardous Waste Facility Layout
Chiquita Canyon Landfill Master Plan Revision

Base compiled by photogrammetric methods by
Don Read Corporation, Brea, CA
Date of photography: April 6, 2010

Source: Golder Associates, 2014

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2.2.12 Land Set-Aside for Potential Future Conversion Technology Facility

Los Angeles County is actively evaluating and promoting the development of conversion technologies to address the region's solid waste challenges. Development of in-County, commercial scale conversion technology facilities is a priority element in the County's component strategy for assuring long-term disposal capacity to meet the needs of Los Angeles County's over 10 million residents and thousands of businesses county-wide. Conversion technologies are non-combustion thermal, mechanical, and biological processes that convert post-recycled residuals (materials that would otherwise be sent to landfills) into green fuels like ethanol and biodiesel, clean renewable energy, and other marketable products.

CCL has included within the Project Description a set-aside of a portion of the site within the existing CCL property boundary that could be used for a potential future conversion facility. The location of the property set-aside is shown in Figure 2-1. Conceptual grading required for a conversion facility is shown in Figure 2-3, as well as the location of a road that would provide access to the facility from the site entrance. The Proposed Project does not include design, permitting, construction or operation of a conversion facility.

In its Six-Month Status Update: April 2013 through October 2013 to the Board Motion of April 20, 2010, Item No. 44 Conversion Technologies in the County of Los Angeles, the Los Angeles County Department of Public Works (LACDPW) provided a status update of the efforts LACDPW has undertaken to advance conversion technology development in the County. These efforts included:

- supporting the passage of legislation to advance conversion technologies in California;
- conducting a conversion technology survey with public and private stakeholders regarding legislative actions, regulatory changes, and incentives necessary to facilitate development of conversion technologies in California;
- issuing a Request for Expressions of Interest to technology vendors and financial firms for information to be included in the Los Angeles County Department of Public Works (LADPW) online database; and
- continuing technical and planning services and information to potential conversion technology projects located in the County.

Anaerobic digestion is a type of conversion technology "in which biodegradable organics are converted by a series of bacteria into compost, methane, and carbon dioxide" (http://www.socalconversion.org/technologies/definitions)." Anaerobic digestion is the biological decomposition of organic matter with little or no oxygen producing a biogas composed primarily of CO_2 and methane (though some systems can be operated to produce some hydrogen gas with less methane product). The anaerobic decomposition (not digestion) yielding methane process occurs naturally in marshes, and wetlands, landfills, ruminants, and certain insects. There are a variety of controlled systems where anaerobic decomposition technology is currently utilized in the United States including wastewater treatment facilities and dairy manure digesters and co-digesters. In other countries (primarily in Europe), Anaerobic Digestion technology is utilized to process and treat the organic fraction of municipal solid waste to recover energy and to reduce the volume of solid waste that must be landfilled. LADPW has indicated a general interest in an Anaerobic Digestion Facility that could be co-located at an existing solid waste management facility, in part because anaerobic digestion is complementary to traditional municipal solid waste disposal. For example, at a solid waste landfill facility such as CCL, green and food waste could be diverted from the landfill waste stream prior to disposal and then processed to create energy.

The California Department of Resources Recycling and Recovery, also known as CalRecycle, is the state agency responsible for statewide solid waste management and recycling programs. To assist in the siting and permitting of anaerobic digestion facilities in California, CalRecycle has prepared a Program Environmental Impact Report (EIR) for Statewide Anaerobic Digester Facilities for the Treatment of Municipal Organic Solid Waste. The Program EIR supports the CalRecycle Anaerobic Digestion (AD) Initiative, which includes a statewide strategic policy directive to reduce by 50 percent the amount of organic waste disposed in the state's landfills by 2020. The CalRecycle policy recognizes that organic wastes are a resource, not just solid

wastes that must be disposed. Organic wastes have an energy value that can be captured and utilized, and are also a necessary component of compost, soil amendments, and other useful products.

The Final Program EIR and associated background and guidance documents can be found on the CalRecycle website located here: http://calrecycle.ca.gov/SWFacilities/Compostables/AnaerobicDig/default.htm#EIR.

The Program EIR determined that on a program level all the impacts of AD facilities could be mitigated to a less-than-significant level with implementation of the mitigation measures. Individual projects could result in localized or site-specific impacts that would need to be analyzed in a tiered CEQA document.

The Program EIR examined the following potentially significant environmental impacts: Air Quality and Greenhouse Gas, Hydrology and Water Quality, Noise, Public Services and Utilities, Transportation, Aesthetics, Hazards and Hazardous Materials, and Other CEQA Considerations (such as Cumulative and Growth-Inducing Impacts, Significant and Unavoidable Environmental Impacts, etc.).

The following is a detailed summary of potentially significant impacts and mitigation measures identified in the CalRecycle Program EIR for AD facilities, with the numeric convention retained from the Program EIR:

Impact 5.1: Construction and operations of AD facilities within California would result in emissions of criteria air pollutants at levels that could substantially contribute to a potential violation of applicable air quality standards or to nonattainment conditions.

Measure 5.1a: Applicants shall prepare and submit an Air Quality Technical Report as part of the environmental assessments for the development of future AD facilities on a specific project-by-project basis. The technical report shall include an analysis of potential air quality impacts for all steps of the project (including a screening level analysis to determine if construction and operation [for all on-site processes, including any end-use and disposal methods] related criteria air pollutant emissions would exceed applicable air district thresholds, as well as greenhouse gas (GHG) emissions and any health risk associated with toxic air contaminants (TACs) from all AD facility sources) and reduction measures. Preparation of the technical report should be coordinated with the appropriate air district and shall identify compliance with all applicable New Source Review and Best Available Control Technology (BACT) requirements. The technical report shall identify all project emissions from permitted (stationary) and non-permitted (mobile and area) sources and mitigation measures (as appropriate) designed to reduce significant emissions to below the applicable air district thresholds of significance, and if these thresholds cannot be met with mitigation, then the individual AD facility project could require additional CEQA review or additional mitigation measures.

Measure 5.1b: Applicants shall require construction contractors and system operators to implement the following Best Management Practices (BMPs) as applicable during construction and operations:

- Facilities shall be required to comply with the rules and regulations from the applicable Air Quality Management District (AQMD) or Air Pollution Control District (APCD).
- Facilities shall require substrate unloading and pre-processing activities to occur indoors within enclosed, negative pressure buildings. Collected foul air (including volatile organic compounds (VOCs) off gassed from undigested substrates) should be treated via bio filter or air scrubbing system.
- Use equipment meeting, at a minimum, Tier II emission standards.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, §2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all equipment in proper working condition according to manufacturer's specifications.
- Use electric equipment when possible. For projects that are unable to use internal combustion engines due to air district regulations (i.e., NOx emission limits), other options for generating renewable energy from biogas should be considered. Other options that should be evaluated for using biogas or

biomethane as an energy source include: use as a transportation fuel (compressed biomethane), use in fuel cells to generate clean electricity, use for on-site heating, or injection of biomethane into the utility gas pipeline system. If there are other lower NOx alternative technologies available at the time of AD facility development, these should be considered as well during the facility design process.

Impact 5.2: Operation of AD facilities in California could potentially create objectionable odors affecting a substantial number of people.

Measure 5.2a: Applicants for the development of AD facilities shall comply with appropriate local land use plans, policies, and regulations, including applicable setbacks and buffer areas from sensitive land uses for potentially odoriferous processes.

Measure 5.2b: If an AD facility handles compostable material and is classified as a compostable material handling facility, the facility must develop an Odor Impact Minimization Plan (OIMP) pursuant to 14 CCR 17863.4. Otherwise, applicants shall develop and implement an Odor Management Plan (OMP) that incorporates equivalent odor reduction controls for digester operations and is consistent with local air district odor management requirements. These plans shall identify and describe potential odor sources, as well as identify the potential, intensity, and frequency of odor from these likely sources. In addition, the plans will specify odor control technologies and management practices that if implemented, would mitigate odors associated with the majority of facilities to less than significant. However, less or more control measures may be required for individual projects. Odor control strategies and management practices that can be incorporated into these plans include, but are not limited to, the following:

- Require substrate haulage to the AD facility within covered, liquid leak-proof containers.
- Establish time limit for on-site retention of undigested substrates (i.e., feedstocks should be processed and placed into the portion of the system where liquid discharge and air emissions can be controlled within 24 or 48 hours of receipt).
- Provide enclosed, negative pressure buildings for indoor receiving and pre-processing.
- Treat collected foul air in a biofilter or air scrubbing system.
- Establish contingency plans for operating downtime (e.g., equipment malfunction, power outage).
- Manage delivery schedule to facilitate prompt handling of odorous substrates.
- Handle fresh unstable digestate within enclosed building, or mix with green waste and incorporate into a composting operation within the same business day, and/or directly pump to covered, liquid leak-proof containers for transportation.
- Protocol for monitoring and recording odor events.

Impact 5.3: Construction and operation of AD facilities in California could potentially lead to increases in chronic exposure of sensitive receptors in the vicinity to certain toxic air contaminants from stationary and mobile sources.

Measure 5.3a: Implement Mitigation Measures 5.1a and 5.1b.

Measure 5.3b: Based on the Air Quality Technical Report (specified in Measure 5.1a), if the health risk is determined to be significant on a project-by-project basis with diesel particulate matter (DPM) as a major contributor, then the applicants shall implement control measures such that the AD facility health risk would be below the applicable air district threshold, which may include implementation of one or more of the following requirements, where feasible and appropriate:

- Use either new diesel engines that are designed to minimize DPM emissions (usually through the use of catalyzed particulate filters in the exhaust) or retrofit older engines with catalyzed particulate filters (which will reduce DPM emissions by 85%);

- Use electric equipment to be powered from the grid, which would eliminate local combustion emissions;
- Use alternative fuels, such as compressed natural gas (CNG) or liquefied natural gas (LNG).

Measure 5.3c: Hydrogen sulfide (H2S) contained in the biogas shall be scrubbed (i.e., via iron sponge or other technology) before emission to air can occur.

Impact 5.4: Development of AD facilities in California could increase GHG emissions.

Measure 5.4: Implement Mitigation Measure 5.1a.

Impact 5.5: Development of AD facilities in California, together with anticipated cumulative development in the area, would contribute to regional criteria pollutants.

Measure 5.5: Implement Mitigation Measures 5.1a and 5.1b.

Impact 6.2: The operation of AD facilities could adversely affect surface and groundwater quality.

Measure 6.2a: During pre-processing, all water that contacts digester feedstock, including storm water from feedstock handling and storage facilities and water from equipment washdown and feedstock wetting, shall be contained until appropriately disposed or utilized. Best Management Practices (BMPs) may be used to reduce loading of sediment, nutrients, trash, organic matter, and other pollutants. These BMPs may include, but are not limited to, trash grates and filters, oil-water separators, mechanical filters such as sand filters, vegetated swales, engineered wastewater treatment wetlands, settling ponds, and other facilities to reduce the potential loading of pollutants into surface waters or groundwater. All discharges of storm water are prohibited unless covered under the General Industrial Stormwater Permit, other National Pollutant Discharge Elimination System (NPDES) permit, or are exempted from NPDES permitting requirements. The NPDES permits will generally require implementation of management measures to achieve a performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT), as appropriate. The General Industrial Stormwater Permit also requires the development of a storm water pollution prevention plan (SWPPP) and a monitoring plan, in compliance with permit requirements. Other liquid and solid wastes may only be discharged pursuant to an NPDES permit or waste discharge requirement (WDR) order.

Measure 6.2b: In order to minimize the amount of fugitive trash or feedstock released to surface waters, the following measures shall be implemented. When feasible, the project proponent shall preferentially select feedstocks that contain minimal amounts of trash that could become entrained in surface water, either via direct contact with stormwater flows or via other accidental release, such as due to wind. Processing of such feedstocks may, however, be unavoidable, such as in support of an AD facility that processes MSW. Therefore, the project applicant shall ensure that (1) drainage from all feedstock loading, unloading, and storage areas is contained onsite or treated to remove trash and stray feedstock, and sediment prior to release as permitted; (2) in all feedstock loading and unloading areas, and all areas where feedstock is moved by front loaders or other uncovered or uncontained transport machinery, the applicant shall ensure that mechanical sweeping and/or equivalent trash control operational procedures are performed at least daily, during operations; and (3) the facility operator shall train all employees involved in feedstock handling so as to discourage, avoid, and minimize the release of feedstock or trash during operations.

Measure 6.2c: In order to minimize water quality degradation associated with accidental spills at AD facilities, the applicant for individual projects that would be implemented under the Program EIR shall require project proponents to complete and adhere to the requirements of a Spill Prevention, Control, and Countermeasure (SPCC) Plan, which is based on the federal SPCC rule. Notification of the SPCC Plan shall be provided to the local Certified Unified Program Agency (CUPA). The SPCC Plan shall contain measures to prevent, contain, and otherwise minimize potential spills of pollutants during facility operation, in accordance with U.S. EPA requirements. For individual projects that would utilize wet digestion systems, in which processing and holding tanks would contain the (aqueous) digestion reaction and liquid digestate containing fats and oils, the SPCC Plan shall provide for installation and monitoring of secondary containment and/or leak detection systems to

ensure that AD liquids are not accidentally discharged to navigable waters or adjoining shorelines. Monitoring of these systems shall be in accordance with SPCC Plan requirements.

Measure 6.2d: Any proposed discharge to a pond for an individual project would require the project applicant to acquire WDRs from the appropriate regional board. The project applicant shall ensure that all ponds and discharges to such ponds adhere to all requirements under applicable WDRs. The need for pond liners in order to protect groundwater quality would be assessed during the regional board's review of the project, and requirements for pond liners would be included in the WDRs, as warranted. If appropriate, the WDRs would impose requirements for Class II surface impoundments as presented in Title 27 of the California Code of Regulations. Requirements include, but are not limited to, groundwater monitoring, double liner systems with leachate collection, water balance, a preliminary closure plan for clean closure, seismic analysis, and financial assurances. Compliance with WDRs may require the installation of facilities such as tanks and containers to store and process the digestate, the use of filter presses, and implementation of other water quality protection practices.

Measure 6.2e: This measure would reduce potential for the movement of nutrients and other pollutants to groundwater and surface water for individual projects that would employ land application for liquid digestate or residual solids. The operators of individual projects implemented under this Program EIR shall ensure that land application of liquid digestate and/or residual solids adheres to all requirements of an anti-degradation analysis, and in some cases best practicable treatment and control to achieve salinity reduction in materials prior to discharge to land. WDRs would be issued by the appropriate regional board, and would consider site-specific conditions and waste characteristics, in order to determine applicable control measures and procedures that protect water quality.

Measure 6.2f: This measure would reduce the potential for water quality degradation from projects that include discharge of liquid digestate to surface waters. The applicant for individual projects implemented under this Program EIR shall ensure that the discharge of liquid digestate to surface waters adheres to all NPDES permitting recommendations and requirements, as established by the appropriate regional board. Specific measures may include, but are not limited to, limitations on discharge volumes, seasonal discharge restrictions, limitations on loading rates and/or concentrations of specific constituents, and other facility-specific water quality control measures designed to protect receiving water quality and preserve beneficial uses identified in Basin Plans.

Impact 6.3: AD facilities could be exposed to flooding hazards.

Measure 6.3: Individual applicants seeking coverage under this Program EIR shall ensure that, for their proposed AD facilities including pre-processing areas, feedstock storage areas, and digestate handling facilities, are protected from FEMA-defined 100-year flood events. Design measures may include, but are not limited to: facility siting, access placement, grading, elevated foundations, and site protection such as installation of levees or other protective features.

Impact 6.4: Construction of AD facilities could change drainage and flooding patterns.

Measure 6.4: In order to ensure that the AD facilities would not result in detrimental increases in stormwater flow or flooding on site or downstream, the Applicant for each AD facility project shall prepare a comprehensive drainage plan (prior to construction) and implement the plan during construction. The comprehensive drainage plan shall include engineered stormwater retention facility designs, such as retention basins, flood control channels, storm drainage facilities, and other features as needed to ensure that, at a minimum, no net increase in stormwater discharge would occur during a 10-year, 24-hour storm event, as a result of project implementation. Project related increases in stormwater flows shall be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

Impact 6.5: AD facilities could require additional water supplies resulting in depletion of available water supplies.

Mitigation 6.5: None required. Is dependent on a case-by-case analysis.

Impact 6.6: AD facilities could become inundated as a result of seiche, tsunami, or mudflow.

Measure 6.6: To ensure that proposed AD facilities would not incur impacts associated with seiche, tsunami, or mudflow, the applicant for each individual project shall ensure that all facilities are located outside of potential risk areas for seiche, tsunami, and mudflow. In the event that a proposed facility would be sited within a potential risk area for one of these hazards, the facility shall be raised above projected maximum base inundation elevations, or shall be protected from inundation by the installation of berms, levees, or other protective facilities.

Impact 6.7: AD facilities could contribute to cumulative impacts to water quality.

Measure 6.7: Implement Mitigation Measures 6.2 (a-f) and 6.3.

Impact 7.1: Construction of AD facilities could temporarily increase noise levels at nearby sensitive receptor locations or result in noise levels in excess of standards in local general plans, noise ordinances, or other applicable standards.

Measure 7.1a: Construction activities shall be limited to the hours between 7 a.m. and 7 p.m., Monday through Saturday, or an alternative schedule established by the local jurisdiction, or other limits to construction hours normally enforced by the local jurisdiction (see Measure 7.1d below).

Measure 7.1b: Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment to a level no less effective than the manufacture's specifications, and by shrouding or shielding impact tools.

Measure 7.1c: Construction contractors within 750 feet of sensitive receptors shall locate fixed construction equipment, such as compressors and generators, and construction staging areas as far as possible from nearby sensitive receptors.

Measure 7.1d: Construction contractors shall comply with all local noise ordinances and regulations and other measures deemed necessary by the Lead Agency.

Impact 7.2: Noise from operation of AD facilities could substantially increase ambient noise levels at nearby land uses or result in noise levels in excess of standards in local general plans, local noise ordinances, or other applicable standards.

Measure 7.2: AD facilities located within 2,000 feet of a sensitive receptor shall conduct a site specific noise study. If operational sound levels would exceed local regulations, or 45 dBA at a sensitive receptor (if no regulations are available), additional sound-proofing such as enclosures, muffling, shielding, or other attenuation measures shall be installed to meet the required sound level.

Impact 7.4: Development of AD facilities could result in a cumulative increase in noise levels.

Measure 7.4: Implement Mitigation Measures 7.1a through 7.1d and Measure 7.2.

Impact 8.1: The project could substantially increase demands on fire protection services.

Measure 8.1: Implement Mitigation Measures 10.1b, 10.3c, and 11.4a.

Impact 8.2: The project could potentially exceed wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB).

Measure 8.2a: Implement Mitigation Measure 8.3b if the operator does not have an existing agreement, such as for co-located facilities.

Measure 8.2b: In addition to an agreement for service, coordination with the wastewater treatment provider would be needed to determine if pre-treatment would be required to meet the RWQCB requirements for the existing wastewater treatment facility.

Impact 8.3: The project could result in significant environmental effects from the construction and operation of new water and wastewater treatment facilities or expansion of existing facilities.

Measure 8.3a: If the project proposes to obtain water from a water supplier (municipal system or other public water entity), the developer would enter into an agreement for service with the supplier.

Measure 8.3b: If the project proposes to obtain wastewater service from a wastewater treatment provider (municipal or other public entity), the developer would enter into an agreement for service with the provider.

Measure 8.3c: Alternate water sources, such as non-potable and recycled water, shall be used during the pre-processing and AD process phases where needed and as available.

Impact 8.6: The project could result in exceeding the capacity of a wastewater treatment provider.

Measure 8.6: If the project proposes to obtain wastewater service from a wastewater treatment provider (municipal or other public entity), implement Mitigation Measure 8.3b.

Impact 8.7: The project could result in the construction of new energy supplies and could require additional energy infrastructure.

Measure 8.7: Projects requiring off-site energy infrastructure must complete CEQA review for the proposed energy improvements as a separate project. Infrastructure improvements may qualify as a categorical exemption pursuant to CEQA.

Impact 9.1: Construction of AD facilities would intermittently and temporarily increase traffic congestion due to vehicle trips generated by construction workers and construction vehicles on area roadways.

Measure 9.1: The contractor(s) will obtain any necessary road encroachment permits prior to installation of pipelines within the existing roadway right-of-way. As part of the road encroachment permit process, the contractor(s) will submit a traffic safety / traffic management plan (for work in the public right-of-way) to the agencies having jurisdiction over the affected roads. Elements of the plan will likely include, but are not necessarily limited to, the following:

- Develop circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. Use flaggers and/or signage to guide vehicles through and/or around the construction zone.
- To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.
- Limit lane closures during peak traffic hours to the extent possible. Restore roads and streets to normal operation by covering trenches with steel plates outside of allowed working hours or when work is not in progress.
- Limit, where possible, the pipeline construction work zone to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone.
- Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.
- Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.
- Coordinate with the local public transit providers so that bus routes or bus stops in work zones can be temporarily relocated as the service provider deems necessary.

Impact 9.2: AD facility operations would not substantially increase on-going (operational) traffic volumes on roadways serving the facilities.

Measure 9.2: Measures will be imposed by applicable local agencies, as needed, to address site specific significant traffic impacts identified during subsequent facility-specific analyses, implementation of which would reduce those impacts to a less-than-significant level.

Impact 9.3: AD facilities could potentially cause traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways, and could increase traffic hazards due to possible road wear or to accidental spills of digestate (liquids and solids).

Measure 9.3a: Implement Measure 9.1, which stipulates actions required of the contractor(s) to reduce potential traffic safety impacts to a less-than-significant level.

Measure 9.3b: Prior to construction, the contractor(s), in cooperation with the agencies having jurisdiction over the affected roadways, will survey and describe the pre-construction roadway conditions on rural roadways and residential streets. Within 30 days after construction is completed, the affected agencies will survey these same roadways and residential streets in order to identify any damage that has occurred. Roads damaged by construction will be repaired to a structural condition equal to the condition that existed prior to construction activity.

Measure 9.3c: Prior to initiation of project operations, the project sponsor(s) will submit a Spill Prevention Plan to the appropriate local agency. The Spill Prevention Plan will include, among other provisions, a requirement that each truck driver know how to carry out the emergency measures described in the Spill Prevention Plan (therefore reducing roadway hazards if an accidental spill were to occur).

Impact 9.4: AD facilities could intermittently and temporarily impede access to local streets or adjacent uses (including access for emergency vehicles), as well as disruption to bicycle/pedestrian access and circulation.

Measure 9.4: Implement Measure 9.1, which stipulates actions required of the contractor(s) to reduce potential access impacts to a less-than-significant level.

Impact 9.5: The project could contribute to cumulative impacts to traffic and transportation (traffic congestion, traffic safety, and emergency vehicle access).

Measure 9.5a: Prior to construction, the project sponsor will coordinate with the appropriate local government departments, Caltrans, and utility districts and agencies regarding the timing of construction projects that would occur near AD project sites. Specific measures to mitigate potential significant impacts will be determined as part of the interagency coordination, and could include measures such as employing flaggers during key construction periods, designating alternate haul routes, and providing more outreach and community noticing.

Measure 9.5b: Implement Mitigation Measure 9.2.

Measure 9.5c: Implement Mitigation Measures 9.1, 9.3b and 9.3c.

Impact 10.1: AD facilities could have adverse effects on a scenic vista and/or scenic resources.

Measure 10.1a: Avoid siting AD facilities near scenic vistas and corridors designated within an applicable land use plan and the State Scenic Highway Program.

Measure 10.1b: Landscaping and/or vegetated berms should be used to minimize views of facilities from sensitive views.

Impact 10.2: AD facilities could degrade the existing visual character/quality of the site and its surroundings.

Measure 10.2a: Implement Mitigation Measures 10.1a and 10.1b.

Measure 10.2b: Facilities using truck tippers or other un-enclosed unloading should consider using litter fences to manage blowing litter. Facilities should educate haulers delivering materials to the AD facility through literature, web links, or provide training on the acceptance of waste at the facilities to minimize litter. Facility operators should develop a protocol to identify feedstocks that are severely contaminated with potential litter and reject unacceptable loads.

Measure 10.2c: Clean-up crews can be used as necessary to control litter.

Measure 10.2d: Feedstocks and digestate byproducts should be stored in enclosed facilities or processed in a timely manner to prevent visibly deteriorated site conditions.

Measure 10.2e: Project operators should consider enclosure of pre-processing operations if it provides an aesthetic and/or noise attenuating benefit.

Impact 10.3: AD facilities could create a new source of light or glare with adverse effects to daytime and/or nighttime views.

Measure 10.3a: Implement 10.1b.

Measure 10.3b: Any lighting (portable or permanent) should be hooded and directed onto the project site. This would reduce effects to nighttime skies from uplighting, reduce glare, and prevent light from spilling onto adjoining properties and roads.

Measure 10.3c: Flares may be enclosed to reduce the visibility of flames during operation.

Impact 10.4: The project could result in cumulative impacts to visual resources.

Measure 10.4: Implement Mitigation Measures 10.1a, 10.1b, 10.2a, 10.2b, 10.2c, 10.2d, 10.2e, 10.3a, 10.3b, and 10.3c.

Impact 11.1: Construction of AD facilities could result in the potential exposure of construction workers, the public and the environment to preexisting soil and/or groundwater contamination.

Mitigation Measure 11.1: Prior to final project design and any earth disturbing activities, the applicant or agency(ies) responsible shall conduct a Phase I Environmental Site Assessment (ESA). The Phase I ESA shall be prepared by a Registered Environmental Assessor (REA) or other qualified professional to assess the potential for contaminated soil or groundwater conditions at the project site; specifically in the area proposed for construction of AD facilities. The Phase I ESA shall include a review of appropriate federal, State and local hazardous materials databases to identify hazardous waste sites at on-site and off-site locations within a one quarter mile radius of the project location. This Phase I ESA shall also include a review of existing and past land uses through aerial photographs, historical records, interviews of owners and/or operators of the property, observations during a reconnaissance site visit, and review of other relevant existing information that could identify the potential existence of contaminated soil or groundwater.

If no contaminated soil or groundwater is identified or if the Phase I ESA does not recommend any further investigation then the project applicant or agency(ies) responsible shall proceed with final project design and construction.

If existing soil or groundwater contamination is identified, and if the Phase I ESA recommends further review, the applicant or agency(ies) responsible shall retain a REA to conduct follow-up sampling to characterize the contamination and to identify any required remediation that shall be conducted consistent with applicable regulations prior to any earth disturbing activities. The environmental professional shall prepare a report that includes, but is not limited to, activities performed for the assessment, summary of anticipated contaminants and contaminant concentrations at the proposed construction site, and recommendations for appropriate handling of any contaminated materials during construction.

Impact 11.3: Transportation, use, disposal or accidental spill of hazardous materials during the operation and maintenance of AD facilities would not result in potential harmful exposures of the public or the environment to hazardous materials.

Mitigation Measure 11.3: Implement Mitigation Measures 5.1a and 6.2a-f.

Impact 11.4: Operation of AD facilities could increase the risk of fire hazards due to the potential release of biogas.

Mitigation Measure 11.4a: Prior to project approval, AD facility operators shall prepare and implement a Fire Safety Plan that outlines fire hazards, describes facility operations procedures to prevent ignition of fires, requires regular inspection of fire suppression systems, and provides for worker training in safety procedures as well as protocols for responding to fire incidents. The Fire Safety Plan shall be reviewed and approved by the local fire enforcement agency.

Mitigation Measure 11.4b: Implement Mitigation Measure 11.5.

Impact 11.5: AD facilities could be located within one quarter mile of a school resulting in potential hazards associated with accidental release of hazardous materials, including biogas.

Mitigation Measure 11.5: AD facilities shall be sited at least one quarter mile from existing or proposed schools, daycare facilities, hospitals and other sensitive land uses.

Impact 11.7: AD facilities could be located within five miles of a public airport or private airstrip and create an aviation hazard.

Mitigation Measure 11.7: For any AD facility proposed within 5 statute miles of an airport's air operations area, the operator will notify the Federal Aviation Administration (FAA) Regional Airports Division office and the airport operator of the proposed facility as early in the process as possible. AD facilities with any open air (outdoor) activities must receive an FAA Determination of No Hazard prior to project approval.

Impact 11.8: Development of AD facilities could contribute to cumulative impacts related to hazardous materials.

Mitigation Measure 11.8: Implement Mitigation Measures 11.1, 11.4, 11.5, and 11.7.

If an anaerobic digestion facility is constructed in the future, it will be subject to various governmental approvals, primarily at the local level, and may be a "project" subject to the requirements of CEQA. In considering a specific anaerobic digestion facility, and based on site-specific conditions and circumstances, the Lead Agency (presumably Los Angeles County) will be required to adopt appropriate mitigation measures among those specified in the Final Program EIR and others as necessary to avoid or substantially lessen the significant environmental effects of the project. The Mitigation and Monitoring Program for the Program EIR can be found in Appendix B to this EIR for the CCL MPR.

2.3 Landfill Closure and Post-Closure

2.3.1 Landfill Closure

Landfill closure will occur on an incremental basis as areas of the landfill reach final grade. Closure activities will be performed in a manner consistent with a final closure plan to be prepared for the site that requires the approval of RWQCB, the LEA, and CalRecycle. The final closure plan will include a description of the area to be closed, proposed final cover, environmental monitoring and control systems (i.e., groundwater, surface water, leachate, and LFG), structures to be removed, site security, final grading, drainage and erosion control, and revegetation.

2.3.2 Financial Assurance

California regulations require that landfill owners and operators provide financial assurance for closing the landfill at the point in time when closure will be the most expensive and for 30 years of post-closure maintenance. The financial assurance amount is based on the estimated cost of hiring a third party to perform closure and post-closure maintenance. The cost estimates are adjusted annually based on an inflation factor provided by CalRecycle. Additionally, the cost estimates are revised any time there is a change in the closure design or post-closure maintenance activities.

Several different financial assurance mechanisms are allowed by Title 27. Currently, CCL is utilizing a surety bond for its closure and post-closure maintenance financial assurance mechanism.

2.3.3 Landfill Post-Closure Maintenance

In conjunction with the final closure plan, a final post-closure maintenance plan will be prepared. The final post-closure maintenance plan will be submitted to and approved by RWQCB, the LEA, and CalRecycle. The final post-closure maintenance plan will describe post-closure maintenance activities, including environmental monitoring (i.e., groundwater, surface water, leachate, and LFG), final cover inspection and maintenance procedures, drainage system inspection and maintenance procedures, vegetation inspection and maintenance procedures, final grading inspection and maintenance procedures, and proposed end use. The final post-closure maintenance plan also includes persons responsible for post-closure maintenance and a post-closure maintenance schedule.

2.3.4 Landfill Post-Closure End Use

The post-closure end use will be consistent with the surrounding terrain, land uses, and zoning. At closure, it is currently proposed that the landfill be maintained as non-irrigated open space area, as follows.

As part of a future closure plan for the landfill, CCL will propose that a park or other type of publicly accessible recreational use on the site be approved in accordance with applicable laws and the covenants, conditions, and restrictions for the landfill. If requested by the County or applicable governmental agency, CCL will offer to dedicate such park or recreational area upon completion. CCL proposes to revegetate exposed slopes and landfill top areas with native plants and other appropriate screening landscape. The mechanism for guiding revegetation efforts will be the Preliminary Closure and Postclosure Maintenance Plan for Chiquita Canyon Landfill. Subsequent revisions of the Maintenance Plan will include guidelines for revegetation including:

1) Revegetation plan development and implementation will be conducted by an ecological restoration specialist familiar with restoration of native Southern California plant communities.
2) Revegetation will ideally be done with native plants.
3) Revegetation will not include plants on the County's list of invasive species.

CCL acknowledges that any such post-closure use is subject to approval by regulatory agencies, including RWQCB and CalRecycle. The final closure of the landfill, including revegetation and development of the park or other publicly accessible recreational use, is to be implemented in phases as large enough areas of the landfill reach final grade and landfilling operations on that part of the landfill end. This sequential closure is intended to reduce the potential for visibility of the landfill from offsite areas.

Chapter 15.0, Visual Resources, provides a number of visual simulations from key observation points. These simulations show proposed final cover landscaping that blends with the existing vegetation on surrounding hillsides.

The LFGTE plant, LFG flares, and leachate storage/treatment/load-out facilities will continue operation for some period of time after the landfill is closed. Additionally, the HHWF and composting facility could continue operation after landfill closure.