

# SUNSHINE CANYON LANDFILL



A REPUBLIC SERVICES COMPANY

May 6, 2013

Lisa Webber  
SCL-TAC Co-Chair

Jon Sanabria  
County Co-Chair

Department of City Planning  
200 N. Spring Street  
Los Angeles, CA 90012

Subject: Report to the Joint Sunshine Canyon Landfill Technical Advisory Committee  
May 21, 2013

Dear Ms. Webber and Mr. Sanabria:

This report provides an update of items of interest specified by the City of Los Angeles, Planning Department and the County of Los Angeles Department of Planning to be discussed at the May 21, 2013 Joint Sunshine Canyon Landfill Technical Advisory Committee (TAC).

## **1.0 Current Odor Control Mitigation Measures (City/County)**

As reported in the October TAC Report, SCL site personnel continue to implement odor control mitigation measures. A description of the mitigation measures that are being taken or are currently in the process of development are described below.

### Mitigation Measures Currently Being Taken

- To eliminate the potential contribution of odors from loads carried by transfer trucks, site supervisors continue to patrol areas close to the site where transfer trucks have been observed parking to wait for the site gates to open at 6 AM. If a transfer truck or any other waste truck is observed parking within a 5-mile radius of the site, they are reminded of the site's policy, told to leave the area and banned from entering the site for the day. Repeat offenders are reported to the hauling company and the drivers are banned from entering the site for a week;
- Condition 1.h.i of the Third Amended Stipulated Order for Abatement (S/O) provides for queuing of trucks beginning at 5 AM within the site gates so trucks do not park on San Fernando Road. This condition also requires SCL to extend the on-site misting system to provide additional mitigation for trucks parked on-site prior to disposal. The extension of the misting system to the scalehouse was completed on December 13, 2011 as required in the S/O. The gates to the site are open at 5 AM, however no trucks are queuing on site from 5 AM to 6 AM;

- Under Abatement Order 3448-13, Condition 1.a., it was required that transfer trucks from Republic-operated transfer stations could not deposit their loads at the site before 9 AM on all Mondays; Condition 1.b. required these transfer station loads be delayed until after 9 AM on all other days if adverse wind conditions were present. Starting on October 17, 2011, transfer trucks from Republic-operated transfer stations were delayed from coming to the site until after 9 AM Monday through Friday irrespective of wind conditions. The receipt of transfer station loads on Saturdays prior to 9 AM is dependent on whether adverse wind conditions are present. This practice has continued since October 2011;
- SCL has worked with one major customer whose wastestream has been identified as odorous to delay the receipt of their containers until after 9 AM. This practice went into effect on February 1, 2012 continued until mid-August 2012 when it was agreed that these trucks could enter the site at 8:30 AM due to routing of these loads;
- Procedures for the handling and management of odorous loads at Republic-operated transfer stations have been developed and the Operations Supervisors at the transfer stations have been trained on the procedures. These procedures involve identifying odoriferous loads at the transfer stations and notifying SCL personnel when these loads are coming into the site so they can be properly managed. The procedures also call for not accepting the loads if they are deemed too odorous to be handled at SCL. These procedures remain in effect;
- The procedures for the management of odorous loads at the site have been developed and the site scale house operators have been trained on these procedures. The procedures include identifying loads that register a '4' on SCAQMD's odor classification scale and notifying the site supervisor on duty so the load can be immediately taken to the working face, deposited and covered with a layer of soil. As indicated previously, loads will not be accepted if they are deemed too odorous to be handled at SCL. These procedures have remained in effect;
- Condition 1.g. of the S/O required SCL to develop written procedures for the minimization of odors and emissions during installation and trenching of vertical wells and horizontal collectors. These procedures were submitted to SCAQMD on December 9, 2011. These procedures are being followed by all SCL contractors when they are performing work that involves the installation of wells and/or trenching for the installation of horizontal collectors;
- In accordance with Condition 2.b.i of the Abatement Order, SCL is required to operate at least one DustBoss system during operating hours. This practice continues with the operation of four DustBosses on a daily basis.

#### Additional Odor Control Measures

As reported in the October TAC Report, a more efficient system using the DustBoss (DB60) system has been developed that has a greater potential to neutralize odorous air particles. The original DustBoss (DB60) was designed for dust control and functions well for that purpose. As designed, the DB60 produced too much water and too large of a water particle to be ideal for controlling odor. The goal of modifying the DB60 is to create water particles in the 5-7 micron range to have a better chance for impacting with odor particles of the same size. The modifications to the DB60 are intended to produce a smaller, lighter, and thus "faster" deodorizer particle.

Effective September 2012, all four of the site's DB60 units have been modified to have a single air atomizing nozzle. Although the atomized water molecules cannot be measured, it is believed the water particles generated by this modified system are in the approximate range of 5 – 7 microns with a water flow of approximately 0.5 gallons per minute (gpm). In conjunction with the DB60 modifications, SCL personnel have worked with an odor control consultant who has developed a new neutralizing solution to work with the modified DB60. This neutralizing solution is used only in the modified DustBoss units and not for any other application at the site.

- The three orchard fans continue to be run in the scalehouse area of the site and are operated during the nighttime hours as a mitigation measure to collect potentially odorous air that could accumulate along the ground surface during low wind conditions.

## **2.0 Landfill Gas Collection System - Completed Improvements and Planned Upgrades and Landfill Gas Monitoring (City/County)**

### Wellhead Monitoring

Monitoring of the site's landfill gas collection system is conducted in accordance with Federal NSPS (New Source Performance Standards) which require readings of pressure, temperature and oxygen be taken on a monthly basis from each monitoring point. Beginning in March 2011, SCL contracted with Brian A. Stirrat (BAS) and Associates to conduct weekly monitoring of the site's gas collection wells. This frequency was then reduced to bi-monthly monitoring in July 2011 after system improvements had been made.

### Surface Emission Monitoring

Monthly surface emission monitoring (SEM) is conducted in accordance with SCAQMD Rule 1150.1 requirements. SEM monitoring consists of instantaneous and integrated monitoring conducted over an approved grid system established over the site.

SEM monitoring was conducted for the fourth quarter of 2012. For the entire fourth quarter of 2012, the results based on instantaneous monitoring showed that the City side of the landfill had 38 out of 585 grids that had surface emissions over 500 ppm Total Organic Carbon (TOC). For the entire fourth quarter of 2012 the County side of the landfill had 118 out of 452 total grids that had surface emissions over 500 ppm Total Organic Carbon (TOC). These grid areas were repaired and the areas passed a 3-day re-check or a second 10 day re-check or a third 30-day re-check with the gas system being expanded as allowed by the requirements of SCAQMD Rule 1150.1.

### Perimeter Probe Monitoring

Rule 1150.1 monitoring requires monthly monitoring of the site's perimeter probes. There were no probes that exceeded the regulatory threshold of 5% methane (%CH<sub>4</sub>) for the fourth quarter of 2012.

## **3.0 Groundwater Monitoring (City/County)**

The groundwater monitoring program approved by the Los Angeles RWQCB for Sunshine Canyon Landfill is based on quarterly and semi-annual monitoring of 18 groundwater monitoring wells. Samples are analyzed by an EPA-approved analytical laboratory for more than 100 individual potential contaminants as specified by the RWQCB. Statistical analyses are used to identify any trends or changes in concentrations of constituents that could indicate a potential release from the site. In addition to the groundwater wells, monitoring is also conducted for sub-drains and lysimeter liquids. Reports of sampling and monitoring activities, including all analytical results, are submitted to the RWQCB on a semiannual and annual basis.

During the second semi-annual monitoring period of 2012, exceedances of site water quality protection standards (WQPS) were noted for 1,4-dioxane at downgradient groundwater monitoring wells MW-1, MW-5, and MW-13R. No new groundwater monitoring parameter/well pairs were added to the facility's tracking mode list during this semi-annual monitoring period.

During the second semi-annual monitoring period of 2012, an alternative source demonstration (ASD) was submitted to the RWQCB addressing confirmed tentative exceedances of site WQPS for ammonia-nitrogen and total potassium at groundwater monitoring well PZ-2. The results of the ASD indicate that the slightly elevated concentrations of ammonia-nitrogen and total potassium responsible for the exceedances at monitoring well PZ-2 are unlikely to be landfill related; rather they most probably reflect natural variation in groundwater quality, as well as recent variations in the sampling protocols used for this monitoring well.

During the second semi-annual monitoring period of 2012, an ASD was also submitted to the RWQCB addressing a confirmed tentative exceedance of site WQPS for carbon disulfide at groundwater monitoring well MW-6. The results of the ASD indicate that the reported carbon disulfide detection is unlikely to be landfill-related, and is more probably related to contact with natural crude-oil deposits and/or the anaerobic break down of these or other natural organic materials in groundwater near this well.

During the second semi-annual monitoring period of 2012, several volatile organic compounds (VOC) were again detected in liquid samples collected from Subdrain N. Liquids discharged from Subdrain N represent a composite of natural shallow groundwater seepage from various subdrain liquid collection systems associated with County disposal phases I through V and City Landfill Unit 2, Cells A and CC-1. All liquid discharge from the Subdrain N outlet is collected by site personnel and properly managed at the facility's water treatment system.

During the second semi-annual monitoring period of 2012, detectable concentrations of several VOC were again noted in the liquid samples collected from Subdrain CC2-3A. These VOC detections are consistent with past monitoring results and are not unexpected, given that the CC2-3A subdrain collection system may receive subsurface groundwater seepage from adjacent portions of unlined City Landfill Unit 1.

During the fourth quarter 2012 monitoring event, four Appendix II VOC (carbon disulfide, ethylbenzene, o-xylene, p+m-xylene) were reportedly detected in the liquid sample collected from Subdrain CC2-5AC; 1,4-dioxane (1.7 ug/L) was also detected in this sample (see Table 4-3B). The RWQCB was subsequently notified regarding these detections and of the facility's intent to conduct additional investigative sampling at Subdrain CC2-5AC. On January 29, 2013, one additional liquid sample was collected by Geo-Logic Associates from Subdrain CC2-5AC for

analysis of carbon disulfide, ethylbenzene, o-xylene, p+m-xylene, and 1,4-dioxane. Analysis of the four Appendix II VOC was conducted within the required holding time and the results of the analysis indicate non-detectable concentrations for each of the previously reported Appendix II VOC. The results of the additional 1,4-dioxane analysis indicate a trace concentration (0.33 ug/L) of this constituent. Due to a laboratory error, this additional 1,4-dioxane analysis was performed past the required sample holding time and the reported concentration may, therefore, not be fully representative of actual sub-drain liquid conditions. Sub-drain liquid monitoring point CC2-5AC was resampled in March 2013 for 1,4-dioxane and we are awaiting the results of this sampling event.

#### **4.0 Surface Water Management System, Including a Drainage and Erosion Control Plan (City/County)**

Management of surface water from the site and the substantial upland non-landfill area that drains to it is a major part of the site's environmental compliance and operational programs.

Functions of the surface water management system include the following:

- Prevent or minimize erosion from the landfill surface;
- Prevent discharge of sediments from the site in excess of regulatory standards;
- Maintain peak stormwater discharges at levels no greater than the pre-landfill condition of the site; and,
- Manage the 100-year, 24 hour storm as required by Title 27 of the California Code of Regulations (CCR).

The surface water management system at Sunshine Canyon has been designed according to requirements of CCR Title 27 and the County of Los Angeles. Its major components were evaluated in the Joint Technical Document for the City/County Landfill, and determined to be in conformance with all requirements.

The following sections describe the existing systems and planned additions that will enable these goals to be met throughout the life of the site, together with an evaluation of the current conditions relative to regulatory compliance.

##### **4.1 Existing Stormwater Management System**

The existing surface water management system at Sunshine Canyon consists of three subsystems of drainage controls:

- Permanent Perimeter Drainage System;
- Interim Interior Drainage System; and
- Temporary Erosion and Sediment Control Measures

Elements of each system are described below.

###### **4.1.1 Perimeter Drainage System**

The perimeter drainage system contains the major permanent control systems for the landfill. It intercepts all run-on of surface water from non-landfill areas and diverts it away from the landfill area, and manages runoff from landfill areas where refuse elevations are above the site perimeter drainage elevations. Existing elements of the perimeter system include the following, all of which have been designed to handle the peak discharge from the 100-year, 24-hour storm:

- Sedimentation Basin D, located at the far north end of the County area, which receives run-on from the native canyons north of the landfill area.
- Sedimentation Basin B, located on the east side of the County area, which receives runoff from the native East Canyon area and from portions of the landfill area. Basin B is concrete-lined and has a discharge structure designed to level out peak discharges of stormwater.
- Sedimentation Basin A, located on the west side of the County area, which receives run-on from slope and canyon areas west of the landfill area, and runoff from portions of the landfill area on the County side. Basin A is lined with concrete.
- East Perimeter Drainage Channel, is currently completed from Basin D to the Terminal Basin. The final phase of this channel improvement was completed in September 2012.
- West Perimeter Drainage Channel is currently completed from Basin D to Basin A. It presently discharges to the interim interior drainage system, as described below. Within the next 5 years it will be completed along the west perimeter of the approved City/County Landfill area, and will discharge directly to the Terminal Basin. When completed, the West Perimeter Channel will collect all drainage from the west side Closed City Landfill, which currently drains to the interim interior system as described below.
- Terminal Sedimentation Basin, located near the site entrance at San Fernando Road. All surface water discharge from the site passes through this concrete-lined basin, which is designed to manage the peak flow from the 100-year storm and discharge no greater flow than the pre-landfill condition of the site.

#### 4.1.2 Interim Interior Drainage System

Until all areas of the City/County Landfill have been developed and filled to elevations above the site perimeter, run-off from areas of the site interior must be managed in a system of basins and channels discharging through the center of the site to the Terminal Basin. At present this includes the entire west side Closed City Landfill, currently active areas of Cells CC-1 and CC-2, and most of Cell A. During the current phase of landfill development in Cells CC-2 and CC-3A, the interim interior system is modified on an annual basis to accommodate the ongoing construction activity. System elements in place include the following:

- A primary drainage channel running from Basin A to the scalehouse area. The initial segment is an asphalt and concrete-lined channel conveying discharge from Basin A along access roads to a point approximately 700 feet below the entrance to the Administration area. This segment collects runoff from the administration area and slopes below it, and from a substantial area of slopes in the County landfill area. It

connects to a temporary asphalt and HDPE geomembrane-lined segment that also receives runoff from the west side Closed City Landfill, and extends to the bottom of the scalehouse access road and crosses the road in a concrete box culvert, where it discharges into the Terminal Basin.

- Large-diameter underground pipes that collect discharges from the above-referenced temporary basins, various catch basins and other points in the landfill interior. Two 60-inch diameter corrugated HDPE pipes collect from points north of the scalehouse, and discharge to two 90-inch corrugated steel pipes buried below the main site access road, which discharge to the Terminal Basin.
- The drainage system for the Closed City Landfill features one large shallow sedimentation basin and a series of semi-permanent and temporary channels that collect runoff and convey it to the primary interior drainage channel described above. In the future this system will discharge to the West Perimeter Drainage and will be conveyed directly to the Terminal Basin.

#### 4.1.3 Temporary Erosion and Sediment Control Measures

Sunshine Canyon installs temporary erosion control systems on an annual basis in advance of the rainy season. The annually prepared drainage plan includes a variety of measures that not only reduce soil erosion but also reduce peak flows by slowing down and leveling discharges from the site. Typical components of the plan include:

- Silt fencing at the toe of refuse slopes and stockpiles;
- Silt fencing and sandbags along drainage channels to control silt and direct water from upslope areas into the channels;
- Straw wattles placed on landfill and stockpile slopes;
- Hydroseeding new refuse slopes and stockpiles that will not be used within the next 180 days;
- Temporary HDPE-lined channels on refuse slopes to direct flow from landfill areas into existing drainage channels; and
- Reducing sediment discharge and peak flows from sedimentation basins by placing temporary barriers around the discharge pipes and wrapping the discharge pipe openings with geotextile.
- As part of the new cell construction activities (Cell CC-3A, Part 2), the secondary temporary drainage channel on the southern edge of Cell CC-3A, Part 1 will be removed as well as a small concrete basin. As part of the construction activities, a new temporary sedimentation basin will be constructed which will be tied into the site's overall storm water management system.

## **5.0 Sediment Cleanup at Basins A, B, D and Terminal Basin (City/County)**

Sediment is removed from the onsite basins once the material is dry and accessible with heavy equipment. The removal activities are typically completed by August of each year. Sediment cleanup at Basins A, B, D and the Terminal Basin was completed in August 2012 and will be performed again before October 1, 2013.

## **6.0 Leachate Collection and Treatment System (City/County)**

Leachate is collected in the leachate collection system installed beneath the City and County portions of the site. Leachate is collected in a gravel-packed riser sump at the low point of each landfill, and pumped via extraction pumps to the influent tank at the leachate treatment facility (LTF). The site produces about 10,000 – 15,000 gallons per day (gpd) of leachate.

### LTF Process Description

The LTF treatment system consists of filters and granular activated carbon (GAC) vessels. The leachate first passes through the bag filter units, to remove suspended matter from the leachate and protect the GAC media from clogging which could reduce the treatment capacity and performance.

The filtered leachate then undergoes treatment in three GAC vessels, which are configured in series. The second and third GAC vessels serve as polishing units, ensuring effective removal of low level VOCs. The effluent routinely meets the WDR limits for VOCs.

The treated effluent from the third GAC vessel is routed to the effluent tank where it is conveyed by gravity to the gray water tank at the gray water treatment system. The treated effluent is blended with other site waters. The treated effluent from the gray water system is then pumped to two storage tanks; one 265,000 gallon tank and one 100,000 gallon tank. These tanks are used for temporary storage prior to the treated effluent being used on-site for dust control and irrigation. The gray water used onsite routinely meets the WDR limits, and is in full compliance with the site's WDR. A total of 120,000 -150,000 gpd are processed and reused in the gray water treatment system, including the LTF.

## **7.0 Revegetation Plans and Recent Hydroseeding Efforts on Temporary Slopes and Stockpiles (City/County)**

Approximately 20 acres will be seeded during the 4<sup>th</sup> quarter of 2013. This includes approximately 15 acres on the County slope and 5 acres on City North.

The vegetation map of Sunshine Canyon Landfill's hydroseeding activities is attached (Attachment A). This map is included in the quarterly vegetation reports submitted to the County of Los Angeles Department of Public Works, Department of Regional Planning and the City of Los Angeles Planning Department thirty days after the end of each quarter.

## **8.0 Venturan Coastal Sage Mitigation Plan (City's M.4.4.1 (60) &(61))**

During the 4th quarter of 2012, Architerra Design Group, a landscape architecture and planning contractor was hired to design and develop a habitat restoration and landscape improvement plan for the City South C Trial Plot. This project is intended to be a pilot or demonstration project to determine the most effective course of action for re-vegetation of the closed deck and slopes area on the City South area of the site. Work on this project began in the 1<sup>st</sup> quarter of 2013; the following activities have been conducted to date:

- Completed conceptual landscape Master Plan and construction documents;
- Selected Pacific Restoration Group (PRG) as contractor to implement plan;
- Soil testing for City South C trial plot including growth trials to determine optimal amendments;
- Construction Activities
  - Imported soil from SCL front sedimentation basin to project area;
  - Completed grading activities;
  - Applied soil amendments;
  - Defined roadway around trial plot area and provided stabilization of the roadway for swale crossings;
  - Installed boulder and rip rap along swale lines to establish positive drainage pathways through a series of swales, and used boulders to control flow and establish micro-topography;
  - Imprinted center portion of the area and seeded;
  - Installed 90% of on-grade irrigation including the installation of a booster pump for City South C and future development phases;
  - Installed pathways to existing site gas wells in the City South trial plot area so planted areas will not be adversely impacted by foot traffic (e.g. during monitoring of gas wells)

The final portion of the City South C Trial Plot project will be completed by the end of May 2013 and includes the following activities:

- Planting and final seeding;
- Continued weeding;
- Maintenance of irrigation system;
- Other activities as warranted;
- Evaluation of results

Based on the results of the City South C trial plot project, plans for the remainder of the deck and slope areas identified for Venturan Coastal Sage mitigation, will be developed along with a schedule for implementation.

## **9.0 Chatsworth Mitigation (City Q.C.9)**

The City of Los Angeles has proceeded to finalize the survey and other transfer documents, however they have not been completed as of April 2013. Republic cannot provide a conservation easement or initiate restoration activities, as required by the special conditions of the permits until escrow conditions have been satisfied. Since the plants that were grown have been donated or are no longer viable to use, Republic has contracted with Santa Barbara

Botanic Gardens again to perform the seed collection, seed cleaning and growing for this project. The third seed collection event was performed on April 29, 2013, and the next event will occur in early summer 2013.

#### **10.0 Implementation of Alternative Fuels Vehicle Conditions (City/County)**

SCL continues to fuel the E-85 vehicles with Ethanol 85 on average, every week at a fueling station located at 11699 San Vicente Blvd., Los Angeles, California. Currently the site owns and operates thirteen vehicles that use E-85 fuel.

According to SCL's research, there have been no advancements in technology for alternative fuel heavy machinery. No alternative fuel light-duty vehicles or heavy machinery have been purchased since the last update.

Sunshine Canyon Landfill contracted with Environ Strategies to update the 2008 Review Update of Alternative Fuel Technologies (Attachment B).

#### **11.0 Backup Generator (City/County)**

SCL is in compliance with CUP Condition 83. Generators needed to provide power to the landfill gas flaring system have been identified and secured by a contractual arrangement with Quinn Power Systems.

Comments from Los Angeles County Department of Public Works, Environmental Programs Division (DPW), on the Report to the Joint SCL Technical Advisory Committee, dated October 19, 2012 were received by SCL on January 30, 2013.

The responses to the DPW comments are provided below.

According to Response to Item 1(a) in the Backup Generator for Emergency Use correspondence dated October 1, 2012 (Attachment C), the earliest permanent units at the site are scheduled for first quarter of 2014 (based on 2-months design/selection, 6-months permitting, and 6-months order/receipt). A revised schedule should be provided in which landfill addresses many of the items concurrently to achieve shortened construction and delivery timeline.

The schedule presented by SCL is a best case scenario for installation of permanent generators. Please note SCL has not made a decision on the purchase of permanent generators and will only do so after the permitting efforts have been completed. The permit applications were submitted to the SCAQMD on March 25, 2013 and we anticipate approval by the end of the year.

Based on Quinn Power Systems Rental Proposal (Response to Item 3), the vendor will provide a single 350 kW generator to the landfill upon request. Verify that a single 350 kW backup generator is adequate to supply electricity continuously to all 5 flares in case of complete power failure at the site.

Subsequent to our letter in October 2012, we have completed the sizing design for the generators, which is summarized below.

Flare 1 requires a 600 kW generator  
Flare 3 requires a 600 kW generator  
Flare 9 requires an 800 kW generator  
Flare 10 requires an 800 kW generator

Flare 8 and the Temporary Flare will not be operated with a generator since they are selected for shutdown and future replacement.

An updated rental agreement with Quinn Power Systems is attached for these new generators.

Response to Item 1(b) indicates that generators provided by Quinn Power Systems will be delivered to the site within 2-4 hours. Revised estimate should be provided for both equipment delivery time (from the time the initial call is placed requesting the back-up generator to the time of delivery to the landfill) which takes into consideration any blockages to vehicular access and on-site start-up time including fueling and linking the generator(s) to all five flares

We estimate the flares would be operational within eight (8) hours after a call is made for delivery.

According to Response to Item 2, Flare 1 is the only flare at the site that has been outfitted with electrical components to allow for the power generator hookup. It is crucial that all flares are outfitted with electrical components to allow direct connection to generator.

The transfer switches for Flares 1 and 3 have been installed. The transfer switches for Flares 9 and 10 will be completed as part of the installation project for Flare 10. We estimate completion by August 2013.

According to Response to Item 4, future Flare 10 is anticipated to be located adjacent to Flare 9. Considering the site layout of the refuse disposal cells, rationale should be provided for clustering the new flares within close proximity to each other rather than distributing them throughout the landfill.

Attached please find a letter from Cornerstone Engineering addressing this comment. (Attachment C).

## **12.0 Implementation of Daily Neighborhood Litter Plan, including the newly added route from San Fernando Road to Sierra Highway to Highway 14 overpass (City/County)**

Please see Attachment D for the updated litter plan.

## **13.0 Current and Proposed Cell Development (City/County)**

Republic Services received approval for Addendum D-2 of the Cell CC2/3A Design Report from the Los Angeles Regional Water Quality Control Board for the development of Cell CC-3A, Part 2 on April 5, 2013. Addendum D-2 included a slope stability analysis and soil buttress design to provide the data and rationale for the revised grading of CC-3A, Part 2 that includes leaving the landslide materials beneath the closed City Landfill unit in place and constructing a soil buttress

to provide a 1.5 factor of safety as required by the site's WDRs. Construction activities for CC-3A, Part 2 began the week of April 15, 2013. The scope for construction includes the excavation of 242,000 cubic yards of soil which will be used to construct the soil buttress. Also included in the scope of the project are the installation of shallow and deep subdrain lines, construction of road and drainage facilities. The project is scheduled to be completed by early September 2013. Cell CC-3A, Part 2 will provide an 11 acre lined area.

#### **14.0 Development of Gas-to-Energy Facility (City/County)**

Sunshine Gas Producers, L.L.C. ("SGP") will be the owner and operator of the turbine power plant that will be installed at the Sunshine Canyon Landfill in Sylmar, CA. The project will beneficially use landfill gas as a commercially viable, environmentally friendly energy project, resulting in reduced emissions and contributing to cleaner air for the Los Angeles Basin and generate approximately 20MW of renewable energy. The plant will consist of 5 Solar Mercury turbines at approximately 4.6 MW each. The project is currently near completion of design and has received its Air Permit. The building plans were submitted to the County of Los Angeles in October 2012 and are being reviewed for the issuance of a building permit.

No scheduled construction date has been finalized at this point in time, however it is expected construction will begin in the second quarter of 2013 with full commercial operation in January of 2014. This schedule assumes that the building permitting process with the County of Los Angeles continues without significant delays.

The third party developer, DTE Biomass Energy, received the air permit from SCAQMD in June 2012 and has commenced engineering plans. The building plans will be submitted to the County of Los Angeles for permit review in Q4 2012. Rough grading of the pad was completed in October 2012. An amendment to the landfill's Joint Technical Document was submitted to the LEA in October 2012. Building improvements are projected to start in Q1 2013 with full operation by December 2013.

#### **15.0 Design of Final Cover and Closure Schedule for the County Top Deck (County)**

A report entitled "Alternative Final Cover Evaluation Report, Sunshine Canyon County Landfill" was submitted to the Los Angeles Regional Water Quality Control Board (LA RWQCB) on December 13, 2011. This report presented the findings of the study conducted to evaluate the feasibility of constructing an alternative final cover system proposed for the phased closure of the County portion of the site in accordance with applicable regulations CCR Title 27, Section 21090 (a)). These regulations require that landfill final covers be constructed according to minimum standards; e.g. prescriptive standards. This section of CCR also allows for alternatives to the prescriptive standard as long as the alternative cover meets the requirements of the prescriptive standards.

By letter dated October 8, 2012, the LA RWQCB provided comments on the subject report. Comments have also been received from the SCL LEA and comments were provided to the LA RWQCB from the Los Angeles County Department of Public Works. A meeting with the LA RWQCB has been scheduled to review the comments.

## 16.0 Phase 1 Bypass Road

As currently permitted and shown in the Joint Technical documents (JTD), a new access road will be constructed in 2015. Detail construction plans and visual screen and landscaping plans for the new main access road and drainage will be available for submittal, review and approval by the City of LA in 2014.

The cell located at the southern end of the permitted landfill footprint is designated Cell CC-3B. The Design Report for this cell will include the liner, leachate collection and removal system and drainage systems. This Design Report will also include plans for the permitted front berm (terminal buttress). This design report will be submitted to RWQCB for review and approval in mid-2013, prior to liner, LCRS, and drainage construction in 2014. We expect RWQCB's approval for this design report in late 2013 or early 2014.

Prior to construction of Cell CC-3B in 2014, several temporary paved construction roads are required to be installed to maintain and provide a separate access road to construction areas and to provide safe access for site customers to the landfill's operation areas and for site personnel to the administration area. The temporary paved construction road will be installed west of the existing main access road. This temporary road will be installed from the site entrance gate to the existing scale-house in late 2013 or early 2014. In conjunction with the temporary road construction, appropriate drainage facilities will be installed to ensure drainage to the front terminal basin is maintained.

As is the current practice at Sunshine Canyon Landfill, any disturbed areas within the construction zone will be hydro-seeded and landscaped immediately at the end of any construction stages. We are also working with a landscape architect contractor to provide detailed conceptual drawings of each phase of the front berm development. These plans will depict plans for planting and will be shared with regulatory agencies and the community as appropriate.

By letter dated March 7, 2013, Mr. Wayne Tsuda, SCL LEA Program Manager, reported on the survey the SCL LEA conducted regarding the reviews and approvals that will be required for the construction of the temporary construction road. A copy of this letter is included as an attachment to this report (Attachment E).

Please do not hesitate to contact me at (818) 362-2072 if you have any questions.

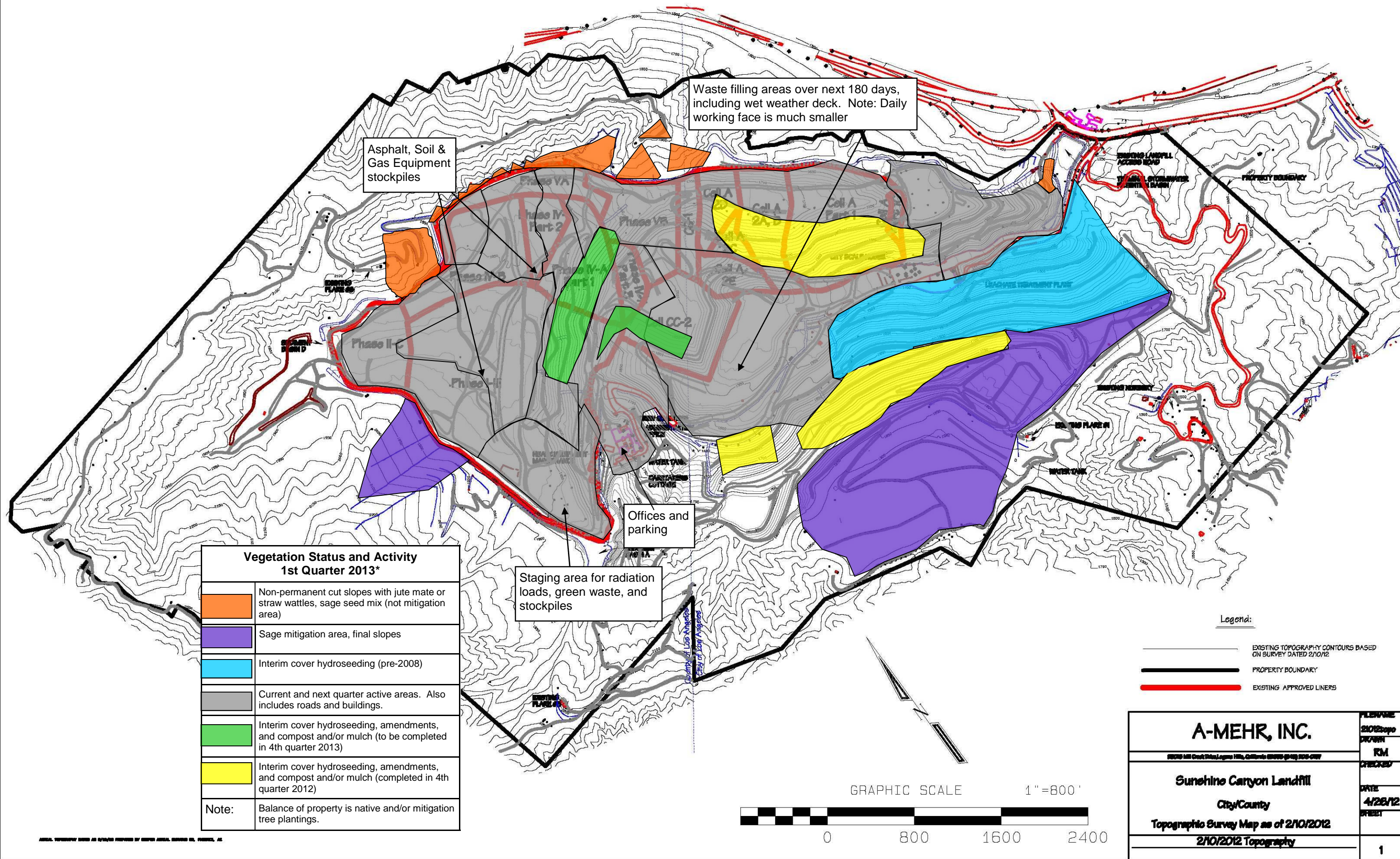
Sincerely,

  
for

Anthony Bertrand  
General Manager  
Sunshine Canyon Landfill

Cc: Ly Lam, City Planning  
Nick Hendricks, City Planning  
Dan Scott, City Planning  
Maria Masis, LA County Regional Planning  
Emiko Thompson, County Department of Public Works  
Wayne Tsuda, SCL LEA, Program Lead  
Cindy Chen, SCL-LEA  
Gerry Villalobos, SCL-LEA  
David Thompson, SCL-LEA  
Becky Van Sickle, Sunshine Canyon Landfill  
Patti Costa, Sunshine Canyon Landfill  
Tim Johnson, Sunshine Canyon Landfill  
Anthony Bertrand, Sunshine Canyon Landfill  
Achaya Kelapanda, Sunshine Canyon Landfill

## **Attachment A**



## **Attachment B**

September 17, 2012

## MEMORANDUM

To: Greg Eklund and Becky VanSickle

From: David Park, Carmen Teng, Lit Chan and Shari Libicki

Subject: 2012 Review Update of Alternative Fuel Technologies  
for Sunshine Canyon Landfill Equipment

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ENVIRON was asked to update the review of potential alternative fuel technologies for heavy-duty landfill equipment used at Sunshine Canyon Landfill. This memorandum provides equipment and alternative technology review updates of the ENVIRON memo dated May 21, 2008 entitled “2008 Review Update of Alternative Fuel Technologies for Sunshine Canyon Landfill Equipment.”

Specifically, the scope of work for this review update was to:

- Gather, review and update current heavy-duty landfill equipment inventory and activity data; and
- Update alternative fuel technology review to reflect the current status of alternative fuel technology or equipment for landfill equipment.

### Review Update on Landfill Equipment

Sunshine Canyon Landfill provided an updated (2012) list of their landfill equipment. The general technical specifications, including fleet average and total engine model year and power are summarized in Table 1. Overview fleet statistics including number, average model year, and average horsepower by equipment type are summarized in Table 2. Annual hours of usage are extrapolated from the 2008 reporting. As shown in these tables, there are a total of 25 units of landfill equipment with a weighted average engine model year of 2003 and average horsepower (hp) of 395 hp. Fleet-wide total horsepower is 9,884 hp, and annual horsepower-hour is 1,018,430 horsepower per hour per year (hp-hr/yr).

Compared to the 2008 landfill equipment inventory, the 2012 inventory has more equipment (25 as compared to 20 units), the fleet is newer (model year 2003 as compared to 2001), higher average horsepower (395hp as compared to 345hp) and more total horsepower (9884 hp in 2012 as compared to 6902 hp in 2008) and high activities in terms of horsepower-hour (1,018,430 in 2012 as compared to 895,117 hp in 2008.) The Sunshine Canyon Landfill 2012 offroad inventory does not include articulated dump trucks (ADTs) or water-pull trucks.<sup>1</sup>

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<sup>1</sup> Sunshine Canyon Landfill has indicated that their water-pull trucks are included in their on-road fleet subject to ARB’s truck and bus regulation. The facility took delivery of an articulated dump truck during calendar year 2012, which will be included in their December 31, 2012 DOORS reporting.  
ENVIRON International Corp. 201 California Street, Suite 1200, San Francisco, CA 94111  
V +1 415.796.1950 F +1 415.398.5812

While ENVIRON was not asked to update the emissions inventory for the 2012 landfill equipment, we performed a rough comparative analysis to estimate emissions impacts due to the changes in the equipment inventory and activities. The rough comparative analysis, based on weighted average horsepower, model year and total usage hours for the equipment fleet, and appropriate California Air Resources Board (ARB) emission factors and load factors, shows that the fleet-wide reactive organic gas (ROG), carbon monoxide (CO) and particulate matter (PM) emissions have increased due to the increase in fleet size and consequent increase in total equipment operating hours, as well as higher revised emission factors for ROG, CO and PM in the ARB's OFFROAD model. However despite this increase in overall increase in fleet activity, nitrous oxide (NOx) emissions are estimated to have decreased by 6% as a result of fleet turnover to newer, lower NOx emitting equipment, and lower revised emission factor for NOx in the ARB's OFFROAD model.

Table 1: General specifications and operation hours for Sunshine Canyon Landfill equipment in 2012.

<b>Equipment Type</b>	<b>EIN</b>	<b>Make</b>	<b>Engine Make</b>	<b>Engine Model</b>	<b>Engine Model Year</b>	<b>HP</b>	<b>Operating Hours (hrs/year)<sup>2</sup></b>
Crawler Tractors	NS3N36	CAT	CAT	3116	1998	110	2833
Crawler Tractors	HG9G49	CAT	CAT	C18	2006	410	2833
Crawler Tractors	TR5E34	CAT	CAT	3408E	2003	410	2833
Crawler Tractors	RF3W33	CAT	CAT	3408E	2004	410	2833
Crawler Tractors	SU3D74	CAT	CAT	3408C	1990	370	2833
Crawler Tractors	HT5W43	CAT	CAT	C9	2009	283	2833
Crawler Tractors	CX7V48	CAT	CAT	C18	2007	401	2833
Crawler Tractors	LF7H56	CAT	CAT	C18	2008	410	2833
Excavators	RF9S74	HITAC HI	CUMMINS	N14	1996	370	2000
Graders	DP9R94	CAT	CAT	C11	2007	275	1500
Compactor	MY4Y73	TEREX	CUMMINS	QSK-19	2001	525	3000
Compactor	CA6F37	TEREX	CUMMINS	QSK-19	2001	525	3000
Compactor	RC4S87	CAT	CAT	C18	2004	481	3000
Compactor	CF6H58	CAT	CAT	C18	2004	499	3000
Compactor	JH6V37	CAT	CAT	3456	2002	475	3000
Compactor	RT6F97	CAT	CAT	C18	2006	499	3000
Compactor	TR6C55	CAT	CAT	C18	2008	544	3000
Compactor	AG5V87	CAT	CAT	C18	2008	544	3000

<sup>2</sup> Usage rates are derived from the 2008 fleet evaluation. Scrapers are assumed to operate similar hours to Graders.

Equipment Type	EIN	Make	Engine Make	Engine Model	Engine Model Year	HP	Operating Hours (hrs/year) <sup>2</sup>
Rubber Tired Loaders	NB7M35	CAT	CAT	3406E	2001	311	2000
Rubber Tired Loaders	UN5F65	VOLVO	VOLVO	TD103K CE	1996	398	2000
Scraper/Front Engine	DJ5W44	CAT	CAT	C18	2007	499	1500
Scraper/Front Engine	CS3V89	CAT	CAT	C18	2007	499	1500
Scraper/Rear Engine	WW7G68	CAT	CAT	C9	2007	283	1500
Scraper/Rear Engine	WK7X88	CAT	CAT	C9	2007	283	1500
Backhoe	SP7W53	CAT	PERKINS	3054	1996	70	1500
<b>FLEET TOTAL</b>						<b>9884</b>	<b>61664</b>
<b>FLEET AVERAGE</b>					<b>2003</b>	<b>395</b>	

Table 2: Summary of Sunshine Canyon Landfill equipment.

Equipment Category	Number	Model Year	Average Power (hp)	Total Power (hp)	Annual Usage (All Equipment)
Crawler Tractors	8	2003	360	2881	22666
Excavators	1	1996	370	370	2000
Graders	1	2007	275	275	1500
Other Construction Equipment	8	2004	512	4092	24000
Rubber Tired Loaders	2	1999	355	709	4000
Scraper/Front Engine	2	2007	499	998	3000
Scraper/Rear Engine	2	2007	283	566	3000
Tractors/Loaders/Back hoes	1	1996	70	70	1500

### Review Update of Alternative Fuel Technologies for Landfill Equipment

In the 2006 report to Sunshine Canyon Landfill and the succeeding May 2008 update memorandum, ENVIRON ranked the landfill equipment as potential candidates for alternative fuel or alternative diesel fuel demonstration based on technical characteristics and technology feasibility or availability, as well as the technical specification and emissions estimates of the landfill equipment. The identified alternative fuel and alternative diesel fuel technologies included natural gas (CNG/LNG), liquefied petroleum gas or propane (LPG), emulsified diesel fuel, biodiesel fuel, and diesel-electric hybridization.

In the previous evaluations, we noted that, other than the proven natural gas and LPG technologies for onroad street sweepers, there were no proven and demonstrated natural gas,

LPG, or electrification technologies for landfill equipment applications. We also noted that the use of biodiesel fuels would reduce PM emissions but it would also increase NOx emissions, and that studies and/or demonstrations were being conducted to reformulate or couple the biodiesel with fuel additive to reduce both the NOx and PM emissions. We also indicated that, while emulsified fuel was verified by ARB to provide about 14% NOx, and 63% PM emission reductions, and could be used for landfill equipment applications, emulsified diesel fuel was commercially unavailable. Our current findings associated with alternative fuel options for Sunshine Canyon Landfill equipment is as follow:

### **Biodiesel Update**

While biodiesel fuels are still recognized as a mitigation technique for greenhouse gases, the ARB currently does not recognize these fuels as verified diesel emission control strategies (VDECS).<sup>3</sup> Unless ARB reverses this decision, biodiesel fuel will not be accepted as an alternative fuel for these purposes.

### **Emulsified Fuel/Fuel Additives Update**

PuriNOx, emulsified diesel fuel, continues to be verified by ARB as a Level 2 VDECS, to provide about 14% NOx, and 63% PM emission reductions; however the emulsified fuel supplier (Lubrizol) has stopped supplying PuriNOx. Thus, the use of emulsified fuel is infeasible as it is currently not available.

Viscon, a diesel fuel additive, was verified by ARB as a Level 1 VDECS on October 19, 2011. This technology is an additive and not an alternative fuel as it is blended with diesel fuel at a 1% Viscon by unit weight, which is not considered a substantial component of fuel. Viscon is a ultra-high molecular weight Polyisobutylene. ARB verifies its use in offroad heavy-duty diesel engines manufactured from 1985 – 1995 at power ratings ranging from 175hp – 300 hp. Viscon is verified by ARB as attaining a 25% reduction in PM emissions with no effect on NOx emissions. As shown in Table 1, only the MY 1990 crawler tractor was older than 1995 model year in the Sunshine Canyon Landfill equipment fleet, and the crawler tractor has a horsepower rating of 370 hp. Thus, the Viscon's fuel additive would not be a verified technology option for the Sunshine Canyon Landfill equipment fleet.

### **Electric Hybrid Offroad Technologies**

The May 2008 update memo indicated that Volvo announced a L220F hybrid wheel loader development program. Volvo North America indicates that currently there are no firm plans for further developing commercial diesel-electric hybrid construction equipment. This segment of equipment development is being discussed internally; however Volvo does not expect to come to a decision on an official corporate strategy for two to five years.<sup>4</sup>

John Deere developed prototype diesel-electric hybrid 644K and 944K wheel loaders, unveiled during ConExpo2011. Deere indicates that the units are currently undergoing product testing and is planning commercial rollout in 2013. Deere is targeting fuel efficiency gains of 15% to

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<sup>3</sup> TRU Advisory: 08-08, Biodiesel, California Air Resources Board, January 2011, [http://www.arb.ca.gov/diesel/tru/documents/advisory\\_08\\_08.pdf](http://www.arb.ca.gov/diesel/tru/documents/advisory_08_08.pdf), downloaded August 24, 2012.

<sup>4</sup> Telephone conversation, D. Park, ENVIRON with Thomas Caster, VP Sales Support, Volvo Construction Equipment NA, 828-650-2000, September 4, 2012.

20% on its 644K and 25% to 30% on its 944K.<sup>5</sup> Deere indicates that the units will “undergo rigorous customer testing and will not be available until it fully meets every customer need.”<sup>6</sup>

Komatsu currently offers a diesel-electric hybrid excavator in the United States, the HB215LC. The rollout of this excavator is understated and not publically advertised. This machine produces 139 hp at the fly wheel. The excavator utilizes an electric swing motor to assist the engine in turning the upper structure of the excavator and operation of the bucket, arm, boom and slew functions. The electric motor acts as a generator during the braking phase of these functions, storing energy in ultra-capacitors. Komatsu claims 20% - 41% fuel savings depending on the application, with maximized fuel savings recognized in predominant slewing duty cycle.<sup>7</sup> Distributors in Southern California, Road Machinery LLC, Perris, CA and Claremont Equipment Company, Escondito, CA indicate that they have units currently available. Komatsu indicates that in Japan, they sold more than 900 units of their first generation diesel-electric hybrid excavator, the PC200-8, by March 31, 2011.<sup>8</sup>

## Natural Gas Technologies

Westport, Caterpillar, and EMD announced June 5, 2012 that they will jointly develop natural gas engine technologies for use in offroad equipment and rail applications.<sup>9</sup> The suggested technology employed will include Westport's natural gas engine high pressure direct injection (HPDI) in the Caterpillar offroad platform. The target projection for commercialization is five years.

## Conclusions

The following summarizes our findings.

- There are demonstrated diesel-electric hybrid technologies for wheel loaders and one excavator from two manufacturers, John Deere and Komatsu, respectively. However only one commercially available diesel-electric hybrid solution is available, the Komatsu HB215LC excavator rated at 129 hp at the flywheel, which is only 35% of the horsepower rating of the excavator used in the Sunshine Canyon Landfill. Thus, the power output of the Komatsu excavator does not appear to meet Sunshine Canyon Landfill's current operation requirements.
- ARB has taken biodiesel off the table as a VDECS recognized technology. Currently biodiesel is only recognized as a greenhouse gas reduction technology.
- One fuel additive has been added to the ARB VDECS verification page, Viscon, which is verified as a Level 1 diesel solution achieving PM reductions of 25%. However, due to the

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<sup>5</sup> VanHampton, T, “How John Deere's New Hybrid Wheel Loaders Get Their Juice,” ENR.com, June 22, 2011, downloaded from <http://enr.construction.com/products/equipment/2011/0627-HowJohnDeeresNewHybridWheelLoadersGetTheirJuice.asp>, August 15, 2012.

<sup>6</sup> John Deere press release, “John Deere Builds Its First Nine-Yard Loader on Customer Suggestions,” Marcy 22, 2011, downloaded from [http://www.deere.com/wps/dcom/en\\_US/corporate/our\\_company/news\\_and\\_media/press\\_releases/2011/construction/2011mar22\\_944kconexpo.page](http://www.deere.com/wps/dcom/en_US/corporate/our_company/news_and_media/press_releases/2011/construction/2011mar22_944kconexpo.page), August 15, 2012.

<sup>7</sup> “Komatsu Hybrid released with understated confidence,” Earthmover & Civil Contractor, downloaded from <http://www.earthmover.com.au/news/print-editions/june-2011/komatsu-hybrid-released-with-understated-confidence>, August 15, 2012.

<sup>8</sup> Komatsu Annual Report, 2011, Interview with Kunio Noji, President and CEO, p. 12, downloaded from <http://www.komatsu.com/CompanyInfo/ir/annual/html/2011/>, August 15, 2012.

<sup>9</sup> “Westport and Caterpillar Announce Agreement to Develop Natural Gas Technology for Off-Road Equipment,” downloaded from <http://www.westport.com/news/2012/westport-and-caterpillar-natural-gas-technology-agreement>, August 24, 2012.

low blend percentage, and its limitations on applicable model year and horsepower ranges, the Viscon fuel additive is not an alternative fuel option for the Sunshine Canyon Landfill equipment.

- Westport/Caterpillar proposes to commercialize natural gas engine technology for offroad applications in approximately five years.
- Fleet-wide emissions for the landfill facility can be reduced merely via fleet modernization with newer, cleaner engines, and improved operation efficiency to reduce fleet-wide equipment usages.

## **Attachment C**



7600 Dublin Boulevard, Suite 200 • Dublin, CA 94568 • (877) 633-5520 • Fax: (925) 560-9879

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April 17, 2013

Mr. Achaya Kelapanda  
Republic Services, Inc.  
Sunshine Canyon Landfill  
14747 San Fernando Road  
Sylmar, CA 91342

Re: Location of Future Flare 10 Adjacent to Existing Flare 9

Dear Mr. Kelapanda:

This letter has been prepared in response to the question posed regarding the location of the proposed enclosed landfill gas (LFG) flare (Flare 10) at the Sunshine Canyon Landfill (SCL) in Sylmar, California. Currently Flare 10 is proposed to be located adjacent to the existing Flare 9, as opposed to another location around the landfill perimeter. A large consideration for this design is the co-location of the flares with the future LFG-to-energy (LFGTE) facility. For the LFGTE project, the majority of the LFG extracted from the landfill is to be brought to the LFGTE plant location. Piping and blowers have been designed and installed in anticipation of the total site flows to the LFGTE plant location. The gas collection and control system (GCCS) and flares have been designed with controls which will allow for automatic adjustments in flow between the LFGTE plant and the flares. This will be done automatically via sensors and the control panel for the combined LFG flares and LFGTE plant blower skid and piping. Since all flow will be coming to the same location and the LFG flow will be controlled automatically, the wellfield will not require manual re-balancing every time an adjustment in flow is made.

If the flares were located remotely from the future LFGTE facility, the landfill would not have the opportunity for automatic switching of flow between the LFG control devices. If the flares and LFGTE plant were not located at the same location, each time flow had to be switched to a flare located away from the LFGTE plant, the flow and vacuum distribution within the piping would change. This could lead to certain areas of the landfill having more vacuum, which could lead to overpull on the wells and potential air intrusion which is a key factor for underground subsurface oxidation. Other areas of the landfill could see lower vacuum when the flows switched to a remote flare, leading to underpull, potentially leading to excess emissions and odors. To combat these potential issues, each time the LFGTE plant flow was switched to remote flares a full wellfield rebalancing would be required. With over 400 wells in the wellfield, this could take weeks if not months. Thus, it would be impractical.

Mr. Achaya Kelapanda

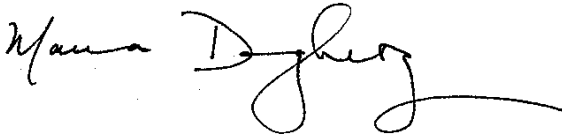
April 17, 2013

Page 2

If you have any questions or need additional information, please contact me at 630-410-7206 or Paul Stout at 630-633-5822.

Sincerely,

Cornerstone Environmental Group, LLC

A handwritten signature in black ink, appearing to read "Maura Dougherty", with a long horizontal flourish extending to the right.

Maura E. Dougherty, P.E.  
Senior Project Manager

A handwritten signature in black ink, appearing to read "Paul Stout", with a horizontal line crossing through the middle of the signature.

Paul J. Stout, P.E.  
Client Manager

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Customer:	REP[UBLIC SERVICES	Acct#	Deliver To:	
Address:	C/O SUNSHINE CANYON LANDFILL		Address:	
City, State:		Zip:	City, State:	SYLMAR, CA
Attention:	GREG EKLUND		Estimated Length of Rental:	1 4-Weeks
E-Mail:		Cell:	Contact:	Phone:
Phone:		FAX:	Delivery Date:	Est Time:

Qty	Size/Description	VAC		Shift Use	Disct.%	Day (0-8 hrs)	Week (0-40 hrs)	4-Weeks (0-160 hrs)	RENTAL NET
2	600 kw Generator	480V	STANDBY	Single	15%	\$1,448	\$4,345	\$13,034	\$13,034
2	800 kw Generator	480V	STANDBY	Single	15%	\$1,868	\$5,603	\$16,811	\$16,811

								<b>Equip. Charges</b>	<b>\$29,845</b>
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Cable/Acc.	Size / Description	Notes	Disct.%	Day	Week	4-Weeks	RENTAL
24	100' ft Cable CAM TO CAM	3 PER PHASE 600KW	15%	N/A	\$1,900	\$2,800	\$2,800
24	100' ft Cable CAM TO CAM	3 PER PHASE 800KW	15%	N/A	\$1,900	\$2,800	\$2,800
		12 PCS PER UNIT					

								<b>Cable/Acc. Charges</b>	<b>\$5,600</b>
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<b>Transportation:</b>	<i>Estimated per Unit:</i>	Est. PM Services (250hr / 500hr intervals)	\$0
Delivery Charges:	\$150/hr (Portal to Portal) TBD	Est. Tech Charges (\$120/hr standard time / \$180/hr overtime)	\$0
Pick up Charges:	\$150/hr (Portal to Portal) TBD	Est. Electrical Hook Up and/or Disconnect	\$0
<b>Total Transport Charges:</b>	<b>\$0</b>	<b>Total Tech Charges:</b>	<b>\$0</b>
*Transport is Portal to Portal based on Location of unit. Two hour minimum charge. \$150/hr charge for After-hours & Weekends.		*Estimated travel time included in above rates are portal to portal. Mileage is not included, and will be charged @ \$1.75 per mile.	

<b>Fuelling:</b>			
<b>Fuel Type:</b> Diesel Red Dye #2	<b>Fuel cost per gallon:</b> \$6.00	Subject to change without notice.	
\$100 charge for deliveries during normal business hours. \$170 charge for After-hours and Weekend deliveries.		<b>Estimated Trans Charges:</b>	<b>\$0</b>

<b>Terms and Conditions:</b>			
Equipment is subject to availability.			
Customer is responsible for all scheduled maintenance. A fee of \$100.00 per hour will be charged for every hour over the scheduled PM service.			
PM Services available upon request @ 250 & 500 hours. Call QPS for rates.			
Services charged at 1.5 times the regular rate will apply after normal business hours.			
Monday through Friday 7:30 am to 4:30 pm.			
Equipment must be called off rent for billing to terminate.			
County and City tax not included in above rates.			
A 14% EPP charge will be applied to the rental rate if an insurance certificate is not on file at the time of delivery.			
A 2% environmental surcharge will be billed on each invoice.			
All offers are contingent upon acceptance of QPS's standard terms and conditions located under "Agreement & Acknowledgment" & "Additional Terms & Conditions" on Rental Agreement.			
Total cost of transportation may vary due to unforeseen delays.			
Note this is not a confirmation of a Rental or a Rental Agreement, but a proposal with estimated figures.			
<b>Please sign, date and fax back to 562-463-7159</b>			
		<b>Estimated Tech Charges:</b>	<b>\$0</b>
		<b>Estimated Fuel Charge:</b>	<b>\$0</b>
		<b>UNITS DEL 200 GALS ONLY</b>	
		<b>14% EPP:</b>	<b>\$0</b>
		<b>CERTS REQUIRED</b>	
		<b>2% Environment Fee:</b>	<b>\$709</b>
		<b>State Tax:</b>	<b>\$3,344.25</b>

<b>Proposal is good for 30 days from date issued!</b>	<b>Estimated Total</b>	<b>\$39,498.36</b>
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Customer Signature -	PO#	Date:
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**Special Instructions:** \* DISCOUNT INCLUDED \*\*

**SUNSHINE CANYON LANDFILL SHALL HAVE ACCESS TO A BACK UP GENERATOR AND CABLE FOR EMERGENCY USE IN CASE OF A PROLONGE**

**POWER OUTAGE AT THE FACILITY TO OPERATE TO OPERATE THE FLARE SYSTEM TO PREVENT MIGRATION/EMMISSION LANDFILL**

**GAS. UNIT MUST BE DELIVERED WITHIN 2-4 HOURS AND HAS ALL AQMD BADGEING.**

**RIGHT OF FIRST REFUSAL - THE UNIT/CABLES CAN BE STAGED AT QUINN POWER SYSTEM FACILITY OR CUSTOMER'S FACILITY.**

## **Attachment D**

**OFF-SITE DAILY NEIGHBORHOOD SURVEY PLAN****SUNSHINE CANYON LANDFILL****REVISED: APRIL 2013**

Sunshine Canyon Landfill personnel will survey specific areas around the landfill every day the site is open for business for purposes of collecting any litter encountered. Litter will be collected in plastic bags and brought back to the site for disposal. All off-site areas survey areas are no more than 1.5 miles from the property boundary of the landfill as required by CUP Condition No. 48. The off-site survey areas are shown on Figure 1. Please note that all the routes include the landfill entrance up to the scalehouse area. This portion of the routes is shown in white on Figure 1.

**SURVEY ROUTES AND PROCEDURES**

The following describes the survey routes to be addressed. It should be noted that due to the high speeds that vehicles travel on San Fernando Road and the lack of sidewalks or a shoulder, only the west side of San Fernando Road will be monitored by site personnel. It is considered un-safe for personnel to walk along the eastern side of San Fernando Road. For all other streets listed below, both sides of the street will be monitored.

1. Monday – O'Melveny Route (Yellow Route on Figure 1)

Two (2) temporary laborers will be dropped off at the entrance to O'Melveny Park on Sesnon Blvd. One laborer will walk on one side of the road and one on the other side of the road along the following route:

- Walk east on Sesnon Blvd. to Balboa Blvd
- Turn left on Balboa Blvd
- Turn left on Balboa Rd
- Turn left (north) on San Fernando Road past the landfill entrance to the Balboa Blvd off-ramp of the I-5 Freeway
- Turn around and walk south on San Fernando Road back to the landfill entrance
- Continue up haul road to scalehouse

This route will be driven by a Sunshine Canyon Landfill spotter and temporary laborer to collect all plastic bags filled during the survey and any bulky items. The plastic bags and bulky items will be taken back to the landfill for disposal.

2. Tuesday – Woodley Route (Red Route on Figure 1)

Two (2) temporary laborers will be dropped off at the intersection of Woodley Ave and Balboa Blvd. One laborer will walk on one side of the road and one on the other side of the road along the following route:

- Walk north on Balboa Blvd.
- Turn left on Balboa Rd
- Turn left (north) on San Fernando Road past the landfill entrance to the Balboa Blvd off-ramp of the I-5 Freeway
- Turn around and walk south on San Fernando Road back to the landfill entrance
- Continue up haul road to scalehouse

This route will be driven by a Sunshine Canyon Landfill spotter and temporary laborer to collect all plastic bags filled during the survey and any bulky items. The plastic bags and bulky items will be taken back to the landfill for disposal.

3. Wednesday – Old Sepulveda Route (Blue Route on Figure 1)

Two (2) temporary laborers will be dropped off at the southernmost end of Old Sepulveda Blvd (Old Sepulveda and Roxford St). One laborer will walk on one side of the road and one on the other side of the road along the following route:

- Walk north on Old Sepulveda Blvd
- Turn left (north) on San Fernando Road past the landfill entrance to the Balboa Blvd off-ramp of the I-5 Freeway
- Turn around and walk south on San Fernando Road back to the landfill entrance
- Continue up haul road to scalehouse

This route will be driven by a Sunshine Canyon Landfill spotter and temporary laborer to collect all plastic bags filled during the survey and any bulky items. The plastic bags and bulky items will be taken back to the landfill for disposal.

4. Thursday – Yarnell Route (Green Route on Figure 1)

Two (2) temporary laborers will be dropped off at the intersection of Yarnell St and Foothill Blvd. One laborer will walk on one side of the road and one on the other side of the road along the following route:

- Walk north on Foothill Blvd

- Turn left on Balboa Blvd and walk south to Balboa Road
- Turn right on Balboa Road to San Fernando Road
- San Fernando Road past the landfill entrance to the Balboa Blvd off-ramp of the I-5 Freeway
- Turn around and walk south on San Fernando Road back to the landfill entrance
- Continue up haul road to scalehouse

This route will be driven by a Sunshine Canyon Landfill spotter and temporary laborer to collect all plastic bags filled during the survey and any bulky items. The plastic bags and bulky items will be taken back to the landfill for disposal.

5. Friday –Old Road/Sierra Highway up to Highway 14 Overpass Route (Orange Route on Figure 1)

Two (2) temporary laborers will be dropped off where Highway 14 crosses over Sierra Highway. The following route will be monitored:

- Walk west then south along Sierra Highway to San Fernando Road
- Turn left (south) on San Fernando Road to the landfill entrance
- Continue up haul road to scalehouse

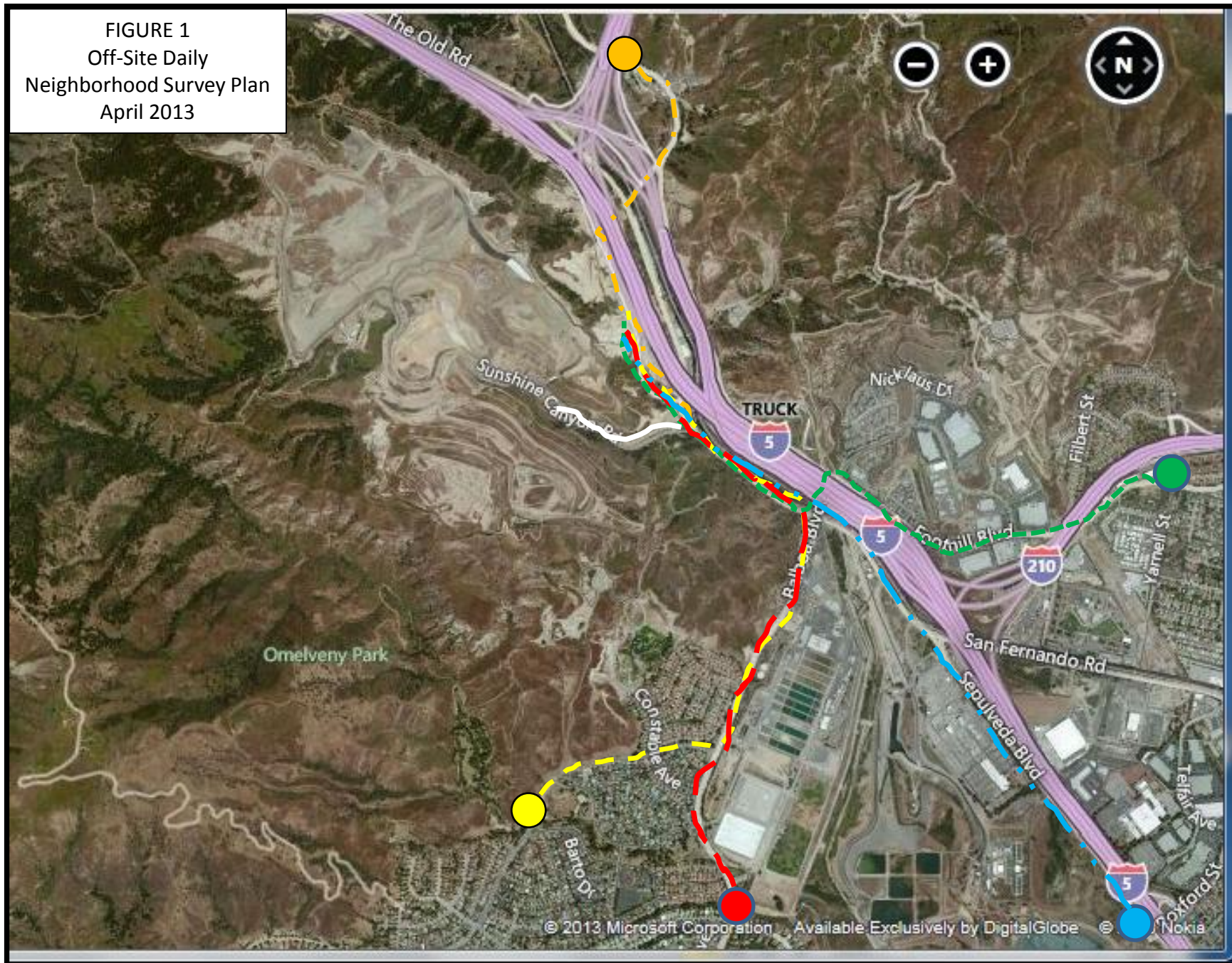
This route will be driven by a Sunshine Canyon Landfill spotter and temporary laborer to collect all plastic bags filled during the survey and any bulky items. The plastic bags and bulky items will be taken back to the landfill for disposal.

**DOCUMENTATION**

The Off-Site Survey Form (see attached) will be completed each day a survey is performed. The completed form will be turned in to a Site Operations Supervisor at the completion of each survey. The forms will be kept in the Operations Supervisor's office in a separate binder labeled "Daily Neighborhood Survey".

Each day a survey is conducted, a Sunshine Canyon Landfill employee will drive each of the survey routes to assess whether any additional litter pick-up is required. This additional patrol will be documented on the Daily Neighborhood Survey form as well as any actions taken as a result of the additional patrol.

FIGURE 1  
Off-Site Daily  
Neighborhood Survey Plan  
April 2013



DAILY NEIGHBORHOOD SURVEY PLAN

FORM A

DAY OF THE WEEK

DATE

SURVEYORS:

TIME OF SURVEY:  
(START TO END)

ROUTE PICKED:

DUST WHEN & WHERE

N/A

ODOR WHEN & WHERE

N/A

WHERE OTHER DAILY ROUTE PATROLLED

YES

NO

DESCRIPTION & AMOUNT OF ITEMS COLLECTED:

MAPS OF AREAS PATROLLED (ON REVERSE)

COMMENTS:

SUPERVISOR SIGN-OFF:

## **Attachment E**

SUNSHINE CANYON LANDFILL



LOCAL ENFORCEMENT AGENCY

14747 San Fernando Road  
Sylmar, California 91324

March 7, 2013

Ms. Becky Bendikson, Chairperson  
Sunshine Canyon Landfill Community Advisory Committee  
11862 Balboa Blvd. #631  
Granada Hills, CA 91344

Dear Ms. Bendikson:

Subject: **Regulatory Review of BFI/Republic Entrance Road**

The SCL LEA has conducted a survey of regulatory agencies as requested by the SCL CAC in the January 10, 2013 meeting and am reporting the results.

**Findings**

The construction of the entrance road will result in an unpaved private, non-dedicated temporary access road that does not have to conform to the review and approval construction standards as a dedicated street.

The entrance road was included as part of the review and approval of the 1998 SEIR for the Sunshine Canyon Landfill by both the City and County of Los Angeles. City and County Planning representatives have indicated that minor changes to the configuration of the access road are not considered a separate "project" and therefore not subject to additional California Environmental Quality Act (CEQA) review. Aesthetic impacts have been considered in the SEIR and no new additional impacts have been identified in the proposed construction project. The proposed entrance road cannot be sited within the 500 yard buffer zone unless it is within the footprint of the approvals in the 1998 SEIR.

A summary of the agencies contacted and findings of the SCL LEA survey can be viewed in Table 1 attached.

Respectfully submitted,

  
Wayne Tsuda, Program Manager  
SCL LEA

Attachment

**TABLE 1**  
**BFI/Republic Access Road**  
**Regulatory Review/Approval Survey**

Agency	Review	Approval	Comments
<b>Local Agencies</b>			
LA City Planning	Yes	No	Review to assess compliance with land use entitlements. Access road included in 1998 SEIR no further review required. Revisions to Exhibits A-1 and A-2 and other updated information may be necessary.
LA City Fire	Yes	Yes	Entrance road to be reviewed for site access by fire vehicles only.
LA Dept. of Building and Safety	No	No	No grading permit required for access roads or operational areas of landfill. Review only if referred by City Planning or SCL LEA program. Permits required for buildings and permanent structures.
LA County Regional Planning	Yes	No	Revisions to Exhibits A-1 and A-2 and other updated information may be necessary.
LA County Dept. of Public Works	Yes	Yes	Review for any impacts to the proposed buttress and access road may have on the overall drainage of the site.
<b>State Agencies</b>			
Regional Water Quality Board	Yes	Yes	Lead agency for review responsibility and approval for landfill liner systems, precipitation and drainage controls and final cover systems.
Local Enforcement Agency	Yes	Yes	Review and approval of all solid waste facility permitted operations and postclosure land uses.
CalRecycle	Yes	Yes	Review and approval of all solid waste facility permitted operations and postclosure land uses.