

May 9, 2013

TO: Members of the Facility & Plan Review Subcommittee  
Los Angeles County Solid Waste Management Committee/  
Integrated Waste Management Task Force

 FROM: Russell Bukoff, Staff

**STAFF REPORT  
UPDATE ON RE-VEGETATION AT SUNSHINE CANYON CITY/COUNTY LANDFILL**

Republic Services, Inc. (Republic) submitted the First Quarter 2013 Vegetation Project Status Report for the Sunshine Canyon City/County Landfill, dated April 30, 2013 (attached). The Status Report is a requirement of Condition 18 of the Finding of Conformance granted to the Landfill by the Task Force on December 18, 2008.

The Status Report provides the progress of re-vegetation projects undertaken during the first quarter of 2013 as well as re-vegetation projects anticipated to be implemented during the second quarter of 2013.

Update on County and City Sides

- Interim areas will be seeded, amended, or mulched in the latter part of 2013 to take advantage of winter rains.
- Weed abatement was completed on a section of the south City area. Republic anticipates performing weed abatement as necessary and when weather permits.

Update on County Side

- Conditions on the County Side sage mitigation area remain unchanged.
- A substantial portion of the County-side mitigation area continues to be bare and problematic for vegetation to become established.

Update on City Side

- In the pilot project area, the vegetation and soil surface layer on the lower deck has been cleared and the soil prepared for planting native vegetation. Soil amendments have been worked into the soil, and the irrigation system is in place.

If you have any questions, please contact me at (626) 458-2186, Monday through Thursday, 7 a.m. to 5:30 p.m.

RWB  
Attach.

# SUNSHINE CANYON LANDFILL



April 30, 2013

Ms. Gail Farber  
Director - County of Los Angeles Public Works  
Integrated Waste Management Task Force  
P.O. Box 1460, 900 South Fremont Street  
Alhambra, CA 91802-1460

***Re: Sunshine Canyon Landfill Status Report, First Quarter 2013***

Dear Ms. Farber,

Please find the quarterly status report for the first quarter of 2013 as required by Condition 18 of the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force Findings of Conformance (FOC) for the Sunshine Canyon Landfill City/County Project dated December 18, 2008.

**A. Progress of City/County Project:**

The site has been operating as a Joint City/County Landfill as of January 2009. Waste acceptance averages were approximately 7,800 TPD (M-F), and 3,000 TPD on (Sat.) as of March 31st. The site is permitted to accept 12,100 TPD maximum daily capacity (M-F).

Month	Non-buried, recyclable and beneficial reuse material (Tons)	Total landfilled material (Tons)
January	11,178.20	187,823.84
February	12,303.96	168,679.02
March	10,268.54	187,146.86

**B. Progress of the site's landscaping activities and Re-vegetation of the permanent slope areas:**

We have enclosed with this report a copy of our "Quarterly Vegetation Project Status Report—First Quarter 2013." This report outlines the vegetation activities for the Second quarter of 2013 and the activities expected to take place in the first quarter 2013.

Copies of the vegetation report have also been provided to the following individuals and departments as of April 30, 2013:

Ms. Emiko Thompson-County of Los Angeles Dept. of Public Works (.pdf only)  
Ms. Ly Lam-City of Los Angeles Department of Planning (.pdf only)  
Ms. Cindy Chen-SCL-LEA (hard copy and .pdf)  
Ms. Maria Masis County of Los Angeles Dept. of Regional Planning (.pdf only)  
Dr. Wen Yang-LA Regional Water Quality Control Board (hard copy and .pdf)

If you have any questions regarding this status report, feel free to contact me at 818-362-2145.

Sincerely,



Becky Van Sickle  
Environmental Compliance Specialist

Cc:

Anthony Bertrand, Republic Services  
Patti Costa, Republic Services  
Emiko Thompson, County DPW  
Cindy Chen, SCL LEA  
Maria Masis, Zoning Permit II Supervisor  
Gerry Villalobos, County DPH  
Dave Thompson, City LEA  
Becky Bendickson, CAC  
Wayde Hunter, CAC

*\*\*\* If you currently receive hard copies of these reports and would like to receive electronic copies instead, please contact me.*

# SUNSHINE CANYON LANDFILL



A REPUBLIC SERVICES COMPANY

April 30, 2013

To:

SCL-LEA – Wayne Tsuda  
County Department of Public Works – Emiko Thompson  
SCL-LEA –Cindy Chen  
City of Los Angeles Planning Department – Ly Lam  
County of Los Angeles Department of Regional Planning – Ms. Maria Masis  
Regional Water Quality Control Board – Dr. Wen Yang  
SCL Community Advisory Committee – Becky Bendikson, chair  
SCL Community Advisory Committee – Wayde Hunter, vice-chair

Subject: Transmittal of First Quarter 2013 Quarterly Vegetation Report,  
Sunshine Canyon Landfill

In accordance with Condition 18B of the Finding of Conformance and condition 44A of the Conditional Use Permit, this summary report presents the status of Sunshine Canyon Landfill's (SCL's) landscaping and hydroseedng activities and revegetation of the permanent slope areas.

This report summarizes activities undertaken in the first quarter of 2013 and projects anticipated to be active in the second quarter 2013.

Please feel free to contact me with any questions at (818) 362-2145 or [BVansickle@republicservices.com](mailto:BVansickle@republicservices.com).

Sincerely,

Becky Van Sickle  
Environmental Compliance Specialist



*Quarterly  
Vegetation Project Status Report*

**1st Quarter 2013**

**SUNSHINE CANYON LANDFILL**  
14747 San Fernando Road  
Sylmar, California 91342  
General Information: (818) 362-2124  
[www.SunshineCanyonLandfill.com](http://www.SunshineCanyonLandfill.com)  
24 hour hotline: (800) 926-0607



**REPUBLIC**  
SERVICES

**Sunshine Canyon Landfill**

**Quarterly Vegetation Report**

**First Quarter 2013**

*Revised 4/30/13*

# Sunshine Canyon Landfill

Quarterly Vegetation Report  
First Quarter 2013

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## **1.0 Introduction**

In accordance with Condition 18B of the Finding of Conformance and Condition 44A of the Conditional Use Permit (CUP), this summary report presents the status of Sunshine Canyon Landfill's (SCL's) landscaping and hydroseeding activities and revegetation of the permanent slope areas. Though operated as one contiguous landfill, SCL has two land use permits, one under the County of Los Angeles' jurisdiction, and one under the City of Los Angeles' jurisdiction.

The vegetation activities covered by this report fall into one of three categories: Sage, Final Landfill Cover, or Interim Planting. Sage planting is typically done on slopes that are at grade and may or may not be part of designated mitigation areas. Final Landfill Cover planting applies to slopes that are at final grade and are not designated a sage mitigation area. Interim planting treatments are primarily for short term dust and erosion control and are used on slopes that will not be disturbed for 180 days or more, but that ultimately will be disturbed.

## **2.0 First Quarter 2013 Activities**

### **2.1 Interim Cover**

In the first quarter of 2013, interim areas on the City and County of the landfill were not seeded, amended or mulched. See Figure 1 in Appendix A.

### **2.2 Final Cover**

The landfill has two areas of final cover that were approved under previous permitting on the City side of the landfill; these are generally referred to as City Unit 1 North and City Unit 1 South. The majority of these areas are part of the future landfill footprint of the currently permitted City/County Landfill. However, a large portion of the area of City Unit 1 South, above the future liner grades, has been designated as a Coastal Sage Mitigation Area (City Sage Mitigation Area).

Areas of final cover that are within the future permitted landfill are occasionally reworked based on surface monitoring for cracks and/or gas emissions as part of our regular maintenance of these areas. During the first quarter of 2013, there were no areas of final cover that were disturbed.

### **2.3 Sage Mitigation**

Prior seeding to the sage mitigation area was completed in the first and second quarter of 2008 in accordance with the 2008 Coastal Sage Scrub And Interim Cover Revegetation Plan. The sage mitigation areas continue to be monitored quarterly. Copies of the monitoring reports from the first quarter of 2013 are provided in Appendix B.

Sunshine Canyon Landfill has contracted with a landscape architect to work with the biologist to develop an effective revegetation plan. The tentative schedule with the new landscape architect is:

- Implementation of the trial area on South City Landfill began in Q1 2013
- Monitor trial area performance Q2 2013 and Q3 2013
- If successful, begin implementation of phased plan in Q4 2013.

## **3.0 Projected Installations, Second Quarter 2013**

### **3.1 Interim Cover**

Pursuant to the CUP Condition 44A, hydroseed vegetation cover is required on any slope or landfill area that is projected to be inactive for greater than 180 days, and the County LEA and the Department of Public Works must be notified of such areas.

Note that construction, contractor delays or rainfall conditions may dictate a change in projected planting schedules at any time. Landfill operational demands may also alter the work areas.

### **3.2 Final Cover**

There are no projected activities for final cover in the first quarter of 2013.

### **3.3 Sage Mitigation**

As mentioned in section 2.3, the sage mitigation areas will continue to be monitored on a quarterly basis.

The sage mitigation pilot program began in the first quarter of 2013 and will be monitored and maintained through 2013. If successful, the phased plan will begin in Q4 of 2013.

## **4.0 Status Update on Other Vegetated Areas**

### **4.1 General**

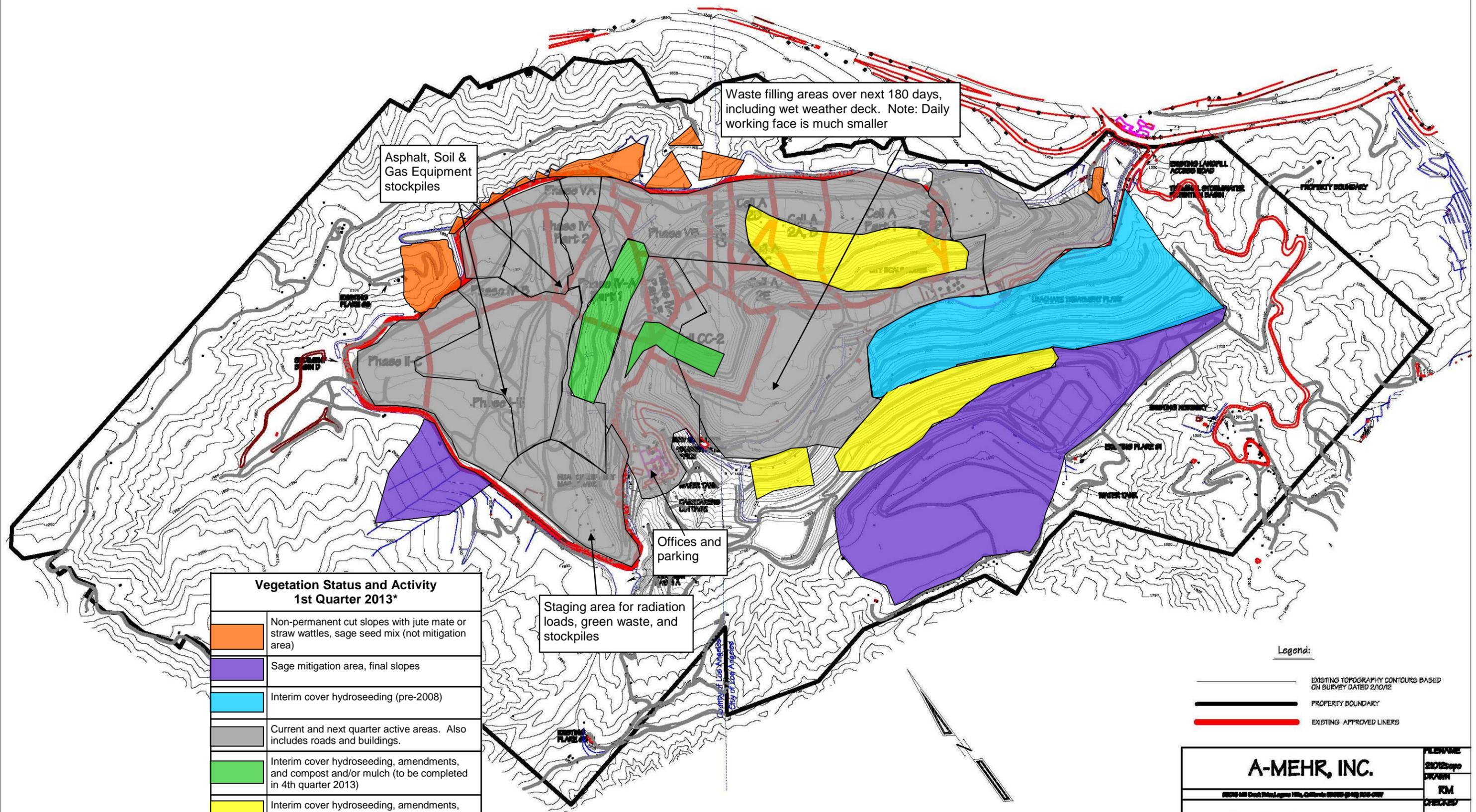
Figure 1 (Appendix A) shows areas of the landfill that have been vegetated with the exception of the active areas, roadways, and areas where buildings are located. Vegetative treatments meet the vegetation plans that were in place at the time plantings were conducted. Current and planned activities are described in previous sections of this report.

# **Sunshine Canyon Landfill**

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Quarterly Vegetation Report  
First Quarter 2013

## **Appendix A**

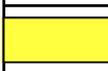


Waste filling areas over next 180 days, including wet weather deck. Note: Daily working face is much smaller

Asphalt, Soil & Gas Equipment stockpiles

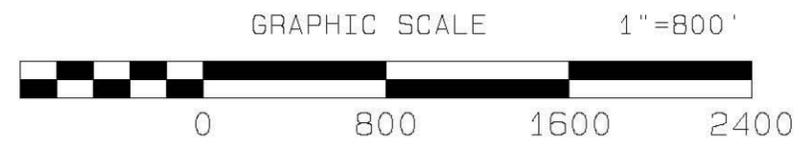
Offices and parking

Staging area for radiation loads, green waste, and stockpiles

Vegetation Status and Activity 1st Quarter 2013*	
	Non-permanent cut slopes with jute mat or straw wattles, sage seed mix (not mitigation area)
	Sage mitigation area, final slopes
	Interim cover hydroseeding (pre-2008)
	Current and next quarter active areas. Also includes roads and buildings.
	Interim cover hydroseeding, amendments, and compost and/or mulch (to be completed in 4th quarter 2013)
	Interim cover hydroseeding, amendments, and compost and/or mulch (completed in 4th quarter 2012)
Note:	Balance of property is native and/or mitigation tree plantings.

Legend:

	EXISTING TOPOGRAPHY CONTOURS BASED ON SURVEY DATED 2/10/12
	PROPERTY BOUNDARY
	EXISTING APPROVED LINERS



<b>A-MEHR, INC.</b>		PREPARED BY 2/10/12 Topo DRAWN RM
Sunshine Canyon Landfill		CHECKED
City/County		DATE 4/26/12
Topographic Survey Map as of 2/10/2012		SHEET
2/10/2012 Topography		1

AREAL TOPOGRAPHY BASED ON SURVEY PROVIDED BY SUNSHINE CANYON LANDFILL, SUNSHINE CO., CALIFORNIA

# **Sunshine Canyon Landfill**

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Quarterly Vegetation Report  
First Quarter 2013

## **Appendix B**



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# SUNSHINE CANYON LANDFILL MITIGATION SITES

## Progress Report

### City-Side Sage Mitigation Area

<b>Submittal Date:</b> April 17, 2013	<b>Inspection Date:</b> April 11, 2013
<b>To:</b> Becky VanSickle and Anthony Bertrand	<b>From:</b> Greg Ainsworth, Monitoring Biologist <i>*Prepared on behalf of Republic Services</i>
<b>STATUS OF HYDROSEEDING</b>	
<p><b>Conditions:</b>  <input type="checkbox"/> Fully covered                      <input type="checkbox"/> Moderately covered                      <input checked="" type="checkbox"/> Barely covered</p>	
<p><b>Comments:</b></p> <p>Lower Deck: In the fall of 2012, the vegetation at the lower deck was cleared and the soil scraped and stockpiled. The area was recently disked and cleared of all vegetation for preparation of revegetation of native plants. The western-most portion of the lower deck has also been prepared for planting. This area was previously heavily compacted and gravelly.</p> <p>Middle Deck: The middle deck remains to be in similar condition as prior monitoring visits. Evidence of hydroseeding is no longer discernible.</p> <p>Upper deck: Overall, the upper deck continues to be sparsely covered with native vegetation, and vegetation in general is sparse due to compacted and poor soil conditions. Specifically, the soils to the north of the central access road are heavily compacted and gravelly and vegetation coverage in this area is sparse. Evidence of hydroseeding is no longer discernible.</p> <p>The slopes between the upper deck and middle deck are heavily dominated with annual, non-native grasses and forbs, including mustard, wild oat (<i>Avena fatua</i>) and brome grasses. Evidence of hydroseeding is no longer discernible.</p> <p>Germination, growth and recruitment of native species on the middle and upper deck, as well as the slopes have been inhibited by poor soil conditions and resource competition from non-native, annual species.</p>	



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## Progress Report

### City-Side Sage Mitigation Area

SEED MIX			
<b>Conditions:</b>			
<input type="checkbox"/> No sign of germination		<input type="checkbox"/> Dense cover of native plants from seed mix	
<input type="checkbox"/> No cover of native plants from seed mix		<input type="checkbox"/> Moderate cover of native plants from seed mix	
<input checked="" type="checkbox"/> Sparse cover of native plants from seed mix			
<b>Comments:</b>			
Evidence of seed mix coverage is no longer discernible.			
Non-native weed species dominate vegetation throughout the city-side sage mitigation area. Small stands of native shrubs on the middle and upper decks and the adjacent slopes remain established, however, evidence of regeneration of native species is limited. Although average height and spread of native shrubs is higher on the middle and upper deck, non-native understory grasses and areas of gravelly, compacted soils inhibit natural recruitment of native species.			
OVERALL NATIVE PLANT CONDITIONS			
<b>Plant Cover:</b>	<b>Plant Health</b>	<b>Height:</b>	<b>Species Richness:</b>
<input type="checkbox"/> Dense	<b>Issues:</b>	<input type="checkbox"/> 0" – 12"	<input checked="" type="checkbox"/> Low
<input type="checkbox"/> Moderate	<input type="checkbox"/> Disease/pests	<input type="checkbox"/> 12" – 24"	<input type="checkbox"/> Medium
<input checked="" type="checkbox"/> Minimal	<input type="checkbox"/> Plant stress	<input checked="" type="checkbox"/> 24" and above	<input type="checkbox"/> High
	<input type="checkbox"/> Excessive herbivory		
<b>Comments:</b>			
Lower Deck: The vegetation and soil surface layer at the lower deck has been cleared and the soil prepared for planting native vegetation. Soil amendments and on-grade irrigation was being installed during the inspection. No vegetation is currently present.			
Middle Deck: Currently, approximately 70% of the vegetated areas within the middle deck and approximately 75% of the vegetated areas within the upper deck continue to be dominated by non-native herbaceous species. The middle deck of the city-south sage mitigation area has a decent native species mixture of California buckwheat, black sage ( <i>Salvia mellifera</i> ), purple needlegrass ( <i>Nessella pulchra</i> ), California sagebrush, and chamise ( <i>Adenostoma fasciculatum</i> ). The city-side upper deck contains some contiguous stands of buckwheat and sagebrush, however the majority of the upper deck is dominated by non-native grasses and compacted soil. Currently, annual non-native brome grasses ( <i>Bromus</i> sp.), wild oats ( <i>Avena fatua</i> ), shortpod mustard ( <i>Hirshfeldia incana</i> ), and Russian thistle ( <i>Salsola kali</i> ). See "Weed Conditions" for a list of other common species observed within the city-side mitigation area.			



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As noted in previous monitoring reports, the dense layer of (annual) non-native vegetation throughout the city-side mitigation area is generally suppressing recruitment and regeneration of native species.

### WEED CONDITIONS

<b>Conditions:</b> <input checked="" type="checkbox"/> Dense weed coverage <input type="checkbox"/> Moderate weed coverage (seeding in high density) <input type="checkbox"/> Minimal weed coverage	<input checked="" type="checkbox"/> Weeds germinating /vegetative growth <input type="checkbox"/> Weeds flowering <input type="checkbox"/> Weeds setting seed <input type="checkbox"/> Weed desiccant/dormant
--	--

**Comments:**  
 In general, where vegetation is present, herbaceous non-native species dominate the vegetation cover. The most common annual weeds currently dominating the vegetation cover include lambs quarter, common knotweed, wild oats, brome grasses, red-stem fillaree (*Erodium cicutarium*), shortpod mustard, rattail fescue (*Vulpia myuros*), and Russian thistle. New sprouts of most of these noxious species are currently evident. These non-native grasses and weeds are suppressing recruitment and germination of native species. Perennial non-natives are also present in small quantities, mostly along the slopes between the upper and middle decks, including tree tobacco (*Nicotiana glauca*) and castor bean (*Ricinus communis*).

### MISCELLANEOUS

**Conditions:**

<input type="checkbox"/> Trash	<input type="checkbox"/> Vandalism	<input type="checkbox"/> Erosion
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**Comments:**  
 None

### RECOMMENDATIONS

Revegetation efforts are currently underway at the lower deck. The following recommendations apply to the middle and upper decks.

- **Improve root zone and soil conditions.** Continue to investigate ways to import the soil layer to improve the root penetration and saturation zone to enable plant growth in heavily compacted areas. Consider applying soil in random undulations or uneven mounds to improve soil porosity and filtration and to control soluble salts from leaching from existing layer.

If permissible, prior to seeding (broadcast, hydroseeding, or drilling) native species, incorporate a soil amendment or mulch with high organic content by tilling into the top 12 inches of the existing compacted soils to improve soil texture, drainage, porosity, and aerobic conditions. If an organic mulch or soil amendment is not feasible or available, incorporate available soil from on-borrow sites within the landfill that have the appropriate, so long as these borrowed soils have been determined to not have toxic conditions such as boron or high salinity.



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• **Plant Natives in Areas Dominated with Non-natives.** The vegetated areas on the lower and middle deck that are currently dominated with annual, non-native species have decent soil conditions. These areas are not near as compacted as adjacent areas that are gravelly and mostly void of vegetation. In general, the soil texture within the vegetated areas with non-native vegetation is friable down to approximately 8-12 inches in depth. Various planting methods (i.e., planting container plants and hydroseeding) may be used to re-establish native plants on the middle and upper decks where non-natives currently dominate. A temporary irrigation source would aid in establishing container plants and a consistent weed abatement program is important to control non-native species so that native can thrive and regenerate.

• **Weed control.** Implement a year-round weed control program to control non-native species. The weed control program should incorporate both chemical and mechanical control practices. Following weed control, any dead material harboring seeds should be removed to an off-site location to the extent feasible.

A monitoring biologist should be present during weed control activities or flag the native plants that should remain to ensure only non-native species are removed. A biologist should verify that the weed removal methodology is sound and does not encourage re-colonizing of non-natives. Weeding is best performed just before, or at the onset of flowering, but before seed set. If seeds are already present, additional care should be taken to remove the plants with the seeds attached, or the seeds should be removed from the plants prior to the plant removal. A consistent weed abatement schedule will reduce the potential for non-natives to set seed. Soil disturbance should be limited by hand weeding, where possible, and weeds should be disposed of off-site to avoid any reinfestation through reseeding or from plant propagules. If hand weeding is not possible, the monitoring biologist should be consulted regarding the appropriate method of weed removal. If there continues to be high incidence of weed infestation, weed control may need to be increased to every four to six weeks. Otherwise, weeds should continue to be monitored and controlled on a quarterly basis.

• **Reseeding.** Following the application of soil mounds as previously described, apply native seed (by means of broadcast seeding, hydroseeding or drilling) during the 2013 rain season, between February and March.

• **Prohibit access.** Continue to prohibit vehicle access to mitigation areas.

• **Employee awareness.** Conduct an employee awareness program to inform staff on the importance of preserving all restoration areas.



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## Progress Report

### City-Side Sage Mitigation Area

#### Photo Locations





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## Progress Report

### City-Side Sage Mitigation Area



**Photo 1. Facing west at lower deck. This area was recently disked for planting sage scrub vegetation. Crews were installing temporary irrigation during the inspection.**



**Photo 2. Facing east at lower deck where sage scrub is soon to be planted.**



**Photo 3. Facing east at middle deck with lower deck visible in background. View of non-native and native plant composition. Natives visible in this photo primarily include buckwheat and non-natives include desiccant and new sprouts of shortpod mustard and other annual, non-natives of including brome grasses.**



**Photo 4. Facing northwest at slope between upper and middle decks. Buckwheat is evident in the foreground and new sprouts of annual, non-native are evident throughout these slopes. Brome grasses and mustard have created a mat that is making it problematic for regeneration of native species to occur.**



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## Progress Report

### City-Side Sage Mitigation Area



**Photo 5.** Facing northeast at upper deck. The area shown in this photo consists of compacted and gravelly soils. New sprouts of annual, non-native grasses dominate the vegetative cover in the background.



**Photo 6.** Facing southwest at upper deck. The area shown in this photo is dominated by brome grasses and bare ground.



**Photo 7.** Facing southwest at upper deck. This area has the greatest amount of vegetation, including establishment of native species, mostly buckwheat. Desiccant mustard plants and brome grasses are visible in the foreground.



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# SUNSHINE CANYON LANDFILL MITIGATION SITES

## Progress Report

### County-Side Sage Mitigation Area

<b>Submittal Date:</b> April 17, 2013	<b>Inspection Date:</b> April 11, 2013
<b>To:</b> Becky VanSickle and Anthony Bertrand	<b>From:</b> Greg Ainsworth, Monitoring Biologist <i>*Prepared on behalf of Republic Services</i>
<b>STATUS OF HYDROSEEDING</b>	
<b>Conditions:</b> <input type="checkbox"/> Fully covered <input type="checkbox"/> Moderately covered <input checked="" type="checkbox"/> Barely covered	
<b>Comments:</b> <p>Condition on the county-side sage mitigation area remain unchanged. Areas that are moderately covered with vegetation are concentrated. A substantial portion of the county-side mitigation area continues to be bare and problematic for vegetation to become established.</p> <p>Native plant coverage is similar to the October 2012 monitoring period. Only the lower southern quarter of the mitigation area contains vegetated areas, which are majority native shrubs (e.g., CA buckwheat). The native plant coverage is assumed to be a direct result of hydroseeding and little natural recruitment is discernable. Due to rocky (hydrophobic) soil conditions and soil erosion, minimal plant growth continues to exist on the northern half of the county-side mitigation area and along the upper slopes.</p>	
<b>SEED MIX</b>	
<b>Conditions:</b> <input type="checkbox"/> No sign of germination <input type="checkbox"/> No cover of native plants from seed mix <input type="checkbox"/> Sparse cover of native plants from seed mix	<input type="checkbox"/> Dense cover of native plants from seed mix <input checked="" type="checkbox"/> Moderate cover of native plants from seed mix
<b>Comments:</b> <p>Similar to the hydroseeding, areas that are moderately covered with vegetation are concentrated. A substantial portion of the county-side mitigation area continues to be bare and problematic for vegetation to become established.</p> <p>Germination and plant growth from hydroseeding or seed mix is not discernible. Similar to the last monitoring period (October, 2012), a moderate cover of native plants exists within vegetated areas. New sprouts of annual non-native grasses and forbs currently dominate the understory and serve as ground cover in most of the vegetated areas. Non-native species with visible vegetative growth currently comprise approximately 25 percent of the cover. California</p>	



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buckwheat (*Eriogonum fasciculatum*) dominates the native vegetation with California sagebrush (*Artemisia californica*) and California sunflower (*Encelia californica*) are co-dominants. Together, these three species comprise of approximately 75 percent of the total vegetation cover (in areas where vegetation is present). Other (less dominant) native species observed include golden bush (*Ericameria linearifolia*), coyote brush (*Baccharis pilularis*), black sage (*Salvia millifera*), laurel sumac (*Malosma laurina*) and a cluster of arroyo willow (*Salix lasiolepis*) tree continue to thrive along the v-ditch that extends east-west through the center of the mitigation site.

**OVERALL NATIVE PLANT CONDITIONS**

<b>Plant Cover:</b> <input type="checkbox"/> Dense <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Minimal	<b>Plant Health Issues:</b> <input type="checkbox"/> Disease/pests <input type="checkbox"/> Plant stress <input type="checkbox"/> Excessive herbivory	<b>Height:</b> <input type="checkbox"/> 0" - 12" <input checked="" type="checkbox"/> 12" - 24" <input type="checkbox"/> 24" and above	<b>Species Richness:</b> <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High
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**Comments:**  
 Vegetation cover is moderate in the southern, lower half of the county-sage mitigation area. The majority of the northern and upper portions of the mitigation area continue to have minimal coverage. Bare areas mixed with non-native annual grasses are intermixed; however, the northern and upper areas continue to be bare with some erosion present. Native vegetation continues to be more exposed than non-native species and remains well established where growth is evident. California buckwheat dominates the native establishment in vegetated areas and *Encelia californica* is a co-dominant and in full bloom. Bare areas are a direct result of rocky, soils with poor structure, as well as born toxicity which make seed germination difficult. Native plants in vegetated areas are also patchy due to poor soil quality. The species richness is medium within vegetated areas; however, species richness is considered low when considering the entire county-sage mitigation area.

**WEED CONDITIONS**

<b>Conditions:</b> <input checked="" type="checkbox"/> Dense weed coverage <input checked="" type="checkbox"/> Moderate weed coverage (seeding in high density) <input type="checkbox"/> Minimal weed coverage	<input type="checkbox"/> Weeds germinating <input type="checkbox"/> Weeds flowering <input type="checkbox"/> Weeds setting seed <input checked="" type="checkbox"/> Weed desiccant/dormant
---	---

**Comments:**  
 New sprouts of annual, non-native weed species consist primarily of brome grasses (*Bromus* sp.), shortpod mustard (*Hirschfeldia incana*), and wild oats (*Avena fatua*). Other weeds that were observed include annual, non-natives such as red-stemmed filaree (*Erodium cicutarium*) and (native) telegraph weed (*Heterotheca grandiflora*). Russian thistle (*Salsola kali*) and tree tobacco (*Nicotiana glauca*) are also scattered, but at less densities.

**MISCELLANEOUS**

<b>Conditions:</b> <input type="checkbox"/> Trash <input type="checkbox"/> Vandalism <input type="checkbox"/> Erosion
--

**Comments:**



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None

## RECOMMENDATIONS

- Consider creation of benches throughout the mitigation area to control soil erosion and to improve soil conditions to improve plant establishment and seed dispersal. This technique has been widely used on steep slopes and in areas where soil erosion is problematic. This technique also allows for opportunities to introduce a high quality soil layer above the poor soils that exist.
- If creation of benches is feasible, planting methods should include Hydroseeding and broadcast seeding just before a forecasted rain event and planting with container plants with supplemental irrigation during the period of establishment. Container plants should only be planted if temporary irrigation source is available.
- Consider planting native species on upper portion of the slope that is visible from public view sheds with appropriate native species. Planting should occur prior to fall/winter rains.
- Incorporate a soil amendment or mulch with high organic content in select areas as determined by a restoration specialist.
- Install signs indicating that the area is undergoing revegetation.
- Continue weed control program as needed on a quarterly basis.
- **Prohibit access.** Continue to prohibit vehicle access to mitigation area. Extend fencing around southeastern and southern boundary of lower deck and review fencing on the upper deck to determine if additional area can be reasonably enclosed.
- **Employee awareness.** Conduct an employee awareness program to inform staff on the importance of preserving all restoration areas.



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## Progress Report

### County-Side Sage Mitigation Area

#### Photo Locations





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## Progress Report

### County-Side Sage Mitigation Area



Photo 1. Facing west at established coastal sage scrub on "County sage hill". Vegetation dominated with buckwheat and California sunflower (*Encelia californica*). *E. californica* can be seen in flower in this photo. Annual, non-native grasses and forbs dominate the ground cover.



Photo 2. Facing southwest at coastal sage scrub dominated with California buckwheat. Southern-most area of steep slopes continues to remain mostly bare.



Photo 3. Facing west at bare slope on "County sage hill". Plant growth remains to be problematic due to erosion and a hard soil layer.

## Sunshine Canyon Landfill

Quarterly Vegetation Report  
First Quarter 2013

### SCL Comments and Responses to Sage Monitoring Reports:

1. Weed Control: Weed abatement was completed on a section of the south city area. The site anticipates continuing to perform weed abatement activities as necessary and when weather permits.

2. Re-Vegetation Plan:

Sunshine Canyon Landfill has contracted with a landscape architect to work with the biologist to develop an effective revegetation plan. The tentative schedule with the new landscape architect is:

- Implementation of the trial area on South City Landfill began in Q1 2013
- Monitor trial area performance Q2 2013 and Q3 2013
- If successful, begin implementation of phased plan in Q4 2013.

3. Access and Employee Awareness: The site continues to instruct current and new employees, and contractors to stay out of the mitigation areas. As mentioned in previous reports, there are "sensitive habitat" signs posted throughout the mitigation area.

# **Sunshine Canyon Landfill**

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Quarterly Vegetation Report  
First Quarter 2013

## **Appendix C**



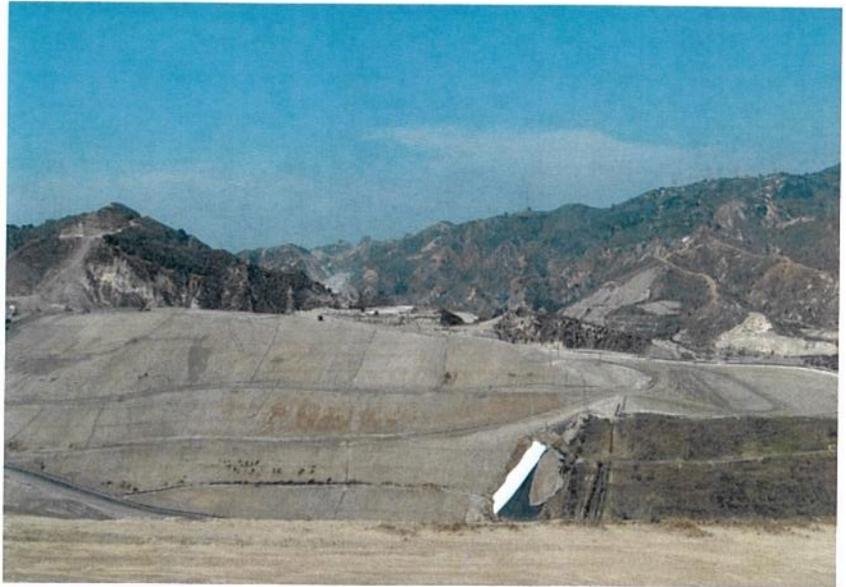
1—County Sage Slope



2—County Deck (facing south)



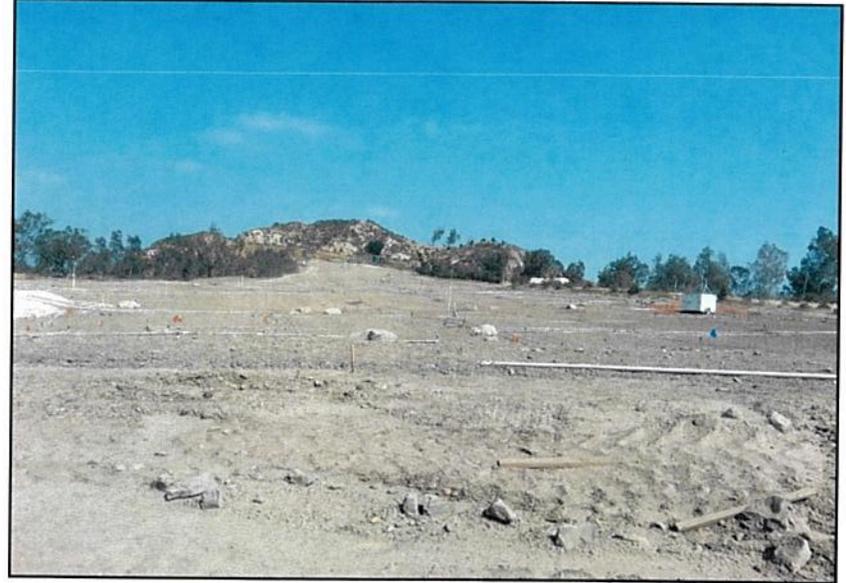
3—County Deck (facing east)



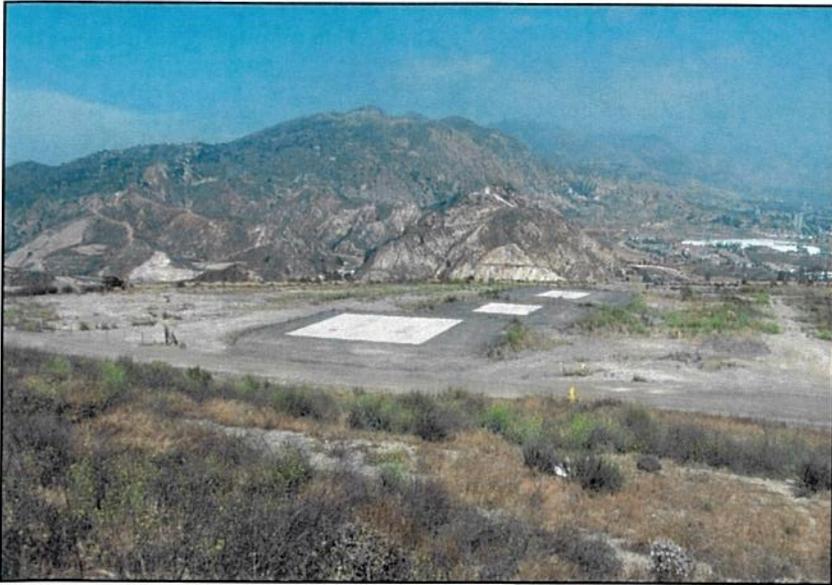
4—City (north facing east)



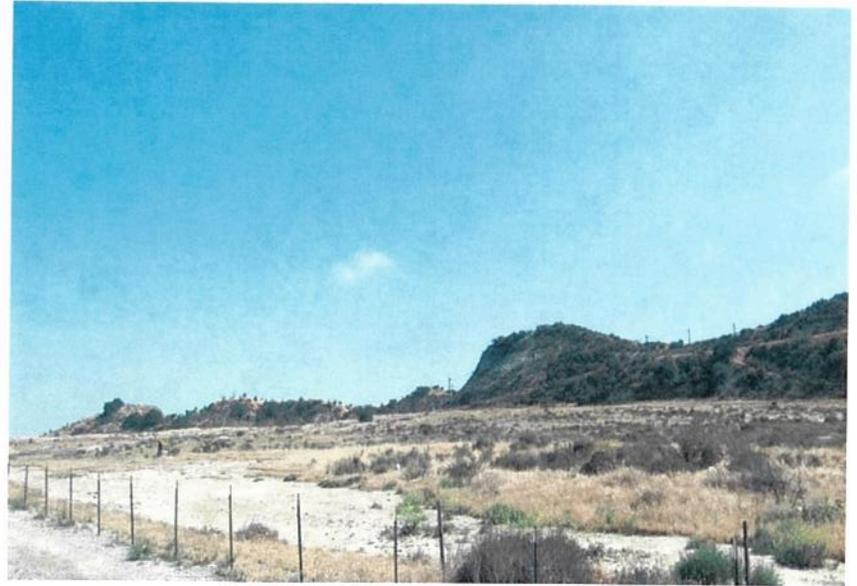
5—City (facing west)



6—City (south lower deck facing south)



7—City (south near helipads/middle deck)



8—City (south upper deck)