SUNSHINE CANYON LANDFILL

A REPUBLIC SERVICES COMPANY

October 29, 2010

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, 3rd Quarter 2010

Dear Ms. Farber,

Please find the quarterly status report for the third quarter of 2010 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 just over 9,000 tons per day TPD (M-F), and less than 3,000 TPD (Sat.) as of September 30th. 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)
July	20,296.62	212,431.41
August	19,077.07	209,640.74
September	14,879.92	202,328.73

14747 San Fernando Rd., Sylmar, CA 91342 (818) 833-6500 Office (818) 362-5484 Fax

B. <u>Progress of the site's landscaping activities and RE-vegetation of the permanent slope areas:</u>

We have enclosed with this report a copy of our "Quarterly Vegetation Project Status Report–Third Quarter 2010." This report outlines the vegetation activities for the 3rd quarter of 2010 and the activities expected to take place in the 4th quarter 2010.

In general, the site continues to comply with the County CUP Condition 44 which requires the site to vegetate areas that will remain inactive for greater than 180 days. Sage Mitigation areas on permanent slopes continued to be monitored and maintained.

Copies of the vegetation report have also been provided to the following individuals and departments as of October 29, 2010:

Ms. Emiko Thompson-County of Los Angeles Dept. of Public Works (.pdf only)
Mr. Stefan Klemm-C2Rem (hard copy only)
Ms. Ly Lam-City of Los Angeles Department of Planning (.pdf only)
Mr. Wayne Tsuda-SCL-LEA (hard copy and .pdf)
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 818-833-6500.

Sincerely,

Becky Van Sickle
Environmental Compliance Specialist

Cc:

Emiko Thompson, County DPW
Linda Lee, County DPW
Larry Hafetz, County Counsel
Becky Van Sickle, Republic Services
Patti Costa, Republic Services
Linda Lee, County DPW
Rafael Garcia, Republic Services
Maria Masis, Zoning Permit II Supervisor
Carlos Ruiz, County DPW
Gerry Villalobos, County DPH
Cindy Chen, SCL LEA
Dave Thompson, City LEA
Becky Bendickson, 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

October 18, 2010

To:

SCL-LEA –Cindy Chen
County Department of Public Works – Emiko Thompson
County Department of Public Works – Linda Lee
City of Los Angeles Planning Department – Ly Lam
Regional Water Quality Control Board – Dr. Wen Yang
SCL Community Advisory Committee – Becky Bendikson, chair
SCL Community Advisory Committee – Wayde Hunter, vice-chair
C2Rem – Stefan Klemm

Subject: Transmittal of 3rd Quarter 2010 Quarterly Vegetation Report, Sunshine Canyon Landfill

Sunshine Canyon Landfill is pleased to provide the attached quarterly report on vegetation activities occurring at the landfill. The report summarizes revegetation projects undertaken in the third quarter of 2010and projects anticipated to be active in the fourth quarter 2010.

We are providing this report for your information. If you do not wish to receive the report in the future, please contact us and we will remove you from the distribution list. Please feel free to contact me with any questions.

Sincerely,

Becky Van Sickle

Becky Van Sickle
Environmental Compliance Specialist

14747 San Fernando Rd., Sylmar, CA 91342 (818) 833-6500 Office (818) 362-5484 Fax

Quarterly Vegetation Project Status Report

3rd Quarter 2010

SUNSHINE CANYON LANDFILL
14747 San Fernando Road
Sylmar, California 91342
General Information: (818) 833-6500
www.SunshineCanyonLandfill.com
24 hour hotline: (800) 926-0607

SUNSHINE CANYON *Landfill*

REPUBLIC SERVICES

Sunshine Canyon Landfill

Quarterly Vegetation Project Status Report

Third Quarter 2010

Revised 10/18/2010

Table of Contents

1.0 Introduction and Executive Summary

This summary report has been prepared in order to keep interested parties informed of Sunshine Canyon Landfill's (SCL's) ongoing vegetation projects. Though operated as one contiguous landfill, SCL has two land use permits, one from the County of Los Angeles' jurisdiction, and one from the City of Los Angeles' jurisdiction.

Typically the planting projects 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 area at final grade that are not designated a sage mitigation area. Interim planting treatments are primarily for short term dust and erosion control and are used on to slopes that will not be disturbed for 180 days or more, but that ultimately will be disturbed.

SCL is committed to taking the best approach possible to its planting projects. In the Fall of 2007, SCL interviewed multiple potential expert consultants to assist with vegetation specifications. After an extensive review process, The Chambers Group Inc. (Chambers) was retained for their technical expertise and restoration experience. To date, Chambers has prepared detailed master plans for sage and interim planting. The document "Coastal Sage Scrub and Interim Cover Revegetation Plan for Sunshine Canyon County Landfill" (Chambers, 1/08) is available upon request. In the Fall of 2009, the primary vegetation specialist from Chambers, Dr. Ted St. John, was hired by the company AECOM. SCL has then retained AECOM for vegetation consultation, in order to continue working with Dr. St. John.

Recently, SCL switched to ESA for routing vegetation monitoring. ESA will continue to consult with Dr. Ted St. John as needed. See section 5.1 for qualification of vegetation experts.

SCL does additional work with tree planting both on and offsite. Examples of this include oak tree planting, or restoration of vegetation in fire damaged areas off the landfill footprint. This work is described in separate reports and will not be addressed in this document.

2.0 Work Underway, 3rd Quarter 2010

2.1 Interim Cover

In the third quarter of 2010, interim areas on the City and County Side of the landfill were seeded, amended and mulched by SCL staff. The seed mix and amendments from Chambers' 1/08 plan and mulch were used.

The site seeded, amended and mulched the areas shown in pink (see map in Appendix A) on the City and County side in July – August 2010, with the exception of one area that is close to the City-County boundary line, that was only seeded (pink/yellow-checker). This is currently being amended and mulched (October 2010). The areas shown in green were seeded, amended and mulched again during the 3rd Quarter 2010.

Project areas are shown on the map 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 that is above the future liner grades has been designated as a Coastal Sage Mitigation Area (City Sage Mitigation Area) and therefore the work is discussed in Section 2.3 below. At present there are portions of the site nearing final cover elevations and these are discussed further in section 3.2. Work for these areas will be proposed in future vegetation reports.

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. If the cover is disturbed as part of this kind of activity, the site will hydroseed and mulch the area to encourage growth and reduce erosion.

2.3 Sage Mitigation

As previously discussed in the 2nd Quarterly Vegetation Report of 2010, the County Sage Slope test plots and salt-tolerant potted plants studies are still active and on-going.

The sage mitigation areas are currently being monitored quarterly. Copies of the monitoring reports from the third quarter of 2010 are found in Appendix C.

3.0 Projected Installations, 3rd Quarter 2010

3.1 Interim Cover

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

The site is projecting that the areas shown in yellow (see map in Appendix A) on the City and County side are the only unvegetated slopes that will be inactive for greater than 180 days. In the 4th quarter of 2010 these slopes will be seeded, amended and mulched per Chambers' 1/08 plan. As stated above, the area shown in pink/yellow-checker, on the City Side, has already been seeded, and will be amended and mulched in the 3rd Quarter 2010.

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

Pursuant to CUP Condition 44B, SCL is entering the preliminary planning phase for partial closure because waste is anticipated to be placed within 10 feet of the horizontal or vertical limits of fill in the northwestern corner of the landfill. These locations were shown on the Fill Sequencing Plan provided in the 2nd Quarter 2010 Vegetation Report. The areas outlined are expected to undergo significant settlement over the next few years and the area also to be the anticipated location of a stockpile (below final grades) to speed the settlement and for use as cover and final cover soils. The area is not anticipated to be officially at closure elevation for several years.

The site plans to propose an alternative cover design for the area to be closed. The proposed design is anticipated to be similar to the design that was approved in January 2009 for City Unit 1, North and South with minor modifications. The modifications the site plans to pursue are based on lessons learned over the last few years during in the Coastal Sage Mitigation City Side, and are intended to help the rapid growth of the current approved final cover seed mix.

Because of current mandatory landfill closure cap designs, care must be taken that the vegetative cover does not interfere with the landfill cap and cause gas migration. Similarly, cap designs may limit root depth which means large-profile trees and shrubs and even deep-rooted natives may not grow. SCL is interested in proposing several options for final cap and final vegetative cover to the regulatory agencies, and, if possible, testing alternatives that result in both protection of health and safety and an attractive closed landfill. Technical work and regulatory approvals may take a significant amount of time and the date of approval cannot be projected. Currently, SCL plants to retain a firm to design and review the feasibility of an alternate cover by the end of 2010.

Other than the generalized final cover discussion above, please note that the sage mitigation areas are also at "final grade" though they will receive only sage mitigation treatment.

3.3 Sage Mitigation

In the 4th Quarter of 2010, the site will collect soil samples from the on-slope test plots on the County Sage Slope, and continue monitoring the pot tests. The site will initiate technical work and seek approvals for importing soil onto the compacted areas of the City Sage mitigation, to see if better growth on the flat upper decks can be achieved. This will require regulatory approvals as it is an alteration of the approved landfill cap.

Vegetation and/or weeding work is expected to be conducted in the 4th Quarter of 2010.

4.0 Status Update on Other Vegetated Areas

4.1 General

As shown on the map in Appendix A, all areas of the landfill have been vegetated with the exception of the active areas, roadways, and buildings. Vegetative treatments meet both industry standards and the vegetation plans in place at the time plantings were conducted. Due to the dry conditions, at the present time most vegetation is dormant and will likely remain so except when winter rains are plentiful. Current and planned activities are described in previous sections of this report.

Pictures illustrating samples of the different vegetated areas on site are provided in Appendix E.

At County Public Works' request, SCL has contacted Wesley Colvin, County Biologist, to seek his input on the photo locations for future reports. Any changes will be reflected in the 4th Quarter 2010 Vegetation Report.

4.2 Cut Slopes

Cut slopes are addressed in CUP Condition 44C. The only final cut slope at present time is the County Sage Slope. The steepness is 2.1:1, which is less steep than the 1.5:1 mandated in the CUP. The slope design was approved by the Department of Public Works. There are no pending cut slopes at this time. Condition 44D of the CUP mandates vegetation designs for final fill slopes, not final cut slopes, however SCL is committed to ensuring attractive and stable slopes for all permanent parts of the landfill topography. The current cut slope is designated as a sage habitat mitigation area, and status of that planting is discussed elsewhere in this report.

5.0 Additional Information

5.1 Vegetation Experts

Currently the consulting vegetation expert is Mr. Greg Ainsworth of Environmental Science Associates (ESA). Mr. Ainsworth has a Bachelor Degree from Cal Poly in Environmental Horticulture Science and has applied his academic background into several research experiments. Mr. Ainsworth has a research background in plant and soil relationships, integrated pest management, and control of insect pests and pathogens. Mr. Ainsworth has studied the benefits of applying *Bacillus thuringiensis* (or Bt) to soils to improve soil texture and porosity, and plant growth. As an environmental consultant, Mr. Ainsworth has implemented and monitored a number of restoration projects in the region, often in difficult environments such as beach dunes, manufactured slopes of new residential developments, and for erosion control of stream channels.

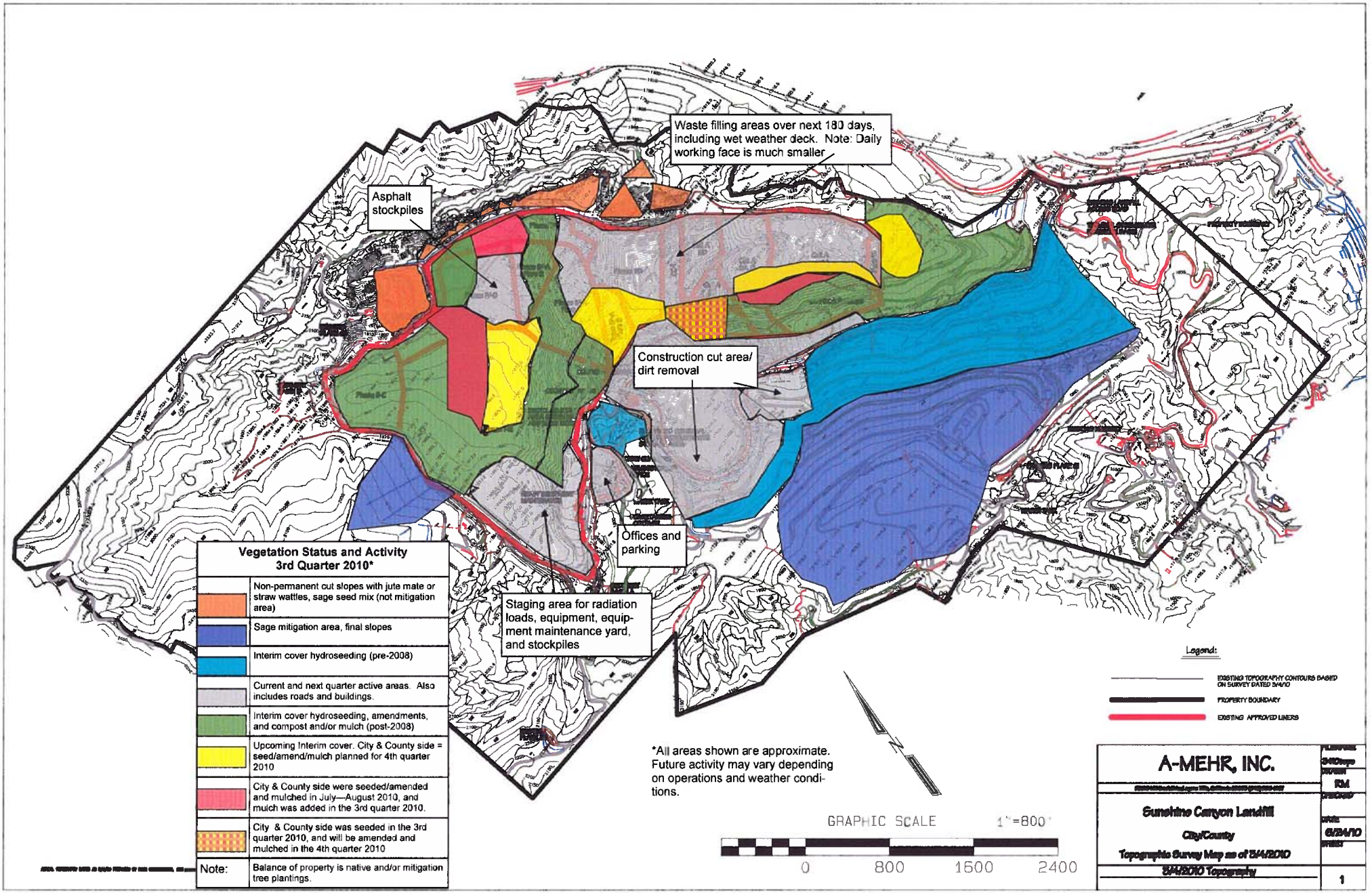
Sunshine Canyon Landfill still consults with Dr. Ted St. John of AECOM. Dr. St. John was chosen for his extensive work on restoration in difficult conditions. Dr. St. John has a research background in plant and ecosystem ecology, with numerous scholarly publications about mycorrhizal symbiosis, a factor that is often the key to successful restoration. He has helped introduce several of the methods that are now routine in restoration practice. He often works in difficult environments, including deserts, weed-infestations, and exposed subsoils. Portions of the planting area at Prima Deshecha Landfill were chemically very similar to the subsoil planting areas at Sunshine Canyon Landfill.

5.2 Soil Sampling, Amendments, and Plant Types

Soil sampling was done for the initial master revegetation plan (Chambers, 1/08.) Amendments were selected by the vegetation expert that were consistent with those soil sampling results, and since that time they have been used as directed. Plant types are also based on the revegetation plan, which addressed both soil quality and permit conditions for both interim and sage mitigation areas. For more information, please refer to the revegetation plan.

As part of ongoing work to optimize growth on difficult areas of the City Sage mitigation area, a new soil sample was taken in the lower deck area. According to Mr. Ainsworth, the results show very high sulfate and salinity in the soil, and the analysis recommends 400 lbs/acre of potassium amendments. The results of the soil sampling analysis have been included in Appendix B. These areas will be addressed by importing new soil to the area, pending agency approval (see section 3.3).

Appendix A


Waste filling areas over next 180 days, including wet weather deck. Note: Daily working face is much smaller
Asphalt stockpiles
Construction cut area/ dirt removal
Offices and parking
Staging area for radiation loads, equipment, equipment maintenance yard, and stockpiles
Vegetation Status and Activity 3rd Quarter 2010*
Non-permanent cut slopes with jute mate 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 (post-2008)
Upcoming Interim cover. City & County side = seed/amend/mulch planned for 4th quarter 2010
City & County side were seeded/amended and mulched in July—August 2010, and mulch was added in the 3rd quarter 2010.
City & County side was seeded in the 3rd quarter 2010, and will be amended and mulched in the 4th quarter 2010
Note:
Balance of property is native and/or mitigation tree plantings.
*All areas shown are approximate. Future activity may vary depending on operations and weather conditions.
Legend:
EXISTING TOPOGRAPHY CONTOURS BASED ON SURVEY DATED 5/4/10
PROPERTY BOUNDARY
EXISTING APPROVED LINERS
GRAPHIC SCALE 1"=800'
0 800 1600 2400
A-MEHR, INC.
Sunshine Canyon Landfill
City/County
Topographic Survey Map as of 5/4/2010
5/4/2010 Topography
RM
6/24/10
1

Appendix B

FRUIT GROWERS LABORATORY, INC.

Analytical Chemists
www.fgllnc.com

October 1, 2010

Environmental Science Associates
21650 Oxnard Street, Suite 1680
Woodland Hills, CA 91367

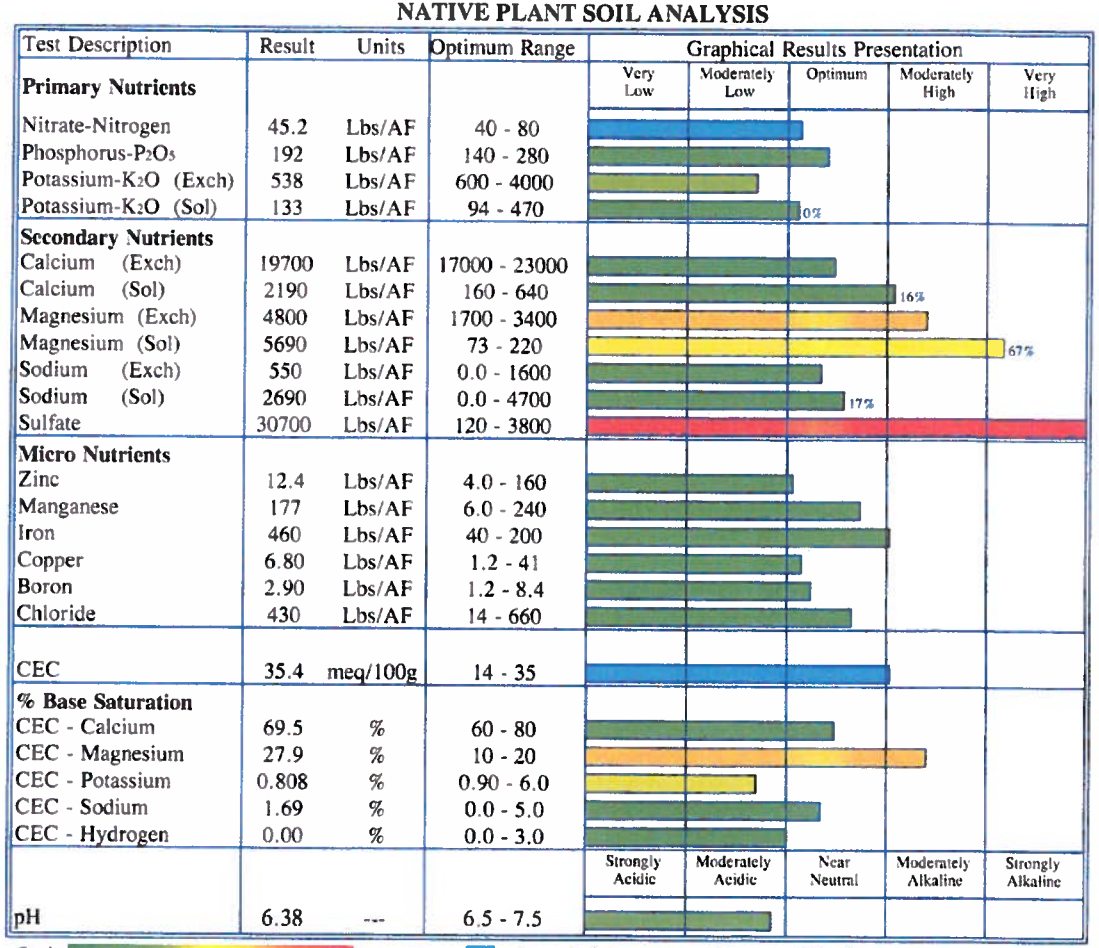
Lab ID : SP 1009725-001
Customer ID : 2-23631

Sampled On : September 22, 2010
Sampled By : Greg Ainsworth
Received On : September 22, 2010
Depth : 0-5"
Meth Irrg. :

Description : Sample A
Project : Sunshine Canyon Landfill

NATIVE PLANT SOIL ANALYSIS

Test Description	Result	Units	Optimum Range
Primary Nutrients			
Nitrate-Nitrogen	45.2	Lbs/AF	40 - 80
Phosphorus-P_2O_5	192	Lbs/AF	140 - 280
Potassium-K_2O (Exch)	538	Lbs/AF	600 - 4000
Potassium-K_2O (Sol)	133	Lbs/AF	94 - 470
Secondary Nutrients			
Calcium (Exch)	19700	Lbs/AF	17000 - 23000
Calcium (Sol)	2190	Lbs/AF	160 - 640
Magnesium (Exch)	4800	Lbs/AF	1700 - 3400
Magnesium (Sol)	5690	Lbs/AF	73 - 220
Sodium (Exch)	550	Lbs/AF	0.0 - 1600
Sodium (Sol)	2690	Lbs/AF	0.0 - 4700
Sulfate	30700	Lbs/AF	120 - 3800
Micro Nutrients			
Zinc	12.4	Lbs/AF	4.0 - 160
Manganese	177	Lbs/AF	6.0 - 240
Iron	460	Lbs/AF	40 - 200
Copper	6.80	Lbs/AF	1.2 - 41
Boron	2.90	Lbs/AF	1.2 - 8.4
Chloride	430	Lbs/AF	14 - 660
CEC	35.4	meq/100g	14 - 35
% Base Saturation			
CEC - Calcium	69.5	%	60 - 80
CEC - Magnesium	27.9	%	10 - 20
CEC - Potassium	0.808	%	0.90 - 6.0
CEC - Sodium	1.69	%	0.0 - 5.0
CEC - Hydrogen	0.00	%	0.0 - 3.0
pH	6.38	---	6.5 - 7.5



Good — Problem — Indicates physical conditions and/or phenological and amendment requirements.

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805) 392-2000
FAX: (805) 392-2063

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209) 942-0182
FAX: (209) 942-0423

Office & Laboratory
563 East Lindo Avenue
Chico, CA 95926
TEL: (530) 343-5818
FAX: (530) 343-3807

Field Office
Visalia, California
TEL: (559) 734-9473
FAX: (559) 734-8435
Mobile: (559) 737-2399

October 1, 2010

Environmental Science Associates

Lab ID : SP 1009725-001
Customer ID : 2-23631
Description : Sample A

NATIVE PLANT SOIL ANALYSIS

Test Description	Result	Units	Optimum Range	Graphical Results Presentation
Others				Satisfactory / Possible Problem / Moderate Problem / Increasing Problem
Soil Salinity	10.3	mmhos/cm	0.0 - 2.0	
SAR	3.4		0.0 - 6.0	
Limestone	< 0.10	%	0.0 - 0.50	
Lime Requirement	0	Tons/AF	---	0 / 1 / 2 / 3 / 4 / 5 / 6
Moisture	3.3	%	3.2 - 22	Very Low / Moderately Low / Optimum / Moderately High / Very High
Saturation	31.9	%	40 - 50	Loamy Sand / Sandy Loam / Loam / Silt Loam / Clay Loam / Clay / Organic

Good — Problem Indicates physical conditions and/or phenological and amendment requirements.

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

Soil pH & Limestone levels are important to consider when making plant selections. Soil pH levels above 7.0 are not suitable for acid loving plants. Soils containing limestone are not suitable for plants sensitive to Limestone.

Fertilization Recommendations

Nutrients	Lbs/Acre	via	Nutrients	Lbs/Acre	via
Nitrogen	None	Soil	Zinc	None	Soil
Phosphorus (P2O5)	None	Soil	Manganese	None	Soil
Potassium (K2O)	400	Soil	Iron	None	Soil
Calcium	None	Soil	Copper	None	Soil
Magnesium	None	Soil	Boron	None	Soil
Sulfur	None	Soil	Lime	None	Soil

FRUIT GROWERS LABORATORY, INC.

CEL:EHB

Chad Lessard, Director of Ag. Services

Appendix C

ESA Biological Resources

21650 Oxnard Street
Suite 1680
Woodland Hills, CA 91367
818.703.8600 phone
818.703.5118 fax

www.esassoc.com

SUNSHINE CANYON LANDFILL MITIGATION SITES

Progress Report

City-Side Sage Mitigation Area

Submittal Date: September 27, 2010	**Inspection Date:** September 22, 2010
To: Becky VanSickle and Kurt Bratton	**From:** Greg Ainsworth, Monitoring Biologist ***Prepared on behalf of Browning-Ferris Industries***

STATUS OF HYDROSEEDING

Conditions:

[ ] Fully covered **[X] Moderately covered** **[ ] Barely covered**

Comments:

Germination from hydroseeding is inconsistent throughout the city-side mitigation area. In general, there is currently dense weed coverage within vegetated areas. In areas where mustard and other taller weeds are present, natives are generally stunted. In comparison where shorter weeds are dominant, such as non-native brome grasses, native species are typically taller Some small native plants are visible; however, these plants cannot be distinguished between those that germinated from the native seed mix.

SEED MIX

Conditions:

[ ] No sign of germination
[ ] No cover of native plants from seed mix
[X] Sparse cover of native plants from seed mix
[ ] Dense cover of native plants from seed mix
[ ] Moderate cover of native plants from seed mix

Comments:

In general, non-native weeds dominate the vegetated areas. At the lower deck, germination of native species has been stunted and suppressed due to shading from competing weeds. However, taller natives, some of which are “volunteers” such as California

sunflower, have established on the lower deck. Natives within the middle deck are generally taller than the lower deck because taller non-native species (e.g., mustard) are not as dominate. Germination of native species on the top deck is sparse; however, competition with weeds is no the primary factor. Compacted soils seem to be the primary cause of the poor germination rate at the top deck. In general, germination on the slopes is good where erosion has not occurred. Weed coverage on the slopes is dense and is attributing to low germination rate due to shading and competition.

OVERALL NATIVE PLANT CONDITIONS

Plant Cover:	Plant Health Issues:	Height:	Species Richness:
[ ] Dense	[ ] Disease/pests	[X] 0" – 12"	[X] Low
[ ] Moderate	[ ] Plant stress	[ ] 12" – 24"	[ ] Medium
[X] Minimal	[ ] Excessive herbivory	[ ] 24" and above	[ ] High

Comments:

The primary native that is visible along the upper deck and on the north- and east-facing benches is California buckwheat (*Erioginum fasciculatum*). The easterly-facing slopes located between the upper and middle decks have the greatest native plant densities and composition. The middle deck of the city-south sage mitigation area has a good native species mixture of California buckwheat, black sage (*Salvia mellifera*), purple needlegrass (*Nessella pulchra*), California sunflower *(Helianthus californicus)*, and chamise (*Adenostoma fasciculatum*). On the lower deck, native vegetation is sparse and patchy with dominant natives consisting of ropevine (*Clematis pauciflora),* California buckwheat, sunflower (*Helianthus annuus),* and caterpillar phacelia *(Phacelia cicutaria).* Previously visible wildflowers are now dormant and no longer identifiable. Barren areas consist of compacted and gravelly soils and sign (e.g., tire tracks) of regular vehicle use is evident.

WEED CONDITIONS

Conditions:	
[ ] Dense weed coverage	[ ] Weeds germinating
[X] Moderate weed coverage (seeding in high density)	[ ] Weeds flowering
[ ] Minimal weed coverage	[X] Weeds setting seed

ESA Biological Resources

Progress Report

City-Side Sage Mitigation Area

Comments:

In general, where vegetation is present, weeds are substantially outcompeting the natives. Most weed species have set seed and germination is anticipated. Dormant mustard (that has set seed) has created a mat layer at the lower deck where vegetation is present, which is crowding out natives, stunting native growth, and directly inhibiting germination. Dominant non-natives throughout the city-side sage mitigation area generally include brome grasses (*Bromus* sp.), Russian thistle (*Salsola tragus*), mustard (*Brassica nigra* and *Hirschfeldia incana*), yellow starthistle (*Centaurea solstitialis*), telegraph weed *(Heterotheca grandiflora)*, and lamb's quarter (*Chenopodium album*). These weed species dominate the vegetated areas and comprise of over 50% of total vegetation cover.

MISCELLANEOUS

Conditions:

[ ] Trash **[ ] Vandalism** **[ ] Erosion**

Comments:

RECOMMENDATIONS

Maintain a regular weed control program to control and eventually reduce weed species. Weed control should occur quarterly at minimum and always prior to flowering or setting seed. Weed control should be initiated immediately to remove Russian thistle and other non-natives that are in a vegetative state (those that are green as opposed to dormant) and shading small natives. Hand weeding methods should be performed around native species to reduce potential of impacting natives and to reduce shading and competition. Initial weeding activities should be monitored by a biologist and representative sample of natives to be preserved should be flagged by a biologist.

Incorporate a soil amendment or mulch with high organic content by tilling into the top 6 inches of the existing compacted soils to improve soil texture, drainage, porosity, and aerobic conditions. Analyze existing soil for nutrient content and any toxins and identify amendment needs. Apply seed (by means of broadcast seeding or hydroseeding) to amended/mulched areas, slopes, and within existing vegetated areas prior to seasonal rains. Amend seed mix with species tolerant of disturbed and poor soil conditions. Install erosion control measures (such as mulches, blankets, jute netting, flexible growth medium, straw waddles) on slopes to reduce soil erosion, retain native seed coverage, and improve the native germination rate. Install fencing with appropriate signage and conduct an

employee awareness program to inform staff on the importance of preserving restoration areas.

ESA Biological Resources

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Progress Report

City-Side Sage Mitigation Area

Photo Locations

ESA Biological Resources

Progress Report

City-Side Sage Mitigation Area

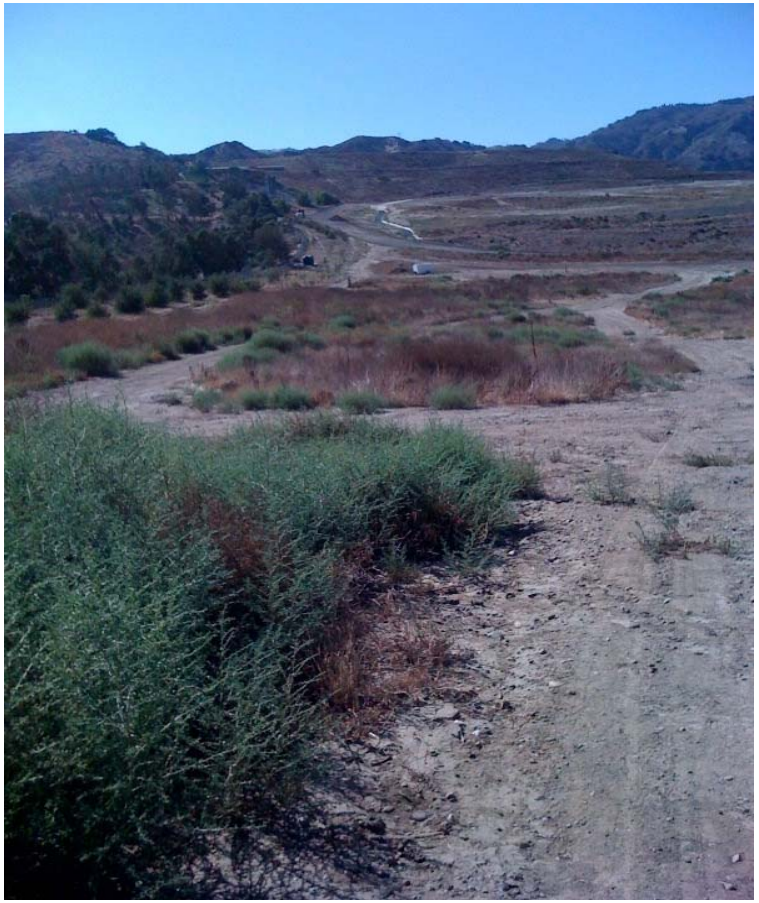

Photo 1. Facing west at lower deck of vegetated areas dominated by non-natives weeds and barron areas consisting of compacted and heavily disturbed soils.

Photo 2. View of native Phacelia sp. within the lower deck that is surrounded by non-native mustard and Russian thistle.

Progress Report

City-Side Sage Mitigation Area

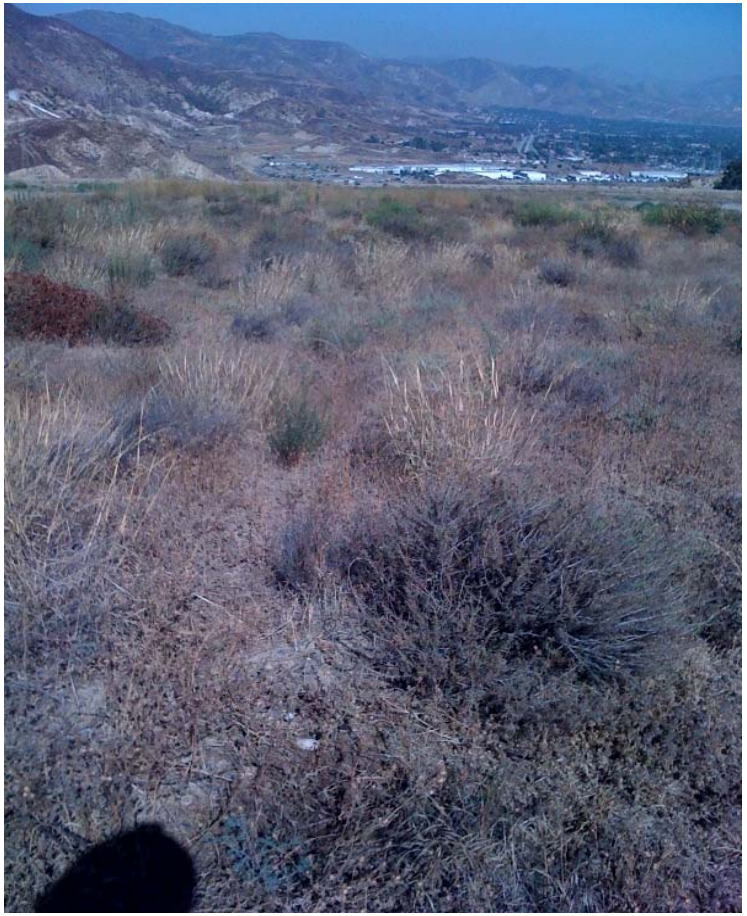

Photo 3. Facing east at middle deck of vegetated areas consisting of good native species composition. Presence of non-native species is less at middle deck compared to the lower and upper decks.

Photo 4. Facing south at north-facing bench below upper deck. Native plants have established and are often taller than non-natives; however, brome grasses and other weeds are co-dominant.

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SUNSHINE CANYON LANDFILL MITIGATION SITES

Progress Report

County-Side Sage Mitigation Area

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[ ] Fully covered **[X] Moderately covered** **[ ] Barely covered**

Comments:

Native plant coverage is good within vegetated areas. Due to rocky (hydrophobic) soil conditions, minimal plant growth exists on the northern half of the county-side mitigation area and along the upper slopes; however, some California buckwheat and Russian thistle have established.

SEED MIX

Conditions:

[ ] No sign of germination
[ ] No cover of native plants from seed mix
[ ] Sparse cover of native plants from seed mix
[ ] Dense cover of native plants from seed mix
[**X**] Moderate cover of native plants from seed mix

Comments:

The vegetated areas within the County-sage mitigation are dominated by natives with little non-native vegetation present within open areas. The dominant native species is clearly California buckwheat (*Erioginum fasciculatum*). Other co-dominant native species include deerweed (*Lotus scoparius*), chamise (*Adenostomoa fasciculatum*), and California brittlebush (*Encelia californica*). Barren areas

continue to remain that will not allow growth even of weeds.

OVERALL NATIVE PLANT CONDITIONS

Plant Cover:	Plant Health Issues:	Height:	Species Richness:
[ ] Dense	[ ] Disease/pests	[ ] 0" – 12"	[ ] Low
[X] Moderate	[ ] Plant stress	[X] 12" – 24"	[X] Medium
[ ] Minimal	[ ] Excessive herbivory	[ ] 24" and above	[ ] High

Comments:

Native plants, primarily California buckwheat, dominate the vegetated areas within the County-sage mitigation area. Native plants are generally taller than native plants found on the City-side mitigation area. Barren areas or areas with little plant growth within the County-sage located above the vegetated areas are rocky or compacted, making seed germination difficult. Previously visible wildflowers are now dormant and no longer identifiable.

WEED CONDITIONS

Conditions:	
[ ] Dense weed coverage	[ ] Weeds germinating
[X] Moderate weed coverage (seeding in high density)	[ ] Weeds flowering
[ ] Minimal weed coverage	[X] Weeds setting seed

Comments:

Non-natives are prevalent between native plants. Dominant non-natives include Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), brome grasses (*Bromus* sp.), wild oat (*Avena fatua*), and tree tobacco (*Nicotiana glauca*). Weeds are being outcompeted by native plants in the vegetated areas and are generally shorter than native (woody) plants. Previous weed control maintenance appears to have improved the native plant coverage.

ESA Biological Resources

Progress Report

County-Side Sage Mitigation Area

MISCELLANEOUS		
Conditions:		
[ ] Trash	**[ ] Vandalism**	**[ ] Erosion**
Comments:		

RECOMMENDATIONS
Maintain a regular weed control program to control and eventually reduce weed species. Weed control should occur quarterly at minimum and always prior to flowering or setting seed. Weed control should be initiated immediately to remove Russian thistle and other non-natives that are in a vegetative state (those that are green as opposed to dormant) and shading small natives. Hand weeding methods should be performed around native species to reduce potential of impacting natives and to reduce shading and competition. Initial weeding activities should be monitored by a biologist and representative sample of natives to be preserved should be flagged by a biologist. Incorporate a soil amendment or mulch with high organic content in select areas as determined by the restoration specialist (avoid rocky areas that are hydrophobic). If feasible, identify areas that are visible from public view sheds. Apply seed (by means of broadcast seeding or hydroseeding) to amended/mulched areas and within existing vegetated areas prior to seasonal rains. Amend seed mix with species tolerant of disturbed and poor soil conditions. Install erosion control measures (such as mulches, blankets, burlap netting, flexible growth medium, straw waddles) on slopes to reduce soil erosion, retain native seed coverage, and improve the native germination rate. Install signage and conduct an employee awareness program to inform staff on the importance of preserving restoration areas.

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Progress Report

County-Side Sage Mitigation Area

Photo Locations

ESA Biological Resources

Progress Report

County-Side Sage Mitigation Area

Photo 1. Facing west at established coastal sage scrub and adjacent areas where germination and establishment has been problematic.

Photo 2. Facing southwest at coastal sage scrub dominated with California buckwheat on the County sage slopes.

Photo 3. Facing west at coastal sage scrub dominated with California buckwheat on the county sage slopes.

Photo 4. View of native species that have successfully established on the county sage slopes.

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County-Side Sage Mitigation Area

SCL Comments and Responses to Sage Monitoring Reports:

1) Weed Control: A contract has been set up with a vendor for on-call weed abatement services to be conducted by crews trained to work amongst the native plants.

2) Seeding/Amending/Mulching: Work on City Sage imported soil will precede any additional seed or mulch (see section 3.3). No seeding or amendments are planned for County Sage, as we are awaiting result of test plots an test pot studies.

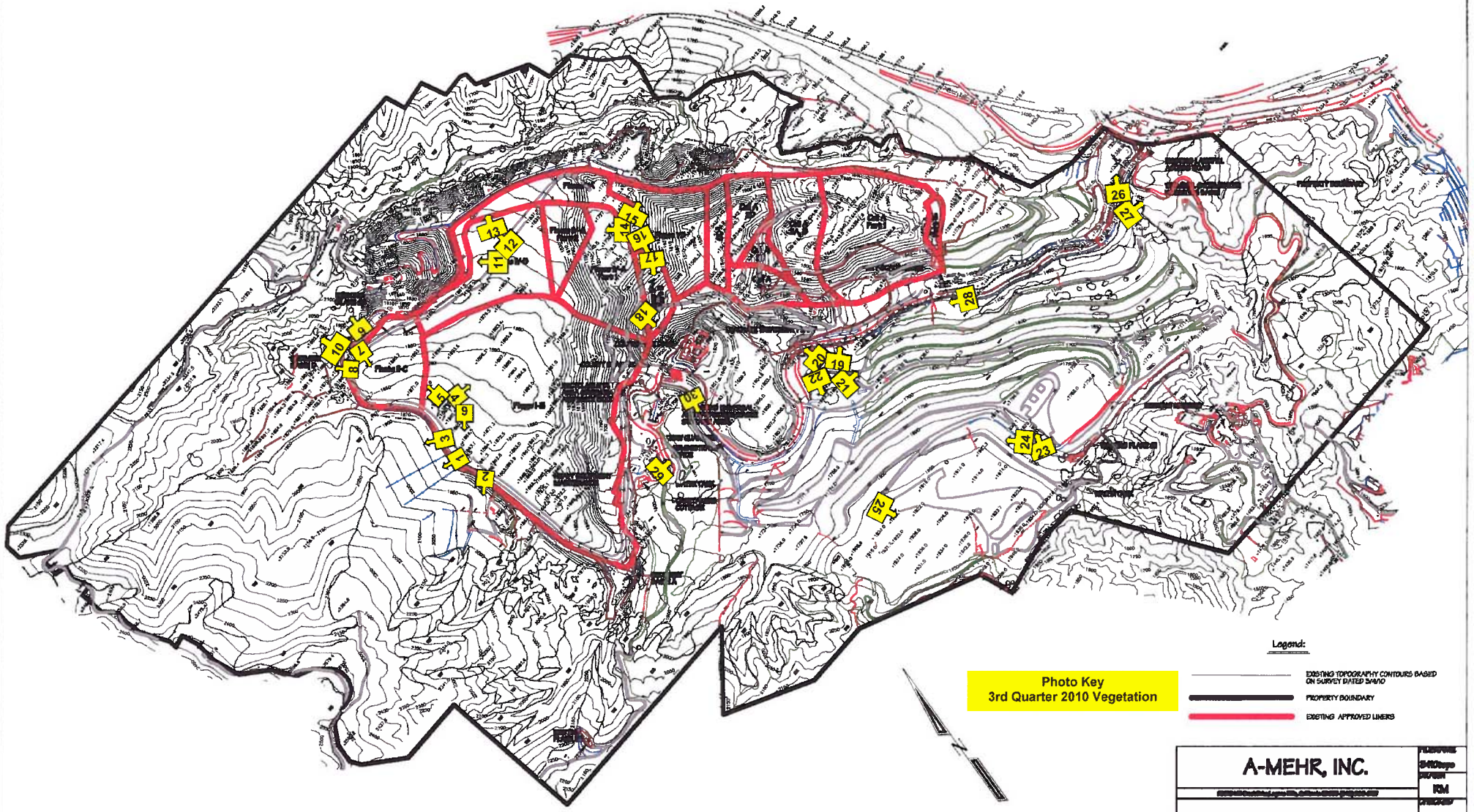
3) Erosion Control: SCL has contracted a landscaping company to install physical erosion control improvements to the County Sage slope beginning on October 14, 2010. The landscape company will be using a combination of sand bags, straw waddles and re-grading the benches to direct run-off into the concrete drainage channel. Disturbed areas will be re-seeded if necessary.

4) Traffic and Trespass Control: The County Sage slope is generally inaccessible to vehicular traffic so road delineation is not necessary there, but existing road markings will be improved on the City Sage area by November 2010. Signage will be added at access points to both locations. Staff and contract personnel will be reminded of the restrictions in these areas by November 2010.

Appendix D

Nothing new to report for the 3rd Quarter 2010.

Appendix E



A-MEHR, INC.	
Sunshine Canyon Landfill	
City/County	
Topographic Survey Map as of 3/4/2010	6/24/10
3/4/2010 Topography	1

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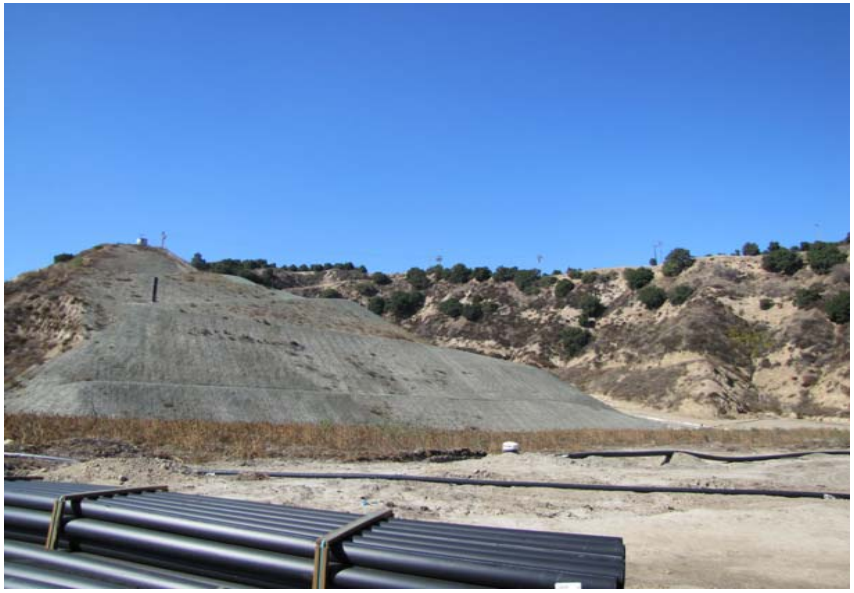

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