#### August 13, 2009

TO:

Members of the Los Angeles County Solid Waste Management

Committee/Integrated Waste Management Task Force

FROM:

Linda Lee  $\angle \angle$ .

Staff

# FINDING OF CONFORMANCE SUNSHINE CANYON LANDFILL-CITY/COUNTY PROJECT

On December 18, 2008, the Task Force granted a Finding of Conformance (FOC) to Browning-Ferris Industries of California, Inc. (BFI). Condition 18 of the FOC requires BFI to submit a quarterly status report on the following:

- a. Progress of the City/County Project; and;
- b. Progress of the site's landscaping activities and revegetation of the permanent slope areas.

BFI submitted the 2nd quarter status report on August 10, 2009. Due to its large volume, only the cover letter is attached. The *Quarterly Vegetation Project Status Report* which accompanied the status report can be accessed online at www.dpw.lacounty.gov/epd/tf/Attachments/Agendaltems\_Attachments/SCL\_Status\_Report 2nd Quarter 2009.pdf. A hardcopy is available upon request.

Staff reviewed the report and had no comments. In regards to the site's landscaping and revegetation activities, sage mitigation has been completed on the permanent slopes on the City and County sides of the Landfill. BFI's contractor, Chambers Group Inc., is currently monitoring the growth. Interim slopes are being treated with soil amendments and covered with a layer of greenwaste. In the event any of the regulatory agencies overseeing the Landfill raises a concern about the revegetation work, we will forward it to the Task Force.

If you have any questions or would like to agendize this issue, please contact me at (626) 458-6973, Monday through Thursday, 7 a.m. to 5:30 p.m.

LL:ca

P:sec/taskforce/memo/2nd Quarter 2009 memo

Attach.



August 10, 2009

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: BFI Sunshine Canyon Landfill Status Report, 2<sup>nd</sup> Quarter 2009

Dear Ms. Farber.

Please find the quarterly status report for the second quarter of 2009 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:

As of mid-January 2009, all sign-offs required by the City and County of Los Angeles were obtained and a joint City/County Landfill project began operating. Since then, the only physical changes at the site have been:

- 1. Only one working face. Operations were predominantly on the County side of the landfill site for most of the second quarter. This is advantageous because the facility has had fewer operating hours for heavy equipment, resulting in fewer emissions.
- 2. Increased volume. Waste acceptance averaged between 9,000 to 10,000 TPD (M-F) beginning March 30<sup>th</sup>. The site is permitted to accept 12,100 TPD maximum daily capacity (M-F)

## 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–Second Quarter 2009." This report outlines the vegetation activities for the 2nd quarter of 2009 and the activities expected to take place in the 3rd quarter 2009.

Hard copies of the vegetation report were also been provided to the following individuals and departments as of July 16, 2009:

Mr. Martin Aiyetiwa-County of Los Angeles Department of Public Works

Dr. Wayne Aller-LA County Community Advisory Committee

Mr. Stefan Klemm-C2Rem

Mr. Ralph Kroy-City of Los Angeles Community Advisory Committee

Ms. Ly Lam-City of Los Angeles Department of Planning

Mr. Wayne Tsuda-SCL-LEA

Dr. Wen Yang-LA Regional Water Quality Control Board

If you have any questions regarding this status report, feel free to contact me at 818-833-6500.

Sincerely,

Kurt Bratton General Manager

Encl. (Q 2-09 Re-Vegetation Report)

Cc: (Cover letter only)

Emiko Thompson, County DPW
Sorin Alexanian, County Planning
Tom Bruen, Esq.
Larry Hafetz, County Counsel
Susan Jennings, Republic Services
Burt Kumagawa, County CEO's Office
Linda Lee, County DPW
Rafael Garcia, Republic Services
Maria Masis, County Planning
Carlos Ruiz, County DPW
Lari Sheehan, County CEO's Office
Gerry Villalobos, County DPH
Wayne Tsuda, SCL LEA



July 16, 2009

To:

SCL-LEA –Wayne Tsuda
County Department of Public Works – Martin Aiyetiwa
City of Los Angeles Planning Department – Ly Lam
Regional Water Quality Control Board – Dr. Wen Yang
City Community Advisory Committee – Ralph Kroy
County Community Advisory Committee – Wayne Aller
C2Rem – Stefan Klemm

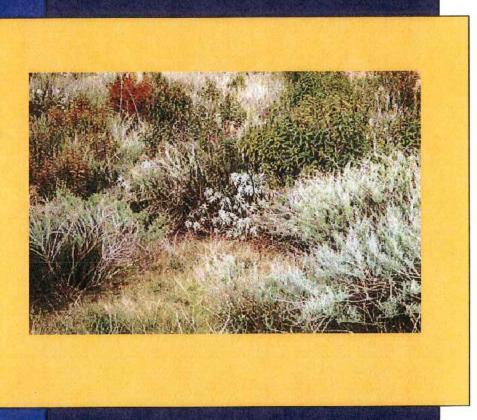
Subject: Transmittal of 2nd Quarter 2009 Quarterly Vegetation Report, Sunshine Canyon Landfill

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 second quarter of 2009 and projects anticipated to be active in the third quarter 2009.

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.

1 (00)

General Manager



Quarterly
Vegetation
Project Status Report
2nd Quarter 2009

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



### **Sunshine Canyon Landfill**

# Quarterly Vegetation Project Status Report Second Quarter 2009

Revised 7/10/09

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Map of Vegetation Projects Installed in Prior Quarter Map of Vegetation Projects Planned for Next Quarter Monitoring Reports Photographs and Installation Documentation Appendix A: Appendix B: Appendix C: Appendix D:

#### 1.0 Introduction and Executive Summary

In order to keep regulatory agencies and other interested parties advised of Sunshine Canyon Landfill's (SCL's) ongoing vegetation projects, SCL has prepared this summary report.

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. This report is divided accordingly due to different regulatory agencies and requirements for each area.

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.

The SCL does additional work with tree planting both on and offsite. This work is described in separate reports and will not be addressed in this document.

This report is designed to outline which planting projects were completed in the past quarter (Section 2.0) and which are planned for the upcoming quarter (Section 3.0.) Monitoring reports, where applicable, are discussed in Section 4.0.

#### 1.1 Active Installations, 2nd Quarter 2009

For the 2nd Quarter 2009, the following vegetation projects were being implemented:

County side:

BFI Interim Projects

City side:

• BFI Interim Projects

These projects are shown on the map in Appendix A. Photos of various current and past project areas are included in Appendix D.

#### 1.2 Projected Installations, 3rd Quarter 2009

In the 3rd quarter of 2009, the following projects are expected to be active:

County side:

• BFI Interim Projects

City side:

- City Phase VB Cut Slope Stabilization
- BFI Interim Projects

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. A map of the planned project areas for the upcoming quarter is provided in Appendix B.

#### 1.3 Vegetation Projects Being Formally Monitored

Some mitigation areas include provisions for monitoring by the restoration specialists. The projects currently being monitored include the following:

County Side:

Sage Hill

City Side:

City Upper Deck Sage

Monitoring reports for the areas being monitored are included in Appendix C.

#### 2.0 Work Installed in Immediate Past Quarter

All work installed in the immediate past quarter is shown on the map in Appendix A.

#### 2.1 County

#### 2.1.1 County Interim Slopes by BFI

Area X slopes (as shown on the map in Appendix A) were treated with amendments and the interim seed mix from Chamber's Plan (1/08) in May. The area was then covered with a layer of greenwaste during the period of May through July. The greenwaste is an alternative to the top compost/tackifier layer specified by Chamber's for interim slopes.

In June, Area Z slopes were treated with greenwaste only. The slopes had been previously hydroseeded.

#### 2.2 **City**

#### 2.2.1 City Interim Slopes by BFI

Area Y slopes (as shown on the map in Appendix A) were treated in May with amendments and the interim seed mix from Chamber's Plan (1/08). From May through July the area was covered with a layer of greenwaste. The greenwaste is an alternative to the top compost/tackifier layer specified by Chamber's for interim slopes.

3 of 5

#### 3.0 Work Planned for Upcoming Quarter

Weather, contractor schedules, and landfill operational requirements may cause variations in the schedule or areas planted. A map showing where vegetation work is planned for the upcoming quarter is provided in Appendix B.

#### 3.1 County

#### 3.1.1 BFI Interim Projects

Area C will be treated with amendments and seed mix as specified by Chambers (1/08), then covered with greenwaste. See map in Appendix B.

#### 3.2 **City**

#### 3.2.1 City Phase VB Cut Slope Stabilization

Cut slopes shown as Area D on the map in Appendix B require stabilization. Due to the slope size, it is expected that a treatment similar to the Phase V and Flare Road project will be used. Either jute mat or straw wattles will likely be provided in addition to a sage seed mix. This area will be done by outside contractors. The project was bid in first quarter 2009, but due to the difficult access, the project is very expensive and alternate bids will be sought in the third quarter of 2009. Installation will begin in the third or fourth quarter of 2009.

#### 3.2.2 BFI Interim Projects

Areas A and B will be treated with amendments and seed mix as specified by Chambers (1/08), then covered with greenwaste. See map in Appendix B.

7/10/2009 4 of 5

#### 4.0 Status Reports on Vegetated Areas Being Monitored

#### 4.1 County

#### 4.1.1 Sage Hill

Per Chambers specifications, the Sage Hill test plot is being formally monitored. The monitoring frequency has now changed from monthly to quarterly as per the planting plan. The area is being monitored by Chambers Group staff, and their written notes are provided in Appendix C.

#### 4.2 <u>City</u>

#### 4.2.1 City Upper Deck Sage

Now that installation work is complete, the City Upper Deck sage is in its initial bi-weekly monitoring phase. The area is being monitored by Chambers Group staff, and their written notes are provided in Appendix C.

Sunshine Canyon Landfill

Quarterly Vegetation Report
Second Quarter 2009

Appendix A

#### Projects underway or complete 2nd Quarter 2009

Area	Color Code	Installed By	Details	Status
X, Y		BFI	Interim Slopes. Two pass amendment and seed hydroseeding per Chamber's Plan, followed by greenwaste layer.	Completed July 2009.
Z			Interim Slopes. Greenwaste applied over previously seeded slopes.	Completed June 2009.

All areas on maps are approximate. Future projections depend on operational patterns and weather conditions and may vary.



Sunshine Canyon Landfill

Quarterly Vegetation Report
Second Quarter 2009

Appendix B

#### Projects expected to be starting or underway 3rd Quarter 2009

Area	Color	To be Installed by	Details	Status
A, B, C		BFI	Interim Slopes. Two pass amendment and seed hydroseeding per Chamber's Plan, followed by greenwaste layer.	Pending operations and weather conditions.
D		Contractor	Final cut slopes to be stabilized and seeded similar to Phase V area.	Develop scope of work and hire installation contractor in 3rd Quarter. Time permitting, begin installation.

All areas on maps are approximate. Future projections depend on operational patterns and weather conditions and may vary.



Sunshine Canyon Landfill

Quarterly Vegetation Report
Second Quarter 2009

Appendix C

# Chambers Group Inc. 17671 Cowan Avenue, Suite 100 Irvine, California 92614 (949) 261-5414, Fax (949) 261-8950 Inspection Date: April 4, 2009 Inspected by: Kun Liu

#### **PROGRESS REPORT**

for the Sunshine Canyon Landfill Mitigation Sites
City Side Mitigation Area
Prepared by Chambers Group

on behalf of Browning-Ferris Industries and Compliance Plus.

Date: April 6, 2009

Completed by: Kun Liu

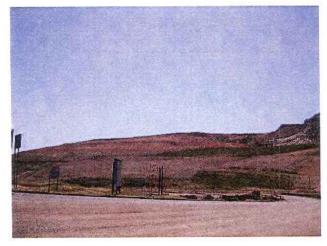
nspection Date: April 4, 2009 nspected by: Kun Liu	Original to: Maria Gutzeit, Dave Hauser Copies to: Tiffany Leo, Ted St. John					
STATUS OF HYDROSEEDING						
CONDITIONS:						
<ul><li>☐ Fully covered</li><li>☐ Medium covered</li><li>☐ Barely covered</li></ul>						
COMMENTS: The hydroseeding has been completed. The h	side and the top deck were fully covered.					
	SEED MIX					
CONDITIONS:  Dense cover of plants from seedlings Moderate cover of plants from seedling Sparse cover of plants from seedling No germination yet	Dense cover of native plants from seed mix  Moderate cover of native plants from seed mix  Sparse cover of native plants from seed mix  No cover of native plants from seed mix					

#### COMMENTS:

The seeds in the hydroseed mix are germinating. Seedlings of California poppy (*Eschscholzia californica*), goldfields (*Lasthenia californica*), California goldenbush (*Isocoma menziesii*) and milkvetch (*Astragalus* sp.) were observed on almost all the slopes and most areas of the top deck. Less germination was observed in areas on the top deck where soil is compacted.

OVERALL NATIVE PLANT CONDITIONS					
PLANT COVER:  Dense Moderate Minimal	PLANT HEALTH ISSUES  Disease/pests Plant stress Excessive herbivory	HEIGHT  □ 0" − 12" □ 12" − 24" □ 24" +	SPECIES RICHNESS  Low Medium High		
COMMENTS:  Pre-existing natives such as California sagebrush ( <i>Artemisia californica</i> ) and California goldenbush provided moderate cover of native plants on both the hillside and the top deck.					
	WEED CO	NDITIONS			
CONDITIONS:  Dense weed coverage Moderate weed coverage (seedlings in high density) Minimal weed coverage		<ul><li>✓ Weeds germinating</li><li>✓ Weeds flowering</li><li>✓ Weeds setting seed</li></ul>			
Australian saltbush ( <i>Atriplex semibaccata</i> ) reported in the last survey still existed close to the road. Most annual grasses were under control; however, there were several small patches of exotic grasses on the restoration site. Seedlings of lamb's quarters ( <i>Chenopodium album</i> ), short-pod mustard ( <i>Hirschfeldia incana</i> ), sweetclover ( <i>Melilotus</i> sp.), Russian thistle ( <i>Salsola tragus</i> ), cheeseweed ( <i>Malua parviflora</i> ), and annual grasses were observed. Lamb's quarter showed noticeable growth since the last visit.  Short-pod mustard, red-stemmed filaree ( <i>Erodium cicutarium</i> ), and ripgut grass ( <i>Bromus diandrus</i> ) were flowering. Those should be controlled before they set seeds.					
MISCELLANEOUS					
CONDITIONS:  Trash Vandalism Erosion					
COMMENTS:  No erosion was observed. No vandalism and minimal trash were observed.					

Sunshine Landfill City Sage



Overview of City Side Sage Hill



City Side Sage Hill facing the landfill operation



Seedling of California poppy (Eschscholzia californica)



Seedlings of milkvetch (Astragalus sp.)

Sunshine Landfill City Sage



Flowering red-stemmed filaree (Erodium cicutarium)



Less germination was observed on the compacted soil on the top deck.



Lamb's quarters (*Chenopodium album*) showed noticeable growth since last visit.



Pre-existing California sagebrush (Artemisia californica) on the slope facing the landfill office

#### PROGRESS REPORT for the Sunshine Canyon Landfill Mitigation Sites **City Side Mitigation Area** .Chambers Group Inc. Prepared by Chambers Group 17671 Cowan Avenue, Suite 100 on behalf of Browning-Ferris Industries and Compliance Plus. Irvine, California 92614 Date: April 17, 2009 Completed by: Kun Liu (949) 261-5414, Fax (949) 261-8950 Original to: Maria Gutzeit. Dave Hauser Inspection Date: April 19, 2009 Tiffany Leo, Ted St. John Inspected by: Kun Liu Copies to: STATUS OF HYDROSEEDING **CONDITIONS:** Fully covered Medium covered Barely covered **COMMENTS:** The hydroseeding has been completed. The hillside and the top deck were fully covered. SEED MIX **CONDITIONS:** Dense cover of native plants from seed mix Dense cover of plants from seedlings Moderate cover of native plants from seed mix Moderate cover of plants from seedlings Sparse cover of native plants from seed mix Sparse cover of plants from seedlings No cover of native plants from seed mix No germination yet COMMENTS: The seeds in the hydroseed mix are germinating. California sagebrush (Artemisia californica) and black sage (Salvia mellifera) started germination this week. Lots of California sagebrush seedlings have appeared around existing sagebrush. Native reproduction of sagebrush seemed to be occurring. California poppy (Eschscholzia californica) and small fescue (Vulpia microstachys) showed noticeable growth since last visit. Goldfields

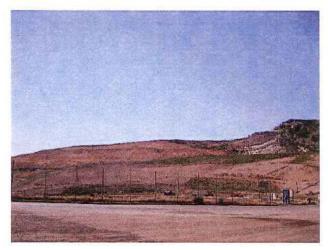
The slopes have higher cover of seedlings than the top. Less germination was observed in areas on the top deck where soil is compacted.

Goldfields, small fescue, and California sagebrush from seed mix were observed on the top deck.

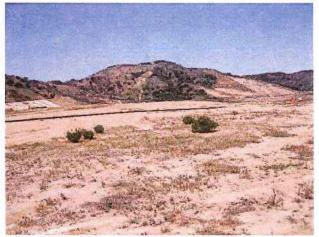
(Lasthenia californica) were blossoming.

OVERALL NATIVE PLANT CONDITIONS					
PLANT COVER:  Dense Moderate Minimal	PLANT HEALTH ISSUES  Disease/pests Plant stress Excessive herbivory	HEIGHT  ☐ 0" – 12"  ☑ 12" – 24"  ☐ 24" +	SPECIES RICHNESS  Low Medium High		
COMMENTS:  Pre-existing natives such as California sagebrush ( <i>Artemisia californica</i> ) and California goldenbush provided moderate cover of native plants on both the hillside and the top deck.  Less germination and sparse growth of natives were observed on the top where soil is compacted. White deposits of salt were observed on some areas on the top deck.					
	WEED CO	ONDITIONS			
CONDITIONS:  ☐ Dense weed coverage ☐ Moderate weed coverage (seedlings in high density) ☐ Minimal weed coverage ☐ Weeds germinating ☐ Weeds flowering ☐ Weeds setting seed					
COMMENTS:  Lambsquarters (Chenopodium album) showed noticeable growth since last visit. It is the most abundant weed onsite. Immediate control of lambsquarters is necessary to reduce its competition for water, light, and nutrients with native seedlings. Trimming is recommended to control lambsquarters' expansion. Other common species that showed noticeable growth included short-pod mustard (Hirschfeldia incana), winter vetch (Vicia villosa), yellow sweetclover (Melilotus indicus), Russian thistle (Salsola tragus), red-stemmed filaree (Erodium cicutarium), and annual grasses. Short-pod mustard (Hirschfeldia incana), winter vetch (Vicia villosa), and yellow sweetclover (Melilotus indicus) were flowering. The existing patches of exotic grasses and red-stemmed filaree were about to set seeds on the restoration site.  The slopes were mostly infested by lambsquarters. Annual grasses, red-stemmed filaree, and Russian thistle were more frequently observed on the top deck.					
MISCELLANEOUS					
CONDITIONS:  Trash Vandalism Erosion					
COMMENTS:  No erosion was observed. Several plastic bags were observed.					

#### April 17, 2009, Site Visit Photos



Overview of City Side Sage Hill



Overview of the top deck



Flowering goldfields (Lasthenia californica)



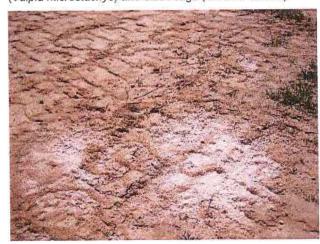
Flowering winter vetch (Vicia villosa)



Seedlings of California poppy (Eschscholzia californica), California sagebrush (Artemisia californica), small fescue (Vulpia microstachys) and black sage (Salvia mellifera)



Lamb's quarters (Chenopodium album) showed noticeable growth since last visit.



Salt deposits observed on the top deck.



Seedlings of California sagebrush (Artemisia californica)

#### **PROGRESS REPORT** for the Sunshine Canyon Landfill Mitigation Sites **City Side Mitigation Area** .Chambers Group Inc. Prepared by Chambers Group 17671 Cowan Avenue, Suite 100 on behalf of Browning-Ferris Industries and Compliance Plus. Irvine, California 92614 Completed by: Kun Liu Date: May 15, 2009 (949) 261-5414, Fax (949) 261-8950 Original to: Maria Gutzeit, Dave Hauser Inspection Date: May 12, 2009 Tiffany Leo, Ted St. John Kun Liu Copies to: Inspected by: STATUS OF HYDROSEEDING CONDITIONS: Fully covered Medium covered Barely covered COMMENTS: The hydroseeding has been completed. The hillside and the top deck were fully covered. SEED MIX **CONDITIONS:** Dense cover of native plants from seed mix Dense cover of plants from seedlings Moderate cover of native plants from seed mix Moderate cover of plants from seedlings Sparse cover of native plants from seed mix Sparse cover of plants from seedlings No cover of native plants from seed mix No germination yet COMMENTS: Germination of natives is quite patchy, with fairly good results in some places and large, bare or weedy areas elsewhere. The seeds in the hydroseed mix continue to germinate. Seedlings of coyote bush (Baccharis pilularis) were observed. California sagebrush (Artemisia californica) showed noticeable growth since last visit. California poppy (Eschscholzia californica) is in blossom. Some small fescue (Vulpia microstachys) are still flowering, and some went to dormancy already. Most goldfields (Lasthenia californica) are dormant now. The upper slopes have higher cover of seedlings than the lower slopes. The slopes facing the office and the top deck have less germination from seed mix. On the top deck, California poppies are in blossom at the low area where water from runoff collects. Little germination was observed in areas on the top deck where soil is compacted.

OVERALL NATIVE PLANT CONDITIONS					
PLANT COVER:  ☐ Dense ☐ Moderate ☐ Minimal  PLANT HEALTH ISSUES ☐ Disease/pests ☐ Plant stress ☐ Excessive herbivory		HEIGHT  ☐ 0" – 12"  ☐ 12" – 24"  ☐ 24" +	SPECIES RICHNESS  Low Medium High		
COMMENTS:  Pre-existing natives are very healthy. California sagebrush ( <i>Artemisia californica</i> ) provided high cover of native plants on the hillside. Dove weed ( <i>Eremocarpus setigerus</i> ) seedlings are abundant from natural reproduction on the hillside. Most native plants from seedlings look healthy.					
	WEED CO	NDITIONS			
CONDITIONS:  ☐ Dense weed coverage ☐ Moderate weed coverage (seedlings in high density) ☐ Minimal weed coverage  ☐ Weeds germinating ☐ Weeds flowering ☐ Weeds setting seed					
COMMENTS:  Most of the slopes were recently mowed. Lamb's quarters (Chenopodium album) and winter vetch (Vicia villosa) were successfully controlled on the weeded slopes. The upper slopes and the slopes facing the office haven't been weeded. Lamb's quarter is still the dominant weed in those areas. Lamb's quarter and short-pod mustard (Hirschfeldia incana) are flowering. Mustards are quite invasive and should be controlled onsite. Annual grasses have set seeds and turned brown. The slopes are currently producing very few dangerous weeds. The most important aspect of weed control will be successful planting of natives.					
MISCELLANEOUS					
CONDITIONS:  Trash Vandalism Erosion  COMMENTS:  Two small gullies developed on one of the slopes. Several plastic bags were observed.					



Overview of hydroseeded slope.



The slope that has been recently weeded is cleared of mature lamb's quarters (Chenopodium album).



Flowering poppies in a drainage on the top deck. This low spot feeds a drain pipe that carries water off the top deck.



The slope that has not been recently weeded has abundant growth of lamb's quarters.



Dove weed (Eremocarpus setigerus) from natural reproduction



A dormant small fescue (Vulpia microstachys)



A gully was observed on one of the upper slopes.



California sagebrush (Artemisia californica) showed noticeable growth

#### PROGRESS REPORT for the Sunshine Canyon Landfill Mitigation Sites **City Side Mitigation Area** .Chambers Group Inc. Prepared by Chambers Group 17671 Cowan Avenue, Suite 100 on behalf of Browning-Ferris Industries and Compliance Plus. Irvine, California 92614 Completed by: Kun Liu Date: June 8, 2009 (949) 261-5414, Fax (949) 261-8950 Maria Gutzeit, Dave Hauser Original to: Inspection Date: June 2, 2009 Tiffany Leo, Ted St. John Copies to: Inspected by: Kun Liu STATUS OF HYDROSEEDING **CONDITIONS:** Fully covered Medium covered Barely covered COMMENTS: The hydroseeding has been completed. The hillside and the top deck were fully covered. SEED MIX **CONDITIONS:** Dense cover of native plants from seed mix Dense cover of plants from seedlings Moderate cover of native plants from seed mix Moderate cover of plants from seedlings Sparse cover of native plants from seed mix Sparse cover of plants from seedlings No cover of native plants from seed mix No germination yet COMMENTS: Germination of natives is quite patchy, with fairly good results some places and large bare or weedy areas elsewhere. Seedlings of sticky monkey flower (Mimulus auranticus), coyote bush (Baccharis pilularis) and buckwheat (Eriogonum sp.) were observed. Some of California poppy is still in blossom, while most of them are setting seeds. Small fescue (Vulpia microstachys) is setting seeds now. Goldfields (Lasthenia californica) are

dormant and were barely observed at time of the visit.

The upper slopes have higher cover of seedlings than the lower slopes. The slopes facing the office and the top deck have less germination from seed mix. On the slopes facing the office, germination was mostly observed on patches with exotic grasses growing before and no germination was observed on the bare areas. On the top deck, flowering California poppy, California sagebrush and small fescue were abundant at the low area where collects runoff. Germination was barely observed in areas on the top deck where soil is compacted.

OVERALL NATIVE PLANT CONDITIONS					
PLANT COVER:  Dense  Moderate  Minimal	PLANT HEALTH ISSUES  Disease/pests Plant stress Excessive herbivory	HEIGHT  ☐ 0" – 12"  ☑ 12" – 24"  ☐ 24" +	SPECIES RICHNESS  Low Medium High		
COMMENTS:  Pre-existing natives looks healthy. California sagebrush ( <i>Artemisia californica</i> ) is turning grayish. Pre-existing deerweed ( <i>Lotus scoparius</i> ) and California buckwheat ( <i>Eriogonum fasciculatum</i> ), black sage ( <i>Salvia mellifera</i> ) and white sage ( <i>Salvia apiana</i> ) are flowering. Lots of horse weed ( <i>Conyza sp.</i> ) seedlings were observed. Dove weed ( <i>Eremocarpus setigerus</i> ) obtained noticeable growth since last visit. Most native plants from seedlings are healthy. However, several California poppy was chewed by animals.					
	WEED CO	ONDITIONS			
CONDITIONS:  Dense weed coverage Moderate weed coverage (seedlings in high density) Minimal weed coverage  COMMENTS:  Weeds germinating Weeds flowering Weeds setting seed					
Lamb's quarters ( <i>Chenopodium album</i> ) showed little growth after they was trimmed. Short-pod mustard ( <i>Hirschfeldia incana</i> ) is still flowering. Mustards are quite invasive and should be trimmed before they set seeds on site. Some of winter vetch ( <i>Vicia villosa</i> ) are still flowering and some already set seeds. Some annual grasses such as wild oat ( <i>Avena</i> sp.), glaucous foxtail barley ( <i>Hordeum murinum</i> ) and Bermuda grass ( <i>Cynodon dactylon</i> ) are observed flowering on site. The slopes are currently producing very few dangerous weeds. The most important aspect of weed control will be successful planting of natives.					
MISCELLANEOUS					
CONDITIONS:  Trash Vandalism Erosion					
COMMENTS: Several plastic bags and a broken pipe were observed on site. Coast horned lizard (Phrynosoma coronatum blainvillii), a California Species of Concern was observed on the upper slope facing the landfill operation.					

#### June 2, 2009, Site Visit Photos



Overview of hydroseeded slope that has been trimmed.



Overview of the hydroseeded slope that has not been trimmed.



Close up of lamb's quarters (*Chenopodium album*) that were weeded about 3 weeks ago.

The slopes facing the office were infested with lamb's quarters and short-pod mustard (*Hirschfeldia incana*)





Buckwheat seedling (Eriogonum sp.)



Coyote brush (Baccharis pilularis) seedlings



Seedlings of horse weed (Conyza sp.)



A California poppy (  $Eschscholzia\ californica$  ) was chewed by rabbits.

#### **PROGRESS REPORT** for the Sunshine Canyon Landfill Mitigation Sites .Chambers Group Inc. **City Side Mitigation Area** Prepared by Chambers Group 17671 Cowan Avenue, Suite 100 on behalf of Browning-Ferris Industries and Compliance Plus. Irvine, California 92614 Date: June 22, 2009 Completed by: Kun Liu (949) 261-5414, Fax (949) 261-8950 Original to: Maria Gutzeit. Dave Hauser Inspection Date: June 17, 2009 Inspected by: Kun Liu Copies to: Tiffany Leo, Ted St. John STATUS OF HYDROSEEDING CONDITIONS: Fully covered Medium covered Barely covered COMMENTS: The hydroseeding has been completed. The hillside and the top deck were fully covered.

# No germination yet

**CONDITIONS:** 

Dense cover of plants from seedlings

Sparse cover of plants from seedlings

Moderate cover of plants from seedlings

Germination of natives is quite patchy, with fairly good results some places and large bare or weedy areas elsewhere. Seedlings of sticky monkey flower (*Mimulus auranticus*), buckwheat (*Eriogonum* sp.), deerweed (*Lotus scoparius*), brittlebush (*Encelia farinosa*), and white sage (*Salvia apiana*) were observed. Some California poppy (*Eschscholzia californica*) is still in blossom, while most of them are setting seeds. Small fescue (*Vulpia microstachys*) and purple needle grass (*Nassella pulchra*) are setting seeds now. Goldfields (*Lasthenia californica*) are dormant and were not observed at the time of the visit.

SEED MIX

Dense cover of native plants from seed mix

Sparse cover of native plants from seed mix

No cover of native plants from seed mix

Moderate cover of native plants from seed mix

The upper slopes have a higher cover of seedlings than the lower slopes. The slopes facing the office and the top deck have less germination from the seed mix. On the slopes facing the office, germination was mostly observed in patches along with exotic grasses. No germination was observed on the bare areas. On the top deck, flowering California poppy, California sagebrush, and small fescue were abundant in the low area where runoff water collects. Germination was scarce in areas on the top deck where the soil is compacted.

	OVERALL NATIVE PLANT CONDITIONS			
PLANT COVER:	PLANT HEALTH ISSUES	HEIGHT	SPECIES RICHNESS	
☐ Dense ☑ Moderate ☑ Minimal	☐ Disease/pests ☐ Plant stress ☐ Excessive herbivory	□ 0" 12" □ 12" 24" □ 24" +	<ul><li>✓ Low</li><li>☐ Medium</li><li>☐ High</li></ul>	
COMMENTS:				
Pre-existing natives look healthy. California sagebrush ( <i>Artemisia californica</i> ) is turning grayish in its normal annual cycle. Pre-existing deerweed ( <i>Lotus scoparius</i> ) and California buckwheat ( <i>Eriogonum fasciculatum</i> ), black sage ( <i>Salvia mellifera</i> ), and white sage ( <i>Salvia apiana</i> ) are flowering. Lots of horse weed ( <i>Conyza sp.</i> ) seedlings were observed.				
Most native plants from seedlings ar		wood rocently		
Some patches of dove weed (Eremo	ocarpus setigerus) were mistakenly mo	DNDITIONS		
CONDITIONS	WEED CC	HONS		
CONDITIONS:  Dense weed coverage Moderate weed coverage (seedlings in high density) Minimal weed coverage		<ul><li>☑ Weeds germinating</li><li>☑ Weeds flowering</li><li>☑ Weeds setting seed</li></ul>		
COMMENTS:  The site has been mowed recently. Lamb's quarters (Chenopodium album) and short-pod mustard (Hirschfeldia incana) have been trimmed. Some lamb's quarters (Chenopodium album) are growing back after they were mowed in May. The lamb's quarters that has never been mowed are about or more than 3 feet tall and have almost taken over the area. Sow thistle (Sonchus sp.), winter vetch (Vicia villosa), and Russian thistle (Salsola tragus) have not been trimmed. Some annual grasses such as wild oat (Avena sp.), glaucous foxtail barley (Hordeum murinum), and Bermuda grass (Cynodon dactylon) are observed flowering. The slopes are currently producing very few dangerous weeds. The most important aspect of weed control will be successful planting of natives.				
MISCELLANEOUS				
CONDITIONS:  Trash Vandalism Erosion  COMMENTS:				
Several plastic bags were observed.				

# June 17 2009, Site Visit Photos



The slope facing the office has been trimmed recently.



Lamb's quarters (Chenopodium album) that were weeded about 5 weeks ago.



Dove weed (Eremocarpus setigerus) was mowed



Untrimmed winter vetch (Vicia villosa)

City Side



Seedling of brittlebush (Encelia farinosa)



White sage (Salvia apiana) seedlings



Deerweed (Lotus scoparius) seedling



A California poppy (Eschscholzia californica) is setting seeds.

Chambers Group Inc.  17671 Cowan Avenue, Suite 100 Irvine, California 92614 (949) 261-5414, Fax (949) 261-8950 Inspection Date: June 29, 2009	PROGRESS REPORT for the Sunshine Canyon Landfill Mitigation Sites City Side Mitigation Area Prepared by Chambers Group on behalf of Browning-Ferris Industries and Compliance Plus. Date: July 8, 2009 Completed by: Kun Liu  Original to: Maria Gutzeit, Dave Hauser			
Inspected by: Kun Liu	Copies to: Tiffany Leo, Ted St. John			
	STATUS OF HYDROSEEDING			
CONDITIONS:    Fully covered				
COMMENTS: The hydroseeding has been completed. The hillside and the top deck were fully covered.				
SEED MIX				
CONDITIONS:  ☐ Dense cover of plants from seedlings ☐ Moderate cover of plants from seedlings ☐ Sparse cover of plants from seedlings	<ul> <li>□ Dense cover of native plants from seed mix</li> <li>□ Moderate cover of native plants from seed mix</li> <li>□ Sparse cover of native plants from seed mix</li> </ul>			
<ul><li></li></ul>	No cover of native plants from seed mix			

#### COMMENTS:

Germination of natives is quite patchy, with fairly good results some places and large bare or weedy areas elsewhere. The upper slopes have a higher cover of seedlings than the lower slopes. The slopes facing the office and the top deck have less germination from the seed mix. On the slopes facing the office, germination was mostly observed in patches along with exotic grasses. No germination was observed on the bare areas. On the top deck, germination was observed in the low area that collects runoff. Germination was scarce in areas on the top deck where the soil is compacted.

The germination, percent cover, and growth stage of seed mixes is provided in the following table. Lots of buckwheat and California sagebrush seedlings were observed and both of them obtained noticeable growth since last visits.

Germination, Percent Cover, and Growth Stage of Venturan Coastal Sage Seed Mix

Germination, Percent Cover, and Growth Stage of Ventural Goastal Sage Seed with					
Scientific Name	Common Name	Lbs.	Germination	Growth Stage	Percent Cover
Baccharis sarothroides	broom baccharis	311.53	Yes	Intermediate	Low
Artemisia california	California sagebrush	180.78	Yes	Intermediate	Low
Mimulus aurantiacus	sticky monkey flower	77.04	Yes	Intermediate	Low
Eriogonum fasciculatum	California buckwheat	149.51	Yes	Intermediate	Medium
Isocoma menziesii	California goldenbush	56.61	No	-	-
Vulpia microstachys	small fescue	120.15	Yes	Mature	Low
Lasthenia californica	goldfields	6.21	Yes	Dormant	Medium
Salvia apiana	white sage	28.2	Yes	Intermediate	Low
Salvia melifera	black sage	17.55	Yes	Intermediate	Low
Bromus carinatus	California brome	83.36	Yes	Mature	Low
Lotus scoparius	deerweed	47.78	Yes	Intermediate	Low
Encelia farinosa	brittlebush	22.54	No	-	-
Penstemon spectabilis	royal penstemon	8.24	No	-	-
Eschscholzia californica	California poppy	13.85	Yes	Mature	Medium
Nassella pulchra	purple needle grass	28.57	Yes	Mature	Low
Lupinus bicolor	miniature lupine	20.78	No	-	-

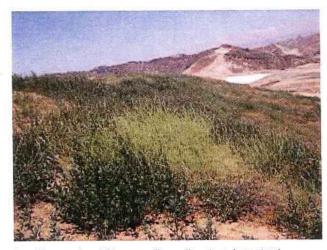
OVERALL NATIVE PLANT CONDITIONS			
PLANT COVER:  Dense  Moderate Minimal	PLANT HEALTH ISSUES  Disease/pests Plant stress Excessive herbivory	HEIGHT  ☐ 0" – 12"  ☐ 12" – 24"  ☐ 24" +	SPECIES RICHNESS  Low Medium High
COMMENTS:  Pre-existing natives, California sagebrush ( <i>Artemisia californica</i> ), deerweed ( <i>Lotus scoparius</i> ), California buckwheat ( <i>Eriogonum fasciculatum</i> ), black sage ( <i>Salvia mellifera</i> ) and white sage ( <i>Salvia apiana</i> ) look healthy. Horse weed ( <i>Conyza sp.</i> ) showed noticeable growth since last visit. Some dove weed ( <i>Eremocarpus setigerus</i> ) plants that were mistakenly mowed recently have grown back by the time of the survey. However, trimmed poppies failed to grow back. Most native plants from seed mixes are healthy.			
		ONDITIONS	
CONDITIONS:  ☐ Dense weed coverage ☐ Moderate weed coverage (seedlings in high density) ☐ Minimal weed coverage ☐ Weeds germinating ☐ Weeds flowering ☐ Weeds setting seed			
COMMENTS:  The site has not been mowed since last visit. Lamb's quarters (Chenopodium album) and short-pod mustard (Hirschfeldia incana) are still the dominant weeds. The lamb's quarters that has never been mowed are approximately 3 feet high or more and have almost taken over the area Common knotweed (Polygonum arenastrum) and Russian thistle (Salsola tragus) were spreading. Lots of tree tobacco (Nicotiana glauca) seedlings were observed on the bottom of the upper slopes at the time of the survey. The slopes are currently producing very few dangerous weeds. The mos important aspect of weed control will be successful planting of natives. Sow thistle (Sonchus sp.) and winter vetch (Vicia villosa) were setting seeds. They were missed when the weeded areas were trimmed. Even though neither of them is very invasive, they should not be missed during the trimming. Annual grasses such as wild oat (Avena sp.), glaucous foxtail barley (Hordeum murinum), and Bermuda grass (Cynodon dactylon) were flowering and setting seeds at the time of the survey.			
MISCELLANEOUS			
CONDITIONS:  Trash Vandalism Erosion			
COMMENTS: Several plastic bags were observed	i.		



The slope facing the office



Dove weed (*Eremocarpus setigerus*) that was mowed is growing back



Lamb's quarters (Chenopodium album) and mustard (Hirschfeldia incana) that are out of control on one of the slopes.



Untrimmed winter vetch (Vicia villosa) are setting seeds



California sagebrush (Artemisia californica) has obtained noticeable growth.



Tree tobacco (Nicotiana glauca)



California buckwheat (*Eriogonum fasciculatum*) obtained noticeable growth since last visit.



Common sow thistle (Sonchus oleraceus) was missed during the trimming

#### **QUARTERLY PROGRESS REPORT** for the Sunshine Canyon Landfill Mitigation Sites .Chambers Group Inc. **County Side Mitigation Area** Prepared by Chambers Group 17671 Cowan Avenue, Suite 100 on behalf of Browning-Ferris Industries and Compliance Plus. Irvine, California 92614 Date: June 22, 2009 Completed by: Kun Liu (949) 261-5414, Fax (949) 261-8950 Inspection Date: June 17, 2009 Original to: Maria Gutzeit, Dave Hauser inspected by: Kun Liu Copies to: Tiffany Leo, Ted St. John SEED MIX CONDITIONS: Dense cover of native plants from seed mix Dense cover of plants from seedlings Moderate cover of native plants from seed mix Moderate cover of plants from seedlings Sparse cover of native plants from seed mix Sparse cover of plants from seedlings No cover of native plants from seed mix No germination vet COMMENTS: No significant increase in seed germination was observed. The center of the lower slope has a moderate cover of the seedlings from the seed mix. The northern and southern slopes have a sparse cover of seedlings from the seed mix. Lots of California sagebrush (Artemisia californica) seedlings were observed on the lower slope. **CONTAINER PLANTS PLANT HEALTH ISSUES:** HEIGHT: Stunted growth 0" - 12"Mechanical damage 12" - 24" Disease/pests 24" + Substantial dieback/mortality Excessive herbivory COMMENTS: Substantial die-backs were observed in toxic soils that are located mainly on the southern and northern slopes. Several laurel sumac (Malosma laurina), needle grasses (Nassella sp.), and giant wild rye (Leymus condensatus) survived, but none of them has shown noticeable growth since the previous visit.

OVERALL NATIVE PLANT CONDITIONS				
PLANT COVER:  Dense Moderate Minimal	PLANT HEALTH ISSUES  Disease/pests Plant stress Excessive herbivory	HEIGHT  ⊠ 0" – 12"  ⊠ 12" – 24"  □ 24" +	SPECIES RICHNESS  Low Medium High	
COMMENTS:  The native plant cover was medium to high on the lower slope near the center. Deer weed ( <i>Lotus scoparius</i> ), California buckwheat ( <i>Eriogonum fasciculatum</i> ), and California poppy ( <i>Eschscholzai californica</i> ) are flowering.  The native plant cover was minimal on the southern and northern slopes. Plants that established in erosion rills, flat areas, and areas around sprinklers are mature now. These areas have received enough water for sufficient leaching of excessive salts which prevents plants from germination and growth. A field trial of soil amendments is recommended on those barren slopes to help native plants establish themselves.				
WEED CONDITIONS				
CONDITIONS:  ☐ Dense weed coverage ☐ Moderate weed coverage (seedlings in high density) ☐ Minimal weed coverage ☐ Weeds flowering ☐ Weeds setting seed				
COMMENTS:  Weeds were growing in good soils, erosion rills, container plant pits, and areas close to the irrigation sprinklers. Most annual grasses that used to grow densely in areas that collect irrigation water have already set seeds and are dormant now. Tree tobacco ( <i>Nicotiana glauca</i> ) has made noticeable growth since the last visit. Lamb's quarters ( <i>Chenopodium album</i> ) was frequently observed on the upper slopes. Russian thistle ( <i>Salsola tragus</i> ) and fennel ( <i>Foeniculum vulgare</i> ) are observed on the upper slope and along the v-ditches, respectively. These weeds can be invasive, and immediate control is recommended. Short-pod mustard ( <i>Hirschfeldia incana</i> ) and prickly sow-thistle ( <i>Sonchus asper</i> ) were observed setting seeds. Rigorous weed control is recommended now to control weeds before they set seeds.				

IRRIGATION SYSTEM					
REPAIRS NEEDED:		,	WAYPOINTS:		
Over-irrigation Under-irrigation (last 2-3 weeks) Inoperative head	🔲 Leak	erative controller ing components aged components			
COMMENTS: The irrigation system was not working well during this site visit. Some leakage was observed.					
		MISCELLANEOUS	<b>,</b>		
CONDITIONS:  Trash Vandalism					
⊠ Erosion					
COMMENTS: Erosion problems mentioned in several previous reports are still threatening to become worse during the next rainy season.  Erosion rills developed around the leaking pipes and sprinklers. Application of wood chips, compost, or erosion blanket will help to decrease the velocity of water flow, increase water infiltration rate, and boost leaching of excessive salts, which will potentially improve soil properties for plant growth.					
No vandalism and minimal trash was observed.					



## Sunshine Landfill June 17, 2009, Site Visit Photos



Middle slopes with better soil and higher vegetation cover



Southern slopes with toxic soils and minimal vegetation cover



Northern slopes with toxic soils and minimal vegetation cover



Wet spots caused by leaking pipes or sprinklers

### Sunshine Landfill June 17, 2009, Site Visit Photos



Plants grow close to the irrigation sprinkler are mature now.



Laurel sumac (Malosma laurina) displayed little growth since previous visit.



Blooming California buckwheat (*Eriogonum fasciculatum*)



A fennel (*Foeniculum vulgare*) is growing on the erosion ridge caused by the leaking sprinklers or pipes

Sunshine Canyon Landfill

Quarterly Vegetation Report
Second Quarter 2009

# Appendix D

(nothing to report this quarter)