

April 20, 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: BFI Sunshine Canyon Landfill Status Report, 1st Quarter 2010

Dear Ms. Farber,

As a follow up to the April 15th 2010 transmittal, please find the quarterly status report for the first 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.

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

Sincerely,

Kurt Bratton

General Manager

A Brith

Cc:

Emiko Thompson, County DPW
Linda Lee, County DPW
Larry Hafetz, County Counsel
Susan Jennings, Republic Services
Becky Van Sickle, 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



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Ms. Gail Farber
Director - County of Los Angeles Public Works
Integrated Waste Management Task Force
P.O. Box 1460, 900 South Fremont Street
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Re: BFI Sunshine Canyon Landfill Status Report, 1st Quarter 2010

Dear Ms. Farber,

Please find the quarterly status report for the first 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 averaged between 8,500 to 9,300 TPD (M-F) 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	6,861.26	191,659.32
February	7,236.80	188,724.79
March	12,937.55	211,975.72

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

We have included in this report an electronic CD copy of our "Quarterly Vegetation Project Status Report–Fourth Quarter 2009 since it was not available at the time of the last FOC Status Report. Due to additional data requested, the 2010 1st Quarter Vegetation Report will be delayed. We will provide the report when completed.

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.

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

Sincerely,

Susan Jennings

Environmental Compliance Specialist

Cc:

Emiko Thompson, County DPW
Linda Lee, County DPW
Larry Hafetz, County Counsel
Susan Jennings, Republic Services
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Quarterly
Vegetation
Project Status Report

First 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



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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. 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. In the fall of 2009, the primary vegetation specialist from Chambers, Dr. Ted St. John, was hired by the company AECOM. SCL has since retained AECOM for vegetation monitoring and consultation, in order to continue working with Dr. St. John.

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, 1st Quarter 2010

For the 1st Quarter 2010, the following vegetation projects were being implemented:

County side:

SCL Interim Projects

City side:

- City Sage Weed Abatement
- SCL Interim Projects

These projects are shown on the map in Appendix A.

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1.2 Projected Installations, 2nd Quarter 2010

In the 2nd quarter of 2010, the following projects are expected to be active:

County side:

- SCL Interim Projects
- County Sage Hill Work

City side:

- SCL Interim Projects
- City Upper Deck Sage Weed Abatement

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:

Upper Deck Sage

Monitoring reports for these areas are included in Appendix C.

4/15/2010 2 of 5

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 SCL

County vegetation work for this quarter was completed by site operations personnel.

Area G slopes were treated in March with greenwaste mulch only. The greenwaste mulch will serve as a slope stabilizer as well as a nutrient and seed source.

2.2 City

2.2.1 City Interim Slopes by SCL

City slope vegetation work was completed by site operations personnel in January.

Area F slopes had been previously hydroseeded with interim area seed mix. In January, greenwaste mulch was added to stabilize the slopes and provide additional nutrients and seed sources.

2.2.2 City Upper Deck Sage Weed Abatement

The City sage mitigation area (Area W on map) experienced rapid plant growth after winter rains. Non-native plants were shading the slower growing natives, as observed by restoration specialist Dr. Ted St. John. A trained crew from Landscape Development, Inc. (LDI) was retained to cut down non-native plants from March 17th through April 2nd. Photos of this area that show extensive growth of native poppies after weed abatement are included in Appendix D.

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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 SCL Interim Projects

Area X and Y as shown on the map will be treated with amendments and seed mix as specified by Chambers, and confirmed by Dr. St. John, and then covered with greenwaste mulch.

3.1.2 County Sage Hill

Though a good portion of the County Sage Hill mitigation area (Area V on map) has shown growth, difficult soils in some areas have hindered vegetation. SCL has retained the author of the sage mitigation plans, Ted St. John PhD, (formerly with Chambers, currently with AECOM) to design tests of different soil treatments and oversee installation of test plots.

Dr. St. John has recommended that the test plots not be installed on the slope at this time because they will be problematic to maintain in the harsh summer weather. SCL is planning to instead run tests on planter beds of the problematic soil through the summer and then move to the actual slopes in the fall when growing conditions will be more favorable.

Dr. St. John has also recommended discontinuing the artificial watering of the County Sage Hill since it does not allow the existing plants to adapt to the actual rainfall conditions. SCL has discontinued work with the artificial irrigation but will leave the system in place in case it is needed later.

SCL will consult with County Sanitation District to review successful revegetation areas at Puente Hills landfill prior to the planting season in the fall.

3.2 **City**

3.2.1 SCL Interim Projects

Area Z will be treated with amendments and seed mix as specified by Chambers, and confirmed by Dr. St. John, then covered with greenwaste mulch.

3.2.2 City Sage Upper Deck Weed Abatement

The City Upper Deck sage area (Area W) showed rapid growth following winter rains. If more rain occurs that triggers excessive non-native plant growth, a second round of weed cutting by a trained outside contractor may take place.

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4.0 Status Reports on Vegetated Areas Being Monitored

4.1 County

4.1.1 Sage Hill

Per Chambers' original specifications, the Sage Hill area is being formally monitored on a quarterly basis. Monitoring is being conducted by AECOM staff, and their written notes are provided in Appendix C.

In response to the findings from this quarter's monitoring visit, SCL will be installing erosion control devices to better route water to existing v-ditches. This will be completed by the end of the third quarter 2010, prior to the rainy season.

4.2 City

4.2.1 Upper Deck Sage

The City Upper Deck sage had its last monthly monitoring event in March 2010. It will now revert to quarterly monitoring per Chambers' original specifications. Monitoring is done by AECOM staff, and their written notes are provided in Appendix C.

Based on the findings of the monitoring visits, SCL will initiate a second round of weed abatement if nonnatives grow back prior to the summer season. In addition, by the end of the third quarter 2010 the site will explore use of surface treatments to encourage more growth on the flat, compacted surfaces that have not shown as much growth as side slopes.

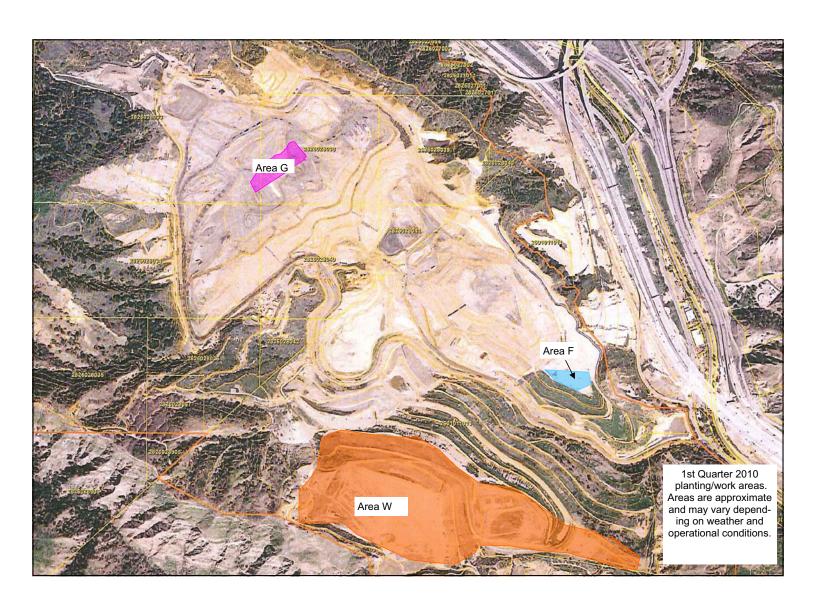
4/15/2010 5 of 5

Appendix A

Completed 1st Quarter 2010

Area	Color Code	Completed By	Details	Status
F		SCL	Interim Slopes. Previously seeded. Greenwaste mulch applied.	Completed
G		SCL	Interim Slopes. Greenwaste mulch applied.	Completed
W		LDI	Sage Slopes. Non-native weed abatement.	Completed

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

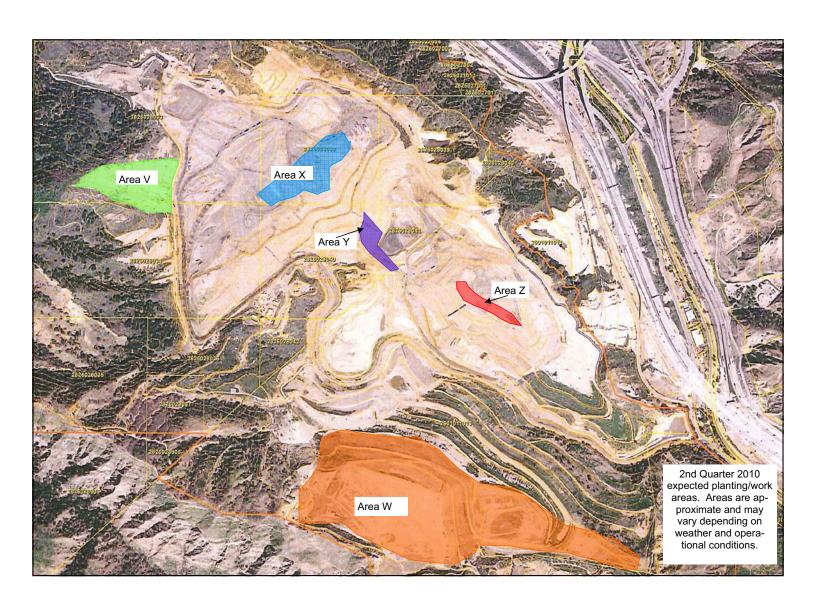


Appendix B

Planned for 2nd Quarter 2010

Area	Color Code	To Be Installed by	Details	Status
V		SCL or contractor	Test plots for problematic soils from this area will be installed in planter beds to facilitate observation and maintenance through the summer	Design underway by Dr. Ted St. John, AECOM
W		Contractor	Sage Area. Second round of spring weed removal will be done if directed by restoration specialist.	Pending observation following spring rains.
×		SCL or contractor	Interim Slopes. Interim seed mix, amendments, and greenwaste mulch applied.	To be completed by end of quarter, depending on fill sequencing.
Y		SCL or contractor	Interim Slopes. Interim seed mix, amendments, and greenwaste mulch applied.	To be completed by end of quarter, depending on fill sequencing.
Z		SCL or contractor	Interim Slopes. Interim seed mix, amendments, and greenwaste mulch applied.	To be completed by end of quarter, depending on fill sequencing.

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



Appendix C

1461 E. Cooley Drive, Suite 100 Colton, California 92324 (909) 554-5062, Fax (909) 424-1924	on I Date: 3/1/10		PROGRESS REPOR unshine Canyon Landfill City Side Mitigation A Prepared by AECO owning-Ferris Industries Completed by: 1	Mitigation Sites area M and Compliance Plus.
Inspection Date: 2/26/10 Inspected by: Ted St. John	J	aria Gutzeit, I fany Leo, Te	Kurt Bratton, Becky Van Si d St. John	ckle
	STATUS OF H	YDROSEED	ING	
CONDITIONS: Fully covered Medium covered Barely covered COMMENTS: All results are from 2009 hydroseeding.				
SEED MIX				
CONDITIONS: No germination yet No cover of native plants from seed mix Sparse cover of native plants from seed mix Sparse cover of native plants from seed mix				
COMMENTS: The site is a mixture of native and non-native vegetation, although most of the hillsides are well-vegetated. The top deck has some areas of native annuals, notably goldfields (<i>Lasthenia californica</i>), although large areas are bare and some areas are weedy.				
OVERALL NATIVE PLANT CONDITIONS				
PLANT COVER: PLANT HE	ALTH ISSUES	HEIGHT		SPECIES RICHNESS
Moderate P	isease/pests lant stress xcessive herbivory		" – 12" 2" – 24" !4" +	☐ Low ☑ Medium ☐ High

COMMENTS:				
The areas populated by natives are in very good condition. There is little evidence of difficult soil except for small patches of material that may have been imported from other portions of the landfill. The top deck is highly compacted, which is a serious limitation to plant growth. While shallow-rooted annual plants are now growing on parts of the top deck, we are unlikely to establish large areas of perennial vegetation without placing a layer of looser soil on the deck.				
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 vegetation on the slopes is weedy. This can be changed by trimming the weeds regularly during the growing season. The most important time to control weed growth is the first signs of warm weather in early spring.				
MISCELLANEOUS				
CONDITIONS:				
☐ Trash ☐ Vandalism ☐ Eros	sion			
COMMENTS:				
RECOMMENDATIONS				
The urgent matter on these slopes is weed control. AECOM recommends trimming rather than herbicide, pulling, or hoeing of weeds. It is important to avoid mechanical disturbance of the soil, which disrupts formation of the mycorrhizal network needed by natives. Trimming allows penetration of suplicity and continued development of natives. As the natives grow and form a mycorrhizal network weed growth will steadily diminish				



City-side slopes are a mixture of weedy grasses with bare patches and some native plants.



A few areas are dominated by native plants that have locally excluded weedy plant species.



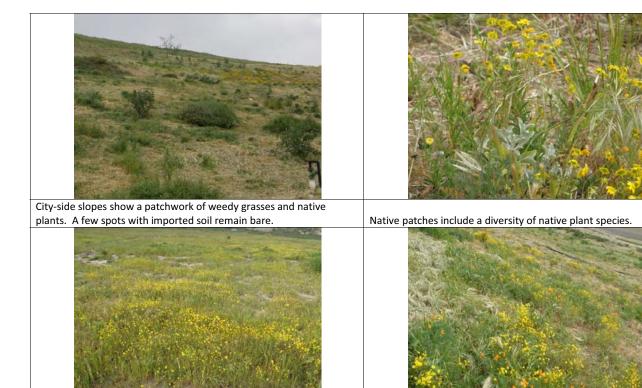
Native patches in some cases include a diverse mix of natives with very few weeds.



Most of the area consists of isolated natives under heavy weed growth. Prompt trimming of the weeds would allow penetration of sunlight and development of native vegetation.

1461 E. Cooley Drive, Suite 100 Colton, California 92324 (909) 554-5062, Fax (909) 424-1924		for the Sunshine Canyon Landfill Mitigation Sites City Side Mitigation Area Prepared by AECOM on behalf of Browning-Ferris Industries and Compliance Plus. Date: 4/14/10 Completed by: Ted St. John			
Inspection Date: 3/25/10 Inspected by: Ted St. John	Original to: Ma	Original to: Maria Gutzeit, Kurt Bratton, Becky Van Sickle			
	STATUS OF HY	/DROSEEDING			
CONDITIONS: Fully covered Medium covered Barely covered					
COMMENTS: All results are from 2009 hydroseeding.					
SEED MIX					
CONDITIONS: No germination yet No cover of native plants from seed mix 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: The site is a mixture of native and non-native vegetation, although most of the hillsides are well-vegetated. The top deck has some areas of native annuals, notably goldfields (<i>Lasthenia californica</i>), although large areas are bare and some areas are weedy.					
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		

СОММЕ	COMMENTS:				
			evidence of difficult soil except for small patches of material that may have getation have visibly improved since the February 2010 inspection.		
		WEED C	ONDITIONS		
CONDIT	TONS:				
\boxtimes	Dense weed coverage		Weeds germinating		
	Moderate weed coverage	seedlings in high density)	☐ Weeds flowering ☐ Weeds setting seed		
	Minimal weed coverage		Weeds setting seed		
СОММЕ	ENTS:				
Most of	the vegetation on the slopes	are still weedy, although weed control	I has begun in earnest. Trimming during the growing season is the method		
now bei	ng used on these slopes. Tr	imming is allowing sunlight to reach n	ative plants, which may now be able to form a mycorrhizal network.		
	MISCELLANEOUS				
COMPI	2010	6022			
CONDIT	_	V. 15.			
	Trash \square	Vandalism Ero	sion		
СОММЕ	COMMENTS:				
RECOMMENDATIONS					
Continue weed control until the exotic annual plants (mostly grasses) turn color and stop growth for the season. AECOM recommends trimming					
	rather than herbicide, pulling, or hoeing of weeds.				



Native plant patches appear to have expanded during the previous

month, perhaps helped by extensive weed trimming.

Native annuals have performed well on the top deck. However, the

soil is probably too thin and too compacted for shrubs to persist.

1461 E. Cooley Drive, Suite 100 Colton, California 92324 (909) 554-5062, Fax (909) 424-1924		PROGRESS REPORT for the Sunshine Canyon Landfill Mitigation Sites County Side Mitigation Area Prepared by AECOM on behalf of Browning-Ferris Industries and Compliance Plus. Date: 3/1/10 Completed by: Ted St. John			
Inspection Date: 2/26/10 Inspected by: Ted St. John					
	STATUS OF H	YDROSEEDING			
CONDITIONS: Full coverage					
COMMENTS: It is no longer possible to distinguish plants that originated from containers from those that started from seeds. See comments under "Overall native plant conditions."					
	SEE	D MIX			
CONDITIONS: No germination yet No cover of native plants from seed mix Sparse cover of native plants from seed mix Sparse cover of native plants from seed mix					
COMMENTS: No current germination of natives was evident in late February. However, many of last year's plants are doing well in patches.					
OVERALL NATIVE PLANT CONDITIONS					
PLANT COVER: Dense Patchy Minimal	PLANT HEALTH ISSUES Disease/pests Plant stress Excessive herbivory	HEIGHT ⊠ 0" − 12" □ 12" − 24" □ 24" +	SPECIES RICHNESS Low Medium High		
COMMENTS:					

Vegetation remains patchy with large bare areas that have always been bare of either weeds or natives. The bare areas conform to soil types or soil depth, with patches of vegetation always found on spots where the soil is soft and able to support root growth. Aerial photos make it clear that the soil types are associated with alternating beds of different Towsley Formation subtypes. The areas dominated by native plant species are stable or improving, and are found on the conglomerate subtype of the Towsley formation. The failure of all vegetative growth, including weeds, is seen on the

the very difficult conditions. AECOM examined some representative roots for evidence of mycorrhizal colonization, a factor that correlates well with restoration success. Roots of certain natives were mycorrhizal, an observation that predicts continued success in locations now occupied by natives. Some soil cores showed layering of organic and sandy material through the root zone, probably a result of erosional deposition. Most roots and mycorrhizal fungi are in the organic layers. The most common plant species are California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and California bush sunflower (*Encelia californica*). **WEED CONDITIONS CONDITIONS:** Weeds germinating Dense weed coverage Weeds flowering Moderate weed coverage (seedlings in high density) Weeds setting seed Minimal weed coverage COMMENTS: No serious or destructive weeds have gained a foothold on the county-side slopes, but some patches are dominated by weedy grasses. In the central portion of the slope where natives are well established weed growth is not a serious problem. **MISCELLANEOUS** CONDITIONS: Vandalism Erosion Trash **COMMENTS:** There has been overflow of runoff spilling from the horizontal terraces and some storm flow has bypassed the V-ditches. In other places water that spills from above has created locally favorable conditions where native plants thrive along with a rich biological soil crust. The best plant growth continues to be in the low spots where sediment has accumulated after having been washed free of salts. An overall assessment must include the observation that the bare rock areas are unlikely to ever be covered with native vegetation; the same may be said for the siltstone subtype of the Towsley formation. The remaining weedy patches can be converted to natives by re-seeding and trimming weed growth so that natives do not become shaded from the sun. RECOMMENDATIONS Our most pressing need in this area is to move forward with trials of soil treatments so we can determine the best strategy for the long term. Those trials have been authorized and detailed design of the trials is under way. Replanting next rainy season will make use of the findings of the trials. While the irrigation system may be useful at some future time, there is no need for it at present. AECOM recommends that the system be left in place

finer-textured siltstone subtype. Most natives are growing slowly but have survived the dry season. Growth areas correspond to patches where soil remains on the surface of the underlying rocks. Although growth has been modest, the site has performed beyond our initial expectations in view of

for possible future use but not maintained or upgraded until there is specific need for it.



Vegetation is patchy on the County-side slopes. Growth is related to soil loose enough to allow root growth and to soil types as indicated by testing and by soil color.



Within vegetation patches it is possible to see mycorrhizal fungi. The fungal filaments are visible as glassy threads near the roots.



Most of the unvegetated areas consist of dense, rocky an impenetrable ground.



Terraces on the slope should channel water to the V-ditches. However the water has breached the berms at several points.



Surface flows of water have created local wet spots where native plants thrive and the soil has become covered with moss. This photo shows exposed roots where the moss cover failed.



Some of the best plant growth has been where lime was applied in 2007, but it is unclear whether the lime caused the success.



The best soils show considerable success, with relatively weed-free patches and several species of native shrubs.

Appendix D



