

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

324



**FROM:** Waste Management Department

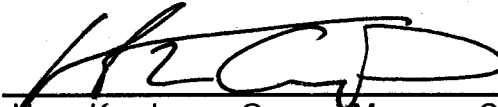
**SUBMITTAL DATE:**  
September 22, 2011

**SUBJECT:** 2010 El Sobrante Landfill Annual Monitoring Report

**RECOMMENDED MOTIONS:** That the Board of Supervisors:

1. Receive and file the 2010 El Sobrante Landfill Annual Monitoring Report, dated August 2011; and
2. Direct the Clerk to ensure that a copy of the Annual Monitoring Report is made available for public review at accessible locations.


**BACKGROUND:** As stipulated in the Conditions of Approval of the Second El Sobrante Landfill Agreement, the Administrative Review Committee (ARC), formed pursuant to Section 13 of the Agreement and composed of representatives from the Waste Management Department, Executive Office, and Planning Department, reviewed the 2010 El Sobrante Landfill Annual Monitoring Report to ensure that the landfill is being operated by Waste Management, Inc., in conformance with the landfill's adopted Mitigation Monitoring Program. (continued)

  
\_\_\_\_\_

Hans Kernkamp, General Manager-Chief Engineer

<b>FINANCIAL DATA</b>	Current F.Y. Total Cost:	\$0	In Current Year Budget:	N/A
	Current F.Y. Net County Cost:	\$0	Budget Adjustment:	N/A
	Annual Net County Cost:	\$0	For Fiscal Year:	N/A

<b>SOURCE OF FUNDS:</b>	Positions To Be Deleted Per A-30	<input type="checkbox"/>
	Requires 4/5 Vote	<input type="checkbox"/>

**C.E.O. RECOMMENDATION:** **APPROVE**  
BY:   
**Alex Gann**

**County Executive Office Signature**


Dept Recomm.:  Consent  
Per Exec. Ofc.:  Consent  
Policy   
Policy

Departmental Concurrence

**MINUTES OF THE BOARD OF SUPERVISORS**

On motion of Supervisor Tavaglione, seconded by Supervisor Stone and duly carried, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Buster, Tavaglione, Stone and Ashley  
Nays: None  
Absent: Benoit  
Date: October 4, 2011  
xc: Waste, COB

Kecia Harper-Ihem  
Clerk of the Board  
By:   
Deputy

**Prev. Agn. Ref.:** \_\_\_\_\_ **District:** 1 **Agenda Number:** \_\_\_\_\_

ATTACHMENTS FILED  
WITH THE CLERK OF THE BOARD

**12.2**  
FD # 02687

**BACKGROUND (continued)**

Upon deeming the landfill in compliance, the ARC submitted the Annual Monitoring Report to the Citizens Oversight Committee (COC) for their review and approval. On September 21, 2011, the COC approved the 2010 Monitoring Report. In addition, the Second Agreement requires that a copy of the Annual Monitoring Report be made available for public review at accessible locations.



# **El Sobrante Landfill Annual Monitoring Report**

**Reporting Period:  
January 1, 2010 through December 31, 2010**

**Prepared By:  
USA Waste of California, Inc.**

**August 2011**

## Introduction

The El Sobrante Landfill Annual Monitoring Report (AMR) for the period covering January 1, 2010 through December 31, 2010, has been prepared by USA Waste of California (USA Waste), a subsidiary of Waste Management Inc. (WMI), for the County of Riverside in compliance with the Second El Sobrante Landfill Agreement (Second Agreement), inclusive of any Amendments. Provision 13.2 of the Second Agreement requires USA Waste to annually report on its compliance with the El Sobrante Landfill Mitigation Monitoring Program (MMP) and the Second Agreement. The AMR will be first reviewed by the County's Administrative Review Committee (ARC), a committee comprised of representation from the County's Planning Department, Waste Management Department, and Executive Office, and then submitted to the Citizen Oversight Committee (COC), a committee formed in 2003 pursuant to Condition of Approval No. 14.a. (Exhibit "F" of the Second Agreement). Condition of Approval No. 14.b. requires the COC to meet at least once annually to review the AMR, as submitted by the ARC.

### Landfill History

The El Sobrante Landfill is an existing municipal solid waste landfill, located at 10910 Dawson Canyon Road, easterly of Interstate 15 and Temescal Canyon Road, approximately seven (7) miles southeast of the City of Corona in the Temescal Canyon area of unincorporated Riverside County. The landfill, which is owned and operated by USA Waste, started disposal operations in 1986. From 1986 to 1998, the landfill was operated pursuant to the first El Sobrante Landfill Agreement and its Amendments and one Addendum. On September 1, 1998, the Riverside County Board of Supervisors (BOS) approved the El Sobrante Landfill Expansion Project, a vertical and lateral expansion of the landfill, and entered into the Second Agreement, which became effective on September 17, 1998. The Second Agreement represents a public/private relationship between the owner/operator of the landfill and the County of Riverside and provides for the County's Waste Management Department to operate the landfill gate, to set the County rate for disposal at the gate with BOS approval, and to operate the Hazardous Waste Inspection Program.

The specific actions taken by the BOS on September 1, 1998 included the following:

- Adoption of Resolution No. 98-275, certifying the Environmental Impact Report (EIR), consisting of the Draft EIR (dated April 1994), the Final EIR (dated April 1996), and the Update to the Final EIR (dated July 1998).
- Adoption of Resolution No. 98-276, approving the El Sobrante Landfill Expansion Project and the Second El Sobrante Landfill Agreement, adopting Conditions of Approval and a Mitigation Monitoring Program (MMP) and making Findings of Fact.

The El Sobrante Landfill Expansion Project, for which the EIR (circulated under SCH No. 1990020076) was certified, included the following major elements:

- An increase in landfill disposal capacity to approximately 196.11 million cubic yards or approximately 109 million tons of municipal solid waste.
- An increase in the daily disposal capacity up to 10,000 tons.
- An increase in the landfill area to a total of 1,322 acres.
- An increase in the landfill footprint to 495 acres.
- An increase in the hours of operation, allowing 24-hour continuous operations, 7 days a week, for non-waste functions (i.e., application of daily cover, stockpiling of daily cover, site maintenance, grading, and vehicle maintenance) and allowing disposal operations from 4:00 AM to Midnight.

Pursuant to the Second Agreement, the "Start Date" for the El Sobrante Landfill Expansion Project and the terms of the Second Agreement was the date upon which all necessary approvals and/or permits were obtained. The following were considered the final approval/permits needed to trigger the "Start Date":

- Issuance of Waste Discharge Requirements (WDRs) Order No. 01-53 from the Regional Water Quality Control Board (RWQCB), Santa Ana Region on July 21, 2001.
- Issuance of Solid Waste Facility Permit (SWFP) No. 33-AA-0217 from the Riverside County Environmental Health Department, Local Enforcement Agency (LEA) on August 6, 2001, following concurrence from the California Integrated Waste Management Board (CIWMB).

The Second Agreement has since been amended twice. The First Amendment, approved by the BOS on July 1, 2003, amended the scope of the Expansion Project to allow the landfill operator to grind green waste for Alternative Daily Cover (ADC) and to add facilities to convert landfill gas to electricity. The Second Amendment, approved by the BOS in March 2007, allowed for USA Waste to pursue the necessary approvals/permits to again amend the scope of the Expansion Project. Subject to further environmental review in compliance with the California Environmental Quality Act (CEQA) and BOS approval, the Second Amendment allowed for acceptance of waste material for disposal over a continuous 24-hour period and for the maximum daily capacity of 10,000 tons to be changed to a weekly disposal capacity of 70,000 tons. On March 31, 2009, the BOS adopted Resolution No. 2009-093, approving the revision to the landfill's SWFP to allow the operational changes in the Second Amendment, certifying the Supplemental EIR (SCH #2007081054), and approving the corresponding MMP. The LEA later issued a revision to SWFP #33-AA-0217 on September 9, 2009, with concurrence from the CIWMB on August 18, 2009, which allowed for the operational changes in the Second Amendment (i.e., 70,000 tons per week, not exceeding 16,054 tons per day, and continuous 24-hour disposal) to be implemented on August 31, 2009.

## Overview of Calendar Year 2010

### 2010 Permits/Approvals

In 2010, the El Sobrante Landfill was operated in compliance with existing permits and approvals, and no new or revised permits/approvals were obtained or required.

### 2010 Changes in Landfill Expansion Project Plan

The El Sobrante Landfill continued to be developed in overall accordance with the Expansion Project first approved by the BOS in 1998 and with its SWFP and corresponding Joint Technical Document (JTD), last revised in 2009.

### 2010 Landfill Activities

The following activities occurred at the El Sobrante Landfill during calendar year 2010 (see Exhibit 1):

- Ongoing excavation occurred in Phases 9B, 10, and 11.
- A stability berm with fiber rolls was constructed in Phase 10.
- Approximately 6.2 acres of the Phase 10 Stability Berm were hydroseeded.
- Approximately 25 acres adjacent to Phase 9B that burned from a fire in 2010 were hydromulched.
- Eight (8) new gas extraction wells were installed in 2010; four (4) in Phase 1 and four (4) in Phase 8.

### 2010 Days and Hours of Operation

In 2010, the El Sobrante Landfill received waste tonnage on 311 days. Excluding County holidays, the landfill was open six (6) days a week, Monday through Saturday, and closed on Sunday. The landfill, which has 24-hour disposal operations, was open from 4:00 AM on Monday to 6:00 PM on Saturday. The landfill was open to commercial haulers and the general public in accordance with the following schedule:

#### Days/Hours for Commercial Haulers

- Open six (6) days a week, Monday through Saturday
- Hours = 4:00 AM on Monday through 6:00 PM on Saturday

#### Days/Hours for General Public

- Open six (6) days a week, Monday through Saturday
- Hours = 6:00 AM through 6:00 PM daily

### 2010 Disposal Volumes

During calendar year 2010, a total of approximately 2,025,423.38 tons of municipal solid waste was disposed at the El Sobrante Landfill. Of this amount, approximately 691,338.21 tons originated from Riverside County sources, and approximately 1,334,085.19 tons originated from out-of-County sources. Approximately 44,864 tons of processed green waste were used as ADC at the landfill, and approximately 41,464 tons were either reused or recycled.

Based on 311 working days, an average of 6,513 (rounded to nearest whole number) tons were received at the landfill on a daily basis in 2010.

## Landfill Capacity Used in 2010 and Landfill's Remaining Capacity at End of 2010

Landfill capacity is closely monitored at the El Sobrante Landfill to ensure that the landfill's operational efficiency is meeting WMI and community expectations. On an annual basis, the entire landfill is flown by an aerial survey company, and aerial topographic maps are prepared to calculate the capacity used during a known period of time. The capacity used is then divided by the amount of waste disposed during that period of time to arrive at an Airspace Utilization Factor (AUF). The calculated used capacity takes into account compaction efficiency of the waste, use of ADC and soil cover, waste settlement, and waste stream composition.

Using the AUF for 2010 operations (0.876 ton/cubic yard) and the amount of 2,025,423 tons of waste disposed in 2010, approximately 2,312,127 cubic yards of capacity were used in 2010, and the landfill's remaining capacity at the end of 2010 is estimated to be approximately 140,516,953 cubic yards (approximately 126,465,258 cubic yards remain for trash, providing 45-50 years of capacity).

## Origin of Non-County Waste Disposal Volume in 2010

Non-County waste received at the El Sobrante Landfill must be delivered in transfer trucks, or transfer-like trucks to mitigate traffic impacts. A transfer-like truck is one that transports a volume of waste to the landfill similar in size and weight to a transfer truck. Two examples of a transfer-like truck are the Heil Star System and the WMS Pod Trucks.

During 2010, non-county waste was delivered to the El Sobrante Landfill from the following primary locations:

- Athens Transfer Station, City of Industry, CA
- Carson Transfer Station, Carson, CA
- CLARTS (Central Los Angeles Recycling & Transfer Station), Los Angeles, CA
- El Cajon Transfer Station, El Cajon, CA
- Grand Central Recycling and Transfer Station, City of Industry, CA
- Southgate Transfer Station, Southgate, CA
- West Valley Transfer Station, Fontana, CA

During calendar year 2010, the following out-of County communities delivered more than 1,000 tons of municipal solid waste to the El Sobrante Landfill:

- |                   |                        |                           |
|-------------------|------------------------|---------------------------|
| - Baldwin Park    | - La Habra             | - Rialto                  |
| - Carson          | - La Puente            | - Rolling Hills Estates   |
| - Chino           | - La Verne             | - San Bernardino (City)   |
| - Chino Hills     | - Lawndale             | - San Bernardino (County) |
| - Commerce        | - Lomita               | - San Diego (City)        |
| - Diamond Bar     | - Long Beach           | - San Diego (County)      |
| - El Cajon        | - Los Angeles (City)   | - San Dimas               |
| - El Monte        | - Los Angeles (County) | - Santee                  |
| - El Segundo      | - Manhattan Beach      | - South El Monte          |
| - Fontana         | - Ontario              | - South Gate              |
| - Gardena         | - Palos Verdes Estates | - Sycuan Band of Indians  |
| - Huntington Park | - Pechanga Tribal Land | - Torrance                |
| - Industry        | - Pomona               | - Vernon                  |
| - Inglewood       | - Rancho Cucamonga     | - Viejas Band of Indians  |
| - Irwindale       | - Rancho Palos Verdes  | - Walnut                  |
|                   | - Redondo Beach        | - Yucaipa                 |

For calendar year 2010, the El Sobrante Landfill also received miscellaneous volumes of municipal solid waste (less than 1,000 tons, but more than 10 tons) through transfer stations and through direct haul from private haulers from the following out-of-County communities:

- |                 |                    |                 |                     |
|-----------------|--------------------|-----------------|---------------------|
| - Agoura Hills  | - Culver City      | - Laguna Niguel | - Pico Rivera       |
| - Alhambra      | - Cypress          | - Lakewood      | - Placentia         |
| - Anaheim       | - Downey           | - Lancaster     | - Redlands          |
| - Arcadia       | - Duarte           | - Loma Linda    | - Rosemead          |
| - Artesia       | - Escondido        | - Lynwood       | - Sacramento        |
| - Azusa         | - Fullerton        | - Malibu        | - San Gabriel       |
| - Bell          | - Garden Grove     | - Maywood       | - San Marcos        |
| - Bell Gardens  | - Glendale         | - Mission Viejo | - Santa Ana         |
| - Bellflower    | - Glendora         | - Montclair     | - Santa Barbara     |
| - Beverly Hills | - Grand Terrace    | - Montebello    | - Santa Clarita     |
| - Campo Band    | - Hawthorne        | - Monterey Park | - Santa Fe Springs  |
| - Cerritos      | - Hayward          | - Morongo Tribe | - Santa Monica      |
| - Chula Vista   | - Hermosa Beach    | - National City | - Seal Beach        |
| - Claremont     | - Highland         | - Newport Beach | - Sierra Madre      |
| - Colton        | - Huntington Beach | - Norwalk       | - Signal Hill       |
| - Compton       | - Industry         | - Oceanside     | - Soboba Tribe      |
| - Coronado      | - Irvine           | - Orange        | - Twenty-nine Palms |
| - Costa Mesa    | - La Habra Heights | - Orange County | - Upland            |
| - Covina        | - La Mirada        | - Paramount     | - West Covina       |
| - Cudahy        | - Laguna Beach     | - Pasadena      | - Whittier          |
|                 |                    |                 | - Yorba Linda       |

### **Projected Waste in 2011**

In 2011, it is projected that there will be approximately 12.5 percent growth in disposal tonnage. The in-County disposal tonnage for 2011 is projected to be approximately 797,770 tons, while out-of-County tonnage is expected to be in the range of 1,480,650 tons.

### **Closure/Post Closure Trust**

No funds were withdrawn from the Closure/Post-Closure Trust for these activities during 2010, and at the end of the calendar year, the market value of the El Sobrante Landfill Trust was approximately \$19,411,639.

### **Local Mitigation Trust Account**

The Local Mitigation Trust, created pursuant the Second Agreement with a deposit of \$150,000 by USA Waste, is for mitigation projects in the local areas surrounding the landfill as recommended by the COC. In 2004, the COC recommended that the entire Local Mitigation Fund be utilized for County efforts to cleanup illegal dumping in the Temescal Valley area along the I-15 corridor from El Cerrito Road south to Lake Street. The BOS approved the COC recommendation on October 19, 2004. At the end of 2008, approximately one-half of the Trust Account had been used in this effort. In 2009, working collaboratively with the County's Code Enforcement Department, the COC recommended that an allocation not to exceed \$10,000 be used toward implementing the Clean Money Youth-Based Fundraising Program in the First and Second Supervisorial Districts. The BOS approved this recommendation on September 1, 2009. At the end of November 2010, approximately \$3,000 remained of the budget allocated for the Clean Money Program and its cleanup events. In March of 2011, the Board of Supervisors approved, per the recommendation of



the COC, an additional allocation of \$10,000 to this program. At the end of 2010, the Local Mitigation Trust Account had a balance of approximately \$82,379.

### **General Liability Insurance**

The Certificate of Insurance is an attachment to the AMR.

### **Regulatory Agency Issues**

During 2010, the El Sobrante Landfill was regularly inspected by regulatory agencies. Compliance issues for excessive landfill gas (methane) were noted during the March, October and December LEA monthly inspections. After a comprehensive evaluation of the wellfield in the vicinity of a landfill gas probe (Probe 10RR), it was discovered that an extraction well (EW-80) was impacting the probe. By reconfiguring the gas collection piping and clearing a blockage in the extraction well, the excessive landfill gas was remediated.

As of May 2011, the El Sobrante Landfill does not have any unresolved compliance issues from any of the regulatory agencies including the LEA, the CIWMB, the Regional Water Quality Control Board - Santa Ana Region (RWQCB-SAR), and the South Coast Air Quality Management District (SCAQMD).

### **Pending Litigation**

During 2010, the El Sobrante Landfill was not involved in any type of litigation.

## **2010 Status of Mitigation Monitoring Program** (Adopted by BOS on March 31, 2009)

### **Aesthetics (A) Mitigation Measures**

#### **A-1**

**To assure visual screening of landfill operations and facilities, a phased closure and restoration plan shall be implemented. The closure and restoration plan shall utilize Riversidian sage scrub consistent with native vegetation in nearby undisturbed areas of the Gavilan Hills to minimize visual impacts to surrounding views.**

#### ***Status:***

The approved HCP negotiated with the US Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) details a phased closure and restoration plan utilizing native species. Reports detailing compliance with the HCP, to include the Riversidian sage scrub restoration plan, are prepared annually and are available upon request. Construction on the first phase of closure (Phase A) began in 2006 and was completed in early 2007. To date, revegetation on the Phase A slopes has been very successful, with excellent seed germination, native species diversity, and reaching approximately 50 percent native cover in most slope areas by spring of 2009. In November of 2009, two (2) acres of Phase A slopes, where erosion had occurred during winter 2008, were supplemented with a native hydroseed mix.

Phase B closure began in 2008. Upon completion of closure in the fall of 2009, restoration of approximately 18 acres of Phase B slopes occurred from October until early November 2009. Restoration activities included the creation of cactus patches, creation of rock and brush piles for reptile habitat, and the application of a hydroseed mix of native Riversidian Sage Scrub (RSS). While weed management and monitoring continued within these existing restoration areas in 2010, there were no new closures. Native cover for Phase B is approximately 50%.

#### **A-2**

**Development shall be phased such that only approximately 20 acres are disturbed at any one time. Riversidian sage scrub restoration activities shall be similarly phased.**

#### ***Status:***

Landfill development, along with closure and restoration, have been phased to comply with this measure and are being implemented in accordance with the Implementing Agreement, dated July 2001, for the approved HCP that was entered into by USFWS, CDFG, USA Waste, and Riverside County. During 2003, the expansion phases were redesigned to facilitate expansion and soil stockpiling activities and to minimize disturbance. A minor modification request was formally submitted to the USFWS and CDFG in May 2004 to re-phase the grading plan, increasing the number of phases from 15 to 17. Approximately 22 acres of phases 1 and 6 were closed and revegetated in 2007, and an additional 18 acres were closed and restored starting at the end of 2008 and ending in early November 2009. Since there were no new closures in 2010, RSS restoration did not occur within any new areas.

#### **A-3**

**Landfill-associated facilities and structure exteriors (including rooftops) and signage shall be of a color consistent with the surrounding area.**

**Status:**

No facilities, structures, or signage were installed or constructed during 2010. The landfill owner/operator will continue to comply with this measure for any and all future facilities, structures, and signage.

**A-4**

**A plan that assures the removal or approved use of landfill-associated facilities, structures, and signage shall be approved by the CIWMB, as part of the Post-closure Plan.**

**Status:**

The final post-closure plan will include this measure. At this time, the approved HCP contains the same requirement with a caveat to leave approved structures in place, if desired, for the ongoing monitoring and maintenance of the habitat preserve.

**A-5**

**Outdoor lighting associated with the access road, administration building, and scales shall be directed toward the ground and shall be shielded. Portable lighting used for landfill operations (i.e., working face of the landfill) shall be shielded and directed toward the working area.**

**Status:**

This mitigation measure is implemented on an ongoing basis. If the landfill operator was to receive a complaint about temporary lighting through feedback from the LEA, the light locations and angles would be adjusted. No complaints regarding lighting were raised in 2010.

**A-6**

**Wherever feasible, temporary earthen or landscape berms, or other structures or measures, shall be utilized to provide visual screening of operations at the working face and to reduce potential glare impacts on surrounding residences from nighttime activities at the working face of El Sobrante. Any measures implemented for this purpose shall be subject to annual review by the Citizen Oversight Committee.**

**Status:**

The landfill phasing has been restructured to increase the sight distance and minimize the visual impact of filling activities for surrounding neighbors. During periods of 2010, the location of active filling could not be feasibly screened from some neighborhoods west of Interstate 15 due to the height of the landfill. However, the sight distance is such that glare impacts were not an issue. The majority of local residents cannot readily see the landfill due to its location behind hills alongside Interstate 15.

**A-7**

**A plan that assures the removal of litter associated with the proposed project shall be approved by the CIWMB prior to the issuance of a SWFP.**

**USA Waste or its successor-in-interest shall be responsible for the control and cleanup of litter and debris from the landfill and/or waste-hauling vehicles along the landfill access road to its intersection with Temescal Canyon Road, and along Temescal Canyon Road from the intersection with Interstate 15 (I-15) to the intersection with Weirick Road.**

**At a minimum, USA Waste or its successor-in-interest shall inspect and remove litter and debris from these roadways on a weekly basis and within 48 hours upon receipt of notice of complaint.**

**Status:**

Litter removal is an on-going task and is monitored by the LEA. No violations or areas-of-concerns were recorded during 2010 by the LEA for the landfill or for the landfill access road. Temescal Canyon Road, like many roads in Riverside County, has been the subject of illegal disposal activity and increased graffiti. During negotiations with the BOS regarding the First Amendment to the Second Agreement, the landfill operator agreed to increase the scope of its off-site litter removal activities to better meet the needs of the community. Condition 23.a. of the approved Conditions of Approval (Exhibit "F" of the Second Amendment) was revised to read as follows:

- 23.a. USA Waste or its successor-in-interest shall be responsible for the control and cleanup of litter and debris from the landfill and/or waste-hauling vehicles along the landfill access road to its intersection with Temescal Canyon Road, and along Temescal Canyon Road from the intersection with Interstate 15 (I-15) to the intersection with Weirick Road.

During 2010, El Sobrante Landfill continued to allot a minimum of 16 man-hours per week to the clean-up of litter and debris along the landfill access road to its intersection with Temescal Canyon Road and along Temescal Canyon Road from the intersection with I-15 to the intersection with Weirick Road.

In addition, the First Amendment to the Second El Sobrante Landfill Agreement, approved on July 1, 2003, requires the following:

In order to provide more focused assistance with the problem of illegal dumping on private property, USA WASTE or its successor-in-interest will provide one roll-off bin per quarter in the Spanish Hills area and one roll-off bin per quarter in the Dawson Canyon area for private property owners in those areas. Costs associated with transportation and disposal of waste deposited in the bins will be borne by USA WASTE, with the understanding that the private property owners will bear the responsibility of depositing waste in the bins.

During 2010, the landfill operator continued to transport and dispose of trash contained within the two roll-off bins located in the Spanish Hills and Dawson Canyon areas on an "as needed" basis monitored by surrounding neighbors, or on an average of once every 45 days.

For I-15, USA Waste sponsors three sections of the interstate through the CalTrans Adopt-a-Highway program. El Sobrante will continue to clean the adopted sections of I-15 utilizing company resources.

## **Air Quality (AQ) Mitigation Measures**

### **AQ-1**

**The following activities shall occur based on SCAQMD Rule 1150.1 - Control of Gaseous Emissions from Active Landfills:**

- Landfill gas collection and thermal destruction systems shall be provided and operated.
- Landfill gas destruction system shall be constructed using best available control technology (BACT). Improved combustion technology (e.g., boiler) shall be installed at the time that the continued use of current technology flares would exceed SCAQMD standards for stationary sources. (Final EIR).

- A network of landfill gas monitoring probes shall be installed to identify potential areas of subsurface landfill gas migrations.
- The project includes a landfill gas barrier layer (i.e., 10- to 20-mil high-density polyethylene [HDPE] or polyvinyl chloride [PVC] sheeting) as part of the intermediate cover and final cover system. This gas barrier layer is not required by Subtitle D and would minimize excess air infiltration and fugitive landfill gas emissions, and would increase landfill gas collection efficiency.
- Monitoring of landfill gas concentrations at perimeter probes, gas collection system headers, landfill surface, and in ambient air downwind of the landfill shall be conducted in accordance with applicable regulations.
- Annual emissions testing of inlet and exhaust gases from the landfill gas destruction system shall be conducted to evaluate gas destruction efficiency.
- The gas collection system shall be adjusted and improved based on quarterly monitoring and annual stack testing results.

**Status:**

El Sobrante Landfill continues to be in compliance with SCAQMD requirements to control gaseous emissions from the landfill. Quarterly reports confirming compliance are submitted to the SCAQMD. With regard to the placement of a landfill gas barrier layer, it should be noted that subsequent to the Expansion EIR, new federal landfill gas emission control requirements were enacted in 1996. The landfill is required under these federal regulations (40 CFR Part 60, Subpart WWW) and corresponding SCAQMD requirements to operate a gas collection system with landfill gas recovery efficiencies that significantly limit emissions of landfill gas from the landfill. Monitoring surface emissions and various operating parameters of the LFG system is also required to confirm that the system is operating effectively. The landfill gas collection system will continue to be designed and operated in a manner that allows these requirements to be met without the use of a gas barrier layer in the cover. In the event that gas emissions exceed specified levels, modifications to the collection systems will be made that may include the placement of a gas barrier layer in the final cover design.

**AQ-2**

The following activities shall occur based on SCAQMD Rule 403 - Fugitive Dust:

- Emission controls necessary to assure that dust emissions are not visible beyond the landfill property boundary shall be implemented.
- New cell construction and cell closure activities shall not occur simultaneously.
- The Rule 403 Fugitive Dust Emissions Control Plan for the landfill, approved by SCAQMD in May 1993, shall be adhered to. The plan itemized various control strategies for dust emissions from earthmoving, unpaved road travel, storage piles, vehicle track-out, and disturbed surface areas, including watering, chemical stabilizers, revegetation, and operational controls or shutdown for implementation during both normal and high wind conditions.
- Rule 403 Fugitive Dust Emissions Control Plan shall be revised on an annual basis.

**Status:**

Dust control measures are being implemented in accordance with this mitigation measure and the landfill's SCAQMD-approved Rule 403 Fugitive Dust Plan. The plan is updated as required by the SCAQMD.

#### **AQ-3**

The following mitigation measures exceed current regulatory requirements and shall be incorporated by design, construction, and operation:

- **PM<sub>10</sub> monitoring stations and an onsite meteorological station shall be installed and operated, as agreed in consultation with the SCAQMD.**
- **Where feasible, landfill roads shall be paved.**
- **Portions of paved roads abutting unpaved haul truck traffic areas shall be routinely swept and/or washed.**
- **Onsite vehicles shall be routinely maintained.**

#### **Status:**

El Sobrante Landfill is in compliance with this mitigation measure. The site has installed a meteorological station and conducted PM<sub>10</sub> monitoring as part of construction activities. All paved surfaces are scheduled to be swept a minimum of once weekly, with supplemental sweepings added on a more frequent basis as dictated by weather conditions. All unpaved haul roads are watered as needed and the dust suppressant, magnesium chloride, is used periodically during the summer months. All heavy equipment is maintained on a 250 operating hour interval, and all heavy trucks (e.g., roll-off trucks) undergo annual exhaust opacity testing as required by SCAQMD.

#### **AQ-4**

In the event monitoring indicates that permissible levels of PM<sub>10</sub> are being exceeded, some combination of the following dust control measures shall be implemented:

- **Washing of truck wheels.**
- **Routing paved access roads away from directions that result in property boundary impacts.**
- **Curtailling specific activities (e.g., new phase construction) when conditions are unfavorable for fugitive PM<sub>10</sub> control.**

#### **Status:**

This mitigation measure has not been triggered, because PM<sub>10</sub> levels are not being exceeded.

#### **AQ-5**

The following activities would occur based on SCAQMD Regulation XIII - New Source Review:

- **Control devices for stationary emission sources shall be provided which satisfy BACT requirements.**
- **NO<sub>x</sub>, ROG, SO<sub>x</sub>, and PM<sub>10</sub> emissions from stationary sources shall be offset according to SCAQMD requirements for essential public services.**

#### **Status:**

El Sobrante Landfill is in compliance with this mitigation measure and submits annual emission reports as required by this mitigation measure.

#### **AQ-6**

The following activity shall occur based on SCAQMD Regulation XIV - Toxics and Other Noncriteria Pollutants:

- **Control devices for stationary emission sources shall be provided which assure that emissions of potentially carcinogenic and/or toxic compounds do not result in unacceptable health risks downwind of the landfill.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. Annual emission compliance tests are conducted to ensure compliance with permitted limits.

**AQ-7**

**Onsite vehicles shall be routinely maintained.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure, which consists of routine maintenance for onsite vehicles and equipment.

**AQ-8**

**Heavy construction equipment shall use low sulfur fuel (<0.05 percent by weight) and shall be properly tuned and maintained to reduce emissions.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All diesel fuel used at the facility is low sulfur fuel with a sulfur content of less than 0.05% by weight.

**AQ-9**

**Construction equipment shall be fitted with the most modern emission control devices.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All heavy equipment operated at the facility by USA Waste is fitted with the manufacturer's specified emission control devices for the period the equipment was manufactured. As equipment is routinely maintained, the most current available upgrades to the emission control systems are installed on the equipment.

**AQ-10**

**The project shall comply with SCAQMD Rule 461 which establishes requirements for vapor control from the transfer of fuel from the fuel truck to vehicles.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. The facility does not currently operate stationary or mobile gasoline fuel tanks that trigger the requirements of Rule 461.

**AQ-11**

**Prior to construction and construction/operation activities, the following premonitoring measures shall be implemented to avoid or lessen boundary concentrations of NO<sub>2</sub>:**

- **Normal landfill operations and cell construction/closure activities shall be preplanned to avoid potentially adverse alignments (both horizontally and vertically) during anticipated periods of meteorological conditions which could result in the greatest property boundary concentration.**

- During periods when both disposal and construction activities are occurring, downwind property line monitoring of NO<sub>2</sub> shall be implemented for wind and stability conditions which could result in the highest boundary concentrations.

During construction and construction/operation activities, the following postmonitoring measures shall be implemented to avoid or lessen boundary concentrations of NO<sub>2</sub>:

- If monitoring determines that the 1-hour NO<sub>2</sub> standard (i.e., 470 µg/m<sup>3</sup>) is being approached (i.e., within 95 percent of the standard or approximately 450 µg /m<sup>3</sup>), construction or cell closure activities shall be curtailed until the appropriate tiered mitigation measures can be implemented, or until adverse meteorological conditions no longer exist.
- The waste placement and/or clay preparation areas shall be moved to a preplanned alternative working location to separate emissions from clay placement construction emissions.
- Construction procedures shall be configured such that operations requiring heavy equipment do not occur simultaneously (e.g., clay placement and protective soil placement by scrapers will not be done during periods with adverse meteorological conditions).
- Construction scheduling will be slowed to reduce daily equipment usage.
- Hours of construction with designated pieces of equipment (e.g., scrapers) shall be constrained to occur outside of peak adverse meteorological conditions.

**Status:**

During construction activities, the landfill operator continues to implement a "CEQA Mitigation Monitoring Workplan for NO<sub>2</sub>," which was prepared by SCS Engineers to incorporate these measures and submitted to the SCAQMD on January 27, 2003.

**AQ-12**

Within three years of start date [July 1, 2001], USA Waste or its successor-in-interest shall submit to the County of Riverside an evaluation of the technological and economical feasibility of using natural gas fuel or other alternative fuel in transfer trucks. The technological feasibility of the evaluation shall include review comments by the South Coast Air Quality Management District. The evaluation shall be subject to County approval. If the County finds that natural gas fuel or other alternative fuel in transfer trucks is technologically and economically feasible, USA Waste or its successor-in-interest shall develop and implement a program to phase-in transfer trucks capable of using these fuels. The program shall be subject to County approval. If the County concludes that transfer trucks capable of using alternative fuels are not technologically and economically feasible, USA Waste or its successor-in-interest shall periodically reevaluate the feasibility of using alternative fuels in transfer trucks. Such reevaluations shall be at least every three (3) years. USA Waste or its successor-in-interest shall, however, conduct such a reevaluation anytime deemed appropriate by County.

**Status:**

The initial evaluation report was submitted with the 2004 Annual Report. The report indicated that alternatively fueled engines with sufficient power ratings for a transfer truck application were not available at that time. The insufficient power issue in a transfer truck application was not overcome in continuing studies through 2009, making it infeasible for USA Waste to implement this requirement in 2010. In 2011, however, USA Waste plans to perform a field test of nine (9) Compressed Natural Gas-fueled tractors for use in transfer truck applications performed in California operations. Based upon this field test, feasibility of this alternative will be evaluated.



#### **AQ-13**

**The project shall provide the required emission reductions of NO<sub>x</sub> and ROG sufficient to cause no net increase of project emissions.**

***Status:***

The attached "Annual 2011 Mitigation Monitoring Program Status Report, Air Quality Mitigation Measure AQ-13, El Sobrante Landfill, Corona, California", prepared by SCS Engineers and dated September 29, 2010, provides both a summary of the site's emission inventory for both stationary and mobile sources and a summary of the emission increases, or reductions, from the various site emission sources from the baseline year to the 2011 projected emissions. Report results forecast an emission reduction of 592.6 lbs/day for NO<sub>x</sub>, and 10.4 lbs/day for ROG. No emission offsets are required for 2011, and the project is in compliance with this mitigation measure.

#### **AQ-14**

**USA Waste shall amend its Policies and Procedures Manual at the landfill to require that heavy construction and operating equipment at the landfill shall not idle for longer than 15 minutes.**

***Status:***

El Sobrante Landfill is in compliance with this mitigation measure. Site Policies and Procedures have been revised to enforce the "no idle longer than 15 minutes" mitigation measure, and installation of exterior indicator lights began in 2008 to show machine idle time-outs and assure compliance with this requirement. At the end of 2010, 6 pieces of equipment had been installed with exterior lights; 1 of 2 loaders, all 3 tipplers, and 2 of 4 compactors. In 2011, it is planned that 9 pieces of equipment will be installed with idle time-out lights; the remaining 2 compactors, 3 of 5 dozers, all 3 articulated haul trucks, and 1 of 2 excavators. Idle time-out lights will not be installed on any remaining equipment due to its low use.

### **Biological Resources (B) Mitigation Measures**

#### **B-1**

**Development shall be phased so that the area to be disturbed shall be minimized. Restoration of previously disturbed areas shall be performed in accordance with the Multiple Species Habitat Conservation Plan for the El Sobrante Landfill and its Implementing Agreement, both dated July 2001, and any approved modifications or amendments thereto.**

***Status:***

Phased development, closure and restoration are being performed in accordance with the Implementing Agreement, dated July 2001, for the approved Multiple Species HCP that was entered into by USFWS, CDFG, USA Waste, and Riverside County. New cell development excavation continues to be minimized as much as operationally possible and monitored by biological consultants to ensure that appropriate preserve/excavated ratios are maintained. During 2003, the expansion phases were redesigned to facilitate expansion and soil stockpiling activities. A minor modification request was formally submitted to USFWS and CDFG in May 2004 to re-phase the grading plan, increasing the number of phases from 15 to 17. Closure of Phase A of the landfill was completed in 2007 including the restoration of approximately 22 acres of Riverside Sage Scrub (RSS). Phase B closure of approximately 18 acres began in 2008 and was completed in 2009. Restoration of Phase B slopes occurred from October to

early November 2009 and included the creation of cactus patches, creation of rock and brush piles for reptile habitat, and the application of a hydroseed mix of native RSS. In 2010, 6.2 acres of the Phase 10 stability berm were hydroseeded, and approximately 25 acres adjacent to Phase 9B that burned from a fire in 2010 were hydromulched.

#### **B-2**

**Areas within the landfill limits of disturbance shall be restored with Riversidian sage scrub in accordance with the Multiple Species Habitat Conservation Plan for the El Sobrante Landfill and its Implementing Agreement, both dated July 2001, and any approved modifications or amendments thereto.**

#### **Status:**

Refer to "Status" under Mitigation Measure B-1.

#### **B-3**

**Dudleya salvaging and restoration shall be performed in accordance with the Multiple Species Habitat Conservation Plan for the El Sobrante Landfill and its Implementing Agreement, both dated July 2001, and any approved modifications or amendments thereto.**

#### **Status:**

Dudleya salvaging and restoration is being performed by the Habitat Manager, in accordance with the Dudleya Restoration Plan, prepared pursuant to the approved HCP. The HCP requires that impacted Dudleya be replaced at a 1:1 ratio. The initial estimate of the many-stemmed Dudleya population in 2001 was 1,600 individuals. However, pre-impact surveys conducted from the commencement of pre-impact surveys in 2002 in the landfill phases and general surveys conducted in the preserved open space have identified approximately 26,800 individual plants. Through 2009, a total of 13,960 plants had been salvaged from landfill phases prior to grading disturbance, including landfill areas cleared in 2010. As a result, no Dudleya were salvaged in 2010. Of the 13,960 plants salvaged, 7,760 plants survived to be planted within test plots located in protected open space areas of El Sobrante and referred to as the Dudleya Restoration Area. Another 6,842 Dudleya plants have been grown from seed and planted in the Dudleya Restoration Area. While Dudleya densities within the restoration plots have been greater than or equal to the densities of those found onsite in native rocky outcrops, the survival of plantings, on a whole, has been low. As a result, it has been recommended that, in the future, previously established plots, and any new plots, be directly seeded with *Dudleya multicaulis*.

#### **B-4**

**Prior to disturbance to wetland/riparian areas, a wetland compensation and mitigation plan shall be developed in consultation with the ACOE, if a 404 Permit is required, the CDFG, pursuant to Section 1603 of the California Fish and Game Code, the RWQCB, pursuant to 401 Water Quality requirements and/or policies to protect wetlands, and the USFWS, if consultation is triggered pursuant to Section 7 of the Endangered Species Act. Mitigation of riparian habitats shall be targeted at a 3:1 ratio with compensation of 6.36 acres. Target mitigation of an additional 1.28 acres of riparian herb vegetation shall be at a 1:1 ratio. Final determination of mitigation ratios shall be made subsequent to onsite evaluation by the ACOE, CDFG, RWQCB, and/or USFWS and shall not be unreasonable or arbitrary.**

**Status:**

Impacts to wetland habitat have not occurred and should not occur until the last phase of landfill development, Phase XVII. As noted in the approved HCP negotiated with the USFWS and CDFG, the wetland compensation plan will be developed separately from the HCP and prior to impacts.

**B-5**

**Activities to mitigate the disturbance to wetlands may include, but are not limited to:**

- **Identification and assessment of sites and specific riparian mitigation measures along Temescal Wash.**
- **Enhancement of degraded areas within existing channels.**
- **Weed removal to improve existing riparian habitat.**
- **Potential purchase of offsite riparian habitat.**

**Status:**

As noted under "Status" for Mitigation Measure B-4, a wetland compensation plan has not yet been developed, because impacts to wetland/riparian areas have not occurred and will not occur until Phase XVII. At the time the plan is developed, it will incorporate measures such as those noted in Mitigation Measure B-5.

**B-6**

**The purchase of offsite riparian/wetland habitat shall be incorporated into the mitigation plan in the event that the ACOE Section 404 permit and CDFG Section 1603 agreement process conclude that onsite enhancement and offsite mitigation along Temescal Wash could not provide sufficient compensation for disturbance to onsite riparian habitat. If this mitigation were implemented, surveys shall be conducted in coordination with USFWS and CDFG to identify offsite riparian habitat that would be suitable for purchase as mitigation for onsite habitat disturbance. Considerations shall include, but not be limited to:**

- **Proximity to landfill site.**
- **Similarity of adjacent habitat.**
- **Management plans.**
- **Comparability.**
- **Sustainability.**
- **Cost.**

**Status:**

Refer to "Status" under Mitigation Measures B-4 and B-5. A mitigation plan will be developed in negotiation with the resource agencies prior to any impacts to these habitats in future phases of the landfill.

**B-7**

**Wetland/riparian habitat mitigation shall be implemented in accordance with all permits, approvals, and/or agreements as may be required by ACOE, CDFG, RWQCB, and/or USFWS.**

**Status:**

Prior to disturbance to wetland/riparian areas, or any streambed alteration, permits will be required from CDFG (1602), Army Corps of Engineers (ACOE - 404), and Regional Water Quality Control Board (RWQCB - 401), which will require submittal of a compensation and mitigation plan. Mitigation will be implemented in accordance with an approved plan and upon issuance of all approvals and/or permits from these resource agencies.

**B-8**

**Landfill personnel shall be instructed as to the requirement for and importance of restoration of completed areas of the site.**

**Status:**

Worker education for El Sobrante Landfill employees and contractor employees was conducted in 2010 by El Sobrante supervisory staff as needed. This is an ongoing requirement. Restored and undisturbed habitat is also closely monitored by the Habitat Manager to ensure that impacts from landfill activity do not occur.

**B-9**

**Approximately 406 acres of undisturbed open space, upon which a Declaration of Conservation Covenants and Restrictions has been recorded in favor of CDFG and USFWS, shall be maintained and managed for the benefit of Covered Species, pursuant to federal and state incidental take permits and the *Multiple Species Habitat Conservation Plan for the El Sobrante Landfill* and its Implementing Agreement, both dated July 2001, and any approved modifications or amendments thereto.**

**Status:**

A restrictive covenant has been placed over approximately 406 acres of Undisturbed Open Space on the landfill property in favor of USFWS and CDFG. A Declaration of Conservation Covenants and Restrictions was recorded on August 7, 2002 (Instrument No. 434614). Another 292 acres were conveyed to the County in 2002, subject to a conservation easement granted in favor of the CDFG.

**B-10**

**Pursuant to Section 5 of the Agreement, USA Waste or its successor-in-interest shall pay the County a per ton charge for the deposit of Non-County waste at El Sobrante Landfill, \$1.50 of which shall be utilized for multi-species habitat acquisition and management, including planning and research activities, as provided in Section 10.7 of the Agreement and as approved by the Board of Supervisors on September 1, 1998. Monies to be utilized for multi-species purposes shall be deposited in a trust fund administered by the Executive Officer of the County.**

**Status:**

For calendar year 2010, approximately \$2,001,128 was collected from out-of-county waste imports and conveyed to the Executive Office for MSHCP funding (as based on 1,334,085.19 tons of out-of-County waste in 2010 at \$1.50/ton). No portion of the out-of-County fee that is allocated for multi-species habitat acquisition and management is utilized to fund the El Sobrante Landfill HCP. The County maintains entire discretion over the trust fund, which is currently being utilized to fund a major portion of the Western Riverside County Multiple Species

Habitat Conservation Plan. USA Waste (or its successors-in-interest) is entirely responsible for funding and carrying out its obligations under the approved HCP for the El Sobrante Landfill.

**B-11**

**In the unlikely event that out-of-County waste ceases to be disposed of at El Sobrante, use of the 60 million tons of air space currently allocated for out-of-County waste shall include the requirement for payment of \$1.00 per ton for multispecies habitat acquisition and management.**

**Status:**

The circumstances cited in this measure have not occurred.

**B-12**

**Lighting at the working face shall be downcast and shielded to minimize reflection, and shall be directed inward toward the landfill.**

**Status:**

Mobile light plants are utilized as needed within the working face area to assure safe nighttime working conditions. All light sources are monitored by site supervisors to assure units are properly shielded and directed to avoid glare to the surrounding community. In 2010, no complaints were received regarding night lighting utilized at the El Sobrante Landfill.

**B-13**

**A predator monitoring and control plan shall be implemented in accordance with the *Multiple Species Habitat Conservation Plan for the El Sobrante Landfill* and its *Implementing Agreement*, both dated July 2001, and any approved modifications or amendments thereto.**

**Status:**

Wildlife control measures that include the following have been incorporated in the approved HCP and are being implemented by the Habitat Manager (RECON in 2010) in accordance with the Implementing Agreement:

- Cowbird trapping during the breeding season of the Gnatcatcher.
- Monitoring for the occurrence of Argentine ants and fire ants, and implementation of control measures that are based on methods prescribed by County and State agencies and approved by the Management Committee. Implementation of the measures must be consistent with the terms of the incidental take permits.
- Monitoring for the presence of domestic pets and feral cats, and implementation of trapping or other appropriate actions to limit the effects on these animals on Covered Species in Conserved Habitat and in undisturbed habitat in the Landfill Area.

In 2008 and 2009, the number of cowbirds trapped remained significantly lower than previous years. As a result, the Habitat Management Committee (HMC) for the El Sobrante HCP mutually agreed in September 2009 to reduce cowbird trapping from every year to every other year. The cowbird trapping program, which was not conducted in 2010, will resume in 2011 and every other year thereafter, with trapping occurring from April 1 through July 15.

**B-14**

Brush clearing and habitat removal in each phase of landfill expansion will not be allowed to occur between February 1 and August 15, pursuant to the *Multiple Species Habitat Conservation Plan for the El Sobrante Landfill* and its Implementing Agreement, both dated July 2001, and any approved modifications or amendments thereto.

**Status:**

From August 15, 2009 to February 1, 2010, approximately 40 to 45 acres were cleared within Phases 10, 11, and the western portion of Phase 13 based upon biological surveys conducted in 2009. The many-stemmed dudleya, which is the only rare plant to be located to date during pre-impact surveys, were salvaged from these phases in 2009.

In Spring 2010, pre-impact surveys for rare plants and for Quino Checkerspot Butterfly (QCB) were conducted within 20.5 acres consisting of portions of Expansion Phases 13 and 15 (Survey Area A) and an area at the south end of Phase 10 (Survey Area B). Only a few dudleya were found in Phase 13 of Survey Area A, and these were determined to be new individuals of a previously identified population. QCB surveys were conducted within Survey Areas A and B six times during the flight season occurring from March 4, 2010 through April 9, 2010. No QCB were observed on the site during the focused surveys. Survey Area A was not cleared in 2010. Additional pre-construction nesting bird surveys were performed once weekly within the 7-acre area known as Survey Area B during the 4-week period from June 15 to July 6, with a follow-up survey on July 15, to determine conclusively that there was no evidence of nesting activity. A report was prepared and submitted to USFWS on July 16<sup>th</sup>. Clearing activities began after receipt of approval from USFWS.

**B-15**

When the landfill expansion is complete (i.e., after closure of all phases and at the end of the postclosure monitoring maintenance period [currently a minimum of 30 years]), including all restoration activities in accordance with the *Multiple Species Habitat Conservation Plan for the El Sobrante Landfill* and its Implementing Agreement, both dated July 2001, and any approved modifications or amendments thereto, the area of onsite disturbance (approximately 645 acres) shall be kept in permanent conservation through a conservation easement in favor of the CDFG. In the event that CDFG revokes its acceptance of the conservations easement, the land shall be placed into conservation with the County, or other County-designated entity, such as Western Riverside County Regional Conservation Authority as approved by the US Fish and Wildlife Service and the El Sobrante habitat management committee.

**Status:**

As noted, this mitigation measure will not be triggered until after the post-closure period of approximately 30 years beyond closure of all phases of the landfill expansion project.

**B-16**

USA Waste or its successor-in-interest shall continue to include the County in all aspects of future permitting processes involving USFWS, pursuant to Section 7 of the Endangered Species Act, CDFG, pursuant to Section 1603 of the California Fish and Game Code, ACOE 404 permitting, and RWQCB, pursuant to 401 Water Quality requirements and/or policies to protect wetlands.

**Status:**

As party to the Implementing Agreement for the approved HCP, the County of Riverside will be included in all aspects of future permitting processes involving USFWS, CDFG, ACOE, and/or RWQCB.

**Cultural Resources (C) Mitigation Measures**

**C-1**

**Prior to grading, a Society of Professional Archaeologists (SOPA)-certified archaeologist(s) shall be retained, at the expense of the project, to provide surface collection, mapping, and test excavations for identified archaeological sites. If the sites are determined to be important, the resources within these sites shall be either preserved or a data recovery excavation shall be conducted.**

**Status:**

Excavation in Phases 9B, 10, and 11 occurred in 2010. Pre-impact archaeological surveys were conducted within these areas by SOPA-certified archeologists with RECON in 2003. Due to the lack of any evidence of any archaeological resources, RECON did not recommend any further archaeological work within these areas. No data was recorded with the local data repository.

**C-2**

**In the event that additional archaeological sites are uncovered during initial grading, work shall be redirected and an archaeologist shall be retained at the expense of the project, to evaluate the importance of the site and, if necessary, shall develop and implement an appropriate data recovery program. The archaeologist shall be allowed to redirect grading in the area of exposed resources until inspection, evaluation, and recovery activities are completed.**

**Status:**

No archaeological sites have been uncovered during any grading or excavation work in current phases. There was no evidence for a subsurface component.

**C-3**

**Routine road or stormwater facilities, maintenance or other land-altering activities in the vicinity of sites shall be monitored by a SOPA-certified archaeologist to prevent inadvertent disturbance or loss of important resources.**

**Status:**

Pre-impact archaeological surveys have been conducted by SOPA-certified archaeologists in order to identify previously recorded resources and to identify new resources in expansion areas prior to any disturbance activities. As noted under "Status" for Mitigation Measure C-1, no resources have been identified in Phases 9, 10, or 11.

**C-4**

**The status of the sites shall be monitored on a semi-yearly basis to assure that incidental disturbance or recreational collection of resources has not occurred.**

**Status:**

The Habitat Manager monitors all activity on the landfill site on an ongoing basis.

**C-5**

**Archaeological materials recovered during surface collections, subsurface excavations, and monitoring shall be curated in perpetuity at a regional repository approved by the County. Expenses for curation shall be borne by the project.**

**Status:**

No archaeological materials have been identified or recovered in the current expansion phases. El Sobrante Landfill will comply with this mitigation measure if triggered.

**C-6**

**While the archaeological sites that will be affected by the proposed project are not expected to include human remains or burial artifacts, should such items be discovered during subsurface testing or data recovery, or if such items are discovered at unknown sites during construction or operation of the proposed action, project-related earthmoving activities shall be redirected away from the area. A SOPA-certified archaeologist shall consult with the County and representatives of local Native American groups regarding removal and re-interment.**

**Status:**

No human remains or burial artifacts have been recovered during subsurface testing or during grading. Therefore, this mitigation measure has not been triggered. However, should human remains or burial artifacts be discovered, proper protocol procedures will be followed.

**C-7**

**The approved archaeological mitigation measures shall be affixed to all copies of the project grading plans.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**Geology, Soils and Seismicity (G) Mitigation Measures**

**G-1**

**The landfill and associated structures shall be designed and constructed to withstand the expected ground motions and potential effects of seismic ground shaking.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All cell designs are engineered based on seismic stability analyses and subject to review and approval of the RWQCB. Likewise, all building plans must comply with all applicable building standards and are submitted to Riverside County for review and permitting.

**G-2**

**Final exterior waste fill slopes shall not be steeper than 1.75:1 with a minimum of one 15-foot wide bench for every 50-feet of vertical height.**



**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All final exterior slopes are a more conservative 2.5:1 with benches every 50 vertical feet. Interim slopes are constructed at 3:1 per RWQCB guidelines.

**G-3**

**A slope or foundation stability report shall be prepared by a registered civil engineer or certified engineering geologist. The report must indicate at least a 1.5 factor of safety for the critical slope under dynamic conditions, or appropriate factor of safety in accordance with applicable regulations.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All stability analyses are included in the Joint Technical Document (JTD) reviewed and approved by the RWQCB. In addition, each new landfill cell design requires a seismic stability analysis that is submitted, as well, to the RWQCB for review and approval. The JTD, revised March 2009, incorporated an updated seismic stability analysis of the landfill's liner system.

**G-4**

**In lieu of achieving a 1.5 factor of safety under dynamic conditions, a more rigorous analytical method that provides a quantified estimate of the magnitude of movement may be employed.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All stability critical structures within the footprint of the landfill are designed to the 1.5 factor of safety.

**G-5**

**Significant slopes (including cut, fill, and waste prism slopes greater than 20 feet high and steeper than 3:1) shall be designed to comply with RWQCB and CIWMB requirements for the identified maximum probable earthquake peak acceleration.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All cut, fill, and waste slopes are designed by an engineering firm to comply with regulatory requirements.

**G-6**

**RWQCB and CIWMB requirements shall be complied with, and the final cover surface slopes shall be limited to 3:1, based on seismic considerations, with intermediate fill stage heights limited to 70 feet, with 15-foot wide benches to improve stability, unless subsequent analyses verify the acceptability of steeper slopes or greater fill heights. Under no circumstance, however, shall the final exterior waste fill slope be steeper than 1.75:1 (see G-2 above).**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**G-7**

**Slope buttresses shall be provided, if necessary, to increase slope stability and reduce deformations.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. In 2010, a perimeter stability berm was constructed at the eastern limit of Phase 10.

**G-8**

**Parameters developed by geosynthetic and geotechnical testing shall be included in the analysis of liner systems on side slopes. Residual strength values (i.e., after shearing) shall be used, unless control of peak strengths can be demonstrated.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. Compliance is documented in the Construction Quality Assurance As-Built Reports for each specific landfill phase that is constructed.

**G-9**

**A post-earthquake inspection plan shall be submitted to the RWQCB and CIWMB, for approval which provides for detailed site inspection after an earthquake of magnitude (M) 5.0 or greater within 25 miles of the site to determine the integrity of landfill structures and systems. The plan shall identify appropriate measures which may be initiated to correct earthquake-related damage. Also, a routine inspection plan shall be developed and implemented by a registered certified engineer to examine slope conditions.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. A plan has been designed and implemented to include integrity inspections of structures, slopes and the landfill's integrated systems. El Sobrante Landfill staff currently inspect slopes and structures for maintenance issues including signs of settlement and fissures on a weekly basis. This plan was submitted to the RWQCB and CIWMB in 2008 and incorporated in the approved JTD, revised March 2009.

**G-10**

**If geotechnical investigations reveal the need for blasting for a specific landfill phase, a blasting study shall be conducted in compliance with County requirements. If such a study is necessary, it shall be conducted by a licensed engineer and submitted to the County Engineering Geologist for approval.**

**Status:**

El Sobrante Landfill will comply with this mitigation measure if geotechnical investigations reveal the need for blasting. No blasting was required in 2010.

**G-11**

**If isolated saturated bedrock conditions are encountered in cut slopes, appropriate drainage systems shall be installed. These systems could consist of weep systems, subdrain systems, or the flattening of excavated cut slopes to improve slope stability.**

**Status:**

Two sets of surface water downdrains were put in place in 2009 in conjunction with the applied final cover in Phases 1 and 3-5. Subdrain systems were installed in Phase 8 when these conditions were encountered. During the construction of cell 9A (active phase), this subdrain was extended. In 2010, the stability berm in Phase 10 was constructed with canyon subdrains. This measure will continue to be implemented at the El Sobrante Landfill during cell construction when these conditions are encountered and will continue to be in compliance with this mitigation measure. In 2011, cell liner construction will occur on approximately 26.4 acres within Phases 9B and 10, with continued excavation within the Phase 11 area.

**G-12**

**Landfill liners shall be placed over the side slopes, and surface water runoff control systems (e.g., V-ditches at the top of slopes) shall be constructed to prevent uncontrolled flow down the face of the slopes.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. El Sobrante has constructed and continuously maintains a surface drainage network system to prevent erosion over the slopes of the landfill, which consists of v-ditches, check dams, sand bags, and silt fences.

**G-13**

**Structural fills shall be built above ground water and compacted in place to a specific high relative density.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. No structural fills were placed in ground water during 2010. A canyon subdrain system was installed beneath the Phase 10 stability berm constructed in 2010.

**G-14**

**Expansive index testing shall be performed to verify the suitability of native soils for fill materials. If testing indicates a potential for high expansiveness in the soil, such soils shall be either treated (e.g., mixed with non-expansive soils) or removed.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. All fill materials have been tested prior to fill placement and documented in a Construction Quality Assurance As-Built Report submitted to the regulatory agencies.

**G-15**

**Blasting shall be conducted in compliance with local building code requirements to prevent damage to structures and new construction from shear waves generated during blasting.**

**Status:**

El Sobrante Landfill will comply with this mitigation measure if geotechnical investigations reveal the need for blasting. No blasting was required in 2010.

**G-16**

**Only state-licensed blasters shall be used to design, supervise, and detonate explosives on the site.**

**Status:**

This mitigation measure was not triggered in 2010, since no blasting was required.

**G-17**

**Seismic monitoring of each blast shall be conducted by an independent, qualified consultant.**

**Status:**

This mitigation measure was not triggered in 2010, since no blasting was required.

**G-18**

**There shall be no onsite storage of explosives. Explosives shall be transported to the site by the licensed blaster on an as-needed basis.**

**Status:**

Explosives are not stored on the site of the landfill.

**G-19**

**USA Waste shall inform the Riverside County Sheriff's Department (Sheriff's Dept.) and the Riverside County Fire Department (Fire Dept.) prior to blasting.**

**Status:**

This mitigation measure was not triggered in 2010, since no blasting was required.

**G-20**

**USA Waste shall notify neighbors within 1,000 feet of potential blasting areas prior to a blasting episode.**

**Status:**

This mitigation measure was not triggered in 2010, since no blasting was required.

**G-21**

**A record of each blast shall be retained for at least three years and shall be submitted to the County Building and Safety Department as requested by the Building and Safety Director.**

**Status:**

If blasting should occur, all records of blasting would be retained at the landfill Administration Office. The blasting record would become part of the Operating Record for the landfill. However, no blasting occurred in 2010.

**G-22**

**Preblast inspections shall be made by a civil engineer licensed by the State of California of residences and facilities existing at the time of landfill permit approval and located**

within 1,000 feet of potential blasting areas.

**Status:**

This mitigation measure was not triggered in 2010, since no blasting was required.

**G-23**

**A letter containing a general description of the blasting operations and precautions, including the blast-warning whistle signals that are required by the State of California Construction Safety orders, shall be sent to residents within a one-half mile radius of the landfill operations by USA Waste in accordance with applicable regulations.**

**Status:**

This mitigation measure was not triggered in 2010, since no blasting was required.

**G-24**

**Blasting complaints, if any, shall be recorded by USA Waste as to complainant, address, data, time, nature of the complaint, name of the person receiving the complaint, and the complaint investigation conducted. Complaint records shall be made available to the County Engineering Geologist, Planning Department, and Building and Safety Department.**

**Status:**

This mitigation measure was not triggered in 2010, since no blasting was required.

**Land Use and Land Use Plans (L) Mitigation Measures**

**L-1**

**The development of El Sobrante Landfill Expansion shall be in accordance with the mandatory requirements of all applicable County ordinances and shall conform substantially with the project description in the EIR (State Clearinghouse No. 90020076), as filed in the office of the RCWMD.**

**Status:**

While there have been changes to conceptual grades based on updated seismic stability analysis, the El Sobrante Landfill continued to be developed in overall accordance with the Expansion Project first approved by the BOS in 1998 and with its SWFP and corresponding JTD, last revised in 2009.

**L-2**

**Prior to any offsite grading, USA Waste or its successor-in-interest shall obtain and record appropriate offsite easements.**

**Status:**

Offsite grading, requiring offsite easements, was not conducted in 2010.

**L-3**

**A Citizen Oversight Committee shall be formed by the Board of Supervisors upon approval of the project. The Citizen Oversight Committee shall be composed of a total of five (5) members, whose term of service will be established upon formation of the**

committee. Three (3) of the five (5) members will be appointed by the Supervisor of the district in which the landfill is located. Of these three (3), two (2) members must reside within a three (3) mile radius of the landfill property. One (1) member shall be a representative from a corporate operation within a three (3) mile radius of the landfill property. The remaining two (2) members will be appointed by the entire Board of Supervisors and shall be chosen at large to represent the affected communities of interest.

**Status:**

The Citizen Oversight Committee (COC) was formed by the BOS in 2003 and meets multiple times per year to discuss issues related to the use of the Mitigation Trust, illegal dumping and programs, and landfill operations. The COC held three (3) meetings in 2010. Key issues discussed by the COC were: 1) the ongoing status of the Clean Money Youth-Based Fundraising Program implemented in the First and Second Supervisorial Districts, 2) the Mitigation Trust Fund, 3) code enforcement issues, and 4) El Sobrante Landfill activities, including the 2009 El Sobrante Landfill Annual Report.

**L-4**

The Citizen Oversight Committee shall meet at least once annually to review the Annual Status Reports that will be submitted by an Administrative Review Committee which will include all reports and data that will be provided by USA Waste or its successor-in-interest and shall submit written comments on the project to the Board of Supervisors as they deem necessary.

**Status:**

The COC met on July 21, 2010 to review the 2009 El Sobrante Landfill Annual Report.

**Noise (N) Mitigation Measures**

**N-1**

Excavation and liner construction of new landfill cells shall be limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Saturday.

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**N-2**

Landfill equipment working on the outside slopes of the landfill shall be limited to the hours of 8:00 a.m. to 5:00 p.m.

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**N-3**

Construction equipment shall use industrial-grade mufflers to reduce noise emission.

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**N-4**

**Blasting shall be postponed during temperature inversions and unfavorable wind conditions (wind blowing toward residences).**

**Status:**

No blasting occurred in 2010.

**N-5**

**Drilling and blasting shall be conducted between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday, and will not occur on federal, state, and local holidays.**

**Status:**

No blasting occurred in 2010.

**N-6**

**Acoustic blankets shall be used around drilling operations to reduce potential drilling noise.**

**Status:**

No drilling for blasting occurred in 2010.

**N-7**

**Wherever feasible, temporary earthen or landscape berms, or other structures or measures, shall be utilized to reduce potential noise impacts on surrounding homeowners from nighttime activities at the working face of El Sobrante. Any measures implemented for this purpose shall be subject to annual review by the Citizen Oversight Committee.**

**Status:**

The current landfill development and filling is not close to any residential property owners, and the facility has not received any noise complaints. Additionally, new noise studies incorporated in the Supplemental EIR (certified by BOS in 2009) prepared for the revision to the landfill's operating permit to allow for 24-hour disposal and a weekly disposal capacity limit, did not discover new noise impacts requiring further mitigation.

**Paleontological Resources (P) Mitigation Measures**

**P-1**

**A qualified paleontologist shall be retained, at the expense of the project, to monitor ongoing grading or other extensive activities in the Silverado Canyon and Lake Mathews formations. The monitoring program shall reflect the County's intent to research, recover, and preserve significant paleontological resources.**

**Status:**

El Sobrante Landfill has maintained compliance with this mitigation measure since the 1998 approval of the Expansion Project by the Riverside County BOS by retaining a qualified paleontologist to monitor any excavation activities within the Silverado Canyon or Lake Mathews formations. No excavations in these formations were conducted in 2010.

**P-2**

**In the event that significant paleontological resources are uncovered during excavation, earthmoving and/or grading, work shall be redirected from the area until an appropriate data recovery program can be developed and implemented.**

***Status:***

No significant paleontological resources were uncovered during earthwork activities in 2010; no excavation, earthmoving and/or grading work needed to be redirected.

**P-3**

**Recovered fossils shall be cleaned, cataloged, and identified to the lowest taxon possible. A report containing monitoring results, including an itemized list of fossils, shall be submitted to the County. A copy shall accompany the fossils to an appropriate repository.**

***Status:***

Since no significant paleontological resources have been uncovered, this mitigation measure has not been triggered.

**P-4**

**Collected fossils shall be curated at a public institution with an educational/research interest in the material. The expenses shall be borne by the project.**

***Status:***

Since no significant paleontological resources have been uncovered, this mitigation measure has not been triggered.

**P-5**

**The approved paleontological mitigation measures shall be affixed to all copies of the project grading plans.**

***Status:***

El Sobrante Landfill is in compliance with this mitigation measure.

**Traffic and Circulation (T) Mitigation Measures**

**T-1**

**Out-of-County waste from Los Angeles County, Orange County, San Bernardino County, and San Diego County shall be transported to El Sobrante by transfer trucks.**

***Status:***

El Sobrante Landfill has maintained compliance with this mitigation measure with the cooperation of the Riverside County Waste Management Department, who monitors and provides waste origin data. All contracted out-of-County waste was delivered by transfer trucks in 2010.



**T-2**

**Transportation of out-of-County waste from areas other than Los Angeles County, Orange County, San Bernardino County, and San Diego County shall not be permitted without additional environmental review and approval.**

**Status:**

Waste delivered to the El Sobrante Landfill is not transported from counties other than those identified. El Sobrante is in compliance with this mitigation measure.

**T-3**

**Transfer trucks hauling waste from out-of-County to El Sobrante that use State Route (SR) 91 shall travel to and from the landfill during off-peak hours for SR 91.**

**Status:**

El Sobrante is in substantial compliance with this mitigation measure. While transfer trucks hauling waste from out-of-County using SR 91 represent an insignificant contribution to traffic levels on this roadway, extensive residential growth has led to significant traffic congestion on both SR 91 and Interstate 15. As a direct consequence, transfer truck operators have been forced to adjust their travel to avoid peak daytime and early evening commute times as a cost-saving measure.

When the landfill gate hours for waste delivery were extended from 20 hours a day to 24 hours a day, effective August 31, 2009, transfer station operators using El Sobrante were encouraged to shift more loads for transport to the later hours of 9 pm to 5 am. While about 29 percent of all out-of-County waste was delivered between these hours in 2010, a combination of transfer station operational requirements (existing permit restrictions/reduced tonnage) and union restrictions have presented challenges in shifting loads to this time period and in meeting the requirements of the Second Amendment to the Second Agreement, which requires 2,000 tons of out-of-County waste to be delivered during the same time period. While out-of-county tonnage has increased approximately 15% over 2009 tonnage levels, out-of-county tonnage into the landfill is 28.5 to 42.8 percent below that allowed by permit and the Second Agreement (i.e., 6,000 to 7,500 tons per day).

**T-4**

**Vehicles delivering waste from out-of-County to be disposed at El Sobrante shall utilize on all trips (both inbound and outbound) only that portion of Temescal Canyon Road between its intersection with 1-15 and the landfill access road, except in the event of a closure of the on- and/or offramps at Temescal Canyon Road and 1-15.**

**Status:**

El Sobrante Landfill requires all transfer trucks to utilize the designated route for deliveries of waste. A sign has been installed at the intersection of Dawson Canyon Road and Temescal Canyon Road to clearly indicate to drivers leaving the landfill that no right turn is allowed and to indicate the landfill operator's commitment to enforce this restriction. When a driver is observed not using the designated route, the management of the trucking company is notified of the violation, and a request is made to correct the behavior. The El Sobrante staff tracks violations, with repeated violations by a driver resulting in the driver being banned from using the El Sobrante facility. One (1) repeat violation by an out-of-County end dump driver was noted in 2010.

**T-5**

**Except for vehicles collecting waste in the immediate vicinity of El Sobrante, USA Waste's or successor's-in-interest collection vehicles delivering waste from in-County to be disposed at El Sobrante shall utilize only that portion of Temescal Canyon Road between its intersection with 1-15 and the landfill access road for all trips (both inbound and outbound), except in the event of a closure of the on-and/or off-ramps at Temescal Canyon Road and I-15.**

**Status:**

The landfill operator has implemented this mitigation measure similarly to Mitigation Measure T-4. A sign has been installed at the intersection of Dawson Canyon Road and Temescal Canyon Road to clearly indicate to drivers leaving the landfill that no right turn is allowed and to indicate the landfill operator's commitment to enforce this restriction. When a driver is observed not using the designated route, WMI hauling operations are notified of the violation, and a request is made to correct the behavior. The El Sobrante staff tracks violations, with repeat violations by a driver resulting in the driver being banned from using the El Sobrante facility. No repeat violations were noted for local haulers in 2010.

**Public Services and Utilities (U) Mitigation Measures**

**U-1**

**Access roads/streets shall be wide enough to accommodate movement and parking without hindering the flow of traffic. Roadway modifications shall be designed to provide smooth and orderly traffic flow and shall be well lighted.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**U-2**

**Warning or caution signs shall be placed on Temescal Canyon Road and the El Sobrante access road to indicate the presence of slow-moving traffic/trucks.**

**Status:**

El Sobrante Landfill has placed multiple speed limit and caution signs at strategic points along the access route to the landfill to indicate the presence of slow-moving traffic in compliance with this mitigation measure.

**U-3**

**Upon assignment of a numbered street address by the County, the project entrance shall be clearly marked with address numbers.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. The landfill entrance is well marked by many signs and monumentation. Address numbers are now posted on the mailbox and are being installed on the facia of the administrative office(s).

**U-4**

**Buildings shall be constructed with fire retardant roofing material as approved by the County Fire Department.**

**Status:**

No new building applications were submitted in 2010. All new building applications for permanent structures will be routed through the Fire Department as required by the standard building permit process and this mitigation measure.

**U-5**

**Water mains and fire hydrants providing required fire flows shall be constructed subject to approval by the County Fire Department.**

**Status:**

No new water service applications were submitted in 2010. All new water mains and fire hydrants will be routed through the Fire Department as required.

**U-6**

**Prior to approval of any development plan for lands adjacent to open space areas, a fire protection/revegetation management plan shall be submitted to the Riverside County Fire Department for review and comment.**

**Status:**

El Sobrante Landfill developed and submitted a fire management plan to the Fire Department in 2003. This plan is implemented pursuant to El Sobrante HCP and Implementing Agreement and monitored by the Habitat Monitor. Construction of two additional water storage tanks (140K gallon and 40K gallon) and pump upgrades were completed in 2007 to increase the water supply at El Sobrante for potential fire mitigation. The Fire department has received a dedicated hook-up to each of the new tanks.

**U-7**

**Landfill equipment operators, waste transfer vehicle drivers, and landfill personnel assigned to nighttime operations shall have appropriate training for night operation of heavy equipment.**

**Status:**

El Sobrante Landfill equipment operators assigned to night operations receive weekly training on safety within the landfill, inclusive of maintaining proper lighting while operating in other than daylight conditions. All operator training is documented, with records maintained on site.

**U-8**

**Portable lights shall be used at the working face to provide a safe working environment during nighttime operations.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**U-9**

**The landfill access road and onsite roads to the working face shall be equipped with reflectors, reflective cones, reflective barriers and signs.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**U-10**

**Public access to the landfill shall be restricted to the hours of 6:00 a.m. to 6:00 p.m.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**U-11**

**Installation of low flow toilets, faucets, and showers.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**U-12**

**Wastewater shall go to the Lee Lake Treatment Facility, which makes water available for reuse.**

**Status:**

The active landfill requires potable, non-potable or reclaimed water, and wastewater handling in its operations. Potable water to the active landfill is currently provided by the City of Corona, non-potable or reclaimed water is provided by the Lake Elsinore Water District, and wastewater generated at the landfill is currently handled onsite, with gray water from restroom facilities routed into an onsite septic system approved by Riverside County and leachate and condensate collected for dust control purposes via a leachate collection and removal system (LCRS) pursuant to approvals from the RWQCB.

In order for wastewater from the landfill to go to the Lee Lake Treatment Facility to ensure that the landfill does not exceed its onsite capacity and allow for its reuse, as well as to consolidate services under one purveyor, the landfill property had to be annexed into the service area of the Lee Lake Water District (LLWD), which is the only purveyor able to meet the entire needs of the landfill for not only wastewater collection, treatment, and reuse/disposal, but also for potable and non-potable water. Applications for an annexation and Sphere of Influence (SOI) amendment were filed with the Riverside County Local Agency Formation Commission (LAFCO) in late summer 2010. On March 24, 2011, the LAFCO Board approved the annexation and SOI amendment. LAFCO's Notice of Results, including signed resolutions, were filed with and recorded by the State Board of Equalization in May and June of 2011, finalizing the decision.

**Water Resources (W) Mitigation Measures**

**W-1**

**Drainage structures, such as the perimeter drainage channels, sedimentation basins, leachate evaporation ponds, stormwater retention basins, and collection pipes and ditches, shall be inspected and maintained on a regular basis.**

**Status:**

At a minimum, El Sobrante Landfill supervisors inspect and maintain all drainage structures

(including ditches, sedimentation basins/storm water retention basins and drainage piping) within the site on a monthly basis. Routine maintenance and cleaning of drainage structures was completed in 2010 with no unusual incidents or issues. This task is part of the supervisors' regular responsibility and serves to facilitate compliance with this mitigation measure.

#### **W-2**

**Regular monitoring (and possibly testing) of perimeter drainage channels and retention ponds shall be completed to assure that discharged stormwater does not contain contaminants from the landfill.**

#### **Status:**

El Sobrante Landfill employs a dedicated environmental engineer and retains consulting specialists to provide testing and monitoring of all drainage components within the landfill as required by State and Local regulatory agencies. Monitoring reports are maintained on site. These activities maintain compliance with this mitigation measure.

#### **W-3**

**A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared. It shall include a Spill Prevention and Response Plan and a monitoring plan. The facility shall implement "best management practices" as required by NPDES.**

#### **Status:**

El Sobrante Landfill is in compliance with this mitigation measure. The SWPPP was first prepared December 7, 2001 and last updated November 29, 2010. Attached is the list of "best management practices" (BMPs) used at the El Sobrante Landfill.

#### **W-4**

**Leachate shall be collected by the leachate collection and removal system (LCRS) installed at the base of each landfill cell. Such leachate shall be sampled regularly and, if necessary, treated prior to use for dust control on lined areas of the landfill.**

#### **Status:**

El Sobrante Landfill has received approval from the RWQCB to utilize leachate collected via the LCRS for dust control on lined portions of the landfill based upon testing results, as directed by the RWQCB staff. A LCRS report is prepared annually to satisfy the requirements of the RWQCB, as specified in the landfill's Waste Discharge Requirements (WDR), dated July 20, 2001. According to the attached report, prepared by SCS Engineers and dated January 2011, the LCRS recovers leachate from 12 locations in the landfill, and the leachate control systems are inspected weekly. Annual sampling occurred on October 21 and 27, 2010. From January through December 2010, a total of 301,969 gallons of leachate were collected and used for dust control. Use of leachate, as approved by the RWQCB, as the responsible agency, is in compliance with this mitigation measure.

#### **W-5**

**Stormwater runoff that falls on the active working face of the landfill shall be diverted to a collection sump and reused for dust control on lined areas of the landfill. The sump for stormwater runoff from the active working face shall be designed to hold the runoff from the 100-year, 24-hour storm.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure. A berm is constructed at the toe of the active face to collect contact water that may come into contact with refuse and prevent co-mingling with storm water. This condition rarely occurs due the predominately dry conditions at El Sobrante.

**W-6**

**Drainage improvements shall be designed and constructed to provide all-weather access to the landfill.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**W-7**

**To reduce the quantity of water used, the following measures shall be implemented:**

- **Low-flow plumbing fixtures shall be installed for onsite facilities.**
- **Washwater for cleaning equipment at the operations and maintenance center shall be collected and recycled, and reused for washing or dust control.**
- **Stormwater that falls on the active working face of the landfill shall be collected and used for dust control.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**W-8**

**The liner system for the expansion of El Sobrante shall meet the following requirements:**

- **The liner system (inclusive of the bottom liner and the sideslope liner) of the landfill shall exceed the requirements of Subtitle D and California Code of Regulations (CCR) Title 27 and shall be composed of the alternative bottom liner (identified as Alternative Bottom Liner B2) and the alternative sideslope liner (identified as Sideslope Liner Alternative S2), which are both described and evaluated in Evaluation of Liner System Alternatives, El Sobrante Landfill Expansion, Riverside County, California, prepared by GeoSyntec Consultants and dated February 1998.**
- **If it is determined that this liner system will not meet the requirements of the regulatory agencies, a substitute liner system must be approved by the regulatory agencies, and evidence of such a determination shall be forwarded to the El Sobrante Landfill Administrative Review Committee of Riverside County. In this event, the substitute liner system shall be composed of a bottom liner and a sideslope liner that are at least equal to Alternative Bottom Liner B2 and Sideslope Liner Alternative S2, respectively, and must be approved by the Administrative Review Committee.**

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**W-9**

**Landfill gas collectors shall be placed as compacted lifts of waste are finished. Once sufficient waste has been placed above the collectors to prevent air intrusion, the**

**collectors shall be used for active landfill gas extraction.**

***Status:***

El Sobrante Landfill is in compliance with this mitigation measure. In 2010, eight (8) new vertical gas extraction wells were installed (5 in June; 3 in November). No landfill gas (LFG) collectors or series of horizontal collectors were installed in 2010. In 2009, El Sobrante installed five vertical gas extraction wells; one (1) in Phase 9 and four (4) in Phases 3-5. These additional five (5) gas extraction wells were installed to improve gas flows to generators converting landfill gas to electricity. A series of horizontal collectors were installed previously within the footprint of Phase 8. These horizontal collectors are used as a compliance measure to collect any newly generated gas and prevent free venting from the working face. Due to the generally arid climate of the area and the young age of the waste, the horizontal collectors do not collect a significant quantity of landfill gas from the landfill. El Sobrante principally relies on sufficient LFG extraction from the vertical well field to maintain compliance.

**W-10**

**The final cover of the landfill shall conform to Subtitle D and CCR Title 27, and shall consist of a minimum of four (4) feet of vegetative layer in accordance with the augmented cover described in the EIR (State Clearinghouse No. 90020076). Any change from the augmented cover shall require clearance from the RCWMD, the California Integrated Waste Management Board (CIWMB), Regional Water Quality Control Board (RWQCB), the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Game (CDFG).**

***Status:***

El Sobrante Landfill is in compliance with this mitigation measure.

**W-11**

**In accordance with applicable regulations, landfill gas shall be monitored at the landfill perimeter and in the vadose zone.**

***Status:***

El Sobrante Landfill has seventeen (17) active perimeter gas probes (GP), with multiple completions, monitored and reported in accordance with applicable regulations. All 17 probes are spaced at 1,000 feet around the perimeter of the landfill. The LEA inspects probes on a quarterly basis. In 2010, there were reportable excess levels of gas in two (2) of these gas probes: GP-9R and GP-10RR on 3/22/10, GP-10RR on 6/28/10, GP-9R and GP 10RR on 9/29/10, and GP-9R and GP-10RR on 12/27/10.

In each of these excess levels, immediate notification was sent to the LEA, and the site immediately took all steps necessary to protect public health and safety and the environment. The site followed up each immediate notification with a letter within 7 days.

On April 22, 2010, a Notice of Remediation was submitted to the LEA for the immediate notification sent March 22, 2010, which contained the remediation plan completed by the El Sobrante Landfill. Steps included increasing a lateral at EW-214 from 2" to 4" to increase system vacuum, modifying horizontal well casing on EW-238 to allow liquids to drain more efficiently, increasing well head size from 2" to 3" on EW-214 to allow for increased flow, and relocating EW-238 wellhead and installing a dedicated drain line to allow better flow control.

On July 2, 2010, a Notice of Remediation was submitted to the LEA for the immediate notification sent June 28, 2010, which contained the remediation plan completed by the El

Sobrante Landfill, which included making adjustments to adjacent landfill gas extraction wells to remediate migrating landfill gas.

On November 24, 2010, a Notice of Remediation was submitted to the LEA for the immediate notification sent September 29, 2010, which contained the remediation plan completed by the EI Sobrante Landfill. Steps included drilling and completing 30" diameter single completion vertical well EW-1002 and installing new 2" diameter wellhead on well EW-1002.

On February 28, 2011, a Notice of Remediation was submitted to the LEA for the immediate notification sent December 27, 2010, which contained the remediation plan completed by the EI Sobrante Landfill. Steps included drilling and completing 30" diameter single completion vertical well EW-1107 and installing new 2" diameter wellhead on well EW-1107. As of May 2011, there were no reportable levels of excess gas.

#### **W-12**

**"Point of compliance" ground water monitoring wells, as required by CCR Title 27, shall be installed along the downgradient perimeter of the landfill footprint, pursuant to a monitoring plan approved by the RWQCB. These wells shall be sampled on a quarterly basis beginning one year prior to landfilling each respective cell, and will provide a secondary warning of a leak in the liner system.**

#### **Status:**

EI Sobrante Landfill has implemented a "point of compliance" ground water monitoring program consisting of sixteen (16) active ground water monitoring wells in compliance with CCR Title 27 and as approved by the RWQCB. Quarterly monitoring reports are provided to the RWQCB and copies are maintained on site. All monitoring activity in 2010 was in compliance with RWQCB requirements.

#### **W-13**

**If leachate or landfill gas generated by the landfill expansion were determined to be a potential risk to ground water, a corrective action plan shall be developed and implemented in conjunction with the RWQCB as required by CCR Title 27.**

#### **Status:**

This mitigation measure was not triggered for the expansion phases in 2010. For the original landfill, a corrective action plan was implemented for apparent landfill gas impacts to ground water in 1996. This plan was developed and implemented in conjunction with the RWQCB. On June 4<sup>th</sup> 2003, the RWQCB gave EI Sobrante permission to turn off the ground water remediation system as the impacts appeared to have been mitigated. Monitoring continues to this day and in the event that impacts appear to return, EI Sobrante Landfill will re-institute the mitigation measures.

#### **W-14**

**Whenever a specified material, design, system or action is required by the project or any exhibit thereto, USA Waste or its successor-in-interest may substitute such material, design, system or action, provided that:**

- **Such material, design, system or action complies with applicable Federal, State, and local regulations; and,**



- Any Federal, State or local regulatory agency having jurisdiction has approved the use of the material, design, system or action for similar facilities (i.e., Class III landfills); and,
- The General Manager - Chief Engineer of the RCWMD, with concurrence of the appropriate regulatory agency(ies), has determined that such material, design, system or action is technically equal, or superior to, those required in these conditions.

**Status:**

El Sobrante Landfill is in compliance with this mitigation measure.

**W-15**

**USA Waste or its successor-in-interest shall deposit 50 cents per ton into a Third Party, Environmental Impairment Trust, which fund shall be established and maintained throughout the life of the project. Any balance in the existing fund contributed by USA Waste or its successor-in-interest under the First El Sobrante Landfill Agreement, as amended, shall continue to accrue with deposits from all waste delivered to the site on or after the start date, including interest earnings on the funds, until the fund has reached a total of \$2,000,000, at which time deposits may be discontinued until withdrawals cause the fund to fall below the \$2,000,000 cap. The cap shall increase annually by 90 percent of the change in the Consumer Price Index (CPI) starting in the year 2002.**

**Status:**

The balance of the Environmental Impairment Trust at the end of 2010 was \$2,886,939.45. El Sobrante Landfill is in compliance with this mitigation measure.

**W-16**

**Monies may be withdrawn from the Environmental Impairment Trust only for environmental remediation purposes with approval by USA Waste or its successor-in-interest and the General Manager - Chief Engineer of the RCWMD. The Trustee shall be required to report quarterly to the Department on all fund activity and balances.**

**Status:**

El Sobrante Landfill did not withdraw any funds from this Trust in 2010.

Image source: Copyright GeoEye, Inc. All Rights Reserved (from February 2009)



-  Plan Area
-  Expansion Phases
-  Expansion Limits

EXHIBIT 1  
El Sobrante Landfill Phasing Plan

RECON

M:\jobs\3281-2\commmon\_gis\GIS\3281-2\Status\_Review\figs.mxd 03/22/10

**TABLE 1.  
ASSESSMENT OF KEY POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES**

AREA	ACTIVITY	POLLUTANT SOURCE	POLLUTANT	BEST MANAGEMENT PRACTICES (BMPs)
Landfilling Operations	Refuse Handling, Cover, Erosion Control and Litter Control	Rainfall running off refuse area and rainfall running on and off refuse area.	Refuse Run-off, Sediment	<ul style="list-style-type: none"> <li>· Using "area" method of landfilling.</li> <li>· Use of cover material.</li> <li>· Final grades with slopes greater than 3 percent to direct storm water away from working face and prevent ponding.</li> <li>· Construction of berm/ditches to collect and channel run-off from the landfill.</li> <li>· Removal of household hazardous waste from work face and placement in appropriate containers.</li> <li>· Litter is picked up on regular basis and kept out of drainage channels.</li> <li>· Permanent slopes are protected by vegetation.</li> <li>· Employee training.</li> <li>· Regular inspection of landfilling operations.</li> </ul>

**TABLE 1.  
ASSESSMENT OF KEY POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES  
SUMMARY**

AREA	ACTIVITY	POLLUTANT SOURCE	POLLUTANT	BEST MANAGEMENT PRACTICES (BMPs)
Maintenance Shop, Fueling Station, Underground Storage Tanks	Equipment Maintenance, Fueling, Material Storage	Spills and leaks during delivery, refueling, equipment maintenance, etc.  Hosing or washing down the area  Rainfall running off maintenance shop and fueling area and rainfall running on and off maintenance shop and fueling area.  Leaking storage tanks.	Diesel Fuel, Antifreeze, Oils and Other Lubricating Fluids	<ul style="list-style-type: none"> <li>• Complete maintenance in one area to control any incidental spills.</li> <li>• Proper storage of materials and waste.</li> <li>• Use dry cleanup methods rather than hosing down area.</li> <li>• Materials are unloaded and waste is hauled offsite under the supervision of the site supervisor.</li> <li>• Implement adequate preventative maintenance program to prevent tank and line leaks.</li> <li>• Use spill and overflow protection and implement a spill prevention and control program.</li> <li>• Minimize run-on of storm water into the Maintenance Shop and Fueling Area.</li> <li>• Cover material and waste storage areas when possible.</li> <li>• Inspect Maintenance Shop and Fueling Area regularly to detect problems before they occur.</li> <li>• Train employees on proper fueling, cleanup and spill response techniques.</li> </ul>

**TABLE 1.  
ASSESSMENT OF KEY POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES  
SUMMARY**

AREA	ACTIVITY	POLLUTANT SOURCE	POLLUTANT	BEST MANAGEMENT PRACTICES (BMPs)
Flare Station and Gas Plant	Storage and transport of fuel and gas condensate via piping and drums	Spills and leaks fuel and condensate	Fuel and Gas Condensate	<ul style="list-style-type: none"> <li>· Complete maintenance in one area to control any incidental spills.</li> <li>· Proper storage of materials and waste.</li> <li>· Implement adequate preventative maintenance program to prevent drum and line leaks.</li> <li>· Use spill and overflow protection and implement a spill prevention and control program.</li> </ul>
Liquids Handling Tank Farm	Transport and storage of removed subdrain, leachate, and gas condensate liquids	Spills and leaks from piping and storage area	Impacted Subdrain Water, Leachate, and Gas Condensate	<ul style="list-style-type: none"> <li>· Inspect piping and storage containers in the tank farm area on a regular basis.</li> <li>· Develop maintenance schedule for all apparatus related to the tank farm system.</li> <li>· Train employees on operation and maintenance of tank farm area piping and storage systems.</li> </ul>
Recycling Reload Operations and Electronic Waste (Ewaste/CRT) Collection and Storage	Loading, collection, storage of recycled materials and electronic waste	Leaks or debris from damaged equipment or open containers	Impacted Subdrain Water, Leachate, and Gas Condensate	<ul style="list-style-type: none"> <li>· Enforce load regulations.</li> <li>· Screen incoming loads.</li> <li>· Maintain and clean storage and collection areas.</li> <li>· Employee training.</li> </ul>

**TABLE 1.  
ASSESSMENT OF KEY POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES  
SUMMARY**

AREA	ACTIVITY	POLLUTANT SOURCE	POLLUTANT	BEST MANAGEMENT PRACTICES (BMPs)
Other Areas (e.g., Access Road, Scales, Drainage Control, Hazardous Waste Handling)	Refuse Hauling, Weighing, and Checking Trucks	Trash from trucks and spills from hazard waste handling	Refuse and Miscellaneous Waste, Sediment	<ul style="list-style-type: none"> <li>• Enforce load regulations.</li> <li>• Screen incoming loads.</li> <li>• Maintain and clean access roads and scales area.</li> <li>• Handle, store and dispose of hazardous waste in an appropriate manner.</li> <li>• Notify appropriate agencies when hazardous materials are encountered in loads and at the working face.</li> <li>• Employee training.</li> </ul>
New Landfill Cell (Phase) Construction	Mass Excavation, Soil Stockpiling	Erosion of soil stockpiles, spills and leaks from construction equipment and re-fueling activities	Sediment, Petroleum products associated with construction equipment/vehicles	<ul style="list-style-type: none"> <li>• Construction of detention basins to settle-out sediment.</li> <li>• Construction of berms/ditches to control run-on and runoff.</li> <li>• [For fueling BMPs, refer to Maintenance Shop and Fueling Area Section in this table].</li> </ul>
Earthmoving, Soil Conveyance, and Soil Backfilling Activities	Mass Excavation, Mass Backfilling, Soil Stockpiling	Erosion of soil stockpiles, soil debris falling off conveyor system, spills and leaks from conveyor and heavy equipment and re-fueling activities	Sediment, Petroleum products associated with conveyor and heavy equipment/vehicles	<ul style="list-style-type: none"> <li>• Construction of rip rap energy dissipators.</li> <li>• Construction of berms/benches/v-ditches to control run-on and runoff.</li> <li>• [For fueling BMPs, refer to Maintenance Shop and Fueling Area Section in this table].</li> </ul>

Note: Additional details regarding BMPs are included in the text of this plan.