addition of construction traffic to and from the El Sobrante Landfill would result in noticeable impacts. Therefore, the construction related impacts to local residents or businesses would be minimal or non-existent.

4.0 Summary of Key Findings

The following key points summarize the Development Monitoring Program:

1. Based on discussions and coordination with Caltrans District 8 and the South Coast Air Quality Management District, the El Sobrante Landfill is in compliance with and consistent with the requirements of the Regional Mobility and Air Quality Management Plans and appropriate clearance has been indicated by staff of the respective agencies.

2. The current Waste Management program to minimize in and outbound transfer truck trips during peak hours is successful as demonstrated by a review of Landfill trip generation, distribution, and resulting contribution to the adjacent roadway system. If the traffic volumes, distributions, and hourly flows were to increase to the levels associated with an increase in the waste processing level (to the maximum allowable level of 10,000 tons per day), the traffic generated by the El Sobrante Landfill would continue to be minimized during peak hours.

3. The construction traffic shall conform to the current Waste Management program to minimize in and outbound transfer truck trips during peak hours. Since construction traffic would be minimal, will occur during off-peak periods, and will not substantially increase peak hour traffic, the addition of construction traffic to and from the El Sobrante Landfill would result in no noticeable impacts. Therefore, the construction related impacts to local residents or businesses would be minimal or non-existent.

Appendix A
Correspondence Information

DEPARTMENT OF TRANSPORTATION
PLANNING AND LOCAL ASSISTANCE
DISTRICT 8
464 WEST 4TH STREET, 6TH FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-6327
FAX (909) 383-6890
TTY (909) 388-6300

Flex your power
Be energy efficient

August 4, 2003

08-Riv-15-33.466
SCH #90020076

Mr. Sam Morrissey
Transportation Division
URS Corporation
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108

Dear Mr. Morrissey:

El Sobrante Landfill Expansion Project,
Compliance to Requirement for Development Monitoring Program

In response to your memo dated June 20, 2003 requesting our assistance in the above matter, we have researched our files in an effort to identify the specific mitigation measures recommended by Caltrans during review of the project Final Environmental Impact Report.

Unfortunately, it appears that the only reference made with regard to Mobility Plan compatibility is contained in the conditions of approval prepared by the County of Riverside Transportation Department, and outlined in their letter dated June 17, 1996.

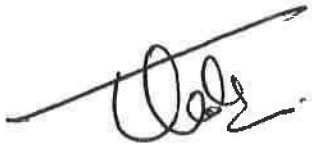
Although our letter dated January 24, 1997 addressed to Mr. Robert Nelson; Director of the County of Riverside Waste Resources Management District acknowledges a general agreement with the County Transportation Department's comments, it does not identify the measures necessary to achieve Mobility Plan compliance. We are therefore unable to provide the specific confirmation you are seeking.

However, our letter to Mr. Nelson does confirm our agreement that implementation of other traffic related mitigation measures contained in the project environmental documents, reduce highway impacts to a "less than significant" level. The particular mitigation measures receiving Caltrans concurrence included ramp widening and traffic signal installation at the Interstate 15/Temescal Canyon Road interchange. It should be noted that these measures have since been implemented.

In the absence of specific Mobility Plan measures, and given the completion of the freeway improvements deemed necessary by Caltrans, it would be reasonable to conclude that no other comments with respect to preparation of a Development Monitoring Plan are required.

We are enclosing a copy of our January 24, 1997 letter for your files. Thank you for providing the additional information requested and for your patience in this matter. If you have other questions regarding this issue, please contact Rosa F. Clark at (909) 383-6908 for assistance.

Sincerely,



RAMAKRISHNA R. TADI, Acting Chief
Office of Forecasting/IGR-CEQA Review
Transportation Planning Division

cc: J. McCann, RCWMD

P:\USERS\RCLARK\Clark's Work\Ltrs\Riv\I-15\Other\15RCWMD_ElSobranteLandfillExpansion_MitClr.doc

Cecil K.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8, P.O. BOX 231
SAN BERNARDINO, CALIFORNIA 92402
(909) 383-5959

January 24, 1997

08-Riv-15-31.8
SCH #90020076
SCH #93092106

Mr. Robert Nelson
Director
Waste Resources Management District
County of Riverside
1995 Market Street
Riverside, CA 92501

Dear Mr. Nelson:

El Sobrante Landfill Expansion

We have reviewed the following documents for the above project:

1. Final EIR: El Sobrante Landfill Expansion

2. Traffic Impact Study: El Sobrante Landfill Expansion; and,

3. County of Riverside Transportation and Land Management Agency (TLMA) letter dated June 17, 1996, RE: El Sobrante Landfill Expansion -- Transportation Related Conditions of Approval

On January 14, 1997, Mr. Cecil A. Karstensen, of my staff, and Mr. Ed Studor, of the County Transportation Department, discussed the proposed traffic improvements for the above project. Concerning this discussion and our review, we request consideration of the following comments:

- We are in agreement with the conclusions of the above-referenced traffic study, the mitigation measures listed and recommendations provided in that report on pages 95 and 96 pertaining to the following:

  Interstate 15 (I-15)/Temescal Canyon Road north- and southbound on-/off-ramps

- We concur with the conclusions and findings of the Final Environment Impact Report pertaining to the following:

  I-15/Temescal Canyon Road for north- and southbound on-/off-ramps

- We concur with the Conditions of Approval for traffic improvements as outlined in the County of Riverside (TLMA) letter (see enclosed), including the requirement that the project applicant shall pay their "fair share" toward the following traffic signals:

  I-15/Temescal Canyon Road for north- and southbound on-/off-ramps

- Considering implementation of traffic measures pertaining to the I-15/Temescal Canyon Road north- and southbound on-/off-ramps as required in the Conditions of Approval (dated June 17, 1996), we concur that traffic impacts related to the above project will be less than significant.

- The above and any additional conditions required by Riverside County Waste Resources Management District and Transportation Department may require an encroachment permit for any work necessary within the State highway right of way. The developer must obtain an encroachment permit from the Caltrans District 8 Permits Office prior to beginning work. Their address and phone number are listed below:

  Office of Permits
  California Department of Transportation
  P.O. Box 231
  San Bernardino, CA 92402
  (909) 383-4536

If you have any questions, please contact Cecil Karstensen at (909) 383-5922 or FAX (909) 383-7934.

Sincerely,

Original signed by ROBERT G. HARVEY

ROBERT G. HARVEY, Chief
Office of Riverside County
Transportation Planning

CAK:aq

Enclosure

cc: Michael Chiriatti, Jr., Chief, State Clearinghouse
Lesley Likins, Senior Planner, County of Riverside
Sung K. Ma, Planner, County of Riverside
Edward D. Studor, County of Riverside
Robert C. Mason, TRC Environmental Solutions, Inc.
JoAnn Hadfield, TRC Environmental Solutions, Inc.
Jack Kurchian, USA Waste

bcc: FLehr
NAthuluru
RHelgeson

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Transportation Department

David E. Barnhart
Director of Transportation

TRANSPORTATION PLANNING AND SYSTEMS MANAGEMENT DIVISION

June 17, 1996

Robert A. Nelson, Director
Waste Resources Management District
1995 Market Street
Riverside, CA 92501

RE: El Sobrante Landfill Expansion - Transportation Related Conditions of Approval

Dear Mr. Nelson:

The Transportation Planning staff has reviewed the traffic study submitted by Albert Grover & Associates in support of the Environmental Impact Report (EIR) for the El Sobrante Landfill Expansion project (El Sobrante). The traffic study was prepared in accordance with County approved guidelines. The Department generally concurs with the findings of the traffic study and the traffic related impacts addressed in the study and in the EIR.

The traffic study indicates that it is possible to achieve a minimum Level of Service (LOS) of "C" for the following intersections that would be affected (some of the intersections require improvement to meet the LOS of "C"):

- Temescal Canyon Road/I-15 southbound ramps
- Temescal Canyon Road/I-15 northbound ramps
- Temescal Canyon Road/Landfill Access Road
- Temescal Canyon Road/Weirick Road
- Temescal Canyon Road/Cajalco Road
- Project Access Road/Park Canyon Drive

The County's Comprehensive General Plan Circulation Policies require a minimum LOS "C" for this project. As such, the proposed project is consistent with the General Plan policies.

El Sobrante Landfill is currently permitted to receive 4000 tons per day (TPD) of solid waste. Under the expansion project, the landfill would be allowed to receive up to 10,000 TPD of waste. The following conditions of approval incorporate the transportation

related improvements to the local road system required to achieve or maintain a minimum LOS of "C", as amended this date at the Board of Supervisors hearing.

CONDITIONS OF APPROVAL

1. Upon permit approval Western Waste Industries shall immediately amend their operating plan to require all trucks hauling out of county imported waste to exclusively utilize the Temescal Canyon Road Interchange for access to the landfill site.

2. Within 1 year of start date Western Waste Industries shall pay into the Road Improvement Trust the amount $879,000 as their "fair share" toward the following road improvements.

   a. An additional lane in each direction on Temescal Canyon Road from I-15 Northbound on/off ramps to the El Sobrante Access Road. The structural section of the additional lanes shall satisfy a Traffic Index of 11.5. (Western Waste Industries' percent contribution for this condition is 10.25 percent)

   b. Eight-foot paved shoulder on the west side of Temescal Canyon Road adjacent to the intersection of Temescal Canyon Road and the El Sobrante Access Road. (Western Waste Industries' percent contribution for this condition is 80 percent).

   c. Improvements of the intersection of Temescal Canyon Road/ El Sobrante Access Road to provide the following intersection geometrics and any required widening:

      Westbound: One right turn lane and one left turn lane on the El Sobrante Access Road. This improvement to be accomplished in conjunction with the improvements to the lower portion of the El Sobrante Access Road as required by Condition No. 2e below. (Wester Waste Industries' percent of contribution for this condition is 80 percent.

      Southbound: None.

      Northbound: Extend existing right turn land on Temescal Canyon Road. (Western Waste

Industries' percent contribution for this condition is 80 percent.

d. Improve the lower portion of the El Sobrante Access Road (from the intersection of Temescal Canyon Road to the cul-de-sac) so that it will meet a Traffic Index of 11.5, and so that it complies with Standard 106-B for improved drainage protection from the 100-year, 24-hour storm, or as approved by the Director of the County Transportation Department. The improvement of the lower portion of the Access Road shall be designed based on direction of the Riverside County Flood Control District, and a maximum water depth of 9 inches across the Access Road, generally as depicted in the attached exhibit - "Proposed Conceptual Access Road Improvements." Coldwater Wash Channel improvements and rock slope protection shall continue southeasterly from the access road along the entire length of Temescal Canyon Road to the Hydro-Conduit driveway as approved by the Transportation Department. (Western Waste Industries' percent contribution for this condition is 80 percent).

e. The applicant shall pay a Traffic Signal Mitigation Fee in accordance with Riverside County Ordinance No. 748. Said fee shall be based upon industrial/per net acre. The project net acreage is 4.5 acres. The remaining acreage is not subject to mitigation at this time.

f. The applicant shall pay their "fair share" toward the following traffic signals (these signals are over and above the Traffic Signal Mitigation Fee payment made by the applicant pursuant to County Ordinance 748, and are not subject to credit or reimbursement):

Temescal Canyon Road (E/W) at:

a. El Sobrante Access Road. (Western Waste Industries' percent contribution for this condition is 80 percent).

b. I-15 Northbound on/off ramps (as approved by Caltrans). (Western Waste Industries percent contribution for this condition is 11 Percent).

c. I-15 Southbound on/off ramps (as approved by Caltrans). (Western Waste Industries percent contribution for this condition is 9.5 percent).

3. Within 3 months of start date Western Waste Industries shall initiate the construction of improvements between the intersections of Temescal Canyon Road/ and the Southbound and Northbound on/off ramps to provide the following intersection geometrics, including any required widening or as approved by Caltrans:

Eastbound:	An additional through lane on Temescal Canyon Road.
Westbound:	An additional through lane on Temescal Canyon Road , and one right turn lane at the Northbound on ramp.
Southbound:	(off ramp) one left turn lane.
Northbound:	(off ramp) None

In the event the County elects to coordinate these improvements with other Temescal Canyon Road improvements, the County may direct Western Waste Industries to pay the approved estimated cost of the improvements in lieu of the required construction.

4. Within 90 days following the end of the calendar year in which the total tonnage of waste landfilled at El Sobrante exceeds 1,440,000 tons, the applicant shall establish and be responsible for a Development Monitoring Program which shall include the following:

   a. Consult with and obtain clearance from Caltrans District 8 and the South Coast Air Quality Management District to assure compliance and coordination with the Regional Mobility and Air Quality Management Plans.

   b. Develop a program to minimize in and outbound transfer trucks during peak hours.

   c. A construction traffic control plan for offsite, public roads shall be developed to control construction-related traffic impacts during periodic construction of landfill cells to reduce construction related traffic impacts to local residents and businesses.

With the inclusion of the above conditions of approval, the Department finds that the roadways and intersections affected by the project will operate at a minimum LOS of "C", which is below

a level of significance. If you have questions regarding the conditions of approval, please call us.

Sincerely,

Edwin D. Studor
Transportation Planning Manager

ES:ef

attachment

cc: George Johnson, County Transportation Department
Leslie Likens, Waste Management
Jack Kurchian, Western Waste
Robert Mason, Environmental Solutions

TABLE 1

REVISED CONDITIONS OF APPROVAL
"FAIR SHARE" CONTRIBUTION
WESTERN WASTE INDUSTRIES
EL SOBRANTE LANDFILL EXPANSION

REVISED CONDITIONS OF APPROVAL (1)	ESTIMATED COST	WWI's "FAIR SHARE"	REMARKS
• Traffic Signal Mitigation Fee (Condition No. 1)	$11,086	$11,086	• Based on Ordinance 748 ($2,704 x 4.1 acres of buildings and support areas [Admin Bldg and Maintenance Facility], see attached Figures 3.12 and 3.13).
SUBTOTAL CONDITION NO. 1	$11,086	$11,086	
• Applicable Traffic-Related Conditions of 4,000 TPD In Place (Condition No. 2)	$0	$0	• Within 45 days of receipt of revised SWFP, demonstrate that the applicable traffic-related conditions of approval for the 4,000 tpd permit are in place.
SUBTOTAL CONDITION NO. 2	$0	$0	
• Development Monitoring Program (Condition No. 3)			
– Consult with Caltrans and SCAQMD to assure compliance with Regional Mobility Plan and Air Quality Management Plan.	$5,000	$5,000	• Estimated cost for consulting with Caltrans and SCAQMD.
– Develop program to minimize in and out-bound traffic during peak hours.	$5,000	$5,000	• Estimated cost for developing plan and consulting with County.
– Develop construction traffic control plans.	$5,000	$5,000	• Estimated cost for developing plan and consulting with County.
SUBTOTAL CONDITION NO. 3	$15,000	$15,000	
• Roadway Improvements (Condition No. 4)			• Western Waste Industries to establish a financial mechanism to fund or secure its prorated "fair share" contribution of roadway improvements identified in Conditions 4a through 4f.
– Traffic Signals - Temescal Cyn Rd (Cond. 4a)			– Not part of Ordinance 748; not subject to credit/reimbursement.
• Access Road	$100,000	$80,000	• Based on 80/20 split between El Sobrante and Recyc (2).
• I-15 Northbound On/Off Ramps	$140,000	$15,400	• As approved by Caltrans. Based on El Sobrante's 11 percent contribution to ADTs (3).
• I-15 Southbound On/Off Ramps	$140,000	$13,300	• As approved by Caltrans. Based on El Sobrante's 9.5 percent contribution to ADTs (3).
Subtotal Condition No. 4a	$380,000	$108,700	
– Temescal Cyn Rd - Additional lane each direction I-15 Northbound on/off ramps to Access Road (Cond. 4b)	$276,800	$28,370	• Based on El Sobrante's 10.25 percent contribution to ADTs (3).
Subtotal Condition No. 4b	$276,800	$28,370	

TABLE 1

REVISED CONDITIONS OF APPROVAL
"FAIR SHARE" CONTRIBUTION
WESTERN WASTE INDUSTRIES
EL SOBRANTE LANDFILL EXPANSION

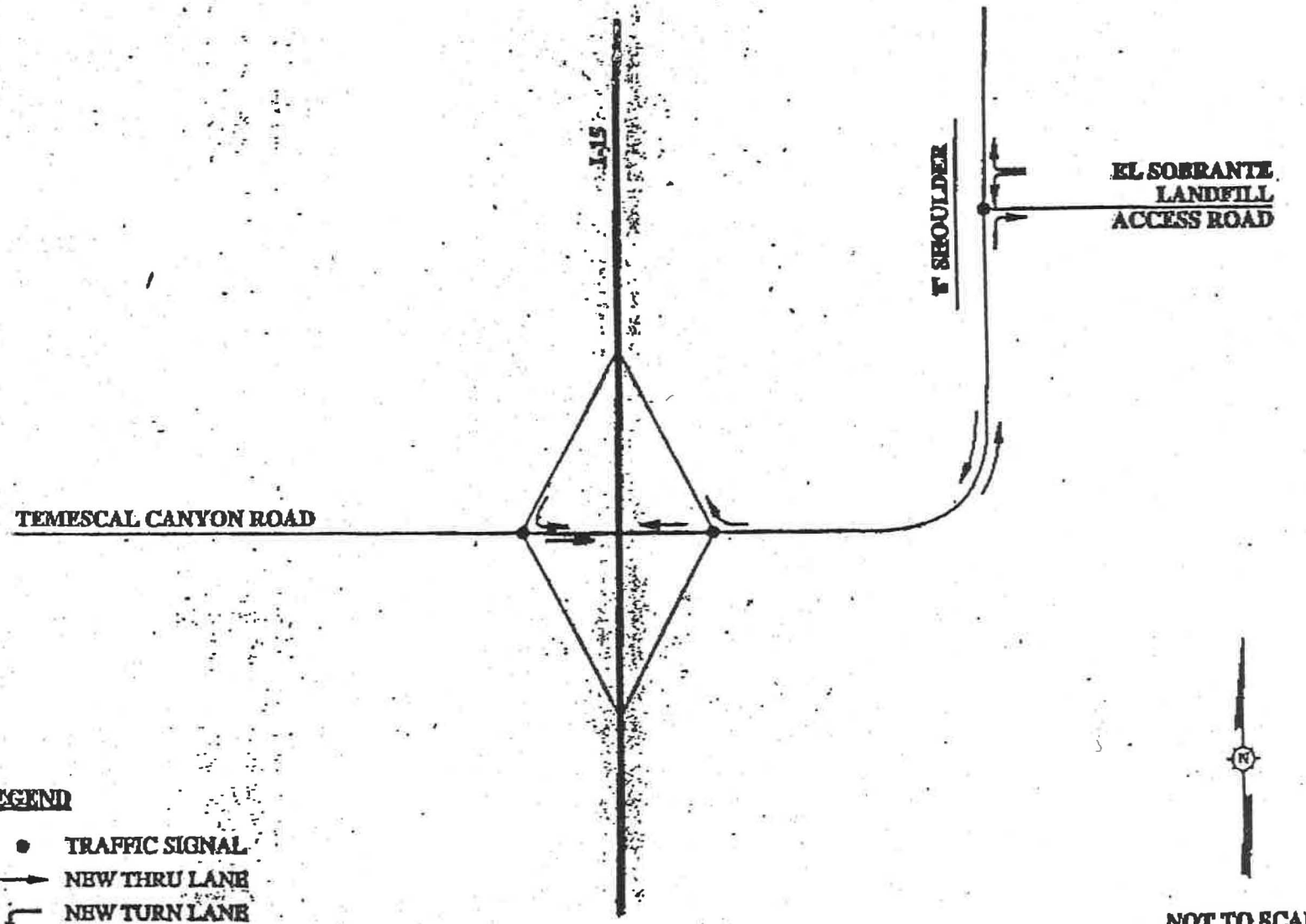
REVISED CONDITIONS OF APPROVAL (1)	ESTIMATED COST	WWI's "FAIR SHARE"	REMARKS
– Temescal Cyn Rd Between I-15 Southbound and Northbound Ramps (Cond. 4e)			
• Eastbound: 1 thru lane	$17,700	$1,680	– Based on El Sobrante's 9.5 percent contribution to ADTs (3).
• Westbound: 1 thru lane; right turn lane NB On Ramp	$20,300	$2,230	– Based on El Sobrante's 11 percent contribution to ADTs (3).
• Southbound Off Ramp: left turn lane	$13,800	$1,310	– Based on El Sobrante's 9.5 percent contribution to ADTs (3).
• Northbound Off Ramp: None			– Not project related.
Subtotal Condition No. 4e	$51,800	$5,220	
– Temescal Cyn Rd - Eight-foot paved shoulder west side adjacent to intersection with Access Road (Cond. 4d)	$38,100	$30,480	• Based on 80/20 split between El Sobrante and Recye (2).
Subtotal Condition No. 4d	$38,100	$30,480	
– Temescal Cyn Rd/Access Rd (Cond. 4e)	$10,000	$8,000	
• Westbound (Access Road): 1 left lane; 1 right turn (4)			– Based on 80/20 split between El Sobrante and Recye (2).
• Southbound: None			– No requirement.
• Northbound: Extend existing right turn lane (5)			– Based on 80/20 split between El Sobrante and Recye (2).
Subtotal Condition No. 4e	$10,000	$8,000	
– Lower Portion of Access Road (Cond. 4f)			
• Low-water crossing improvements	$769,000	$615,200	• Based on 80/20 split between El Sobrante and Recye (2).
• Upgrade Temescal Wash Bridge	$90,000	$72,000	• Based on 80/20 split between El Sobrante and Recye (2).
Subtotal Condition No. 4f	$859,000	$687,200	
SUBTOTAL CONDITION NO. 4	$1,615,700	$867,970	
TOTAL COST	$1,641,786	$894,056	

91-266 (6/19/96cmm)

(1) Based on revised conditions of approval from County Transportation Department dated June 17, 1996. See attached figure.
(2) Assumes only El Sobrante and Recye use landfill access road.
(3) Based on El Sobrante's contribution to the overall ADTs for specify road segments according to the 1994 Traffic Study.
(4) Will be accomplished at the same time as Condition 4f.
(5) Will be accomplished at the same time as Condition 4b.

EL SOBRANTE LANDFILL

ROADWAY IMPROVEMENTS



Appendix B
6-Day Average Vehicle Counts at the El Sobrante Landfill by Vehicle Type

LOADS BY VEHICLE TYPE PER HOUR
DATE: Daily Averages over 6 days

No.	Vehicle Type	Hour																						Total	%	10K tons/day Total Loads
		03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
01	Car or Station Wagon	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.51%	5
02	Van, Pickup Truck or Trailer (3 Tons)	0	0	0	0	1	2	3	5	5	7	5	4	4	3	2	0	0	0	0	0	0	0	38	5.61%	49
03	Truck or 2 Wheel Trailer	0	0	0	3	4	9	14	13	17	17	21	18	16	16	8	2	0	0	0	0	0	0	156	22.79%	200
04	Car, Van, or Truck Pulling 2 Wheel Trailer	0	0	0	0	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	7	1.00%	9
08	10-15 Wheel Truck or Tractor Trailer	0	0	0	2	1	4	2	4	3	2	3	2	3	1	1	0	0	0	0	0	0	0	27	3.98%	35
10	18 Wheel Tractor Trailer	0	0	0	2	1	2	2	2	2	2	1	2	1	1	0	0	0	0	0	0	0	0	18	2.61%	23
13	Commercial Hauler (Non-compacted)	0	0	0	3	3	2	2	3	3	2	2	3	2	2	2	0	0	0	0	0	0	0	29	4.24%	37
14	6 Wheel Truck (Over 2 Tons Capacity)	0	0	1	3	3	3	3	7	7	6	7	9	4	3	2	1	0	0	0	0	0	0	56	8.20%	72
16	Commercial Waste Hauler (Compacted)	0	0	0	1	2	4	6	7	6	3	6	3	6	7	4	1	0	0	0	0	0	0	56	8.22%	72
17	Commercial Waste Hauler (Compacted)	0	0	0	2	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	9	1.24%	11
18	Commercial Waste Hauler (Compacted)	0	0	0	1	0	1	1	2	1	1	1	1	0	1	0	0	0	0	0	0	0	0	9	1.27%	11
19	Transfer Trailer	1	42	15	21	16	18	22	17	19	25	24	17	13	9	5	3	3	1	2	1	0	0	273	40.01%	352
29	Stack Transfer	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.32%	3
	Totals:	1	42	17	39	32	46	57	60	64	66	70	58	50	44	23	7	3	1	2	1	0	0	683	100%	880

#Total Loads at 10,000 Tons/Day: 880

Appendix C
Average Daily Traffic Volumes
Caltans and the County of Riverside

MAINLINE

District	Route	County	PostMile Prefix	Post Mile	Description	Back Peak Hr	Back Peak Mo	Back AADT	Ahead Peak Hr	Ahead Peak Mo	Ahead AADT
7	91	LA	R	15.61	BELLFLOWER, BELLFLOWER BOULEVARD	19200	257000	248000	18800	253000	244000
7	91	LA	R	16.94	CERRITOS, JCT. RTE. 605, SAN GABRIEL RIVER FREEWAY	18800	253000	244000	21000	289000	273000
7	91	LA	R	18.09	ARTESIA, PIONEER BOULEVARD	21000	289000	273000	20000	270000	262000
7	91	LA	R	18.65	CERRITOS, NORWALK BOULEVARD	20000	270000	262000	19800	268000	259000
7	91	LA	R	19.17	CERRITOS, BLOOMFIELD AVENUE	19800	268000	259000	17800	242000	233000
7	91	LA	R	19.43	CERRITOS, ARTESIA AVENUE	17800	242000	233000	17600	241000	231000
7	91	LA	R	20.45	CERRITOS, CARMENITA AVENUE	17600	241000	231000	16700	231000	221000
7	91	LA	R	20.74	LOS ANGELES-ORANGE COUNTY LINE	16700	231000	221000			
12	91	ORA	R	0	LOS ANGELES-ORANGE COUNTY LINE				16700	231000	221000
12	91	ORA	R	0.49	LA PALMA, ORANGETHORPE AVENUE	16700	231000	221000	15000	224000	209000
12	91	ORA	R	0.85	BUENA PARK, VALLEY VIEW STREET	15000	224000	209000	16300	242000	227000
12	91	ORA	R	1.84	BUENA PARK, KNOTT AVENUE	16300	242000	227000	16500	245000	229000
12	91	ORA	R	2.62	BUENA PARK, JCT. RTE. 39, BEACH BOULEVARD	16500	245000	229000	16300	241000	227000
12	91	ORA	R	3.64	FULLERTON, JCT. RTE. 5, SANTA ANA FREEWAY	16300	241000	227000	14700	220000	210000
12	91	ORA	R	4.08	MILEPOST EQUATION =0.41						
12	91	ORA		1.23	ANAHEIM, BROOKHURST AVENUE	14700	220000	210000	15400	229000	220000
12	91	ORA		2.23	ANAHEIM, EUCLID AVENUE	15400	229000	220000	16000	238000	228000
12	91	ORA		3.26	FULLERTON, HARBOR BOULEVARD	16000	238000	228000	16500	246000	236000
12	91	ORA		3.51	ANAHEIM, LEMON STREET/HARVARD AVENUE	16500	246000	236000	17500	261000	250000
12	91	ORA		4.26	ANAHEIM, EAST STREET	17500	261000	250000	17100	255000	244000
12	91	ORA		5.26	ANAHEIM, STATE COLLEGE BOULEVARD	17100	255000	244000	16700	249000	238000
12	91	ORA		6.12	ANAHEIM, JCT. RTE. 57, ORANGE FREEWAY	16700	249000	238000	17800	245000	234000
12	91	ORA		7.35	ANAHEIM, KRAEMER BOULE= VARD/GLASSELL STREET	17800	245000	234000	17000	235000	224000
12	91	ORA		8.4	ANAHEIM, TUSTIN AVENUE	17000	235000	224000	17000	235000	224000
12	91	ORA	R	9.19	ANAHEIM, JCT. RTE. 55 SOUTH, COSTA MESA FREEWAY	17000	235000	224000	19000	298000	284000
12	91	ORA	R	10.09	ANAHEIM, LAKEVIEW AVENUE	19000	298000	284000	17900	281000	267000
12	91	ORA	R	11.54	ANAHEIM, JCT. RTE. 90 WEST, IMPERIAL HIGHWAY	17900	281000	267000	17400	271000	260000
12	91	ORA	R	14.43	WEIR CANYON ROAD	17400	271000	260000	16200	255000	242000
12	91	ORA	R	16.4	GYPSUM CANYON ROAD	16200	255000	242000	17200	255000	246000
12	91	ORA	R	17.95	COAL CANYON ROAD	17200	255000	246000	17200	255000	246000
12	91	ORA	R	18.91	ORANGE-RIVERSIDE COUNTY LINE, GREEN RIVER ROAD	17200	255000	246000			
8	91	RIV	R	0	ORANGE-RIVERSIDE COUNTY LINE				17200	255000	246000
8	91	RIV	R	1.03	GREEN RIVER DRIVE	17200	255000	246000	16500	245000	236000
8	91	RIV	R	2.09	JCT. RTE. 71 NORTH	16500	245000	236000	16800	244000	235000
8	91	RIV	R	3.71	SERFAS CLUB DRIVE	16800	244000	235000	16700	242000	233000
8	91	RIV	R	4.13	MILEPOST EQUATION =4.01						
8	91	RIV		4.16	CORONA, MAPLE STREET	16700	242000	233000	16000	230000	222000
8	91	RIV		5.38	CORONA, LINCOLN AVENUE	16000	230000	222000	17000	240000	231000
8	91	RIV		6.02	CORONA, WEST GRAND BOULEVARD	17000	240000	231000	16500	233000	224000
8	91	RIV		6.34	CORONA, MAIN STREET	16500	233000	224000	17600	249000	240000
8	91	RIV		7.45	CORONA, JCT. RTE. 15	17600	249000	240000	17600	217000	210000 ✓
8	91	RIV		9.18	CORONA, MC KINLEY STREET	17600	217000	210000	16500	202000	197000 ✓
8	91	RIV		10.81	RIVERSIDE, PIERCE STREET	16500	202000	197000	14700	180000	176000
8	91	RIV		11.1	RIVERSIDE, MAGNOLIA AVENUE	14700	180000	176000	14900	182000	178000
8	91	RIV		11.99	RIVERSIDE, LA SIERRA AVENUE	14900	182000	178000	14900	182000	178000
8	91	RIV		13.04	RIVERSIDE, TYLER STREET	14900	182000	178000	15100	184000	180000
8	91	RIV		14.08	RIVERSIDE, VAN BUREN STREET	15100	184000	180000	14600	178000	174000
8	91	RIV		15.63	RIVERSIDE, ADAMS STREET	14600	178000	174000	14700	180000	176000
8	91	RIV		16.65	RIVERSIDE, MADISON STREET	14700	180000	176000	14300	180000	176000
8	91	RIV		17.82	RIVERSIDE, ARLINGTON AVENUE	14300	180000	176000	14200	181000	177000
8	91	RIV		18.41	RIVERSIDE, CENTRAL AVENUE	14200	181000	177000	13600	176000	172000

MAINLINE

District	Route	County	PostMile Prefix	Post Mile	Description	Back Peak Hr	Back Peak Mo	Back AADT	Ahead Peak Hr	Ahead Peak Mo	Ahead AADT
8	15	RIV	R	0	SAN DIEGO-RIVERSIDE COUNTY LINE				7700	109000	100000
8	15	RIV		3.44	TEMECULA, SOUTH JCT. RTE. 79	7700	109000	100000	10300	129000	118000
8	15	RIV		4.98	TEMECULA, RANCHO CALIFORNIA ROAD	10300	129000	118000	11500	144000	132000
8	15	RIV		6.62	TEMECULA, NORTH JCT RTE. 79	11500	144000	132000	13500	169000	155000
8	15	RIV		8.74	JCT. RTE. 215 NORTH	13500	169000	155000	7700	97000	88000
8	15	RIV		9.47	MURRIETA HOT SPRINGS ROAD	7700	97000	88000	8200	101000	92000
8	15	RIV		10.59	CALIFORNIA OAKS ROAD	8200	101000	92000	7800	95000	86000
8	15	RIV		13.64	CLINTON KEITH ROAD	7800	95000	86000	7700	91000	83000
8	15	RIV		15.07	BAXTER ROAD	7700	91000	83000	7500	87000	79000
8	15	RIV		16.3	BUNDY CANYON ROAD	7500	87000	79000	7300	84000	76000
8	15	RIV		19.16	ELSINORE, RAILROAD CANYON ROAD	7300	84000	76000	8300	92000	84000
8	15	RIV		20.95	ELSINORE, MAIN STREET	8300	92000	84000	7800	87000	79000
8	15	RIV		21.79	MILEPOST EQUATION =21.81						
8	15	RIV		22.28	ELSINORE, JCT. RTE. 74	7800	87000	79000	6800	78000	71000
8	15	RIV		23.85	ELSINORE, NICHOLS ROAD	6800	78000	71000	6900	80000	73000
8	15	RIV		26.69	LAKE STREET	6900	80000	73000	7300	86000	79000
8	15	RIV		30.4	INDIAN TRAIL ROAD	7300	86000	79000	7800	94000	86000
8	15	RIV		33.39	TEMESCAL CANYON ROAD	7800	94000	86000	8200	101000	93000 ✓
8	15	RIV		35.64	WEIRICK ROAD	8200	101000	93000	9000	114000	105000
8	15	RIV		36.81	CAJALCO ROAD	9000	114000	105000	9500	122000	113000 ✓
8	15	RIV		37.82	EL CERRITO ROAD	9500	122000	113000	9800	128000	119000
8	15	RIV		38.69	CORONA, ONTARIO AVENUE	9800	128000	119000	10700	143000	133000
8	15	RIV		40.35	CORONA, MAGNOLIA AVENUE	10700	143000	133000	12300	164000	153000
8	15	RIV		41.5	CORONA, JCT. RTE. 91	12300	164000	153000	12900	152000	142000 ✓
8	15	RIV		42.88	NORCO, YUMA DRIVE	12900	152000	142000	13000	152000	143000
8	15	RIV		43.64	NORCO, 2ND STREET	13000	152000	143000	12300	143000	135000
8	15	RIV		45.6	NORCO, 6TH STREET	12300	143000	135000	11400	139000	132000
8	15	RIV		48.26	LIMONITE AVENUE	11400	139000	132000	9800	125000	120000
8	15	RIV		51.47	JCT. RTE. 60	9800	125000	120000	14400	204000	193000
8	15	RIV		52.28	RIVERSIDE COUNTY						
8	15	SBD		0	SAN BERNARDINO COUNTY ONTARIO, JURUPA AVENUE	14400	204000	193000	14800	209000	198000
8	15	SBD		2.39	ONTARIO, JCT. RTE. 10	14800	209000	198000	13200	180000	172000
8	15	SBD		3.05	ONTARIO, FOURTH STREET	13200	180000	172000	12000	162000	156000
8	15	SBD		5.31	RANCHO CUCAMONGA, JCT. RTE. 66	12000	162000	156000	9700	130000	126000
8	15	SBD		5.97	RANCHO CUCAMONGA, MILLER AVENUE	9700	130000	126000	9700	130000	126000
8	15	SBD		6.78	RANCHO CUCAMONGA, BASE LINE	9700	130000	126000	8400	111000	107000
8	15	SBD		8.09	RANCHO CUCAMONGA, HIGHLAND AVENUE						
8	15	SBD		9.61	SUMMIT AVENUE	8500	112000	107000	7700	101000	96000
8	15	SBD		12.84	SIERRA AVENUE	7700	101000	96000	6800	89000	84000
8	15	SBD		15.65	GLEN HELEN PARKWAY	6800	89000	84000	6700	90000	83000
8	15	SBD		16.37	JCT. RTE. 215 (MILEPOST EQUATION)	6700	90000	83000	9700	127000	117000
8	15	SBD	R	14.96	KENWOOD AVENUE	9700	127000	117000	9700	126000	116000
8	15	SBD	R	20.01	CLEGHORN ROAD	9700	126000	116000	9700	126000	116000
8	15	SBD	R	21.37	JCT. RTE. 138	9700	126000	116000	8100	107000	99000
8	15	SBD	R	26.59	MILEPOST EQUATION =R28.43						
8	15	SBD	R	28.62	OAK HILL ROAD	8100	107000	99000	7700	102000	94000
8	15	SBD	R	29.78	MILEPOST EQUATION =29.78						
8	15	SBD		31.81	HESPERIA, JCT. RTE. 395 NORTH (TO INYOKERN)	7700	102000	94000	6500	87000	80000
8	15	SBD		32.32	HESPERIA, JOSHUA STREET/ PALM AVENUE	6500	87000	80000	6900	92000	84000
8	15	SBD		34	HESPERIA, PHELAN ROAD	6900	92000	84000	7100	82000	75000
8	15	SBD		37.59	VICTORVILLE, BEAR VALLEY CUTOFF (TO LUCERNE VALLEY)	7100	82000	75000	6400	73000	67000

RAMP

08-RIV-015

P POST MILE	P S	DESCRIPTION	1992 ADT	1993 ADT	1994 ADT	1995 ADT	1996 ADT	1997 ADT	1998 ADT	1999 ADT	2000 ADT	2001 ADT
023.605		NICHOLS RD, NB OFF							1000			1500
023.656		NICHOLS RD, SB ON							980			1600
024.041		NICHOLS RD, NB ON							2070			2650
024.075		NICHOLS RD, SB OFF							1630			2550
026.463		LAKE ST, NB OFF							1420			1950
026.510		LAKE ST, SB ON							1530			2200
026.912		LAKE ST, NB ON							4700			5000
026.949		LAKE ST, SB OFF							4830			5200
030.196		INDIAN TRAIL RD, NB OFF							970			1300
030.250		INDIAN TRL RD, SB ON							890			1100
030.600		NB ON FR INDIAN TRAIL							2700			4200
030.646		SB OFF TO INDIAN TRAIL							2650			4100
033.088		SB ON FR TEMESCAL CYN							2380			2050
033.104		NB OFF TO TEMESCAL CYN							1950			1750
033.425		SB OFF TO TEMESCAL CYN							5550			6400
033.466		NB ON FR TEMESCAL CYN							5150			6000
035.449		NB OFF TO WEIRICK RD							375			400
035.497		SB ON FR WEIRICK RD							380			450
035.854		SB OFF TO WEIRICK RD							3800			6000
035.871		NB ON FR WEIRICK RD							3800			6200
036.639		NB OFF TO CAJALCO RD							475			1700
036.934		NB ON FR CAJALCO RD							2000			6000
036.960		SB ON FR CAJALCO RD							400			1350
037.187		SB OFF TO CAJALCO RD							2000			5650
037.657		NBOFF TO EL CERRITO RD							880			

RAMP

08-RIV-091

P POST P MILE	S	DESCRIPTION	1992 ADT	1993 ADT	1994 ADT	1995 ADT	1996 ADT	1997 ADT	1998 ADT	1999 ADT	2000 ADT	2001 ADT
006.222		EB OFF TO MAIN SB							3000			3400
006.387		EB OFF TO NB MAIN							3100			3100
006.520		WB OFF TO MAIN ST							14000			14700
006.521		EB ON FR MAIN ST							14900			15000
007.032		WB ON FR NB 15	21400		26100	26000			27000			
007.042		EB OFF TO RTE 15	44000						57000			
007.710		EB ON FR NB 15	10500			11000			28000			
007.795		WB OFF TO RTE 15	21700						30000			
009.016		EB OFF TO MC KINLEY			18900							
009.023		WB ON FRM MCKINLEY ST										19600
009.023		WB ON FRM MCKINLEY ST			18700				19700			
009.029		EB OFF TO MCKINLEY ST					19001		19500			21200
009.179		WB OFF TO SB MCKINLEY					1501		3200			4100
009.181		EB ON FROM SB MCKINLEY ST					1901		8100			8800
009.323		EB ON FROM NB MCKINLEY ST					1901		3500			4100
009.361		EB ON FM MCKINLEY ST			3700							
009.410		WB OFF TO NB MCKINLEY ST					1501		9800			11300
010.599		WB ON FRM PIERCE ST							12800			10500
010.606		EB OFF TO PIECE							9800			10100
010.995		WB ON FRM SB MAGNOLIA							3800			9200
011.051		EB OFF TO MAGNOLIA							2650			2600
011.193		WB OFF TO SB MAGNOLIA							5300			6000
011.266		EB ON FRM NB MAGNOLIA							6600			7200
011.771		EB OFF TO LA SIERRA							9100			9800
011.868		WB ON FRM LA SIERRA AVE							10100			10500

MAINLINE TRUCK %

RTE	DIST	CNTY	POST MILE	LEG	DESCRIPTION	VEHICLE AADT TOTAL	TRUCK AADT TOTAL	TRUCK % TOT VEH	TRUCK AADT TOTAL By Axle 2	3	4	5+	% TRUCK AADT By Axle 2	3	4	5+	EAL 1-WAY (1000)	YEAR VER/ EST
091	12	ORA	5.258	A	ANAHEIM, STATE COLLEGE BOULEVARD	238000	20706	8.7	9732	2775	1242	6957	47	13.4	6	33.6	3179	82E
091	12	ORA	6.119	A	ANAHEIM, JCT. RTE. 57, ORANGE FREEWAY	234000	20358	8.7	7003	3094	1629	8632	34.4	15.2	8	42.4	3747	84E
091	12	ORA	R9.187	B	JCT. RTE. 55 SOUTH	224000	14560	6.5	8459	1238	568	4295	58.1	8.5	3.9	29.5	1975	91E
091	12	ORA	R9.187	A	JCT. RTE. 55 SOUTH	284000	12780	4.5	6901	716	256	4908	54	5.6	2	38.4	2038	91E
091	12	ORA	R11.54	B	PERALTA, JCT. RTE. 90 WEST	267000	13350	5	6675	734	267	5674	50	5.5	2	42.5	2298	91E
091	12	ORA	R11.54	A	PERALTA, JCT. RTE. 90 WEST	260000	14274	5.49	5975	1106	554	6639	41.86	7.75	3.88	46.51	2683	00E
091	08	RIV	R2.087	B	JCT. RTE. 71 NORTH	236000	14089	5.97	5898	1092	547	6553	41.86	7.75	3.88	46.51	2648	00E
091	08	RIV	R2.087	A	JCT. RTE. 71 NORTH	235000	15299	6.51	6557	1092	546	7103	42.86	7.14	3.57	46.43	2861	00E
091	08	RIV	6.343	B	CORONA, MAIN STREET	224000	14582	6.51	6250	1041	521	6770	42.86	7.14	3.57	46.43	2727	00E
091	08	RIV	6.343	A	CORONA, MAIN STREET	240000	14544	6.06	6234	1038	519	6753	42.86	7.14	3.57	46.43	2720	00E
091	08	RIV	9.18	B	MC KINLEY STREET	210000	14196	6.76	6084	1014	507	6591	42.86	7.14	3.57	46.43	2655	00E
091	08	RIV	9.18	A	MC KINLEY STREET	197000	15149	7.69	6493	1082	541	7034	42.86	7.14	3.57	46.43	2833	00E
091	08	RIV	11.991	B	RIVERSIDE, LA SIERRA AVENUE	178000	15094	8.48	6469	1078	539	7008	42.86	7.14	3.57	46.43	2823	00E
091	08	RIV	14.079	B	RIVERSIDE, VAN BUREN STREET	180000	9000	5	6210	540	360	1890	69	6	4	21	972	81E
091	08	RIV	14.079	A	RIVERSIDE, VAN BUREN STREET	174000	8700	5	6003	522	348	1827	69	6	4	21	940	81V
091	08	RIV	19.999	B	RIVERSIDE, 14TH STREET	172000	8600	5	5934	516	344	1806	69	6	4	21	929	81E
091	08	RIV	21.659	B	RIVERSIDE, JCT. RTE. 60, JCT. RTE. 215 NORTH, RIVERSIDE/ESCONDIDO FREEWAY INTERCHANGE	160000	8000	5	5520	480	320	1680	69	6	4	21	864	81E

MAINLINE TRUCK %

RTE	DIST	CNTY	POST MILE	LEG	DESCRIPTION	VEHICLE AADT TOTAL	TRUCK AADT TOTAL	TRUCK % TOT VEH	TRUCK AADT TOTAL By Axle 2	3	4	5+	% TRUCK AADT By Axle 2	3	4	5+	EAL 1-WAY (1000)	YEAR VER/ EST
015	08	RIV	3.436	A	SOUTH JCT. RTE. 79	118000	9393	7.96	3149	656	341	5248	33.52	6.98	3.63	55.87	2031	00E
015	08	RIV	6.623	B	NORTH JCT RTE. 79	132000	8672	6.57	2907	605	315	4845	33.52	6.98	3.63	55.87	1875	00E
015	08	RIV	8.737	B	JCT. RTE. 215 NORTH	155000	8603	5.55	2884	600	312	4806	33.52	6.98	3.63	55.87	1860	00E
015	08	RIV	8.737	A	JCT. RTE. 215 NORTH	88000	8237	9.36	2821	1016	677	3724	34.25	12.33	8.22	45.21	1577	00E
015	08	RIV	15.071	B	BAXTER ROAD	83000	7669	9.24	2627	946	630	3467	34.25	12.33	8.22	45.21	1468	00E
015	08	RIV	20.948	B	MAIN STREET	84000	7669	9.13	2627	946	630	3467	34.25	12.33	8.22	45.21	1468	00E
015	08	RIV	22.277	B	JCT. RTE. 74	79000	8816	11.16	3023	1124	719	3950	34.29	12.75	8.15	44.81	1678	01V
015	08	RIV	22.277	A	JCT. RTE. 74	71000	8435	11.88	2937	1057	682	3759	34.82	12.53	8.08	44.57	1597	01E
015	08	RIV	41.501	B	JCT. RTE. 91	153000	8583	5.61	2989	1075	694	3825	34.82	12.53	8.08	44.57	1625	00E
015	08	RIV	44.66	O	FOURTH ST, NORCO	135000	15471	11.46	5376	1976	1207	6912	34.75	12.77	7.8	44.68	2932	00E
015	08	RIV	51.474	A	JCT. RTE. 60	193000	15826	8.2	5500	2021	1234	7071	34.75	12.77	7.8	44.68	2999	00E
015	08	SBD	2.389	A	JCT. RTE. 10	172000	18782	10.92	4203	1247	408	12926	22.38	6.64	2.17	68.82	4781	01E
015	08	SBD	5.306	B	JCT. RTE. 66	156000	17035	10.92	3812	1131	370	11723	22.38	6.64	2.17	68.82	4336	01E
015	08	SBD	5.306	A	JCT. RTE. 66	126000	13759	10.92	3079	914	299	9469	22.38	6.64	2.17	68.82	3503	01V
015	08	SBD	16.374	B	JCT. RTE. 215	83000	13604	16.39	3155	924	332	9194	23.19	6.79	2.44	67.58	3416	00E
015	08	SBD	R13.779	A	JCT. RTE. 215	117000	14075	12.03	3270	951	339	9515	23.23	6.76	2.41	67.6	3534	00E
015	08	SBD	31.813	B	JCT. RTE. 395 NORTH	94000	12718	13.53	2949	860	310	8599	23.19	6.76	2.44	67.61	3195	00E
015	08	SBD	31.813	A	JCT. RTE. 395 NORTH	80000	12504	15.63	2901	850	300	8453	23.2	6.8	2.4	67.6	3140	00E
015	08	SBD	40.509	B	JCT. RTE. 18 SOUTH	67000	12107	18.07	2799	820	289	8198	23.12	6.77	2.39	67.71	3044	00E
015	08	SBD	40.509	A	JCT. RTE. 18 SOUTH	70000	11949	17.07	2770	810	290	8080	23.18	6.78	2.43	67.62	3002	00E
015	08	SBD	43.488	A	VICTORVILLE, JCT. RTE. 18 SOUTHEAST	50000	11830	23.66	2740	800	290	7999	23.16	6.76	2.45	67.62	2972	00E
015	08	SBD	68.77	B	BARSTOW, LENWOOD ROAD	46500	11620	24.99	2700	790	280	7850	23.24	6.8	2.41	67.56	2917	00E

Canty

		10/23/01	TUE	1459
	RRX	11/29/99	MON	1471
	RRX	9/16/98	WED	1441
SUMNER AVE	S OF CLOVERDALE RD			
		6/3/98	WED	640
SYCAMORE CANY	ON BLV N OF COLLEGE BLVD			
		10/27/01	SAT	9869
		8/19/99	THU	6579
		4/22/98	WED	7877
		4/22/96	MON	5732
TEMESCAL CANY	ON RD N OF CAJALCO RD			
		10/28/99	THU	3723 ✓
		1/29/98	THU	2900
		6/30/97	MON	2925
		2/5/96	MON	2903
TEMESCAL CANY	ON RD S OF CONCORDIA RANC			
		10/11/01	THU	3166
		9/2/99	THU	3040
		4/2/98	THU	2267
		2/12/96	MON	2324
TEMESCAL CANY	ON RD S OF EL CERRITO RD			
		9/10/97	WED	5347
TEMESCAL CANY	ON RD N OF LAWSON RD			
		10/11/01	THU	8717
		8/31/99	TUE	7147
		1/29/98	THU	4830
		7/22/96	MON	5346
		2/5/96	MON	4862
TEMESCAL CANY	ON RD S OF MAITRI RD			
		10/11/01	THU	2598 ✓
		8/31/99	TUE	2504
		3/18/98	WED	1981
		2/5/96	MON	1513
TEMESCAL CANY	ON RD S OF WEIRICK RD			
		10/11/01	THU	2948 ✓
		8/31/99	TUE	2885
		2/5/96	MON	3156 ✓
TEMESCAL ST	N OF MAGNOLIA AVE			
		10/23/01	TUE	1277
		9/16/99	THU	1128

County

		5/13/96	MON	4572
CAJALCO RD	W OF TEMESCAL CANYON R	D		
		9/13/01	THU	8483
		8/31/99	TUE	5656
		1/30/98	FRI	3443
		6/30/97	MON	4364*
		2/5/96	MON	3754
CAJALCO RD	E OF TEMESCAL CANYON R	D		
		9/20/01	THU	8475
		8/31/99	TUE	6702
		1/30/98	FRI	4443
		6/30/97	MON	4658*
		2/5/96	MON	4441
CALHOUN ST	N OF 52ND AVE			
		6/5/01	TUE	911
		6/8/00	THU	2028*
		7/23/97	WED	1239
		7/14/97	MON	1375
CALHOUN ST	S OF 52ND AVE			
		6/5/01	TUE	1591
		12/8/99	WED	1305
		7/23/97	WED	952
CALIFORNIA AV	E S OF MARVIN HULL RD			
	RRX	6/2/97	MON	130
CALIFORNIA AV	E N OF SH-79			
		6/26/01	TUE	829
		9/14/99	TUE	677
		6/17/97	TUE	533
CALIFORNIA AV	E S OF STETSON AVE			
		6/11/01	MON	1575
		8/11/99	WED	1601
		6/2/97	MON	1835
CALISTOGA DR	N OF STARGAZER WY			
		10/6/98	TUE	840
CALLE CONTENT	O S OF RANCHO CALIFORNIA	RD		
		1/28/98	WED	449
CALLE CONTENT	O N OF RANCHO CALIFORNIA	RD		
		1/28/98	WED	356

2013 Mitigation Monitoring Program Status Report

El Sobrante Landfill
2013 Mitigation Monitoring Program
Status Report

Prepared By:
USA Waste of California, Inc.
10910 Dawson Canyon Road
Corona, CA 92883

December 2014

Report on Status of Mitigation Monitoring Program (MMP)
(Adopted by Board of Supervisors on December 18, 2012)

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. (Responsible Agencies: USFWS, CDFG)

Status:

The approved Habitat Conservation Plan (HCP) negotiated with the US Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW, formerly CDFG) details a phased closure and restoration plan utilizing native species. Reports detailing compliance with the HCP, to include the Riversidian Sage Scrub (RSS) restoration plan, are prepared annually and are available upon request. In 2004, RSS restoration was completed on approximately 7 acres comprising the Phase 8 berm. Construction within the RSS Phase A Partial Final Closure area began in 2006 and was completed in early 2007. By spring of 2009, revegetation on the Phase A slopes had been successful, with excellent seed germination, native species diversity, and reaching approximately 50 percent native cover in most slope areas. 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. To increase plant species diversity, a 1.5-acre portion of a Phase A slope was planted with seeds of California Sagebrush and California Buckwheat in 2011. Prickly-pear cactus pads were also planted to replace dead cactus.

Closure within the RSS Phase B1 Partial Final Closure area began in 2008. Upon completion of closure in the fall of 2009, restoration of approximately 18 acres of RSS 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 RSS.

In the fall of 2011, the same RSS hydroseed mix was reapplied to the slope of the Phase 10 berm, where a storm washout occurred in December 2010, and was applied to the Pond 4 exterior slopes and a 0.5-acre portion of a Phase 11 slope.

In 2012, 36 acres of outside slopes within Phases 3-5, 7 and 8 (RSS Phase B2 Partial Final Closure area) were closed and then hydroseeded with a RSS seed mix in the latter part of the year. Three rock outcrops and 12 large piles of branches were added to attract wildlife. Weed management and qualitative monitoring also occurred within all other restored areas on a monthly basis in 2012.

In 2013, the Biological Monitor (Mariposa Biology) for the landfill determined that the RSS restoration area on the Phase 8 berm met the RSS self-sustaining criteria per the approved HCP. As a consequence, only annual plants, and not the shrub cover, were counted. A monitoring report was prepared for the Habitat Management Committee (HMC) seeking concurrence that the Phase 8 berm restoration area meets the success criteria.

Restoration activities that occurred in 2013 included the following: 1) Hand-seeding of California Buckwheat seeds, California Sagebrush seeds, and mycorrhizal fungi in all areas of Phases A and B1, except the Phase 8 berm and those areas that were given supplemental hydroseeding in December 2012; 2) Planting of approximately 500 cactus pads within sparse areas of Phases A and B1; and, 3) Planting of approximately 3,000 cactus pads in Phase B-2 on the west- and south-facing slopes to create Cactus Wren habitat. Plant germination within

the Phase B-2 area has been good on the north slope but slow on the south slope due to low rainfall.

While considering the 2012 Annual Monitoring Report in 2013, the Citizen Oversight Committee (COC) requested that the landfill operator consider watering restoration areas as a method to accelerate plant growth. In addition, as identified in the staff report to the County Board of Supervisors for the 2012 Annual Report, County staff contracted for preparation of a non-binding technical Memorandum (see attached) to evaluate supplemental irrigation for restoration projects in southwest Riverside County. Although the Memorandum advocates for supplemental irrigation systems, pursuant to the approved HCP, irrigation is not applied, because it is preferable that seeds germinate and grow under natural conditions of wet and dry cycles, and because "increased weed growth and imbalances in soil microorganisms (most notably decreases in beneficial mycorrhizal fungi) often result" (HCP, page D-7). Non-watering serves to make restoration more self-sustaining in the long term.

In 2013, restoration sites continued to be monitored monthly and weeded as often as necessary to control weeds and promote habitat for both plant and animal species. Monitoring results are submitted to the HMC on an annual basis. If it is determined by the Biological Monitor and the HMC that less than the required vegetation cover is present, the reasons for the low cover values will be evaluated (i.e., low rainfall, adverse soil conditions, or other factors that cannot be anticipated), and recommendations for remedial measures, if feasible, will be made (HCP, D-34).

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. (Responsible Agencies: RCWMD, LEA)

Status:

No development activities took place nor was any acreage disturbed within the landfill boundary during 2013.

Landfill development, along with closure and restoration, is phased to comply with this measure and is implemented in accordance with the lmplementing Agreement, dated July 2001, for the approved HCP that was entered into by USFWS, CDFW, USA Waste, and Riverside County.

A-3

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

Status:

A 20,000-gallon above ground diesel storage tank in a neutral color consistent with the surrounding area was installed in 2013. No other facilities, structures, or signage were installed or constructed at the landfill in 2013. The landfill owner/operator will continue to implement 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. (Responsible Agencies: LEA, CIWMB)

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. (Responsible Agencies: LEA)

Status:

All outdoor lighting, both permanent and portable, is shielded and directed toward the ground and/or working face in accordance with this mitigation measure. If the landfill operator was to receive a complaint filed at the landfill or with the LEA that temporary lighting was not directed toward the working face, the light locations and angles would be immediately adjusted. One comment was raised during a COC meeting in 2013 regarding night lighting and the location and angle of the light was redirected for the following night time operation

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. (Responsible Agencies: LEA)

Status:

The landfill phasing has been restructured to increase the sight distance and minimize the potential for any visual impact of filling activities on surrounding neighbors. During periods of 2013, 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, impacts on these neighborhoods from night glare are significantly reduced due to their sight distance from the landfill, and because all outdoor lighting at the landfill, both permanent and portable, is shielded and directed toward the ground and/or working face.

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. (Responsible Agencies: LEA, CIWMB)

Status:

Litter control and removal is addressed in the Joint Technical Document (JTD), approved by the CIWMB. As a consequence, it is closely monitored by the LEA. In 2013, USA Waste performed litter control and cleanup on these road segments in accordance with the schedule provided in the mitigation measure.

No violations or areas-of-concerns were recorded during 2013 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. 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.

Litter control and removal is an on-going task, and during 2013, 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 2013, 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. (Responsible Agencies: LEA, SCAQMD)**

Status:

The purpose of mitigation measure AQ-1 is to minimize fugitive landfill gas (LFG) emissions from the landfill, because methane produced in the landfill comprises approximately 50 percent of LFG and is a significant contributor to greenhouse gas (GHG). To minimize excess air infiltration and fugitive LFG emissions and to achieve greater gas collection efficiencies than were required by regulations in place at the time the Draft EIR (1994) and Final EIR (1996) were under review for the Expansion Project (specifically, Code of Federal Regulation [CFR], Title 40, Part 258, "Subtitle D" and SCAQMD Rule 1150.1, April 5, 1985 version), the mitigation measure was written to include a provision for a landfill gas barrier layer in the intermediate cover and final cover system, which was considered the best available control technology to reduce infiltration and emissions.

Since 1996, more stringent regulations governing the installation of LFG collection and control systems and LFG monitoring have been enacted (specifically, CFR, Title 40, Part 60, Subpart WWW (www.ecfr.gov); California Code of Regulations [CCR], Title 17, "AB 32"(www.leginfo.ca.gov); CCR, Title 27; and SCAQMD Rule 1150.1, as revised 1998, 2000, and 2011 (www.aqmd.gov), and better extraction technologies have been implemented (i.e., better flares, better understanding of collection efficiencies, enhanced monitoring systems, and development of economically-feasible LFG-to-energy facilities). Quarterly monitoring and reporting to the SCAQMD indicates that El Sobrante is in compliance with these requirements and standards and the goal of AQ-1 without placing a landfill gas barrier in the intermediate cover and final cover system.

As allowed by Condition of Approval 5 of BOS-approved Conditions of Approval (Exhibit "F" of Second Agreement), the landfill operator may substitute specified materials, design, system or action as may be required by the project providing that such material, design, system or action complies with all applicable Federal, State, and local regulations and is approved by any Federal, State or local regulatory agency having jurisdiction and the General Manager of the Riverside County Waste Management Department (RCWMD). A third party technical report was prepared (included in appendix) that confirms the landfill's current LFG collection and control system is preferred over the installation of a LFG barrier.

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. (Responsible Agencies: LEA, SCAQMD)**

Status:

Dust control measures are being implemented in accordance with this mitigation measure and the landfill's SCAQMD-approved Rule 403 Fugitive Dust Control Plan. It should be noted, however, that subsequent to approval of the Expansion EIR, Rule 403 requirements changed, and the landfill operator is no longer required to revise the plan on an annual basis (www.aqmd.gov). As allowed by Condition of Approval 5 of BOS-approved Conditions of Approval (Exhibit "F" of Second Agreement), the Fugitive Dust Plan is updated or revised only 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_{10} 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. (Responsible Agencies: LEA, SCAQMD)**

Status:

This mitigation measure is implemented on an ongoing basis. The site has installed a meteorological station and conducted PM_{10} 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_{10} 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.**
- **Curtailing specific activities (e.g., new phase construction) when conditions are unfavorable for fugitive PM_{10} control. (Responsible Agencies: LEA, SCAQMD)**

Status:

This mitigation measure has not been triggered, because PM_{10} 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.**
- **NOx, ROG, SOx, and PM_{10} emissions from stationary sources shall be offset according to SCAQMD requirements for essential public services. (Responsible Agencies: SCAQMD)**

Status:

Landfill emissions are analyzed on an annual basis to ensure that the landfill is operating within permitted threshold limits. An annual emission report is submitted to SCAQMD and the RCWMD to ensure compliance with this mitigation measure. A copy of the annual emission report is on file and available at the offices of SCAQMD and Waste Management.

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. (Responsible Agencies: SCAQMD)**

Status:

Landfill emissions from all sources are analyzed on an annual basis to ensure that the landfill is operating within permitted threshold limits. See Mitigation Measure AQ-5 above.

AQ-7

Onsite vehicles shall be routinely maintained. (Responsible Agencies: SCAQMD)

Status:

Routine maintenance of onsite vehicles and equipment is performed to ensure compliance with this mitigation measure.

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. (Responsible Agencies: SCAQMD)

Status:

All diesel fuel used at the facility is low sulfur fuel with a sulfur content of less than 0.05% by weight, which is the only fuel available in California.

AQ-9

Construction equipment shall be fitted with the most modern emission control devices. (Responsible Agencies: SCAQMD)

Status:

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 in compliance with the California Air Resources Board (CARB) requirements.

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. (Responsible Agencies: SCAQMD)

Status:

This mitigation measure has not been triggered, because the requirements of Rule 461 only apply if stationary or mobile gasoline fuel tanks have a capacity of over 119 gallons. The rule is not applicable to diesel storage tanks.

AQ-11

Prior to construction and construction/operation activities, the following premonitoring measures shall be implemented to avoid or lessen boundary concentrations of $N0_2$:

- **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_2 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_2:

- **If monitoring determines that the 1-hour NO_2 standard (i.e., 470 µg/m3) is being approached (i.e., within 95 percent of the standard or approximately 450 µg /m3), 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. (Responsible Agencies: LEA, SCAQMD)**

Status:

No construction activities occurred in 2013, however during construction activities, the landfill operator continues to implement a "CEQA Mitigation Monitoring Workplan for NO_2," which was prepared by SCS Engineers to incorporate these measures and submitted to the SCAQMD on January 27, 2003 (included in appendix).

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. (Responsible Agencies: RCWMD)

Status:

The initial evaluation report was submitted with the 2004 Annual Report and is included in the appendix. 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 at that time. Updated studies are being conducted and will be available in the 2014 Annual Report.

AQ-13

The project shall provide the required emission reductions of NO_X and ROG sufficient to cause no net increase of project emissions. (Responsible Agencies: SCAQMD, RCWMD)

Status:

The "Annual 2014 Mitigation Monitoring Program Status Report, Air Quality Mitigation Measure AQ-13, El Sobrante Landfill, Corona, California", prepared by SCS Engineers and dated September 27, 2013, provides both a summary of the site's emission inventory for stationary, mobile, and construction sources and a summary of the emission increases, or reductions, from the various site emission sources from the baseline year of 2001 to the 2014 projected emissions (included in appendix). Based on the report's results, it is forecast that there will be an emission reduction of 661.9 lbs/day for NOx and 8.8 lbs/day for ROG. These reductions are achieved by use of an ultra-low NOx flare and the use of transfer trucks in place of packer trucks. No emission offsets are required for 2014, 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. (Responsible Agencies: RCWMD)

Status:

Site Policies and Procedures have been revised to enforce the "no idle longer than 15 minutes" mitigation measure (included in appendix). To support compliance with this requirement, the landfill operator chose to install exterior indicator lights beginning in 2008 to show machine idle time-outs. At the end of 2012, a total of 9 pieces of equipment had been installed with exterior lights; 1 of 2 loaders, all 3 tippers, 3 of 4 compactors, and 2 of 3 dozers. The remaining dozer was replaced in 2013 with a new unit incorporating a factory auto-idle-shutdown system. Idle auto shut-down systems will not be installed on any remaining equipment due to their lack of adaptability and/or low use, but on occasions when this equipment is in use, the landfill operator will continue to enforce the "no idle longer than 15 minutes" mitigation measure.

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. (Responsible Agencies: USFWS, CDFG, ACOE, RWQCB, RCWMD)

Status:

Phased development, closure and restoration are being performed in accordance with the Implementing Agreement, dated July 2001, for the approved El Sobrante Landfill HCP that was entered into by USFWS, CDFW, 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 CDFW in May 2004 to re-phase the grading plan, increasing the number of phases from 15 to 17.

In 2004, RSS restoration was completed on approximately 7 acres comprising the Phase 8 berm. Construction within the RSS Phase A Partial Final Closure area began in 2006 and was completed in early 2007. By spring of 2009, revegetation on the Phase A slopes had been successful, with excellent seed germination, native species diversity, and reaching approximately 50 percent native cover in most slope areas. 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. To increase plant species diversity, a 1.5-acre portion of a Phase A slope was planted with seeds of California Sagebrush and California Buckwheat in 2011. Prickly-pear cactus pads were also planted to replace dead cactus.

Closure within the RSS Phase B1 Partial Final Closure area began in 2008. Upon completion of closure in the fall of 2009, restoration of approximately 18 acres of RSS 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 RSS.

In the fall of 2011, the same RSS hydroseed mix was reapplied to the slope of the Phase 10 berm, where a storm washout occurred in December 2010, and was applied to a 0.5-acre portion of a Phase 11 slope.

In 2012, 36 acres of outside slopes within Phases 3-5, 7 and 8 (RSS Phase B2 Partial Final Closure area) were closed and then hydroseeded with a RSS seed mix in the latter part of the year. Large rock outcrops and brush piles were added to attract wildlife. While no other areas of the landfill have been closed and restored since 2012, 3,000 cactus pads were planted in Phase B2 in 2013, and restoration sites continued to be monitored monthly and weeded as often as necessary to control weeds and promote habitat for both plant and animal species. In addition the Biological Monitor (Mariposa Biology) for the landfill determined that the RSS restoration area on the Phase 8 berm met the RSS self-sustaining criteria per the approved HCP. A monitoring report was prepared for the Habitat Management Committee (HMC) seeking concurrence that the Phase 8 berm restoration area meets the success criteria.

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. (Responsible Agencies: USFWS, CDFG, ACOE, RWQCB, RCWMD)

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. (Responsible Agencies: USFWS, CDFG, ACOE, RWQCB, RCWMD)

Status:

Dudleya salvaging and restoration is being performed by the Habitat Manager (Mariposa Biology), in accordance with the Dudleya Restoration Plan, prepared pursuant to the approved HCP. The goal of the HCP is to replace impacted Dudleya at a 1:1 ratio through salvage, propagation, and translocation, while at the same time controlling non-native plant species within the 15-acre Dudleya Restoration Area that was established in 2004. Through 2009, a total of 15,210 plants had been salvaged from landfill phases prior to grading disturbance. Of the 15,210 plants salvaged, 7,760 plants survived to be planted within 67 test plots located in the Dudleya Restoration Area. Another 6,942 Dudleya plants were grown from seed and planted in the Dudleya Restoration Area. The survival rate of the 14,702 plants that were transplanted through 2009 in the test plots has been low due to factors such as herbivory and drought, decreasing from 318 plants in 2012 to 140 plants in 2013 after a second year of drought, which indicates that plants, while dying off, are not reproducing in the test plots. In December 2012, 7 rock outcrops were seeded with Many-stemmed Dudleya on rock outcrops that supported Dudleya lanceolata in the North and East Preserves to increase the number of Dudleya plants onsite for mitigation purposes. While this seeding did not produce any Many-stemmed Dudley plants, it is intended that this practice will still be pursued in the future during normal rainfall years. To prevent further loss of plants in the restoration area after repeated drought years, adaptive management measures were implemented in 2013. Measures included the strategic placement of rocks to provide protection of the plants and the installation of temporary irrigation lines to water approximately 17 of the more successful test plots or test plots that can be watered without watering any natural rock outcrops. Watering to replace lack of rainwater began in November 2013.

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. (Responsible Agencies: USFWS, CDFG, ACOE, RWQCB, RCWMD)

Status:

From 2002, when construction of the landfill expansion project began, through the end of 2013, it has been the understanding of the landfill owner/operator that this mitigation measure has not been triggered for any grading or construction related to the landfill and would not be triggered until the final phase of landfill development, Phase 15 (now Phase 17).

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. (Responsible Agencies: USFWS, CDFG, ACOE, RWQCB, RCWMD)**

Status:

Any wetland compensation plan developed in the future as a result of implementing Mitigation Measure B-4 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. (Responsible Agencies: USFWS, CDFG, ACOE)**

Status:

Any wetland compensation plan developed in the future as a result of implementing Mitigation Measure B-4 will be developed in negotiation with the resource agencies.

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. (Responsible Agencies: USFWS, CDFG, ACOE, RWQCB)

Status:

Wetland/riparian habitat 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. (Responsible Agencies: USFWS, CDFG)

Status:

Worker education for El Sobrante Landfill employees and contractor employees was conducted in 2013 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. (Responsible Agencies: RCWMD)

Status:

A restrictive covenant was placed over the 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. (Responsible Agencies: RCWMD)

Status:

For calendar year 2013, approximately $1,914,771 was collected from out-of-county waste imports and conveyed to the Executive Office for MSHCP funding (as based on 1,276,514 tons of out-of-County waste in 2013 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. (Responsible Agencies: RCWMD)

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. (Responsible Agencies: RCWMD)

Status:

All outdoor lighting, both permanent and portable, is shielded and directed toward the ground and/or working face in accordance with this mitigation measure. If the landfill operator was to receive a complaint filed at the landfill or with the LEA that temporary lighting was not directed toward the working face, the light locations and angles would be immediately adjusted. One comment was raised during a COC meeting in 2013 regarding night lighting and the location and angle of the light was redirected for the following night time operation

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. (Responsible Agencies: USFWS, CDFG)

Status:

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

- Cowbird trapping to avoid parasitism during the breeding season of the California 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, starting in 2012. The last cowbird trapping program was conducted by TeraCor Resource Management during the California Gnatcatcher's Spring nesting season from March through June of 2012. A total of 360 brown-headed cowbirds were caught in 4 maintained traps during this period. There was no observed evidence of parasitism of Gnatcatcher nests, and no cowbirds were detected in or near Gnatcatcher habitat areas. The cowbirds that were present were part of a mixed blackbird flock that winters at the landfill and feeds on the landfill. In 2013, no cowbird trapping was conducted.

Other predator control measures implemented in 2013 included the continued monitoring for the occurrence of Argentine ants and fire ants, and the extermination of rats infesting the office area by a professional exterminator.

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. (Responsible Agencies: USFWS, CDFG)

Status:

In 2013, pre-impact surveys were not required, because no activities associated with brush clearing and habitat removal occurred at the landfill site. A total of 17 HCP-Covered Species were observed and mapped during monthly monitoring. There were incidental sightings of nocturnal mammals, but no trapping was performed. Mapping focused on the California Gnatcatcher and Bell's Sage Sparrow in 2013.

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. (Responsible Agencies: RCWMD)

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. (Responsible Agencies: RCWMD)

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, CDFW, ACOE, and/or RWQCB. No such permitting processes took place in 2013.

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. (Responsible Agencies: RCPD)

Status:

No pre-impact archaeological surveys were conducted in 2013, because no new landfill grading was performed in 2013. The last excavation occurred in 2011 in Phases 9B, 10, and 11, for which pre-impact archaeological surveys were conducted for Phases 8 and 9 by SOPA-certified archeologists with RECON in 2003. As shown in the original Cultural Reports completed for the Expansion EIR, no archaeological sites or resources were identified in Phase 10 and 11. Due to the lack of any evidence of any archaeological resources, RECON did not recommend any further archaeological work within these areas, and 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. (Responsible Agencies: RCPD)

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. (Responsible Agencies: RCPD)

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 currently active landfill phases.

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. (Responsible Agencies: RCPD)

Status:

While semi-yearly monitoring of recorded sites within the landfill property has not occurred, based on the 2003 archaeological report prepared by RECON in 2003, there is no evidence of archaeological resources within the active landfill phases. However, Archaeological monitoring will be performed on a semi-annual basis, with a status report submitted in the 2014 MMRP.

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. (Responsible Agencies: RCPD)

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. (Responsible Agencies: RCPD)

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. (Responsible Agencies: RCBSD)

Status:

The approved archaeological mitigation measures will continue to be affixed to all future copies of project grading plans in accordance 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. (Responsible Agencies: RCBSD, LEA, RWQCB, CIWMB)

Status:

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

All final exterior waste fill 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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

All stability analyses are included in the Joint Technical Document (JTD) reviewed and approved by the RWQCB. 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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

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). (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

This mitigation measure is implemented as it is stated.

G-7

Slope buttresses shall be provided, if necessary, to increase slope stability and reduce deformations. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

The need for a slope buttress or berm is based on an approved landfill cell design and corresponding slope stability analysis. No new landfill cells were designed in 2013. The construction of a perimeter stability berm at the eastern limit of Phase 10 in 2010-11 was the last time this measure was implemented.

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

Compliance with this mitigation measure 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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

A post-earthquake and routine inspection plan was submitted to the RWQCB and CIWMB in 2008 and incorporated in the approved JTD, revised March 2009. The plan has been designed to include integrity inspections of structures, slopes and the landfill's integrated systems following an earthquake. In 2013, there were no earthquakes that triggered implementation of this mitigation measure. However, El Sobrante Landfill staff currently inspects slopes and structures for maintenance issues including signs of settlement and fissures on a weekly basis.

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. (Responsible Agencies: RCPD)

Status:

No blasting occurred at the landfill site in 2013. The last blasting occurred in 2011 when geotechnical investigation revealed the need for minor blasting to occur as part of cell development of the subdrain system for the leachate collection and removal system (LCRS) in Phases 9B/10. El Sobrante complied with this mitigation measure at that time by submitting approved design plans for the LCRS to the County Engineering Geologist, who with concurrence from the Riverside County Waste Management Department, determined that a blasting study was not necessary.

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

Subdrain systems were installed in Phase 8 when these conditions were encountered. During the construction of cell 9A, this subdrain was extended. In 2010, the stability berm in Phase 10 was constructed with canyon subdrains. In 2011, subdrain systems were installed during cell liner construction on approximately 26.4 acres within Phases 9B and 10. 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.

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

A canyon subdrain system was installed in 2010 beneath the Phase 10 stability berm constructed during 2010 and 2011.

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

Status:

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. (Responsible Agencies: RCPD)

Status:

No blasting occurred in 2013. This measure will be implemented at the El Sobrante Landfill when blasting is required for cell development.

G-16

Only state-licensed blasters shall be used to design, supervise, and detonate explosives on the site. (Responsible Agencies: RCPD)

Status:

See G-15.

G-17

Seismic monitoring of each blast shall be conducted by an independent, qualified consultant. (Responsible Agencies: RCPD)

Status:

See G-15.

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. (Responsible Agencies: RCPD)

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. (Responsible Agencies: RCPD)

Status:

See G-15.

G-20

USA Waste shall notify neighbors within 1,000 feet of potential blasting areas prior to a blasting episode. (Responsible Agencies: RCPD)

Status:

See G-15.

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. (Responsible Agencies: RCBSD)

Status:

See G-15.

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. (Responsible Agencies: RCPD)

Status:

See G-15.

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. (Responsible Agencies: RCPD)

Status:

See G-15.

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. (Responsible Agencies: RCPD, RCBSD, LEA)

Status:

See G-15.

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. (Responsible Agencies: RCWMD, RCPD)

Status:

While there have been changes over time to conceptual grades based on updated seismic stability analysis, the El Sobrante Landfill continues 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. There have also been changes over time to the conceptual limits of grading for the landfill expansion project, both onsite and offsite. In 2011, Pond 4 was relocated to primarily disturbed land purchased by USA Waste outside the original landfill boundary. In conformance with the Expansion Project, the development of this ancillary facility and all future

offsite grading will not exceed the approximately 11 acres of offsite grading assessed in the EIR. The relocation of Pond 4 resulted in a substantial reduction of impacts to RSS, a sensitive plant species, when compared to RSS impacts at the original (undisturbed) location. In addition, the relocation allowed for continued preservation of rock outcrops in the area of the original location, which serve as important habitat for sensitive plants and animals. The original location of Pond 4 will be conserved and managed as part of the El Sobrante Landfill Preserve.

L-2

Prior to any offsite grading, USA Waste or its successor-in-interest shall obtain and record appropriate offsite easements. (Responsible Agencies: RCWMD)

Status:

Offsite grading, requiring offsite easements, was not conducted in 2013.

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. (Responsible Agencies: County Board of Supervisors)

Status:

The Citizen Oversight Committee (COC) was formed by the BOS in 2003 and meets throughout the year as needed to discuss issues related to the use of the Mitigation Trust, illegal dumping and programs, and landfill operations.

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. (Responsible Agencies: County Board of Supervisors)

Status:

The COC met on October 23, 2013, November 20, 2013, and December 11, 2013 to review the 2012 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 7:00 a.m. to 10:00 p.m., Monday through Saturday, with the following restrictions:

- **a) The conveyor belt system shall not be located less than 295 feet from occupied residences; and,**
- **b) Excavation and liner construction of new cells within 10 feet of the top of slope shall be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday. (Responsible Agencies: LEA)**

Status:

All activities involving excavation and liner construction of new landfill cells, including use of the conveyor belt, were completed in 2012. There was no construction activity in 2013.

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. (Responsible Agencies: LEA)

Status:

In compliance with this mitigation measure, El Sobrante Landfill limits its hours when working on outside slopes with landfill equipment.

N-3

Construction equipment shall use industrial-grade mufflers to reduce noise emission. (Responsible Agencies: LEA)

Status:

Only construction equipment with industrial-grade mufflers to reduce noise emission will be utilized at the landfill.

N-4

Blasting shall be postponed during temperature inversions and unfavorable wind conditions (wind blowing toward residences). (Responsible Agencies: RCPD)

Status:

No blasting was conducted in 2013.

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. (Responsible Agencies: RCPD)

Status:

No drilling or blasting was conducted in 2013.

N-6

Acoustic blankets shall be used around drilling operations to reduce potential drilling noise. (Responsible Agencies: RCPD)

Status:

This mitigation measure requires that acoustic blankets be used when drilling associated with blasting occurs. Since blasting did not occur in 2013, this mitigation measure was not triggered.

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. (Responsible Agencies: LEA)

Status:

The landfill phasing has been restructured to increase the distance and minimize the potential for any audible impact of filling activities on surrounding neighbors. During periods of 2013, 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, impacts on these neighborhoods from noise is significantly reduced due to their distance from the landfill. According to the Supplemental EIR (certified by BOS in 2009) and the Addendum to the Final EIR (considered by BOS in 2012), no significant impacts relating to the landfill's nighttime activities were identified.

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. (Responsible Agencies: RCPD)

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 2013.

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. (Responsible Agencies: RCPD)

Status:

No excavation, earthmoving and/or grading work was performed in 2013.

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. (Responsible Agencies: RCPD)

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. (Responsible Agencies: RCPD)

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. (Responsible Agencies: RCBSD)

Status:

The approved paleontological mitigation measures will continue to be affixed to all future copies of project grading plans in accordance 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. (Responsible Agencies: RCWMD, LEA)

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. USA Waste's contracts for out of County waste include a requirement to comply with all applicable conditions of the Second Agreement. All contracted out-of-County waste was delivered by transfer trucks or equivalent trucks in 2013. The RCWMD scale house attendants have the authority to reject any deliveries not in compliance with this Mitigation Measure. The RCWMD scale house attendants did not report any violations of this Condition of Approval to USA Waste in 2013. Minor amounts of non-contracted waste from public customers or small commercial haulers may enter from time to time, as allowed by the RCWMD scale attendants.

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. (Responsible Agencies: RCWMD, LEA)

Status:

USA Waste has not contracted for the receipt of waste from counties other than the ones listed in this Condition of Approval. As the operator of the landfill scale house, RCWMD allows out of County waste to enter the landfill and is the entity responsible for jurisdictional reporting. In conversations with Riverside County staff, it is the understanding of USA Waste that it is the policy of Riverside County to allow incidental volumes of waste from any jurisdiction to be disposed of at a County facility to avoid or minimize illegal dumping.

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. (Responsible Agencies: RCWMD, RCTD)

Status:

It is not feasible to guarantee that transfer trucks will never use SR 91 during peak hours, especially when traffic conditions can cause unexpected delays (i.e., accidents, breakdowns, lane closures, weather-related incidents, construction, etc.) Regardless, USA Waste has implemented measures to ensure that significant impacts from out-of-county transfer truck operations during peak hours on the SR 91 do not occur. This includes implementing 24-hour operations and notification to company and independent transfer truck operators to utilize off-

peak hours (see appendix for sample notification letter). Furthermore, extensive residential growth has occurred since the expansion EIR was prepared, leading to greater traffic congestion on both SR 91 and Interstate 15 (I-15). As a direct consequence, transfer truck operators have been forced to adjust their travel to avoid peak commute times as a cost-saving measure.

To quantitatively address Measure T-3 for 2013, peak hour waste deliveries originating from the Carson, South Gate and Central Los Angeles transfer stations were evaluated. While transfer trucks delivering waste from these transfer stations have the potential to use SR91 due to their location, the exact route taken is not known, and transfer truck drivers, both WMI and independent, are aware of the peak hour restrictions.

The data shown in Table 1 demonstrates that the amount of out of county transfer truck waste deliveries during the peak hours in 2013 has decreased compared to 2012. The 5.7 daily average peak hour deliveries in 2013 represented less than one percent of daily waste deliveries (avg. of 594 daily trips). For the 2013 Annual Report, it is not possible to determine the route taken, that is, one cannot definitively state that these trucks traveled along SR91; however, beginning with the 2014 Annual Report, data from WMI's "geo-fence" (a GPS tracking tool), will be available and provide clarity regarding the routes of WMI/USA Waste's transfer truck fleet, which accounts for approximately 60% of the transfer trucks utilizing the El Sobrante Landfill. In addition, WMI will continue to provide new independent transfer truck operators notification regarding the peak hour restrictions via direct correspondence, as well as provide contractual obligations/restrictions for new waste delivery contracts.

Table 1

	2012	2013
AM Peak 7:30-8:30	7.2 Trucks	5.3 Trucks
PM Peak 4:30-5:30	0.5 Trucks	0.4 Trucks
Total	7.7 Trucks	5.7 Trucks

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. (Responsible Agencies: RCWMD, RCTD)

Status:

El Sobrante Landfill requires all transfer trucks to utilize the designated route for deliveries of waste. USA Waste notified all out-of-county and in-county transfers stations that the designated route was I-15 to Temescal Canyon Road, then north on Temescal Canyon Road to Dawson Canyon Road. 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. In 2013, no violations were noted.

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. (Responsible Agencies: RCWMD, RCTD)

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 violations were noted for local haulers in 2013.

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. (Responsible Agencies: RCTD)

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. (Responsible Agencies: RCTD)

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. (Responsible Agencies: RCTD)

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 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. (Responsible Agencies: RCBSD)

Status:

No new building applications were submitted in 2013. 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. (Responsible Agencies: RCFD)

Status:

No new water service applications were submitted in 2013. 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. (Responsible Agencies: RCFD)

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 Manager. 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. (Responsible Agencies: LEA)

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. (Responsible Agencies: LEA)

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. (Responsible Agencies: LEA)

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. (Responsible Agencies: LEA)

Status:

El Sobrante Landfill is in compliance with this mitigation measure.

U-11

Installation of low flow toilets, faucets, and showers. (Responsible Agencies: RCBSD)

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. (Responsible Agencies: RCWMD, RCEHA)

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 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.

As of 2013, LLWD has not started construction of non-potable reservoir/supply or wastewater lines.

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. (Responsible Agencies: RCFCD, RWQCB, LEA)

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 2013 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. (Responsible Agencies: RCFCD, RWQCB)

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. There were no qualifying sampling events during 2013 per the requirements contained in the Industrial General Permit for Storm Water Discharges (Water Quality Order No. 97-03-DWQ) so no analytical data is available for this period per the 2013 annual storm water report (see FY13/14 Analytical Report in appendix).

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. (Responsible Agencies: RWQCB)

Status:

El Sobrante Landfill is in compliance with this mitigation measure. The SWPPP was first prepared December 7, 2001, updated November 29, 2010, and updated again on April 20, 2012. Table 1 in the latest SWPPP includes a list of “best management practices” (BMPs) used at the El Sobrante Landfill (see appendix).

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. (Responsible Agencies: LEA, RWQCB, CIWMB)

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. LCRS information is reported annually in the fall and winter semi-annual groundwater report to satisfy the requirements of the RWQCB, as specified in the landfill’s Waste Discharge Requirements (WDR), dated July 20, 2001. According to the Fall 2013-Winter 2014 Semi-Annual Groundwater Monitoring Report and Annual Reporting Requirements, prepared by SCS Engineers and dated April 28, 2014, the LCRS recovered leachate from 4 LCRS locations in the landfill. From April 2013 to March 2014, a total of 216,642 gallons of leachate were collected and used for dust control. The leachate control systems are inspected weekly, and annual leachate samples were collected on October 17, 2013. The 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. (Responsible Agencies: LEA, RWQCB, CIWMB)

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 is done prior to the rainy season every year and maintained throughout the rainy season. 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. (Responsible Agencies: RCTD, RCFCD)

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. (Responsible Agencies: RCBSD)**

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. (Responsible Agencies: LEA, RWQCB, CIWMB)**

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. (Responsible Agencies: LEA, RWQCB, CIWMB, SCAQMD)

Status:

A LFG Collection and Control System (GCCS) has been in operation at the El Sobrante Landfill since 1993. The GCCS currently consists of approximately 170 vertical and horizontal extraction wells that are placed under vacuum via a piping network that extracts the LFG from the waste mass and conveys the LFG to both a Zink Ultra Low Emissions flare station and a LFG-to-energy facility. LFG is combusted in the flare station and used as a fuel in the LFG-to-energy facility to generate electricity. The GCCS is continually adjusted to minimize LFG impacts to groundwater and fugitive LFG emissions from the landfill. While El Sobrante principally relies on sufficient LFG extraction from the vertical well field to maintain compliance, the horizontal collectors are used as a compliance measure to collect any newly generated gas and prevent 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. No horizontal wells have been added to the GCCS since before 2005, but in 2013, a total of 6 horizontal wells were tied into the GCCS in Phases 9B/10; 3 were trenched in 2012 and 3 in 2013.

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). (Responsible Agencies: LEA, RWQCB)

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. (Responsible Agencies: LEA, RWQCB, SCAQMD)

Status:

El Sobrante Landfill has sixteen (16) permanent perimeter gas probes (GP) with multiple completions in its approved monitoring network. The probes are monitored and reported in accordance with applicable regulations to ensure that landfill gas does not migrate off the landfill site. All 16 probes are spaced no more than 1,000 feet apart around the perimeter of the landfill in static locations. The probes are routinely tested and monitored on a quarterly basis by landfill staff and reported to the LEA. The LEA may also perform its own testing of random probes during their regular monthly inspections of the landfill and/or may monitor landfill staff's quarterly testing of the probes. If excess levels are detected during quarterly monitoring, regulations require that the LEA be immediately notified by the landfill operator and that each immediate notification be followed up with a letter from the landfill within 7 days. Whenever excess levels are detected, the site immediately takes all steps necessary to reduce methane levels and to protect public health and safety and the environment.

In 2013, there were no reportable excess levels of 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. (Responsible Agencies: LEA, RWQCB)

Status:

El Sobrante Landfill has implemented a "point of compliance" ground water monitoring program consisting of sixteen (16) 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 2013 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. (Responsible Agencies: LEA, RWQCB, SCAQMD)

Status:

In 2013, there was no determination that leachate or landfill gas generated by the landfill posed any risk to ground water, and a corrective action plan has not been developed nor implemented. Prior to approval of the landfill expansion project in 1998, a corrective action plan was implemented in 1996 for apparent landfill gas impacts to ground water from the original landfill footprint. This plan was developed and implemented in conjunction with the RWQCB. On June 4, 2003, the RWQCB gave El 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, El 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. (Responsible Agencies: RCWMD, LEA, RWQCB)**

Status:

During the January 14, 2015, ARC meeting, staff was directed to perform additional research regarding WMI's compliance with Measure W-14. Specifically, staff will review the Landfill Expansion EIR and 1994 Water Resources Technical Report, to determine the relationship, if any, with a proposed 'cut-off' wall and its application to Measure W-14.

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. (Responsible Agencies: RCWMD)

Status:

The balance of the Environmental Impairment Trust at the end of 2013 was $3,011,148.83. 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. (Responsible Agencies: RCWMD)

Status:

El Sobrante Landfill did not withdraw any funds from this Trust in 2013.

Mitigation Monitoring Program Status Report

Appendix

A-1

Supplemental Irrigation Memorandum

AQ-1

Landfill Gas Barrier Technical Memorandum

AQ-5

2013 Annual Emissions Report

AQ-11

CEQA Mitigation Monitoring Workplan for NO_2

AQ-12

Alternative Fuel Engines and Emission Control Technologies
Transfer Truck Operations Analysis

AQ-13

Annual 2014 Mitigation Monitoring Program Status Report

AQ-14

Off-Road Vehicles Idling Policy

T-3

Peak Hour Avoidance Letter
2012/2013 Data

W-2
Annual Report for Storm Water Discharges Associated with Industrial Activities
Analytical Report

W-3
Storm Water Pollution Prevention Plan (SWPPP)

A-1

Supplemental Irrigation Memorandum

RIVERSIDE COUNTY
PLANNING DEPARTMENT

Juan C Perez
Interim Director

MEMORANDUM

DATE: May 14, 2014

TO: Ryan Ross
Principal Planner
Riverside County Waste Management

FROM: Harry Sandoval
Ecological Resource Specialist
Riverside County Planning Department - Environmental Programs Division

RE: **Use of Irrigation for Vegetation Restoration Projects**

Introduction

The use of supplemental irrigation can be beneficial and is often necessary to successfully restore native vegetation in the arid climate of Riverside County and surrounding areas of Southern California. Supplemental irrigation is commonly used to carry out successful re-vegetation and restoration projects involving native vegetation throughout Southern California. Studies conducted on Coastal Sage Scrub species in Orange County, California have determined that the careful use of supplemental irrigation does aid in the establishment of plants by promoting root growth. Establishing an efficient root system will aid plants in dealing with natural periods of drought common in Riverside County as well as increasing foliar density.

Once successfully established, native plants may not benefit greatly from supplemental irrigation and therefore it is not advised to provide supplemental irrigation for a period of more than two years following installation. Supplemental irrigation after establishment of a native plant may alter root characteristics, leading to dependence on artificial water supplies which may make the plant vulnerable during periods of low precipitation. Supplemental irrigation on established plant communities may lead to a greater amount of above ground plant growth, which would reduce visual impacts on the restoration area but may lead to failure of the restoration project in the future.

It is advised that supplemental irrigation be employed for establishment of native plant species utilized in restoration projects within Riverside County when it is anticipated that an adequate amount of precipitation will not be available. Climatic events, such as the predicted El Niño condition, forecasted to occur in 2014 may negate the need for supplemental irrigation. When relying upon a climatic event such as El Niño, restoration activities must be carefully planned in order to take advantage of the potential benefits of the forecasted climatic event. Consideration of water availability, soil moisture retention, and time necessary for the planted species to successfully establish must be considered when planning to take advantage of a precipitation-rich climatic event.

In order to avoid the undesired effects associated with supplemental irrigation, the irrigation system or methods used should be carefully planned and executed. Micro irrigation systems with flows that can be controlled are well suited for vegetation restoration projects. Micro irrigation systems disperse water in a localized area, limiting irrigation of unwanted areas and promoting root growth by allowing water to penetrate deeper into the ground. Overhead irrigation systems are best suited for providing water over a large area or areas with slopes. Overhead systems have been utilized to successfully germinate Coastal Sage Scrub species from seed in various locations throughout Southern California. An aggressive non-native monitoring and eradication plan should be in place when utilizing an overhead irrigation system as water from this type of system will be deposited over a broader spectrum than a micro irrigation system, thus providing more opportunities for non-native establishment.

A well designed and operated supplemental irrigation system will have no negative effects on native plants that are utilizing mycorrhizal fungi. Mycorrhizal fungi creates a mutualistic relationship with plants that essentially increases the surface area of a plant's root system, which in turn aids in the uptake of water. The use of mycorrhizal fungi does reduce the amount of water necessary, but does not eliminate the need for water. Oversaturation or mechanical disturbance of mycorrhizal fungi hyphae would be detrimental to the symbiotic mechanisms associated with plants and mycorrhizal fungi. Supplemental irrigation systems should be designed, operated, and maintained in a manner that will provide sufficient water without compromising plant root systems.

An efficient supplemental irrigation system when properly employed will aid in the establishment of native plants and the reduction of negative visual impacts to an area by increasing foliar density. The lack of any significant precipitation in Riverside County warrants the use of supplemental irrigation systems when carrying out vegetation restoration projects.

If you have any questions, please contact me directly at (951) 955-6441 or via email at hsandova@rctlma.org.

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AQ-1

Landfill Gas Barrier Technical Memorandum

TECHNICAL MEMORANDUM

Date: June 12, 2014
To: Cody Cowgill, P.E.
From: Ryan Hillman, P.E.
Rich Haughey, P.E.

Project No.: 1400539
Company: USA Waste of California, Inc.

RE: ASSESSMENT OF NEED FOR 10- TO 20-MIL PLASTIC LANDFILL GAS BARRIER LAYER EL SOBRANTE LANDFILL – RIVERSIDE COUNTY, CALIFORNIA

1.0 INTRODUCTION

The El Sobrante Landfill ("the site" or "the landfill") is an existing active municipal solid waste (MSW) landfill located near the City of Corona in Riverside County, California. The permitting process for the landfill from 1993 to 1996 resulted in air quality (AQ) mitigation measures being established for the site that included the following as part of mitigation measure AQ-1:

> *"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."*

Golder Associates Inc. (Golder) is submitting this memorandum that discusses various technical considerations and issues associated with incorporating a 10- to 20-mil plastic landfill gas (LFG) barrier layer in the landfill's intermediate and final covers. As the intended purpose of the LFG barrier layer would be to control surface emissions, Section 2.0 discusses the regulatory changes enacted since the 1993 to 1996 permitting of the El Sobrante Landfill that have resulted in significantly stricter requirements governing the control and monitoring of LFG emissions at California landfills. Section 2.0 also lists several technological improvements for controlling LFG emissions that have been implemented since mitigation measure AQ-1 was adopted.

2.0 ADVANCEMENT OF LFG MONITORING AND CONTROL

2.1 Regulatory Changes

In 1993, the modern federal regulations governing MSW landfills became effective. These regulations are contained in the Code of Federal Regulations (CFR), Title 40, Part 258 (commonly referred to as Subtitle D). As such, many of the advances in MSW disposal technology that are seen today were not yet developed and/or implemented when the El Sobrante Landfill was being permitted. Today's landfills are highly regulated with ever increasing controls on liner systems, allowable waste materials for disposal, and environmental controls on LFG and leachate.

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There are currently several regulations that govern the installation of LFG collection and control systems and that provide requirements for LFG monitoring:

- Title 40 of the CFR: promulgated by the United States Environmental Protection Agency (USEPA) and referred to as the New Source Performance Standards (NSPS).
- Title 17 of the California Code of Regulations (CCR): known as the Assembly Bill 32 (AB32) landfill methane rule.
- Rule 1150.1 ("Control of Gaseous Emissions from Municipal Solid Waste Landfills"): issued by the South Coast Air Quality Management District (SCAQMD).
- Title 27 of the CCR.

The above-listed regulations are considerably more stringent than the April 5, 1985 version of SCAQMD Rule 1150.1 that was in effect during the permitting of the El Sobrante Landfill in 1993 to 1996. The April 5, 1985 version of SCAQMD Rule 1150.1 required the following:

- Integrated surface emissions monitoring with a limit of 50 parts per million by volume (ppmv); grids and monitoring pattern not specified.
- Probe and perimeter air monitoring.
- Surface emissions limit of 500 ppmv; no instantaneous surface emissions monitoring required.
- LFG collection and control system (GCCS) installation by January 1, 1989.

The following provides a brief summary of the significant changes in LFG regulations that took effect after the permitting of the El Sobrante Landfill:

1. March 12, 1996: USEPA adopts NSPS subpart WWW that requires:
   - GCCS installation by December 10, 1998 for sites with over 50 megagrams (Mg) of non-methane organic compounds (NMOC).
   - Instantaneous surface emissions monitoring with a limit of 500 ppmv and 100-foot monitoring spacing.
   - Wellhead pressure, temperature, and oxygen standards.
   - 2/5 year rule for installation of wells and GCCS coverage.
   - Enclosed flare emission limit of 20 ppmv NMOC as hexane.
2. April 10, 1998 and March 17, 2000: SCAQMD revises Rule 1150.1 to require:
   - 50,000-square foot monitoring grids for integrated surface emissions monitoring with a limit of 50 ppmv.
   - Instantaneous surface emissions monitoring with a limit of 500 ppmv within the 50,000-square foot grids.
   - Detailed probe standards and enhanced spacing.
   - All areas of landfills are subject to surface emissions monitoring requirements and GCCS installation.
3. April 1, 2011: SCAQMD revises Rule 1150.1 to incorporate the AB32 landfill methane rule that requires:

- Reducing the integrated surface emissions monitoring limit from 50 ppmv to 25 ppmv.
- Recording of all instantaneous surface emissions monitoring results above 200 ppmv instead of 500 ppmv.
- The monitoring pattern for integrated and instantaneous surface emissions monitoring is enhanced from 100 feet to 25 feet.

2.2 Technological Improvements

Since the permitting of the El Sobrante Landfill in 1993 to 1996, the following technological improvements have been made with regard to GCCSs:

- Better extraction technologies.
- Better flares, such as the ultra-low emissions flare currently used at the El Sobrante Landfill.
- Better understanding of collection efficiencies.
- Enhanced monitoring systems.
- Development of economically-feasible LFG-to-energy facilities.

3.0 CURRENT SITE CONDITIONS

3.1 Description

A GCCS has been in operation at the El Sobrante Landfill since 1993. The GCCS currently consists of approximately 160 vertical and horizontal extraction wells that are placed under vacuum via a piping network that extracts the LFG from the waste mass and conveys the LFG to both a flare station and a LFG-to-energy facility. The GCCS has been installed consistent with mitigation measure AQ-1 and SCAQMD regulations.

LFG is combusted in the flare station and used as a fuel in the LFG-to-energy facility to generate electricity. The flare and the LFG-to-energy facility meet Best Available Control Technology (BACT) requirements established by the SCAQMD, consistent with AQ-1. The flare is tested annually to confirm that the flare emissions meet or exceed the requirements contained in the SCAQMD Permit to Operate.

LFG monitoring probes have been installed around the landfill's perimeter to detect any subsurface migration of LFG. The probes are monitored quarterly consistent with CCR Title 27 regulations and mitigation measure AQ-1. The GCCS components (e.g., wellheads, piping, etc.) are monitored for leakage in accordance with SCAQMD regulations and mitigation measure AQ-1.

3.2 Performance

The purpose of mitigation measure AQ-1 is to minimize fugitive LFG emissions from the landfill. Methane, which comprises approximately 50 percent of LFG, is a significant contributor to greenhouse gas (GHG).

The intermediate and final soil covers at the site help in minimizing LFG emissions that could add to GHG. A portion of the methane and reactive organic gases (ROG) in LFG is oxidized by bacteria that live in cover soils. Historically, it was believed that on the order of 10 percent of methane and ROG was oxidized in cover soils. However, several studies conducted over the past 5 to 10 years have indicated that the 10 percent oxidation value is a gross underestimate of the actual amount of oxidation that occurs in cover soils. For landfills such as El Sobrante that are located in arid regions, recent research reported by SWANA[1] indicates that bacteria oxidize 50 to 70 percent of the methane and ROG that pass into the cover soil. It is possible that the use of a LFG barrier layer would lead to localized increases in LFG emissions caused by preferential pathways being developed. These preferential pathways would allow LFG to emit to the atmosphere without significant bacterial oxidation.

The performance of the El Sobrante Landfill GCCS can be evaluated in two ways: 1) perimeter LFG probe monitoring results, and 2) landfill surface emissions monitoring results. The perimeter LFG probes are monitored quarterly and the current (December 2013) monitoring results for these probes indicate that the GCCS effectively controls subsurface LFG migration from the landfill. Typical quarterly surface emissions monitoring results for the El Sobrante Landfill indicate very few (if any) exceedances for integrated monitoring and relatively few exceedances for instantaneous monitoring. Furthermore, when exceedances are recorded, repairs are made and/or the GCCS is adjusted to lower the surface emissions below the regulatory limits within the timeframes stipulated in SCAQMD Rule 1150.1. Thus, the existing GCCS at the El Sobrante Landfill is effective in controlling LFG emissions in accordance with the current regulatory requirements, which exceed the regulatory requirements that were in place when mitigation measure AQ-1 was adopted.

The El Sobrante Landfill has an ultra-low emission enclosed flare that achieves a 60 percent reduction in nitrogen oxides (NOx) emissions and a 70 percent reduction in carbon monoxide (CO) emissions from the flare stack as compared to traditional biogas flares that were in use in the 1990s.

Additionally, monitoring of the GCCS components have detected minimal leaks. When leaks are detected, they are promptly repaired.

GHG emissions are also decreased by the production of electricity at the site's LFG-to-energy facility. The LFG is consumed as fuel in the site's LFG-to-energy facility, which reduces GHG by replacing fossil fuels.

The El Sobrante Landfill's current GCCS has been designed to limit infiltration of excess air into the landfill, as required by mitigation measure AQ-1. The use of horizontal and vertical extraction wells allows

[1] Solid Waste Association of North America (SWANA), 2013, "Practical Methods for Measuring Landfill Methane Emissions and Cover Soil Oxidation," December.

for greater control on the vacuum at various depths within the landfill. The wells at the site are designed to allow each well to be precisely tuned to control vacuum and flow. By applying the correct amount of vacuum near the surface, both emissions and infiltration can be controlled. The low amount of oxygen measured in the LFG helps demonstrate that the system is operating properly.

Based on the above, the current GCCS at the El Sobrante Landfill is meeting the requirements of the current regulations and exceeding the requirements of the less-stringent regulations that were in effect when mitigation measure AQ-1 was adopted. It follows that the current GCCS is meeting the goal of mitigation measure AQ-1 to minimize fugitive LFG emissions at the site.

4.0 TECHNICAL CONSIDERATIONS FOR LFG BARRIER

To date, the landfill has relied on the GCCS and methane/ROG oxidation capability of the cover soils to control LFG emissions. Given the effective performance of the existing GCCS at the El Sobrante Landfill, as described in Section 3.2, it has not been necessary to install the LFG barrier layer referred to in mitigation measure AQ-1. It should be noted that neither the SCAQMD nor CCR require the use of a LFG barrier layer for LFG emissions control.

Reliance on a GCCS and cover soils to control LFG emissions is consistent with the current standard of practice for landfills. Golder is not aware of any landfill in California that uses a LFG barrier layer for the primary purpose of controlling LFG emissions.

Given the effective performance of the existing GCCS and cover soils, the following should be considered related to a LFG barrier layer:

- A LFG barrier layer will likely develop holes over time as a result of the ongoing landfilling activities. The presence of holes in the LFG barrier layer could create localized LFG control issues as LFG emissions would tend to concentrate at the holes, which increases the risk of having localized LFG emissions that exceed the regulatory limit.
- LFG may migrate to the edges of the LFG barrier layer and be emitted to the atmosphere.
- If the LFG barrier layer is left exposed (i.e., not covered with soil), it would be very susceptible to ultraviolet and wind damage. Furthermore, localized pockets of LFG could possibly accumulate under the barrier, which would result in a safety hazard and potential explosive atmosphere if ignited.
- In older areas of the landfill, use of the LFG barrier layer could increase the risk of subsurface migration of LFG through the base of the landfill, which could potentially result in groundwater contamination.
- If the LFG barrier layer were to be left in place under intermediate waste slopes that are covered with additional waste, the barrier may interfere with the operation of the site's GCCS by impeding LFG collection.
- The use of the LFG barrier layer may cause increased stormwater runoff and potentially result in intermediate cover stability issues. To ensure the intermediate waste slopes are

stable, it is possible that their inclinations would need to be decreased (i.e., flattened). If the intermediate slopes were to be flattened, the total surface area of these slopes would increase and potentially lead to an increase in cumulative surface emissions from the landfill.

5.0 CONCLUSIONS

Based on the above technical considerations and our experience at numerous landfills across California, it is Golder's professional opinion that the existing soil covers and GCCS at the El Sobrante Landfill are the most practical and economic way to control LFG emissions and associated GHG at the site. The existing GCCS at the El Sobrante Landfill represents the current industry standard of practice for LFG emissions control and monitoring has demonstrated that this system is effective in limiting LFG emissions in accordance with current SCAQMD and other regulatory requirements. Similarly, the existing system of vertical and horizontal LFG wells are operated such that infiltration of excess air into the waste mass can be controlled, as confirmed by sampling and testing of the collected LFG. Installation of a LFG barrier layer is not expected to have a major impact on LFG collection efficiency at the site. By virtue of its compliance with the current regulations, the existing GCCS exceeds the less-stringent regulatory requirements that were in effect when the El Sobrante Landfill was permitted in 1993 to 1996. It follows that the existing GCCS is operating at an efficiency that meets the requirements of mitigation measure AQ-1.

As discussed in Section 4.0, there are several technical considerations that demonstrate risks of increased LFG emissions and/or other negative consequences associated with the use of a LFG barrier layer. For these reasons, the inclusion of a LFG barrier layer is not considered to be an effective mitigation measure for attaining additional reductions in LFG surface emissions at the site.

In Golder's opinion, the El Sobrante Landfill's existing GCCS and cover soils are the preferred measures for the continued control of LFG surface emissions in accordance with current regulatory requirements and, thereby, for achieving the goals of mitigation measure AQ-1.

AQ-5

2013 Annual Emissions Report

Environmental Consultants
3900 Kilroy Airport Way
Suite 100
Long Beach, California 90806
562-426-9544
FAX 562-427-0805
www.scsengineers.com

SCS ENGINEERS

February 28, 2014
File No. 01202020.05 Task 49

South Coast Air Quality Management District
Annual Emission Reporting Program
File No. 54493
Los Angeles, CA 90074-4493

SUBJECT: SUBMITTAL 2013 ANNUAL EMISSIONS REPORT, EL SOBRANTE LANDFILL (FACILITY ID 113674), CORONA, CALIFORNIA

To Whom It May Concern:

Enclosed, please find a copy of the completed South Coast Air Quality Management District (SCAQMD) 2013 Annual Emissions Reporting (AER) Program submittal package for the El Sobrante Landfill (El Sobrante), located in Corona, California.

The package includes the submittal forms (Forms S, X, A, TACs) and a check for $7,567.34.

If you have any questions, please feel free to contact either of the undersigned at (562) 426-9544.

Sincerely,

James J. Kim
Staff Scientist

Gabrielle F. Stephens
Project Manager
SCS ENGINEERS

Enclosures

1. Form X
2. Form S
3. Form TACs
4. Form A
5. Confirmation Page
6. Check for fee amount

cc: Cody Cowgill; Waste Management, Inc. (w/enclosure)

South Coast

AQMD

Annual Emission Report

Reporting Year: **2013**

Print Date: **2/25/2014**

Facility ID: **113674**

Facility Name: **U S A WASTE OF CAL(EL SOBRANTE LANDFILL)**

Facility Type: **GENERAL FACILITIES**

TACS - Toxic Air Contaminants and Ozone Depleters Emissions / Fee Summary

TAC Code	Toxic Air Contaminants / Ozone Depleters	Gross Emissions (lbs)	Recycling Credit (lbs)	Net Emissions (lbs)	Emissions subject to fees	Fee Rate ($/lb)	Fee Due ($)
01	Asbestos	0.00	0.00	0.00	0.00	5.85	0.00
02	Benzene	725.22	0.00	725.22	725.00	1.97	1,428.25
03	Beryllium	0.00	0.00	0.00	0.00	5.85	0.00
04	1,3-Butadiene	3.20	0.00	3.20	3.00	5.85	17.55
05	Cadmium	0.02	0.00	0.02	0.00	5.85	0.00
06	Carbon Tetrachloride	43.98	0.00	43.98	44.00	1.97	86.68
07	Chlorinated Dioxins & Dibenzofurans	0.00	0.00	0.00	0.00	9.74	0.00
08	1,4-Dioxane	0.00	0.00	0.00	0.00	0.43	0.00
09	Ethylene Dibromide	56.08	0.00	56.08	56.00	1.97	110.32
10	Ethylene Dichloride	234.97	0.00	234.97	235.00	1.97	462.95
11	Ethylene Oxide	0.00	0.00	0.00	0.00	1.97	0.00
12	Formaldehyde	565.98	0.00	565.98	566.00	0.43	243.38
13	Hexavalent Chromium	0.00	0.00	0.00	0.00	7.79	0.00
14	Inorganic Arsenic	0.02	0.00	0.02	0.00	5.85	0.00

TAC Code	Toxic Air Contaminants / Ozone Depleters	Gross Emissions (lbs)	Recycling Credit (lbs)	Net Emissions (lbs)	Emissions subject to fees	Fee Rate ($/lb)	Fee Due ($)
15	Lead	0.12	0.00	0.12	0.00	1.97	0.00
16	Methylene Chloride	396.67	0.00	396.67	397.00	0.08	31.76
17	Nickel	0.06	0.00	0.06	0.00	3.88	0.00
18	Perchloroethylene	264.92	0.00	264.92	265.00	0.43	113.95
19	Polynuclear Aromatic Hydrocarbons (PAHs)	14.59	0.00	14.59	15.00	5.85	87.75
20	Trichloroethylene	135.36	0.00	135.36	135.00	0.16	21.60
21	Vinyl Chloride	30.45	0.00	30.45	30.00	1.97	59.10
22	Chlorofluorocarbons (CFCs/Freons)	108.48	0.00	108.48	108.00	0.37	39.96
23	1,1,1-Tricholoroethane (Methyl chloroform)	38.13	0.00	38.13	38.00	0.05	1.90
32	Ammonia	42.69	0.00	42.69	0.00	0.03	0.00
						Total Fees Due:	**2,705.15**

South Coast AQMD

Annual Emission Report

Reporting Year: **2013**

Facility ID: **113674**

Print Date **2/25/2014**

Facility Name: **U S A WASTE OF CAL(EL SOBRANTE LANDFILL)**

Facility Type: **GENERAL FACILITIES**

A - Status Update

Status Update (If Applicable)

Contact Permit Services for Official Status Changes

☐ Facility Shutdown Date:

☐ Change of Ownership Date:
New Facility I.D.
New Facility Name

☐ Change in Equipment Location Date
New Facility I.D.

Change in Equipment Location Facility Address

-None-

Old Location Address

10910
DAWSON CANYON RD
CORONA
CA 92883

☐ Variance/Abatement order that resulted in Excess Emissions Case Number:

☐ Emissions are Zero for this year's Report, or Emissions Reduced by 50% or more from last year's Annual Emission Report. (Provide a brief description)

Refund Request

☐ I request a refund for overpayment of fees paid for this reporting period (installment payment exceeded total fees due). Provide or attach a brief explanation for your reduced emissions during this reporting period

Amount Requested $

Exemption Request

I request to be exempt from next year's Annual Emissions Reporting Program for the reason marked below. If approved, I understand the facility will still be required to report its annual emissions and pay any applicable fee in future years if operations change, or AQMD rules change, in any manner that results in increased emissions above those specified under the Exemption Criteria specified

☐ Annual Emissions for this year meet the Exemption Criteria, and emissions for this year will also meet the Exemption Criteria.

☐ Facility will meet the Exemption Criteria for next year based on changes in operations or operating status as shown in Status Update section.

Use of Alternative Emissions Factors or Calculation Methodologies

☐ To expedite District's review, if you are proposing to use a different (non-default) emission factor or calculation methodology that requires AQMD approval pursuant to AQMD Rule 301 (e)(8)(C), please check this box and attach your supporting documentation with your report. Do not check this box for emission factors reported on Form B3 or B3U (Use of Organics) which are based on VOC contents listed on MSDS. Please identify the Form(s) for which an alternative factor or methodology is

South Coast AQMD

Annual Emission Report

Reporting Year: **2013**

Print Date: **2/25/2014**

Facility ID: **113674**

Facility Name **U S A WASTE OF CAL(EL SOBRANTE LANDFILL)**

Facility Type: **GENERAL FACILITIES**

S - Fees Due Summary

Submittal Date: No later than March 4 2014	Total Permitted Emissions from Form C (tons)	Total Non-Permitted Emissions from Form CU (tons)	Total Emissions from Form CR (tons)	Total Emissions/ Subject to Fee (tons)	Emissions Fee Due
Organic Gases	6.12	0.28		6	$1,677.42
Specific Organics	0.00	0.00		0	$0.00
Nitrogen Oxides	19.58	3.45	0.00	23	$6,542.40
Sulfur Oxides	7.47	0.00	0.00	7	$1,551.28
Carbon Monoxide	76.41	0.75		0	$0.00
Particulate Matter	3.83	0.25		4	$427.56
1. TOTAL EMISSION FEES FOR ALL CRITERIA POLLUTANTS					$10,198.66
2. TOXIC AIR CONTAMINANTS/OZONE DEPLETER FEES (Total amount from Form TACS or DC)					$2,705.15
3. TOTAL FEES DUE					$12,903.81
4. INSTALLMENTS PAID FOR 2013 - (If any) -- All criteria pollutants					$4,195.01
5. INSTALLMENTS PAID -- Toxic Air Contaminants/Ozone Depleters					$1,141.46
6. BALANCE DUE (Line 3 - Line 4 - Line 5)					$7,567.34
7. LATE PAYMENT SURCHARGE					$0.00
8. AMOUNT DUE					$7,567.34
9.Please write Facility ID#(s) and AER reporting Year on the check.					N/A

South Coast AQMD

Annual Emission Report

Reporting Year: **2013**

Print Date: **2/25/2014**

Facility ID: **113674**

Facility Name: **U S A WASTE OF CAL(EL SOBRANTE LANDFILL)**

Facility Type: **GENERAL FACILITIES**

X - Signature Sheet

Information

NAICS Code: 562212

No - AB2588 Filing Period

No - RECLAIM

AB2588 Receptor Distance
Worker(ft) 6500
Residential (ft) 4000

Business Operating Hours
Hours/Day: 24
Days/Week: 6
Weeks/Year: 52

Brief Description of Operation
Municipal solid waste landfill

Equipment Location Address

Facility Name:
U S A WASTE OF CAL(EL SOBRANTE LANDFILL)
10910 DAWSON CANYON RD
CORONA CA 92883

Mailing Information

Company Name:
U S A WASTE OF CAL(EL SOBRANTE LANDFILL)
10910 Dawson Canyon RD 0130
Corona CA 92877 0130

Contact Information

Name Cody Cowgill
Title Site Engineer
email ccowgill@wm.com
phone (951) 2775106
fax (951) 4154194

Preparer Information

Organization Name: SCS Engineers
Name James Kim
Title Staff Scientist
email jkim@scsengineers.com
phone (562) 4269544
fax (562) 4270805

Authorized Person Information

Name Mike Williams
Title Senior District Manager
email mwilli13@wm.com
phone (951) 2775103
fax (951) 2771861

I declare under penalty of perjury that the data submitted truly represents throughput and emissions for this reporting period, and that the emission factors represent the best available data for my company in the calculation of annual emission figures

Authorized Signature _____ **Date** 2/26/14

Preparer Signature _____ **Date** 2/26/14

South Coast AQMD

Annual Emission Report

Reporting Year: **2013**

Print Date: **2/25/2014**

Facility ID: **113674**

Facility Name **U S A WASTE OF CAL(EL SOBRANTE LANDFILL)**

Facility Type: **GENERAL FACILITIES**

Review Submit Confirmation

Thank you for submitting your Annual Emissions Report for Facility ID: 113674 on 2/25/2014 5:24:03 PM . You will receive an e-mail confirmation at your registered e-mail address.

Please proceed to the Forms and Reports section to print out & submit the required forms (plus a check for fees due if applicable) to the SCAQMD. Refer to the online Help for mailing address and other related information.

The reports are first received and processed by Bank of America for check deposits, return receipts for certified mails will be stamped by Bank of America rather than AQMD. Please mail the required forms and fees to the following address:

South Coast Air Quality Management District
2013 Emission Report
File No. 54493
Los Angeles, CA 90074-4493

* To avoid late payment surcharges, all mails must be postmarked by the Post Office on or before March 04, 2014

If you wish to use a messenger (or hand deliver), the package should be delivered to the cashier's booth at AQMD Headquarters at the address listed below in Diamond Bar on or before 5:00 p.m.March 04, 2014 Please note that AQMD is closed on Mondays.

South Coast Air Quality Management District
ATTN: Finance Cashier
2013 Emission Report
21865 Copley Drive
Diamond Bar, CA 91765-4178

AQ-11

CEQA Mitigation Monitoring Workplan for NO_2

Environmental Consultants

3050 Fite Circle
Suite 101
Sacramento, California 95827-1808

916 361-1297
FAX 916 361-1299
www.scsengineers.com

SCS ENGINEERS

January 27, 2003
File No. 01202020.01

Ms. Linda Dejbakhsh
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765
(909) 396-2614

SUBJECT: CEQA MITIGATION MONITORING WORKPLAN FOR NO_2, EL SOBRANTE LANDFILL, CORONA, CALIFORNIA

Dear Ms. Dejbakhsh:

As part of a certified Environmental Impact Report (EIR) for a recent landfill expansion, USA Waste of California, Inc. (USA Waste) is required to implement a California Environmental Quality Act (CEQA) mitigation monitoring and reporting program (MMRP) for the El Sobrante Landfill in Corona, California. The workplan was developed by SCS Engineers (SCS) on behalf of USA Waste for submittal to the South Coast Air Quality Management District (SCAQMD).

BACKGROUND

Condition AQ-11 of the MMRP requires that USA Waste: (1) implement various control measures to lessen boundary concentrations of nitrogen dioxide (NO_2) and (2) conduct downwind property line monitoring of NO_2 during wind and stability conditions, which could result in the greatest property boundary concentrations.

This CEQA Mitigation Monitoring Workplan for NO_2 is proposed as the strategy to be used for NO_2 monitoring during construction and ongoing operation of the landfill expansion that was approved by the recent CEQA action. It describes USA Waste's proposed strategy, which is already being implemented.

CONTROL MEASURES

During normal landfill operations and cell construction, USA Waste will pre-plan on-site activities to avoid potentially adverse alignments during periods of anticipated meteorological conditions that are conducive to high levels of NO_2. USA Waste and its contractors will conduct their on-site construction and operational activities to reduce nitrogen oxide (NOx) emissions to the extent feasible.

When NO_2 monitoring results (see below) show concentrations of NO_2 that are at or above 95% of the 1-hour standard (i.e., 450 ug/m^3 of the 470 ug/m^3 standard set forth under the CEQA mitigation measures) in the surrounding area, USA Waste will implement one or more of the following control measures:

- Curtail construction activities until other mitigation measures can be implemented or until adverse meteorological conditions no longer exist.
- Move the construction or operational activities to preplanned alternate working locations in order to provide maximum separation of NOx emissions.
- Configure construction operations such at multiple operations requiring heavy do not occur simultaneously.
- Change construction scheduling to reduce daily equipment usage.
- Limit the hours of operations of certain heavy NOx emitting equipment so that operation occurs outside of peak adverse meteorological conditions.

NO_2 MONITORING

When construction activities and operations for the expansion area of the landfill occur simultaneously, USA Waste may be required to implement NO_2 monitoring to determine when additional mitigation measures are necessary, as described above. This monitoring will be completed to determine when NO_2 levels are in excess of 450 micrograms per cubic meter (ug/m^3), the trigger level for additional control measures.

In order to determine when NO_2 monitoring is required, USA Waste will, on an approximately weekly basis, review projections of adverse meteorological conditions that are conducive to high ambient concentrations of NO_2 in the Riverside County area. If such conditions exist or are expected to exist, USA Waste will begin to track and compile ambient data from the nearest SCAQMD meteorological stations (#22 Norco/Corona and #23; Metropolitan Riverside County 1) to determine possible exceedances of the 450 ug/m^3 threshold.

If NO_2 concentration are expected to meet or exceed 450 ug/m3, USA Waste will implement NO_2 monitoring at the site. As part of this monitoring, USA Waste will install a temporary NO_2 monitoring station at a downwind location, which includes key activity areas and is as close to the property line as feasible, such that the impacts from off-site sources between the sampler and the property line are minimized.

Monitoring will be conducted using hand-held or other instrument(s) that can measure NO_2 on a real-time basis. Readings will be take over consecutive 1-hour periods representing the worst-case times of the day for NO_2 and averaged for comparison to the 1-hour standard. A minimum of two 1-hour periods would be included in each day of monitoring.

Please note that USA Waste already maintains an on-site meteorological station under SCAQMD Rule 1150.1, which will be used to determine the downwind location. Note also that locations may vary from day to day based on the wind conditions and the on-site areas being affected by construction.

USA Waste proposes that samples be collected on "representative" days during periods of time when both construction and operations are ongoing and when the conditions noted above are being experienced. Representative days include those days where construction activities are at their most significant, such that the days could be considered "worst-case."

If the monitoring events show evidence of exceedance of the 450 ug/m^3 standard, USA Waste will implement the additional control measures under mitigation measure AQ-11 and listed above. In addition, we will continue with daily monitoring until NO_2 levels drop below 450 ug/m^3 or until meteorological conditions improve.

Annually, USA Waste will prepare and submit a brief summary of the results of the monitoring that was conducted during the previous year, if any, including a description of the control measures that were implemented based on the results of the monitoring.

SCHEDULE

USA Waste has already begun implementation of this workplan and will continue to do so throughout the duration of the construction and operational life of the expansion area covered by the recent EIR.

CLOSING

We believe that this workplan satisfies USA Waste's requirements under AQ-11 of the MMRP under CEQA should allow construction and landfill operations to continue as scheduled.

Please review this letter workplan provide comments. Upon your review, we would be willing to meet with the SCAQMD to discuss implementation of this workplan as well as development of a long-term NO_2 monitoring strategy. USA Waste will implement this workplan as written until we receive input from the SCAQMD on any modifications or changes that you deem necessary. Thank you for your time and consideration.

A plan filing fee of $89.59 is included with this submittal per Rule 306 for plans submitted under Rule 403. Please let us know if any additional fees are required for this submittal, and we will pay them promptly. A completed Form 400-P is provided in Attachment 4.

If you have any questions regarding this submittal or desire any additional information, please contact the undersigned.

Sincerely,

Patrick S. Sullivan, C.P.P., R.E.A.
Vice President
SCS ENGINEERS

Enclosure

cc: Damon DeFrates; USA Waste
Paul Willman; Waste Management, Inc.
Leslie Likins; Riverside County

ATTACHMENT 1

SCAQMD FORM 400-P

South Coast Air Quality Management District
P. O. BOX 4944
Diamond Bar, CA 91765
(909) 396- 2000

APPLICATION FOR PLANS
FORM 400 - P

Section I - Company Information

LEGAL NAME OF APPLICANT
USA Waste of California, Inc. (El Sobrante Landfill)

☒ IRS OR ☐ S.S.NUMBER
73-1309529

PERMIT TO BE ISSUED TO (SEE INSTRUCTIONS) Same

BUSINESS MAILING ADDRESS 10910 Dawson Canyon Road, Corona, California 92883

Section II - Facility Information

EQUIPMENT ADDRESS/LOCATION
10910 Dawson Canyon Road
NUMBER/STREET
Corona — CA — 92883
CITY OR COMMUNITY — ZIP CODE

FACILITY NAME
El Sobrante Landfill

FACILITY ID NUMBER
1 1 3 6 7 4

NAME OF CONTACT PERSON Damon DeFrates

TITLE District Manager

CONTACT TELEPHONE NUMBER
(909) 277-1740

TYPE OF BUSINESS AT THIS FACILITY
Municipal Solid Waste Landfill

BUSINESS TYPE CODE (SEE INSTRUCTIONS)
4 9 5 3

Section III - Equipment Information

APPLICATION HEREBY SUBMITTED FOR: Review of Plan for Implementation of Mitigation Measures under CEQA

RULE NUMBER WHICH THIS APPLICATION APPLIES TO: N/A

TYPE OF PLAN APPLICATION:
☐ Compliance Plan
☐ Excavation Plan
☒ Other
☐ Alternative Emission Control Plan (AECP)
☐ Extreme Performance Coating Classification

IF THIS APPLICATION IS ASSOCIATED WITH CERTAIN DISTRICT APPLICATIONS(S)/PERMIT(S), ENTER APPLICATION/PERMIT NUMBER(S):

FOR THIS PROJECT HAS A CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) DOCUMENT BEEN REQUIRED BY ANOTHER GOVERNMENTAL AGENCY?
☒ No ☐ Yes, IF YES, ENTER NAME OF AGENCY AND SUBMIT A COPY IF APPROVED.

DO YOU CLAIM CONFIDENTIALITY OF DATA? (SEE INSTRUCTIONS) ☐ Yes ☒ No

OPERATING SCHEDULE

	HOURS/DAY	DAYS/WEEK	WEEKS/YEAR
MAXIMUM	24	7	52
AVERAGE	24	6	52

FOR AECP PLEASE FILL IN THE TABLE BELOW:

	LBS/YEAR	DAYS/YEAR
ACTUAL USAGE TWO YEARS AGO		
ACTUAL USAGE LAST YEAR		
PROPOSED AVERAGE USI		

Section IV - Signature

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT.

SIGNATURE OF RESPONSIBLE OFFICIAL OF FIRM: Damon DeFrates

TITLE OF RESPONSIBLE OFFICIAL OF FIRM: District Manager

TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL OF FIRM: Damon DeFrates

RESPONSIBLE OFFICIAL'S TELEPHONE NUMBER: (909) 277-5103

DATE SIGNED: 11 29 03

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT.

SIGNATURE OF PREPARER: Patrick S. Sullivan

TITLE OF PREPARER: Vice President

TYPE OR PRINT NAME OF PREPARER: Patrick S. Sullivan

PREPARER'S TELEPHONE NUMBER: (916) 361-1297

DATE SIGNED: 1 13 03

AQMD USE ONLY	APPLICATION/TRACKING #	PROJECT #	TYPE B C D	EQUIPMENT CATEGORY CODE:	FEE SCHEDULE:	VALIDATION
					$	

ENG. A R DATE	ENG. A R DATE	CLASS I III IV	ASSIGNMENT UNIT ENGINEER	ENF. SECT.	CHECK/MONEY ORDER #	AMOUNT $

FORM 400-E-P, Rev. 10/97

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Jan. 27, 2003 DATE

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FOR El Sobrante Landfill Plan Fee

Patti S. Sullivan MP

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AQ-12

Alternative Fuel Engines and Emission Control Technologies
Transfer Truck Operations Analysis

Alternative fuel Engines and Emission Control Technologies
Transfer Truck Operations
El Sobrante Landfill

Mitigation Measure AQ-12 of the Second El Sobrante Landfill Agreement requires an evaluation of the technological and economical feasibility of using natural gas fuel or other alternative fuel in transfer trucks. The evaluation is subject to County approval. If the County finds that natural gas fuel or other alternative fuel in transfer truck is technologically and economically feasible, USA Waste shall develop and implement a program to phase-in transfer trucks capable of using these fuels.

The purpose of this document is to look at the alternatives that may or may not be available to replace heavy-duty conventional diesel engines. Appropriate alternatives must reduce certain controllable emissions, such as Oxides of Nitrogen (NOx) and particulate matter (PM). Engine alternatives in California have focused primarily on natural gas. Existing infrastructure available to support alternative fuels is also investigated.

Engines

The availability of natural gas engines was investigated through various sources. Although there may be smaller alternative fuel engines, this document focuses on industrial applications. Industrial applications refer to engines that deliver greater than 325-horse power (h.p.) and 1050 ft-lbs of torque. The attached table is a recent compilation of engines that meet these specifications.

Of the engines listed in the table, only two are currently available. These engines are used in waste collection vehicles for residential and commercial service. Neither of these engines is used for transfer truck operations due to the limited horsepower. For transfer trucks, 400 h.p. is considered the minimum requirement.

The engines listed are all configured for Liquified Natural Gas (LNG). Compressed natural gas requires about twice the tank capacity of LNG. These types of trucks do not have the space to accommodate additional tanks.

The only engine currently being developed with adequate horsepower is by Clean Air Power. This engine is a dual fuel model that uses diesel as it primary fuel and LNG to provide a cleaner burn and reduced emissions.

There is some uncertainty about the future of natural gas engines. Manufacturers have significantly scaled back engine development. This is the result of two factors. First, interest in natural gas engines is primarily focused in California. The California Air Resources Board has mandated PM reductions from waste collection vehicles by using Best Available Technology. The State has also provided grants to build infrastructure for

alternative fuels. Similar focus has not developed in other States, and as a result manufacturers have not identified a sufficient market to provide financial returns needed for the substantial investment required. Second, engine manufacturers have stepped up research efforts to develop diesel engines that will meet mandated emission standards. Research funds previously devoted to alternative fuel engines have been transferred to low NOx and PM diesel research.

Infrastructure

The infrastructure for operating clean air vehicles is still very limited. LNG fueling stations are sparsely located around the Southern California area. However, most of these stations are owned and controlled by Waste Management, Inc. or a subsidiary. Stations are located in the following cities:

- Long Beach
- Irwindale
- Simi Valley
- Palmdale
- Corona
- El Cajon

For transfer truck operations to be successful, fueling stations are required at/near both the transfer stations and landfills. The LNG fuel tanks do not have the storage capacity required to make long-haul operations efficient without convenient refueling. Substantial delays due to fueling make LNG economically impractical. The proximity of our Corona fueling station to the El Sobrante Landfill provides a semi-convenient location for future fueling of transfer trucks transporting waste from the Los Angeles and Inland Empire areas. However, only the Carson Transfer Station is located near a fueling station. Therefore, the majority of transfer stations cannot currently operate LNG vehicles.

Supplies of LNG fuel are limited. Currently, LNG is produced in Tupock, AZ and Shutte Creek, WY. Supply interruptions, as have occurred during the past few years, significantly impact fleet operations. Such interruptions can temporarily idle truck fleets. Additional suppliers will be required to make LNG a viable fuel source.

Conclusion

Neither the engine technology nor the infrastructure for alternative fuels is available to convert transfer trucks to LNG fuels.

ALTERNATIVE FUEL ENGINES

Manufacturer	Specifications	Emission Reduction	Cost	Availability	Reference
Cummins-Westport	8.9 Liter, "L" gas plus, Max h.p. 320, configured for LNG	Certified to 1.8 gm NOx plus NMHC	$35,000	Available	Cummins-Westport Inc., California Natural Gas Vehicle Coalition
Mack	E-7G 11.7 Liter, Max h.p. 325, configured for LNG	Certified to 2.4 gm NOx plus NMHC	$35,000	Available	Mack Trucks Inc., California Natural Gas Vehicle Coalition
Cummins-Westport	I.S.X 14 Liter	In testing	NA	2 to 3 years before available	Cummins-Westport Inc.
Clean Air Power	Dual fuel (diesel/natural gas), h.p. 425	2007-2010 EPA emissions standards	NA	2006	Clean Air Power website

NA refers to Not Available

AQ-13

Annual 2014 Mitigation Monitoring Program Status Report

Environmental Consultants

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COUNTY OF RIVERSIDE
WASTE MANAGEMENT

September 27, 2013
File No. 01202020.05, Task 47, 48

South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765
(909) 396-2614

SUBJECT: ANNUAL 2014 MITIGATION MONITORING PROGRAM STATUS REPORT, AIR QUALITY MITIGATION MEASURE AQ-13, EL SOBRANTE LANDFILL, CORONA, CALFORNIA

To Whom It May Concern:

As part of the certified Environmental Impact Report (EIR) for its most recent landfill expansion, USA Waste of California, Inc. (USA Waste) is required to implement a California Environmental Quality Act (CEQA) mitigation monitoring and reporting program (MMRP) for the El Sobrante Landfill (El Sobrante) in Corona, California. Condition AQ-13 of the MMRP requires that USA Waste determine the need, if any, for emission offsets for Nitrogen Oxides (NO_x) and Reactive Organic Gases (ROG) from stationary and mobile sources as defined by the EIR.

This report was prepared by SCS Engineers (SCS) on behalf of USA Waste and constitutes the required Annual MMRP Status Report (Report) for calendar year 2014.

BACKGROUND

Condition AQ-13 of the MMRP requires that USA Waste provides emission reductions of non-attainment pollutants, NO_x, ROG and their precursors, sufficient to result in no net increase of project emissions after correction to baseline emissions, as defined by the CEQA document.

Under Condition AQ-13 of the MMRP, USA Waste is required to determine the amount of annual emission offsets for NO_x and ROG, which are needed for the upcoming year. The emission offset calculations are required to include an estimate of the baseline NO_x and ROG emissions prior to the landfill expansion and a comparison to the projected 2014 NO_x and ROG emissions from both stationary, mobile and construction sources at the site. If emission increases are determined to occur, USA Waste must provide written proof of acquisition of emission reduction credits (ERCs) in sufficient quantity to ensure no net increases in NO_x and ROG.

The emission calculations are required to be summarized in this Report and submitted to the South Coast Air Quality Management District (SCAQMD) and Riverside County Waste Management Department (County) 90 days prior to the beginning of the next calendar year or by September 30, 2013.

EMISSION OFFSET CALCULATIONS

Emission offset calculations were based on the difference between the baseline 2001 NO_x and ROG emissions prior to the landfill expansion and the projected 2014 NO_x and ROG emissions for stationary sources, off-site vehicles, on-site vehicles and equipment, excluding the landfill gas (LFG) flare emissions, LFG Internal Combustion (IC) engines emissions, and surface emissions of LFG.

LFG Sources

As allowed by the MMRP, the LFG flare emissions and LFG IC engines emissions were removed from the offset calculation since the SCAQMD provides ERCs for these sources from its Priority Reserve account for sources that are exempt from offsets due to their status as essential public services, as defined by SCAQMD Rule 1302 (i.e. LFG-derived emissions). If the landfill operator can demonstrate compliance with Rule 1150.1, which regulates fugitive emissions, then the surface emissions can also be removed from the offset calculation.

The four quarters of surface emissions monitoring from the 4th quarter 2012 and 1st, 2nd and 3rd quarter 2013 resulted in surface emissions with Total Organic Compound (TOC) concentrations above 500 ppmv during initial monitoring. However, emissions exceedances were remediated per Rule 1150.1, and follow-up monitoring and repairs were performed per the rule timelines, resulting in no areas over 500 ppmv after mitigation. This is in full compliance with Rule 1150.1. Therefore, surface emissions are exempt from offset calculation based on compliance with Rule 1150.1. A summary of the emission calculations in Tables 1 through 3 is provided in Attachment 1.

- Table 1: LFG Generation Potential, Projected Emission Source Estimates for Flares (2014)
- Table 2: Actual Emission Source Estimates for Landfill and Flare (2001)
- Table 3-A: Projected Emission Source Estimates for Landfill and Flare (2014)
- Table 3-B: Projected Emission Source Estimates for IC Engines (2014)

Off-Site Waste Haul Vehicle Emission Calculations

Off-site vehicle emission calculations from transfer trucks and packer trucks were also estimated as shown in Table 4. Baseline emission estimates from Updated Table G.1.1 of the *Draft South Coast Air Quality Management District (SCAQMD) –Consultation Work in Progress Air Quality Analysis Refinements El Sobrante Landfill Expansion (*TRC Environmental Solutions, Inc., TRC, February 5, 1997), which was an update to the air quality section of the final EIR (FEIR), were used in determining the baseline and projected 2014 emissions from the landfill. We continue to use this methodology for consistency with the FEIR and with previous annual reports.

The baseline emissions, as defined by the MMRP, are based on a refuse acceptance rate of 4,000 tons per day (tpd). The 2014 emissions were based on an assumption that the landfill would operate at approximately 6,552 tpd in 2014, based on waste disposal rates of 6,800 tpd Monday through Friday, 3,300 tons on Saturday, and no waste disposal on Sunday. It is anticipated that the waste disposal capacity increase at the El Sobrante site will be diverted from other landfills, primarily located within the South Coast Air Basin (SCAB); therefore, the above-referenced TRC document and FEIR

compared refuse vehicle emissions from facilities or areas within the SCAB that would potentially be routed to El Sobrante after expansion.

As shown in Table 4, the use of transfer trucks in place of packer trucks would result in a net reduction of approximately 5,108 miles of daily vehicle travel in the SCAB for the scenario where El Sobrante is receiving 6,552 tpd of municipal solid waste (MSW) compared to the 4,000 tpd of waste under the baseline scenario. Estimated baseline NO_x and ROG emissions are 1,077.7 and 26.6 lbs/day, respectively. The net reduction in NO_x and ROG is 862.2 and 19.7 lbs/day, respectively, due to change in refuse hauling practice. The reduction occurs since the transfer trucks have a 22-ton capacity, whereas packer trucks have only an 8-ton capacity. Therefore, fewer vehicle miles are required for transfer trucks than packer trucks to haul the same amount of waste.

Since the FEIR compared vehicle emissions from the worst-case 10,000 tpd scenario, rather than a 6,552 tpd scenario, SCS used the ratios of the waste hauled in developing the 2014 emissions. Baseline emissions were evaluated assuming 6,552 tpd of MSW was transferred throughout the SCAB if the expansion of El Sobrante did not occur. El Sobrante accepted up to 4,000 tpd in 2001; therefore 2,552 tpd of waste was equally allocated among other landfills, which included the Sunshine Canyon, BKK, and Miliken Landfill. The number of truck trips per day was also altered from Updated Table G.1.1 in the TRC study to reflect the 6,552 tpd of MSW being transported. In particular, the number of trips estimated under the 10,000 tpd scenario was multiplied by a ratio of 2001 amount of MSW transferred to the maximum (10,000 tpd) amount of MSW transferred within each area.

Baseline emission factors were updated from the TRC SCAQMD Consultation document, which used the EMFAC7G model for Heavy-Duty Trucks traveling 60 miles per hour (mph) at 75 degrees Fahrenheit (F). For this study, the EMFAC2002 model was used to estimate heavy-duty trucks traveling 60 mph at 75 degrees F and a relative humidity of 60% in 2001. EMFAC2002 was used to maintain consistency with previous reports.

Projected 2014 off-site truck travel emission estimates were determined in a similar manner. The amount of waste being hauled from each facility or area to El Sobrante was based on the projected incoming tonnage rate to the El Sobrante site of 6,552 tpd multiplied by a ratio of the amounts of MSW arriving from in- and out-of-county areas under the 10,000 tpd scenario to a value of 10,000 tpd. For example, the amount of 2014 MSW traveling from the Carson Transfer Station to El Sobrante equals 6,552 tpd multiplied by a ratio (4,000 tpd/10,000 tpd), which equals 2,620.8 tpd. Under the 10,000 tpd scenario, the FEIR projects 4,000 tpd (40% of total waste) of MSW traveling from Carson Transfer Station to the El Sobrante Landfill.

The number of truck trips for both in- and out-of county areas were estimated using the number of trips projected under the 10,000 tpd scenario and multiplying by a ratio of 2014 MSW tpd transferred to the maximum MSW tpd transferred within each area.

Approximately 47 liquefied natural gas (LNG) vehicles per day will be traveling to the El Sobrante Landfill in 2014; therefore, an LNG vehicle emissions estimate was calculated to determine the amount of reduced NO_x emissions from the baseline year, which did not include any LNG vehicles. Attachment 3 provides an emission comparison of diesel and LNG engines, which shows a 49%

reduction in NO_x emissions. ROG emission reductions from vehicle conversions from diesel to LNG were not studied and were, therefore, not calculated in the 2014 scenario. However, USA Waste reserves the right to complete this calculation in the future.

Projected 2014 emission factors were derived from the EMFAC2002 model for heavy-duty trucks traveling 60 mph at 75 degrees F and a relative humidity of 60% in 2014. Using these factors, the NO_x and ROG emissions for 2014 are estimated to be 209.1 and 6.9 lbs/day, respectively. This equates to an emission reduction of 862.17 and 19.71 lbs/day of NO_x and ROG, respectively, from the off-site refuse hauling vehicles as compared to baseline conditions.

On-Site Mobile Equipment- Landfill Operations

On-site mobile equipment emission calculations were also estimated as shown in Tables 5a and 5b. Emissions and load factors from Attachment 6 of the July 22, 1997 memorandum to Robert A. Nelson of USA Waste from Eric Walther and Bob Mason of TRC were used in determining baseline and projected 2014 emissions. The on-site mobile equipment emissions provided in the memorandum was for a 10,000 tpd scenario; therefore, total usage time for 2001 and 2014 scenarios had to be extrapolated. Baseline total usage time for each piece of equipment was estimated using total usage times provided in the TRC memorandum multiplied by a ratio of baseline to expansion hours of operation and support activities. New equipment obtained to accommodate additional waste tonnages in the expansion was provided by USA Waste.

EMFAC2002 modeling was used to determine baseline and 2014 emission factors for heavy-duty trucks at 75 degrees F traveling 25 mph with a relative humidity of 60%. Baseline mobile equipment emissions for NO_x and ROG are estimated to be 133.9 and 7.23 lbs/day, respectively. The 2014 mobile equipment emissions for NO_x and ROG are estimated to be 340.5 and 17.62 lbs/day, respectively. This equates to an emission increase of 206.6 and 10.39 lbs/day of NO_x and ROG, respectively, from the on-site mobile equipment.

On-Site Solid Waste Hauling and Employee Vehicle Emissions

On-site solid waste hauling and employee vehicle emission calculations were also estimated within the landfill as shown in Table 6 (Solid Waste Haul and Employee Vehicle Emissions at the Landfill) with 4,000 tons per day for baseline in 2001 and with 6,552 tons per day in 2014. Emission information from Attachment 6 of the July 22, 1997 memorandum to Robert A. Nelson of USA Waste from Eric Walther and Bob Mason of TRC was used in determining baseline and projected emissions from 6,552 tpd of MSW.

The amount of waste being hauled from each facility or area to the El Sobrante Landfill was based on the hauled tonnages from the 10,000 tpd scenario provided in the TRC SCAQMD Consultation document and multiplying by the ratio of 2001 or 2014 daily tonnages (4,000 or 6,552 tpd) to the maximum daily tonnage (10,000 tpd). The numbers of vehicles were estimated from the amount hauled divided by the assumed capacity of each vehicle type. For instance, transfer trucks have a 22-ton MSW capacity, whereas light-duty trucks have an approximately 1-ton MSW capacity.

Emission factors for both 2001 and 2014 estimates were from the EMFAC2002 model for heavy-duty trucks and light weight automobiles and trucks at 75 degrees F traveling 25 mph with a relative humidity of 60%. The results of the modeling are located in Attachment 2.

The number of employee vehicles (12) decreased between baseline and expansion scenarios based on site-specific data and the fact that additional employees have not been and are not expected to be necessary to handle the additional refuse.

Table 6 indicates an emission decrease of 9.15 and 0.53 lbs/day of NO_x and ROG from on-site hauling and employee vehicles, respectively.

On-Site Equipment Emissions Related to Structural Fill

On-site solid vehicle emission calculations were also estimated for structural filling to be performed in 2014, as shown in Table 7. The estimated fulltime structural fill will occur from 8AM to 5PM, Monday through Fridays for six out of twelve months of the year. The usage time as well as the number and types of vehicles were estimated by Waste Management.

Emission factors for 2014 estimates were from the EMFAC2002 model for heavy-duty trucks at 75 degrees F traveling 2, 3, 4, and 10 mph with a relative humidity of 60%. Since the structural fill is planned for 2014, there are no baseline emissions to compare to. The vehicle emissions related to structural fill is estimated to be 3,401.4 and 396.2 lbs/day of NO_x and ROG, respectively, which represent a project increase.

RESULTS OF EMISSIONS ANALYSIS

Table 8 (Project Emission Inventory for Baseline and 6,552 TPD) provides a summary of the project emission inventory, which includes stationary, mobile, and construction sources associated with the El Sobrante Landfill expansion project. Table 9 (Emission Offsets Required for Future (2014)) provides a summary of the emission increases (or reductions) from the various projected emission sources from the baseline year of 4,000 tpd to the project 2014 emissions at 6,552 tpd. This calculation includes an adjustment for the amount of ERCs that have been/will be provided from the SCAQMD's Priority Reserve account due to the offset exemption for essential public services. The results show a projected emission reduction of 661.9 and 8.8 lbs/day for NO_x and ROG, respectively. The NO_x reduction is primarily due to the use of an ultra-low NO_x flare and the use of transfer trucks in place of packer trucks. The ROG reduction is primarily the result of transfer trucks in place of packer trucks. Therefore, no emission offsets are required for 2014.

CLOSING

We believe that this Report satisfies USA Waste's requirements under AQ-13 of the MMRP under CEQA and should allow operations to continue as projected at the site. Please let us know if any fees are required under SCAQMD Rule 301 for this submittal, and USA Waste will pay them promptly.

If you have any questions regarding this submittal or desire any additional information, please contact the undersigned.

Sincerely,

James Kim
Staff Scientist

Raymond Huff
Vice President

Patrick Sullivan, C.P.P
Senior Vice President
SCS ENGINEERS

Attachments

Table 1. Landfill Gas Generation Projection, El Sobrante Landfill
Table 2. Actual Emission Source Estimates for Landfill and Flare (2001), El Sobrante Landfill and Recycling Center, Corona, California
Table 3a. Projected Emission Source Estimates for Landfill and Flare (2014), El Sobrante Landfill and Recycling Center, Corona, California
Table 3b. Projected Emissions Source Estimates for IC Engines (2014), El Sobrante Landfill and Recycling Center, Corona, California
Table 4. Emissions Comparison Within the South Coast Air Basin (2001) and Projected Off-site Truck Travel Emissions (2014)
Table 5a.On-site Mobile Equipment Emissions at 4,000 tons per day (2001)
Table 5b.On-site Mobile Equipment Emissions at 6,552 tons per day (2014)