



COMMUNITY MONITOR COMMITTEE

Altamont Landfill Settlement Agreement

*** The Public is Welcome to Attend***

VOTING MEMBERS

Chair
Jeff Williams
City of Livermore

Cindy McGovern
City of Pleasanton

Donna Cabanne
Sierra Club

David Tam
Northern California
Recycling Association

NON-VOTING MEMBERS

Tianna Nourot
Waste Management
Altamont Landfill and
Resource Recovery
Facility

Wing Suen
Alameda County

Robert Cooper
Altamont Landowners
Against Rural
Mismanagement (ALARMA)

STAFF

Judy Erlandson
City of Livermore
Public Works Manager

AGENDA

DATE: **Wednesday, April 13, 2011**
TIME: **4:00 p.m.**
PLACE: City of Livermore
Maintenance Services Division
3500 Robertson Park Road

1. Call to Order
2. Introductions
3. Roll Call
4. Approval of Minutes (January 12, 2011)
5. Open Forum This is an opportunity for members of the audience to comment on a subject not listed on the agenda. No action may be taken on these items.
6. Matters for Consideration
 - 6.1 **Status of Five-Year Permit Review (ESA)**
 - 6.2 **Responses to Committee Members' Questions (ESA)**
 - 6.3 **Review of Reports Provided by ALRRF: Tonnage and Traffic Reports, Title V (Air Emissions) Report, Groundwater Monitoring Report, CUP Compliance Summary (ESA), Class 2 Soil File Review**
 - 6.4 **Review of Reports from Community Monitor (ESA)**
 - 6.5 **Community Monitor Annual Report (ESA)**
7. Agenda Building

This is an opportunity for the Community Monitor Committee Members to place items on future agendas.
8. Adjournment

The next regular Community Monitoring Committee meeting will take place at 4:00 p.m. on July 13, 2011 at 3500 Robertson Park Road, Livermore.

Informational Materials:

- Community Monitor Roles and Responsibilities
- List of Acronyms
- January 12, 2011 Draft Minutes
- Reports from ESA

City of Livermore
TDD (Telecommunications for the Deaf)
(925) 960-4104

PURSUANT TO TITLE II OF THE AMERICANS WITH DISABILITIES ACT (CODIFIED AT 42 UNITED STATES CODE SECTION 12101 AND 28 CODE OF FEDERAL REGULATIONS PART 35), AND SECTION 504 OF THE REHABILITATION ACT OF 1973, THE CITY OF LIVERMORE DOES NOT DISCRIMINATE ON THE BASIS OF RACE, COLOR, RELIGION, NATIONAL ORIGIN, ANCESTRY, SEX, DISABILITY, AGE OR SEXUAL ORIENTATION IN THE PROVISION OF ANY SERVICES, PROGRAMS, OR ACTIVITIES. TO ARRANGE AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PUBLIC MEETING, PLEASE CALL (925) 960-4586/4582 (VOICE) OR (925) 960-4104 (TDD) AT LEAST 72 HOURS IN ADVANCE OF THE MEETING.

The Community Monitor Committee Agenda and Agenda Reports are prepared by City staff and are available for public review on the Thursday prior to the Community Monitor Committee meeting at the Maintenance Service Center, located at 3500 Robertson Park Road, Livermore. The Community Monitor Committee Agenda is available for public review at the Civic Center Library, located at 1188 S. Livermore Avenue, Livermore, and on the bulletin boards located outside City Hall, located at 1052 S. Livermore Avenue, Livermore, and the Maintenance Service Center.

Under Government Code §54957.5, any supplemental material distributed to the members of the Community Monitor Committee after the posting of this Agenda will be available for public review upon request at 3500 Robertson Park Road., Livermore or by contacting us at 925-960-8000.

If supplemental materials are made available to the members of the Community Monitor Committee at the meeting, a copy will be available for public review at the Maintenance Service Center, at 3500 Robertson Park Road, Livermore

Community Monitor Committee Roles and Responsibilities

Below is a summary of the duties and responsibilities of the Community Monitor Committee and related parties as defined by the Settlement Agreement between the County of Alameda, the City of Livermore, the City of Pleasanton, Sierra Club, Northern California Recycling Association, Altamont Landowners Against Rural Mismanagement, and Waste Management of Alameda County, Inc. The purpose of this document is to aid in determining if discussion items are within the scope of the Community Monitor Committee.

Community Monitor Committee's Responsibilities

Under Settlement Agreement section 5.1.2, the CMC is responsible for supervising and evaluating the performance of the Community Monitor as follows:

- A. Interviewing, retaining, supervising, overseeing the payment of, and terminating the contract with the Community Monitor;
- B. Reviewing all reports and written information prepared by the Community Monitor; and
- C. Conferring with the Community Monitor and participating in the Five Year Compliance Reviews (next due 8/22/2010) and the Mid-Capacity Compliance Review (due when the new cell is constructed and capacity is close to 50%, unlikely to occur before 2028) (Condition number 6 of Exhibit A of the Agreement).

Community Monitor's Responsibilities

The Community Monitor supplements and confirms the enforcement efforts of the County Local Enforcement Agency. The Community Monitor is primarily responsible for:

- A. Reviewing any relevant reports and environmental compliance documents submitted to any regulatory agency (sections 5.7.1, 5.7.2, and 5.7.3);
- B. Advising the public and the Cities of Livermore and Pleasanton about environmental and technical issues relating to the operation of the Altamont Landfill via the CMC (section 5.7.4);
- C. Presenting an annual written report summarizing the Altamont Landfill's compliance record for the year to the CMC and submitting the report to Alameda County and the Cities of Livermore and Pleasanton (section 5.7.5);
- D. Notifying the County Local Enforcement Agency and Waste Management of Alameda County of any substantial noncompliance findings or environmental risk (section 5.7.6);
- E. Monitoring and accessing the Altamont Landfill site and conducting inspections (section 5.7.7);
- F. Counting trucks arriving at the Altamont Landfill (section 5.7.8); and
- G. Reviewing waste testing data and source information (section 5.7.9).

Waste Management of Alameda County's Responsibilities

Per the settlement agreement, Waste Management is responsible for:

- A. Paying for the services of the Community Monitor, based on an annual cost estimate (section 5.3.3).
- B. Paying an additional 20% over the annual cost estimate if warranted based on "credible evidence" (section 5.3.3).

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List of Acronyms

Below is a list of acronyms that may be used in discussion of waste disposal facilities. These have been posted on the CMC web site, together with a link to the CIWMB acronyms page:
<http://www.ciwmb.ca.gov/LEACentral/Acronyms/default.htm>.

Updates will be provided as needed. This list was last revised on July 8, 2010.

Agencies

ACWMA – Alameda County Waste Management Authority
ANSI – American National Standards Institute
ARB or CARB – California Air Resources Board
ASTM – American Society for Testing and Materials
BAAQMD – Bay Area Air Quality Management District
CDFG or DFG – California Department of Fish and Game
CDRRR – California Department of Resources Recycling and Recovery, or CalRecycle
CIWMB – California Integrated Waste Management Board (predecessor to CDRRR – see above)
CMC – Community Monitor Committee
DWR – Department of Water Resources
LEA – Local Enforcement Agency (i.e., County Environmental Health)
RWQCB – Regional Water Quality Control Board
SWRCB – State Water Resources Control Board

Waste Categories

C&D – construction and demolition
CDI – Construction, demolition and inert debris
GSET – Green waste and other fine materials originating at the Davis Street Transfer Station, for solidification, externally processed.
GWRGCT – Green waste that is ground on site and used for solidification or cover (discontinued January 2010)
GWSA – Green waste slope amendment (used on outside slopes of the facility)
MSW – Municipal solid waste
RDW – Redirected wastes (received at ALRRF, then sent to another facility)
RGC – Revenue generating cover

Substances or Pollutants

ACM – asbestos-containing material
ACW – asbestos-containing waste
ADC – Alternative Daily Cover. For more information: <http://www.ciwmb.ca.gov/lqcentral/basics/adcbasic.htm>
BTEX – benzene, toluene, ethylbenzene, and xylene (used in reference to testing for contamination)
CH₄ – methane
CO₂ – carbon dioxide
DO – dissolved oxygen
HHW – household hazardous waste
LFG – landfill gas
LNG – liquefied natural gas
MTBE – methyl tertiary butyl ether, a gasoline additive
NMOC – Non-methane organic compounds
NTU – nephelometric turbidity units, a measure of the cloudiness of water
RL – reporting limit: in groundwater analysis, for a given substance and laboratory, the concentration above which there is a less than 1% likelihood of a false-negative measurement.
TCE - Trichloroethylene
TDS – total dissolved solids
TKN – total Kjeldahl nitrogen
VOC – volatile organic compounds

Documents

CCR – California Code of Regulations (includes Title 14 and Title 27)
CoIWMP – County Integrated Waste Management Plan
JTD – Joint Technical Document (contains detailed descriptions of permitted landfill operations)
MMRP – Mitigation Monitoring and Reporting Program
RDSI – Report of Disposal Site Information
RWD – Report of Waste Discharge
SRRE – Source Reduction and Recycling Element (part of CoIWMP)
SWPPP – Stormwater Pollution Prevention Plan
WDR – Waste Discharge Requirements (Water Board permit)

General Terms

ALRRF – Altamont Landfill and Resource Recovery Facility
BGS – below ground surface
CEQA – California Environmental Quality Act
CQA – Construction Quality Assurance (relates to initial construction, and closure, of landfill Units)
CY – cubic yards
GCL – geosynthetic clay liner
GPS – Global Positioning System
IC engine – Internal combustion engine
LCRS – leachate collection and removal system
LEL – lower explosive limit
mg/L – milligrams per liter, or (approximately) parts per million
µg/L – micrograms per liter, or parts per billion
PPE – personal protective equipment
ppm, ppb, ppt – parts per million, parts per billion, parts per trillion
SCF – Standard cubic foot, a quantity of gas that would occupy one cubic foot if at a temperature of 60°F and a pressure of one atmosphere
SCFM – standard cubic feet per minute, the rate at which gas flows past a designated point or surface
STLC – Soluble Threshold Limit Concentration, a regulatory limit for the concentrations of certain pollutants in groundwater
TTLC – Total Threshold Limit Concentration, similar to STLC but determined using a different method of analysis
TPD, TPM, TPY – Tons per day, month, year
WMAC – Waste Management of Alameda County



COMMUNITY MONITOR COMMITTEE

Altamont Landfill Settlement Agreement

Minutes of January 12, 2011

DRAFT

1. Call to Order

Mr. Williams called the meeting to order at 4:05 p.m.

2. Introductions

Kathleen Minser from Waste Management was introduced.

3. Roll Call

Members Present:	Jeff Williams; Donna Cabanne; David Tam; (arrived 4:09 PM); Tianna Nourot, Waste Management Altamont Landfill and Resource Recovery Facility (ALRRF) and Wing Suen, Alameda County Environmental Health
Absent:	Cindy McGovern, City of Pleasanton, and Robert Cooper, Altamont Landowners Against Rural Mismanagement
Staff:	Judy Erlandson, City of Livermore Public Works Department; Kelly Runyon, ESA, Community Monitor
Others:	Kathleen Minser, Waste Management, Inc.

Committee Chairman Williams reordered the agenda.

6. Matters for Consideration

6.1 Responses to Committee Members' Questions

In response to questions from Committee members at the November meeting regarding the appearance of the Dyer Road reservoir construction project, Mr. Runyon presented a photograph providing a panoramic view of the project. Mr. Tam arrived during this presentation. In discussion, Committee members expressed interest in the final appearance of this project. Mr. Williams asked Ms. Erlandson to provide any readily available additional information, such as a web site that describes the project, via email to Committee members.

4. Approval of Minutes

Approval of the minutes of the November 10, 2010 meeting was moved by Ms. Cabanne, and seconded by Mr. Williams. The motion passed 3-0.

5. Open Forum

No comments were provided.

6. Matters for Consideration (continued)

6.2 Community Monitor Updates

Mr. Runyon reported that the final Class 2 soil file review of 2010 had occurred just a few days prior to this meeting, with 52 files reviewed. No discrepancies were found. However, the review of two files was incomplete because the analytical data in those files was provided on CD-ROM, and the reviewer did not have a way to read those data at the time. They will be checked at the next review.

Mr. Runyon also reported that tonnage and truck count information for October and November had been received and reviewed, and was found to be in compliance with permit restrictions.

6.3 Review of Reports from Community Monitor

Mr. Runyon reviewed the tonnages of particular types of materials, noting monthly variations. In response to a question from Mr. Williams, Ms. Nourot indicated that the variation in tonnage of certain types of revenue-generating cover, such as biosolids and Class 2 soil, are market-driven, in response to customers' needs. In discussion, Mr. Runyon pointed out that biosolids tend to be disposed in summer months when they are easier to extract, dry out, and ship. Mr. Tam asked Ms. Nourot about the total tonnage received in calendar year 2010. Ms. Nourot replied that the December data are still being compiled but would be available soon. In presenting the inspection reports, Mr. Runyon pointed out that in October it was apparent that the landfill was catching up on the collection of windblown litter to the east of Fill Area 1; and in November he observed vegetation growing on some recently completed slopes, more so than on other slopes completed months ago.

6.4 Annual Report

Mr. Runyon pointed out that the previous practice of reviewing a report outline, then a draft report at the next meeting, followed by a final report, previously resulted in a final report being completed in June; however, the recent change from a bimonthly to a quarterly meeting schedule would add three months to that effort. Therefore a draft report, not an outline, was being presented to the Committee for review and comment. In addition, two new sections were included in this draft: Section 2.2 explicitly discussed compliance issues that arose in 2010, and Section 2.4 described the Five-Year Permit Review process which began in 2010.

In discussion, Committee members expressed immediate interest in two aspects of Section 1.3.1, Industry Trends. First, Mr. Williams asked that a bullet point be added to discuss the effects of AB 32 on the ALRRF, and he also asked the group what effects are known. Ms. Nourot and Mr.

Runyon only knew of the more stringent requirements on landfill surface emission monitoring to detect escaping methane. Mr. Williams asked Ms. Erlandson to look up any other effects and provide information for use in the final version of the Annual Report.

Second, Mr. Tam stated that there is now a surplus of landfill capacity in the Bay Area, and he provided a table and report to Ms. Erlandson and Committee members to substantiate this. Mr. Williams stated that the 2010 Annual Report need not provide information about other sites, but should note that the local situation is subject to change. Mr. Tam and Ms. Suen also briefly discussed the status of decision making by the City of San Francisco regarding the selection of a hauler and disposal site for their wastes after the current agreement to use the ALRRF concludes in three to four years.

At the conclusion of this discussion, Ms. Erlandson asked that further comments on the Annual Report be forwarded to her within the next month to allow time for responses to be included in the final version. Mr. Williams asked that Ms. Erlandson contact Ms. McGovern and let her know that comments should be made in that time frame. Mr. Runyon stated that he would provide the final version in two formats, with one showing all revisions made and the other being a clean copy for distribution.

7. Agenda Building

No Agenda building occurred.

8. Adjournment

The meeting was adjourned at 4:50 PM. The next meeting will be held on **Wednesday, April 13, 2011 at 4:00 p.m.** at the Livermore Maintenance Services Center at 3500 Robertson Park Road.

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CMC Agenda Item 6.1
www.esassoc.com

memorandum

date March 24, 2010
to ALRRF Community Monitor Committee
from Kelly Runyon
subject CMC Meeting of 4/13/11 - Agenda Item 6.1 - Status of Five-Year Review

As part of the Five-Year Review process, the Joint Technical Document for the ALRRF was extensively updated by ALRRF staff and consultants. After reviewing the update, the LEA requested editorial corrections and changes in several areas, and ALRRF staff provided a revised document to address those requests. The approval of the revised document was still pending when the Community Monitor Committee last met, in January 2011. Further refinements have been requested by the LEA, and those have been provided and are being reviewed.

The existing Solid Waste Facility permit has remained in effect while the Five-Year process continues.

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memorandum

date March 24, 2011
to ALRRF Community Monitor Committee
from Kelly Runyon
subject CMC Meeting of 4/13/11 - Agenda Item 6.2 - Responses to Committee Members' Questions

In the Committee meeting of January 12, Chairperson Williams asked that information regarding the effect of AB32 on the ALRRF be provided to Ms. Erlandson for the Committee's information and for inclusion in the Annual Report for 2010.

Summary

In essence, AB32 has led the California Air Resources Board to develop regulatory requirements that affect landfills in several distinct ways, depending on their size and their closure status. For the ALRRF, the only effect of AB32 has been to modify the requirements related to surface emission monitoring to detect escaping landfill gas.

Details

AB 32 was passed in 2006, and its requirements were addressed by the California Air Resources Board's "Scoping Plan" issued in December 2008 after various workshops and opportunities for stakeholder input. The Scoping Plan identified nine Discrete Early Action Measures, only one of which directly relates to landfills including the ALRRF: "Improved Landfill Gas Capture." Implementation is being addressed through four distinct regulatory initiatives:

- Statewide regulation of landfill gas capture,
- Mandatory commercial recycling,
- Increased production and markets for organics products, and
- Voluntary increased capture of methane from large dairies.

The first item is the one most directly relevant to ALRRF regulatory compliance. Other, smaller landfills may be affected if they do not already have landfill gas capture systems, because the new regulations require such systems on landfills with more than 450,000 tons of waste in place. However, the ALRRF has a landfill gas extraction system that produces electrical energy and liquid natural gas (LNG) fuel. The new statewide regulations are also more stringent than previous BAAQMD regulations which governed the measurement of methane escaping through the landfill surface. This will impact the time and cost of surface emissions monitoring, and it appears to require a separate monitoring report every March 15, beginning in 2012. Further details are available in a summary from the California Air Resources Board, located here:

<http://www.arb.ca.gov/cc/landfills/docs/status1210.pdf> .

The CMC received some additional information about this in May and July; see page 11 of the May packet (link below) and page 13 of the July packet (link below); also the minutes of the May meeting on page 7 of the July packet, and minutes of the July meeting, on page 7 of the September packet (link below).

The new ARB regulations also set criteria for the design and operation of the landfill gas extraction system, but these are no more stringent than existing criteria imposed by the BAAQMD regulations. In addition, they set criteria for discontinuing landfill gas extraction when extractable gas volumes and surface emissions have diminished sufficiently. These may affect the timing of the eventual shutdown of landfill gas extraction at the ALRRF, but probably not for many years.

The second item in the list above, mandatory commercial recycling, has implications for the ALRRF in terms of (a) the potential for reduced refuse tonnage in the future, and (b) the possible need for MRF capacity to process more commercial recyclables (recall that a general discussion of a future MRF at ALRRF was included in the June draft revisions to the Joint Technical Document). ALRRF is also addressing item 3, organics products, by means of its bunkers containing mulch made from reclaimed biomass, for sale to local landscapers.

The requirement for upgraded gas probes around the perimeter of the ALRRF was not driven by AB 32. The regulatory effort for upgraded gas probe systems began in September of 2005, before AB 32 became law in 2006. There was no mention of greenhouse gas or climate issues in the official Statement of Reasons for the gas-probe-related regulations. Instead, the Statement of Reasons explains that the new probe regulations are intended to align the regulations for active landfills to the standards used for closed landfills, and to protect "human health and safety and the environment."

Links noted above:

May packet: http://www.altamontcmc.org/uploads/20100512_Packet_v2.pdf

July packet: http://www.altamontcmc.org/uploads/20100714packet_v2.pdf

September packet: http://www.altamontcmc.org/uploads/20100908_packetv2.pdf



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memorandum

date March 24, 2011
 to ALRRF Community Monitor Committee
 from Kelly Runyon
 subject CMC Meeting of 4/13/11 - Agenda Item 6.3 - Review of Reports Provided by ALRRF

This memorandum provides an update on work-in-progress by the Community Monitor:

Reports Received

Monthly Tonnage Reports and Truck Counts for December, January and February were received. Truck counts indicated no exceedances of Use Permit conditions. Tonnages were also well within permit limits. Graphs of tonnage data, broken out by material type, are provided in Figures 6.3-1 and 6.3-2 below. There was nothing unusual about the quantities or types of materials received. Low quantities of Class 2 soils and of biosolids reflect typical wet-weather conditions which inhibit construction activity (the usual producer of Class 2 soils) as well as wastewater plant deliveries of biosolids.

The Title V report for the period June 1, 2010 – November 30, 2010 was received. It provides insight into many aspects of air pollution and landfill gas control at the ALRRF. The following points are noteworthy:

1. Surface emission monitoring (SEM) for the second, third and fourth quarters of 2010 had the following results:

Quarter	Date	Initial exceedances	Re-test (10 day) exceedances	Re-test (30-day) exceedances
Second	May 26, 2010	3	none	none
Third	August 24, 2010	3	none	none
Fourth	October 20, 2010	none	N/A	N/A

This is a much lower number of exceedances than were documented in the preceding Title V report.

2. In conjunction with the 4th-quarter SEM test, the ALRRF conducted a biennial test to determine if the Target Gas Collection Rate or TGCR (in essence, the minimum gas collection rate set by the facility's permit) should be increased or remain the same. Currently the TGCR is equivalent to approximately 3.28 million standard

cubic feet of landfill gas per day (scfd), and the ALRRF typically collects more than twice that amount each day (see Figure 6.3-3 below).

To see if the TGCR should be reset, a landfill must first collect gas at no more than 110% of the TGCR rate for 48 continuous hours, then monitor for surface emissions. If surface emissions are found, and they cannot be prevented by repairing the landfill cover, then the TGCR is increased.

At the ALRRF, the test was conducted on October 20. As shown in Figure 6.3-3, for a 48-hour period that began on the 18th and continued through the 19th until the afternoon of the 20th, the two turbines were used to extract gas at a steady rate, not exceeding 110% of 3.28 million scfd. The surface emissions monitoring test was conducted on the 20th, and no surface emissions above the regulatory threshold were found. Hence, the TGCR will remain the same until the next test, two years from now.

3. Tests were also conducted on the emissions from the newer landfill gas flare and the two internal-combustion engines. These tests found that emissions from these devices were within permit limits; no corrective actions were needed.

4. Figure 6.3-3 provides a day-by-day graphical summary of the landfill gas consumption by each of the seven control devices at the ALRRF, from June through November 2010. The figure has been annotated to indicate several noteworthy occurrences. For each of the control devices, we note the following:

- The two turbines (A-6 and A-7) were generally steady performers, with a few brief periods of down time for maintenance.
- In July and August, the two internal combustion engines (A-23 and A-24) were down for several days at a time because of maintenance needs and limited amounts of landfill gas available for fuel. This limitation may have been caused by the landfill gas well installation work taking place on site, or by the sheer number and size of devices presently consuming landfill gas at the facility.
- Flare A-15, the older of the two landfill gas flares at the site, was not used at all during this six-month period.
- Other than brief interruptions for maintenance, Flare A-16 was only out of service during the TGCR test described above.
- The LNG plant (source S-210) was down for scheduled maintenance in early September but also for unscheduled outages in the latter part of November. Details within the Title V report indicate that not only the gas processing systems, but also the warning and control systems within the plant are causing these outages.

Also, the LNG plant and the two IC engines appear to be subject to outages when Flare A-16 shuts down. Future Title V reports will be monitored to see how this problem is addressed.

5. Wells continued to be added to the landfill gas well system, to keep pace with refuse handling activities. In July and August, 23 wells were added. Eleven were replacements for wells that had ceased to function, and the other 12 were new wells, generally added as “sisters” to existing wells on parts of the landfill not currently receiving fill. These new wells should increase the amount of gas available from the landfill, and the gas that they extract is piped to the gas line that serves a nearby (“sister”) well, to minimize the need for new piping.

6. As we have seen in prior Title V reports, a few wells extract gas that is at higher-than-normal temperatures for the inside of a landfill (more than 140°F), possibly due to the depth of the landfill or its high rate of fill. These wells are monitored for gases that would indicate a fire below ground (carbon monoxide), and if there is no such

indication, the ALRRF requests a waiver from the BAAQMD to continue to operate these wells at their higher temperatures.

6. The landfill gas well maps provided as part of the Title V report show the location of each gas well, but they also illustrate the changing topography of the landfill and the addition of refuse over time. We compared the active areas of the landfill with well installation and decommissioning records to provide a check against the Title V reports and against observations made on site. No discrepancies or causes for concern were found. The attached set of figures numbered Slide 1 through Slide 7 shows the changes in site topography at semiannual intervals: June 2009, January 2010, and June 2010. The areas shaded in brown are consistent with activity observed at the landfill; and it is in these active areas that most of the new wells and replacement wells have been installed. Also, the wells that were decommissioned and not replaced were generally in areas that have the highest proportion of old refuse, i.e., the southeast portion of the site.

7. In the Title V report, records of correspondence with the BAAQMD include a request by the ALRRF to shift the Title V semiannual reporting period to match the calendar; reporting periods would run through the end of June and December, rather than May and November. This will have no appreciable effect on our ability to review these reports in a timely manner.

The Second Semi-Annual – Annual 2010 Groundwater Monitoring Report was received, and was thoroughly reviewed by Treadwell and Rollo. To summarize their review:

Groundwater monitoring activities and findings were generally found to be in compliance.

As required by the Waste Discharge Requirements, an additional suite of tests was run in November 2010. These tests are the Five-Year Constituents of Concern (COC) tests, and they check for certain inorganics and metals, volatile and semi-volatile organics, certain herbicides and pesticides, and total organic carbon (a broad indicator of organic chemicals). The tests are to be run every five years at all monitoring points at the landfill: all monitoring wells, vadose (unsaturated) zone sampling points, leachate monitoring points, and stormwater basins. However, it was not possible to test the stormwater basins because they were not discharging in the latter part of 2010. Stormwater basin samples collected in 2011 will be analyzed for the Five-Year COC constituents.

The Treadwell and Rollo memo (attached) notes the following regarding the Five-year COC testing:

- Cyanide was found in extremely low concentrations in a total of six wells. The concentrations are *much* lower than the limit in California drinking water standards (between 1% and 3% of that limit) and may be naturally occurring. Most, but not all, of the six wells are downgradient from the oldest part of the landfill.
- In well MW-5A, the metals antimony and arsenic were detected at 11 parts per billion and 150 parts per billion, respectively. These metals occur naturally and are found in other wells at the site, but the concentrations in MW-5A are noticeably higher than at other wells on site.
- PCBs were not detected in any samples. Leachate sump LS2 had low (below 0.1 parts per billion) but detectable concentrations of three pesticides, and the valley drain (VD) beneath Unit 1 had a possible trace detection of lindane. Dinoseb, a banned herbicide, was detected in the leachate sump and the valley drain (below the liner) beneath Unit 2.
- Vinyl chloride continues to be detected in monitoring well E-20B. The trend for this concentration is continuing to decrease and is presently less than one part per billion, down from 2 parts per billion in 2002.

Section 3.0 of the Semiannual-Annual Report summarizes the laboratory's quality assurance and quality control QA/QC reporting. A variety of anomalous findings are listed, usually involving the detection of organics or metals in "blank" samples. In general, the lab concludes that because these substances were not found in the actual samples, no corrective action is needed. Treadwell and Rollo suggest that "if the CMC is concerned about this issue, they could ask Waste Management for a copy of the RWQCB-approved QAPP and to report back on whether the Regional Water Board accepted ... the statements ... that no corrective actions were necessary." The Community Monitor has (very recently) requested the QAPP from ALRRF staff.

The Mitigation Monitoring and Reporting Program Annual Progress Report for 2010 was received and checked against the previous year's report to identify changes and progress in satisfying the 106 conditions (with many sub-conditions) in Conditional Use Permit C-5512. No compliance problems were found. Many of the changes were related to the progress made in obtaining permits for the opening of Fill Area 2. Specifically, the US Fish and Wildlife Service issued a Biological Opinion, the California Department of Fish and Game (CDFG) issued a Consistency Determination (typically, these indicate concurrence by the state with certain aspects of the Biological Opinion), and the CDFG also issued a Streambed Alteration Agreement (typically, these prescribe the conditions under which a waterway can be modified).

Other Activities

The third of three Class 2 soil file reviews, intended to occur in December, was performed in January. The two prior reviews examined a total of 88 files, with no discrepancies noted. The third review evaluated 52 new files and found no discrepancies. Two of the file reviews were not completed because the data was only in digital form (on a CD) and our reviewer did not have a laptop computer with CD drive at the time. These will be completed during the first review of 2011, in April or May.

Figure 6.3-1 Monthly Volumes of Revenue-Generating Cover

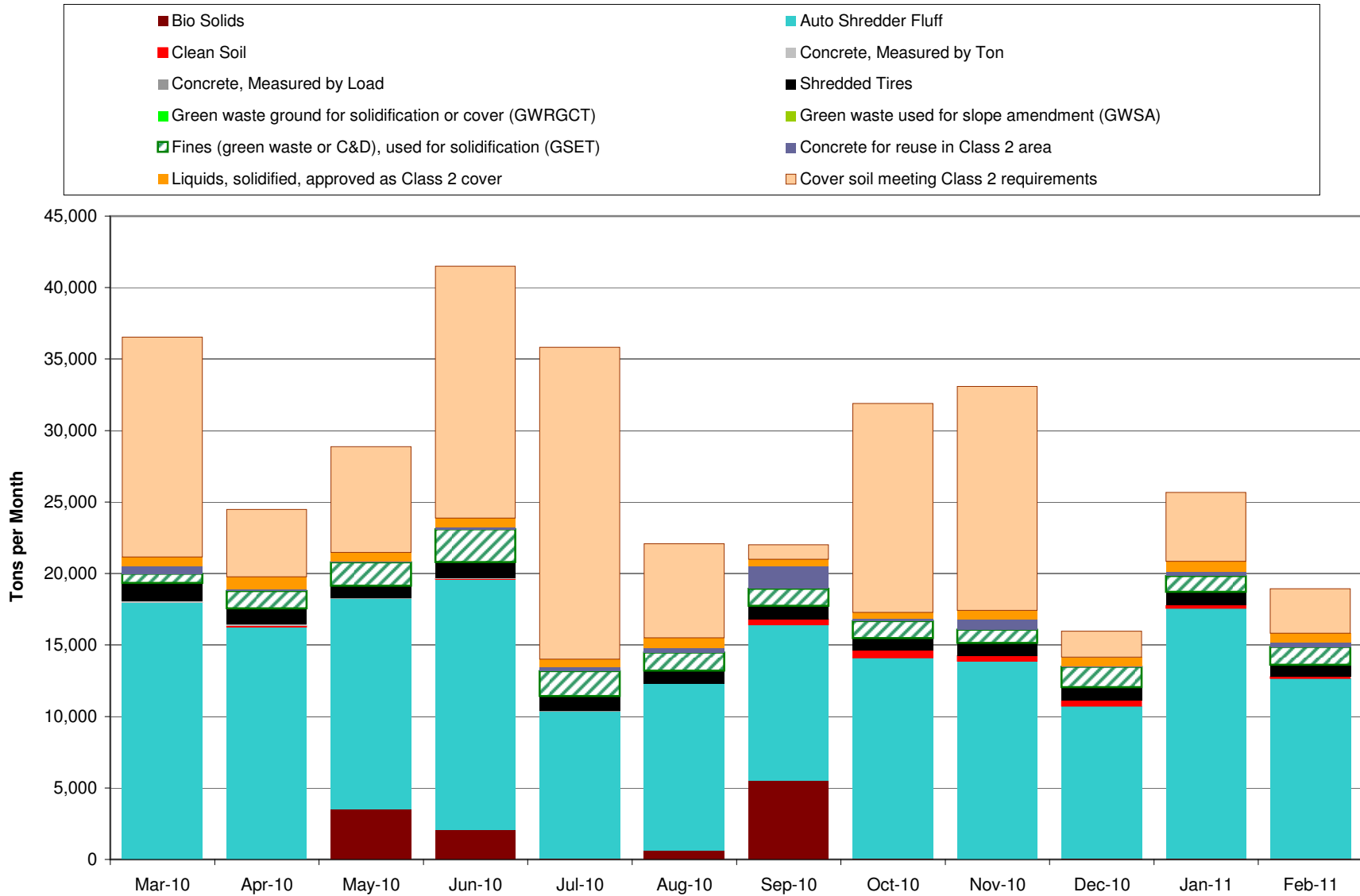


Figure 6.3-2 Monthly Volumes of All Materials

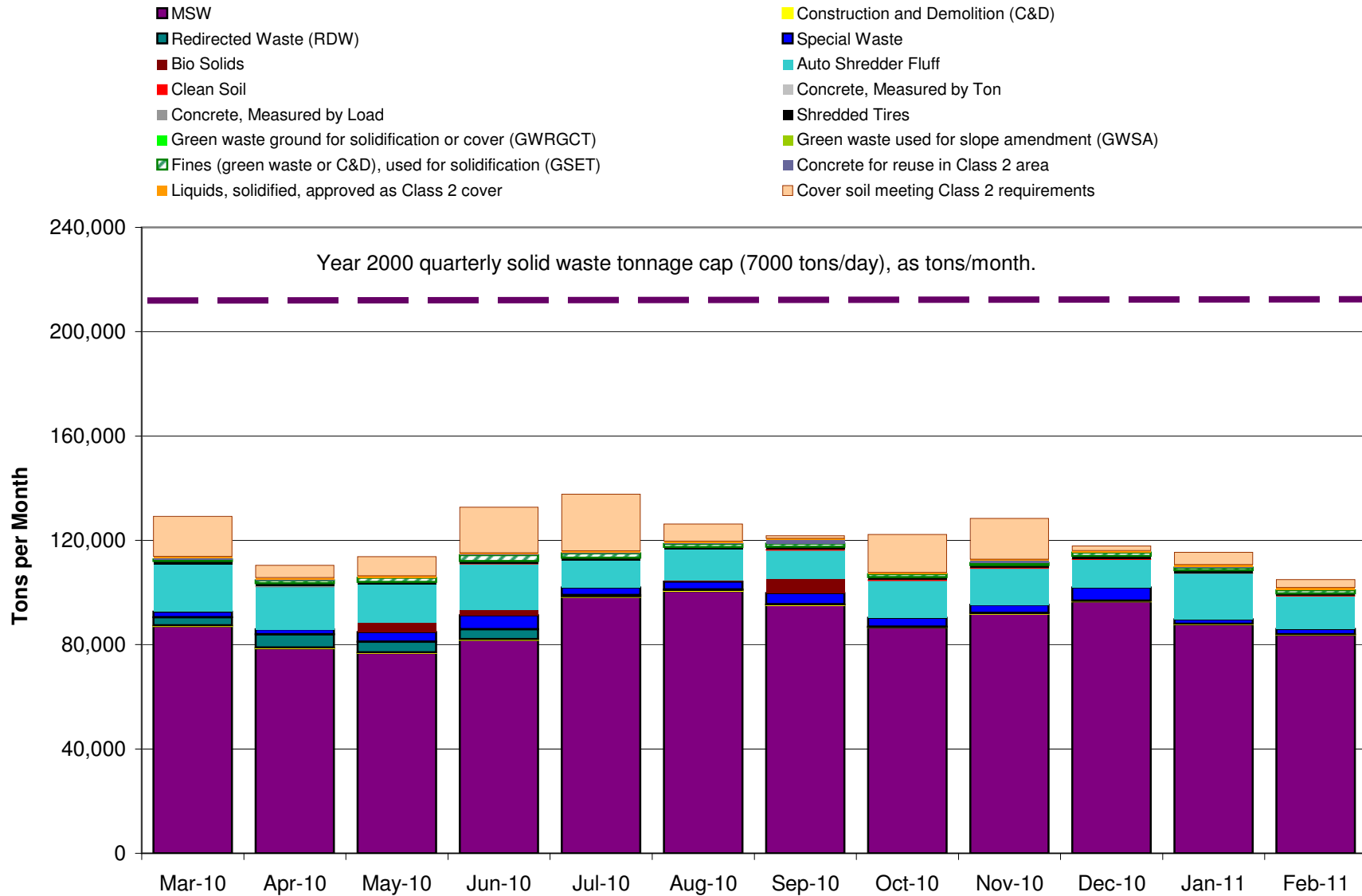
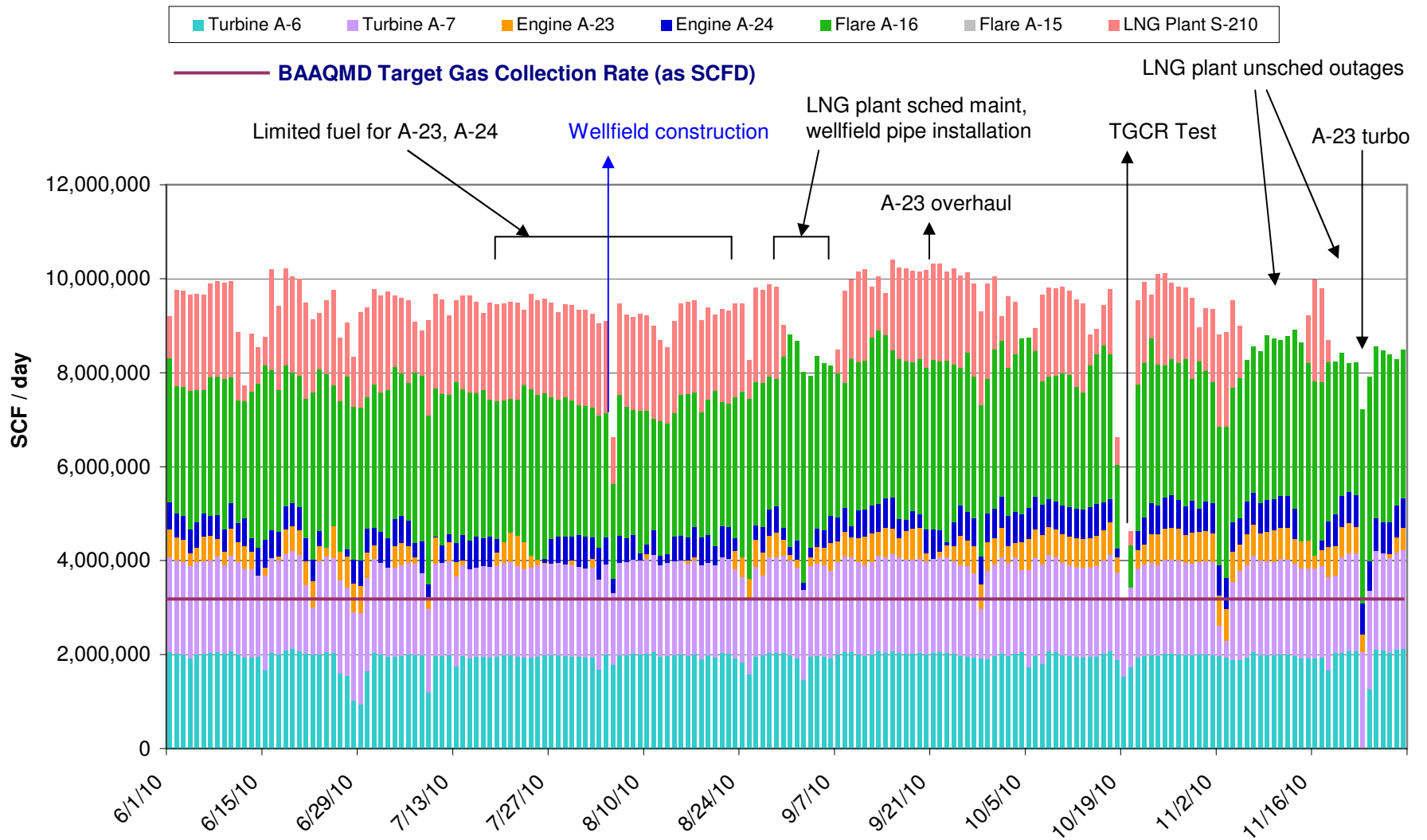


Figure 6.3-3 - ALRRF Daily LFG Flow
 (values derived from Title V Report)

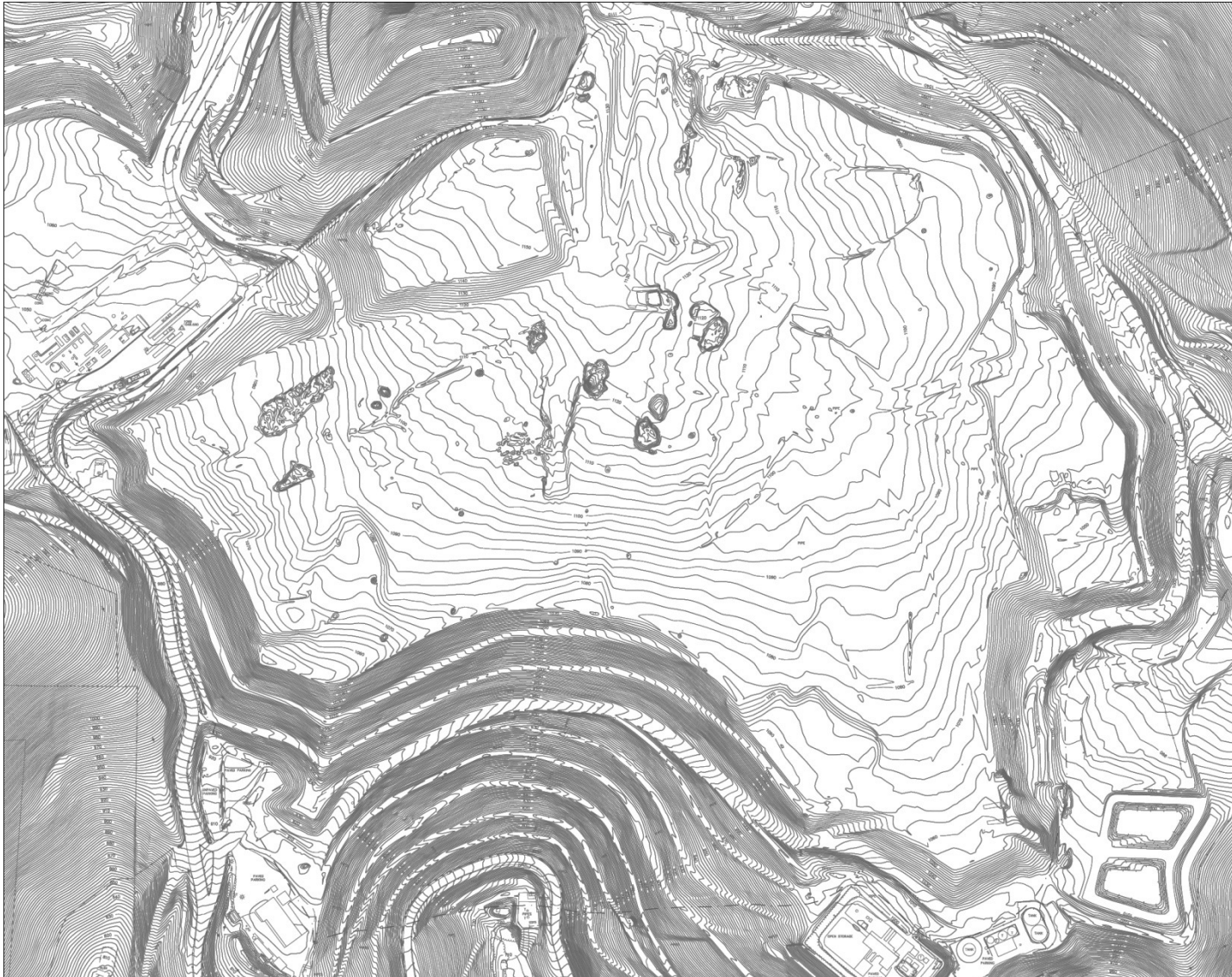


Altamont Landfill – Refuse Placement

July 2009 – July 2010

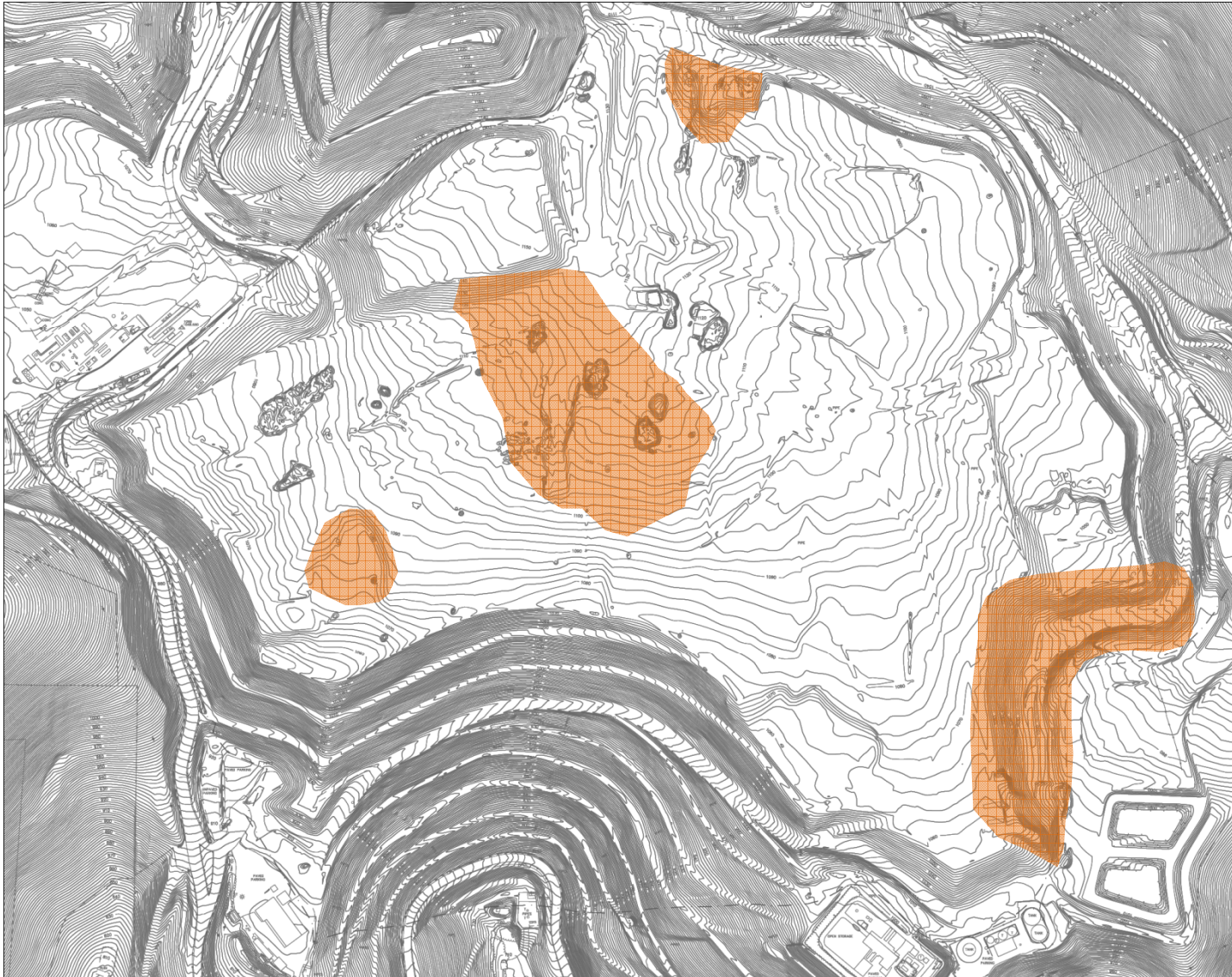
Slide 1

June 2009 Topography



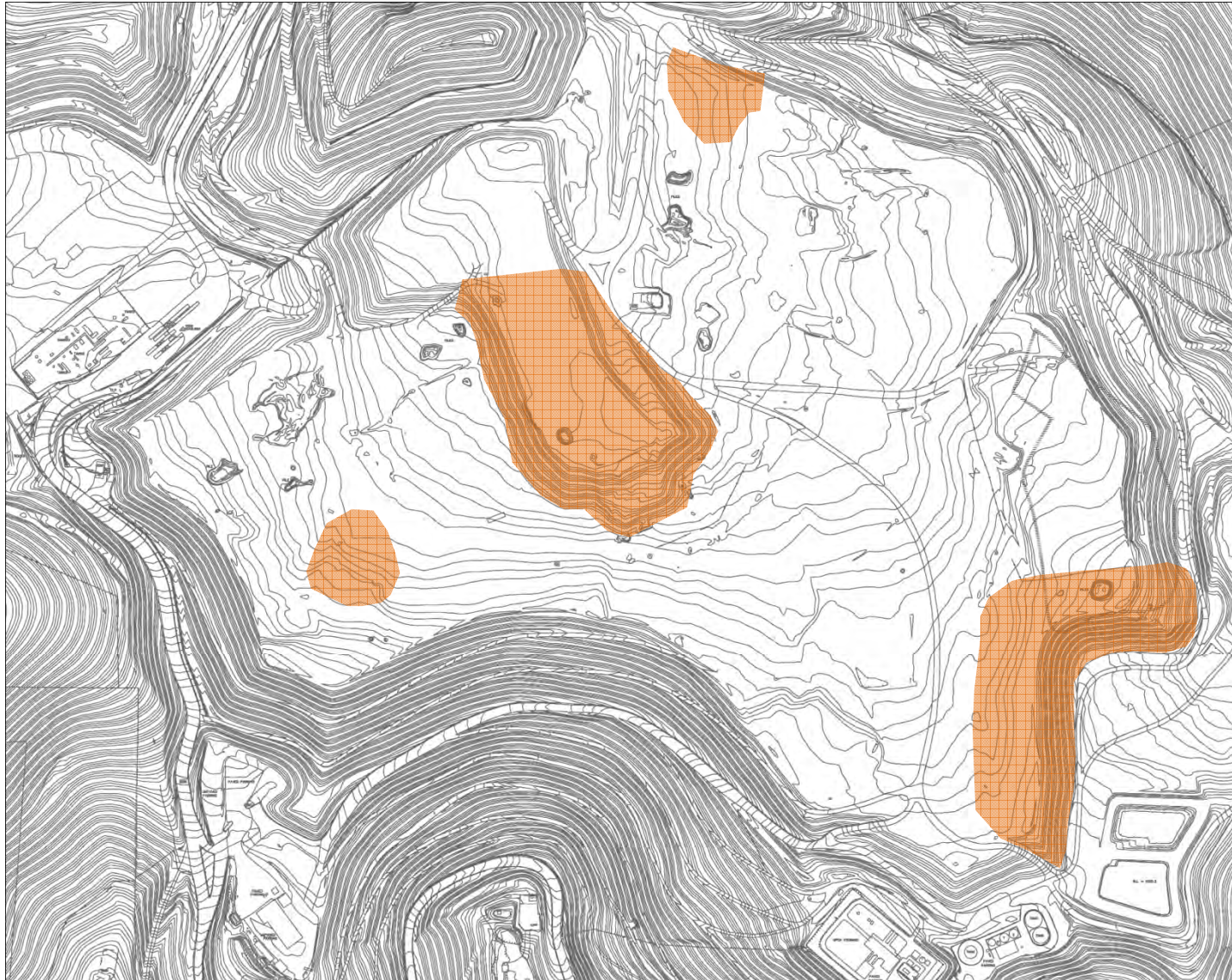
Slide 2

June 2009 Topo; June 2009 – January 2010 Refuse Placement



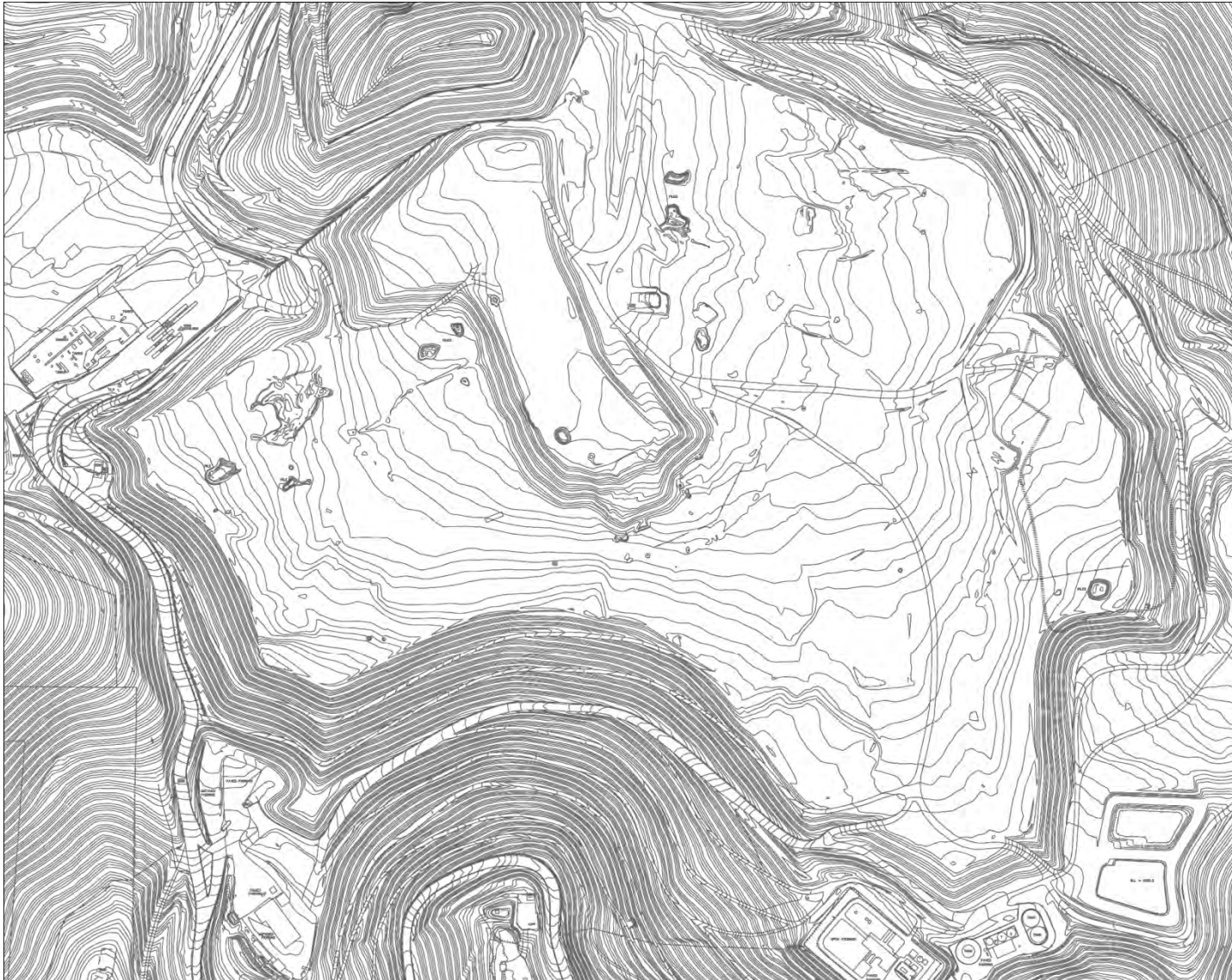
Slide 3

Jan 2010 Topo; June 2009 – January 2010 Refuse Placement



Slide 4

January 2010 Topography



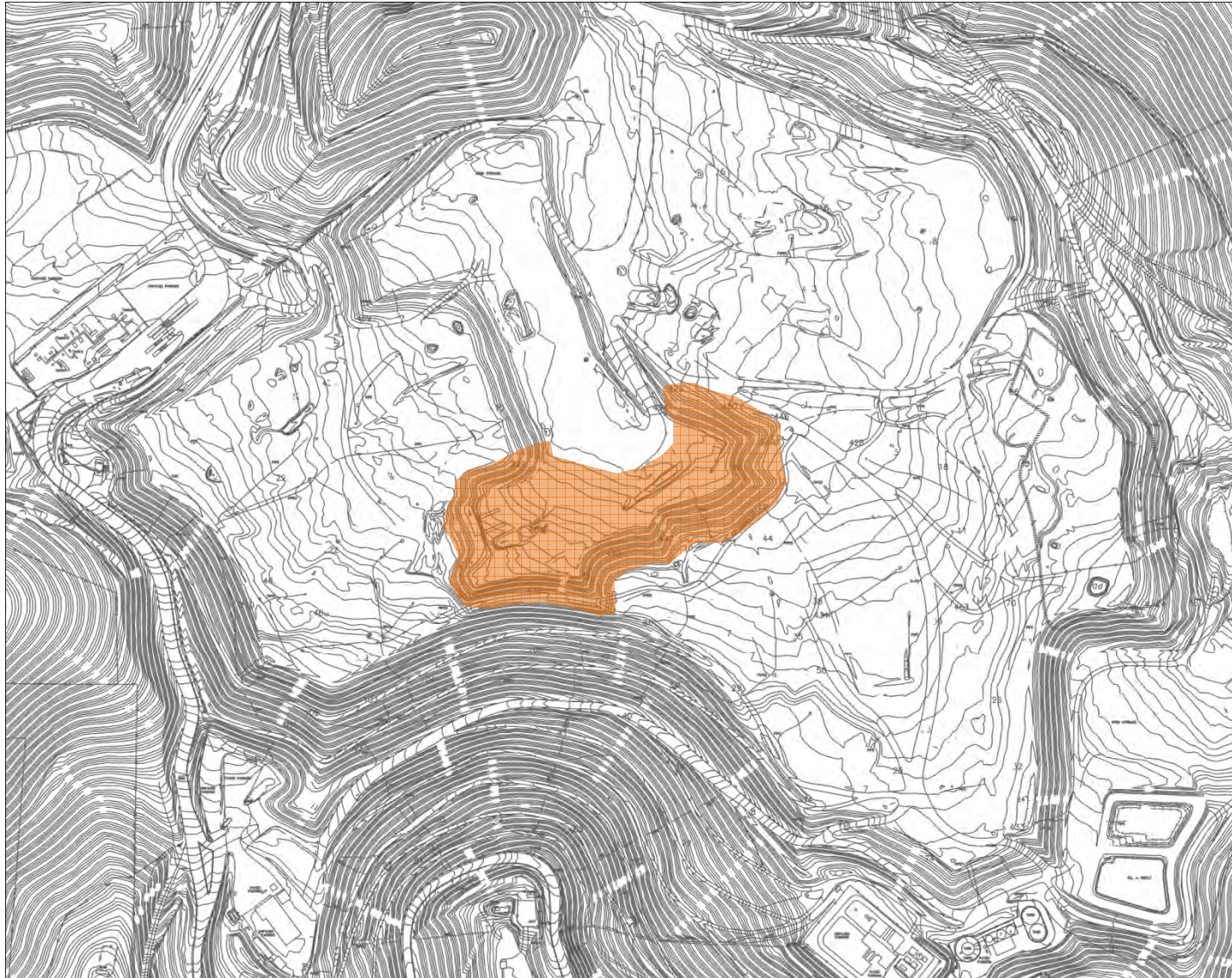
Slide 5

Jan 2010 Topo; January 2010 – June 2010 Refuse Placement



Slide 6

June 2010 Topo; January 2010 – June 2010 Refuse Placement



Slide 7

June 2010 Topography





MEMORANDUM

TO: Kelly Runyon, ESA

FROM: Jeremy Gekov, PG, Senior Staff Geologist
Dorinda Shipman, PG, CHG Senior Associate

DATE: 14 March 2011

PROJECT: Altamont Landfill (ALRRF)
Livermore, California
Project: 750477403

SUBJECT: Groundwater Analysis for Community Monitor Progress Report #7

Number of Pages: 5

Treadwell & Rollo, Inc. (Treadwell & Rollo) has reviewed hydrogeologic data for the Altamont Landfill and Resource Recovery Facility in Livermore, California (ALRRF) by performing the following task:

- Reviewed *Second Semiannual-Annual 2010 Groundwater Monitoring Report, Altamont Landfill and Resource Recovery Facility (WDR Order R5-2009-0055)*, prepared by SCS Engineers, Long Beach, California, dated January 2011.

This memorandum describes the results of the above task and provides our opinions and recommendations for the Community Monitor Committee (CMC). The report was reviewed for issues described in previous CMC meeting minutes and for potential trends in groundwater analytical data over recent years. Groundwater monitoring activities and findings, as required by the Waste Discharge Requirements (WDR), were generally found to be in compliance during the November 2010 sampling event and are discussed below organized by Five-year, Semiannual and Annual results.

Groundwater Monitoring and Quality

During November 2010, Waste Management (WM) conducted Five-year Constituent-of-Concern (COC) groundwater monitoring, in addition to semiannual and annual groundwater monitoring. Five-year COC monitoring is required by the WDR, and the last Five-year event was conducted during 2005.

The Five-year COCs include:

- Dissolved inorganics (CAM 17 metals¹ plus aluminum, iron, manganese, cyanide, and sulfide)
- Volatile Organic Compounds (VOCs) extended list
- Semivolatile Organic Compounds
- Chlorophenoxy herbicides
- Organophosphorus Compounds

¹ As defined in the California Assessment Manual for Hazardous Wastes, issued by the California Department of Toxic Substances Control in 1981.



Kelly Runyon
 ESA
 14 March 2011
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- Total Organic Carbon

All monitoring points including detection, corrective action, unsaturated zone, leachate, and surface water sampling points are required to be tested for the Five-year COC list. Samples from all monitoring points were analyzed for the Five-year COC list with the exception of storm water retention basins. No samples were collected from storm water retention basins due to lack of discharge during the Third or Fourth Quarter 2010 monitoring events. Discharge samples are planned for collection during 2011 and will be analyzed for usual annual parameters and also the Five-year COC list.

Five-Year COC Monitoring Results

Dissolved inorganics (CAM 17 metals plus aluminum, iron, manganese, cyanide, and sulfide)

Trace concentrations of cyanide were detected at several wells (E-07, E-17, E-23, MW-2A, MW-6, MW-22 and PC-1C). The concentrations are generally consistent and range between 0.0020 milligrams per liter (mg/L) to 0.0042 mg/L, and are all approximately two orders of magnitude less than the California Maximum Contaminant Level (MCL) for cyanide at 0.15 mg/L. The Second Semiannual-Annual 2010 Report states that cyanide can occur naturally in groundwater and that the consistent site wide data points to a natural occurrence of cyanide. In our review, at least one study² of background concentrations in California groundwater indicates that cyanide can occur naturally in groundwater, although it is not common.

Antimony and arsenic were detected in MW-5A at 11 micrograms per liter ($\mu\text{g/L}$) and 150 $\mu\text{g/L}$, respectively. The MCLs are 6 $\mu\text{g/L}$ for antimony and 10 $\mu\text{g/L}$ for arsenic. The 2010 Semiannual-Annual Report states that the levels in MW-5A are similar to historical concentrations, and that antimony and arsenic were detected during historical background sampling at concentrations that exceeded MCLs. These data can be found in the historical database for the site, but were not included in the report. The 2010 Semiannual-Annual report states that antimony and arsenic are natural components of soil and rock and that these metals have historically been detected in several site wells. The report also states that trace metal concentrations are generally consistent in monitoring points across the site and this supports the conclusion that metals are naturally occurring. While there are numerous detections of metals in monitoring points across the site, and metals may be naturally occurring, the concentrations of arsenic and antimony at MW-5A are between one and two orders of magnitude greater than arsenic and antimony concentrations at other groundwater monitoring wells at the site. With the exception of antimony and arsenic, historical concentrations of other dissolved metals have not exceeded MCLs in MW-5A and VOCs have not been detected historically in MW-5. Also, inorganic parameters are generally consistent with other groundwater monitoring wells at the site, with the exception of slightly greater chloride levels in MW-5A.

Arsenic concentrations exceeded MCLs in the unsaturated zone sample from VD2 (valley drain) and the leachate sample from LS2 (leachate sump). Antimony also exceeded the MCL at VD2. These concentrations are similar to concentrations from 2005.

² Hunter, P.M. and Davis, B.K., 2001. Naturally Occurring Concentrations of Inorganic Chemicals at California Air Force Bases. *The Toxicologist, Supplement to Toxicological Sciences* 60:432.



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 ESA
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Volatile organic compounds (VOCs) extended list

Volatile organic compounds are discussed in the semiannual and annual results section below.

Semivolatile Organic Compounds

No SVOCs were detected at concentrations exceeding the reporting limits³. Samples from nine wells (E-05, E-07, E-17, E-20B, E-23, MW-5A, MW-6, MW-7, and MW-11) had trace detections of bis(2-ethylhexyl)phthalate or di-n-octyl-phthalate. These two SVOCs are two types of phthalates, which are commonly used as plasticizer chemicals added to plastics or polyvinyl chloride (PVC). The concentrations of bis(2-ethylhexyl)phthalate were markedly similar and were between 2.1 µg/L and 2.7 µg/L, with one exception of 0.62 µg/L. The trace concentrations of di-n-octyl-phthalate were between 2.2 µg/L and 2.8 µg/L. Most of these samples were reanalyzed and both phthalates were not detected in all but one sample during reanalysis. Bis(2-ethylhexyl)phthalate was also detected in the laboratory method blank associated with several of the samples mentioned above. The Second Semiannual-Annual 2010 Report states that the phthalate detections are anomalous, and also offers that the results are likely a result of contact with plastics in the laboratory. We agree that the widespread and narrow range of concentrations indicate potential laboratory contamination.

The WDR groups organochlorine pesticides and polychlorinated biphenyls (PCBs) with the Five-year COC list of SVOCs. EPA Method 8270C, used for SVOCs, does not attain the lowest reporting limits for organochlorine pesticides and PCBs, so other methods (Method 8081A, and 8082) were used to analyze these COCs. Organochlorine pesticides and PCBs are discussed below.

Organophosphorus compounds, Organochlorine pesticides, and PCBs

No organophosphorus compounds were detected at any monitoring points. Leachate sump LS2 had the following concentrations of organochlorine pesticides: aldrin (0.053 µg/L), endosulfan I (0.096 µg/L), and heptachlor (0.076 µg/L). Valley drain (VD) had a trace detection of gamma-BHC (0.0085 µg/L). Gamma-BHC is commonly known as lindane, which is an organochlorine pesticide. There are no MCLs established for these organochlorine pesticides.

PCBs were not detected in any monitoring samples.

Chlorophenoxy herbicides

Unsaturated zone monitoring point VD2 contained 6 µg/L and LS2 contained 29 µg/L of dinoseb. Dinoseb is an herbicide or fungicide that was banned by the EPA in 1986.

Total Organic Carbon

Total organic carbon (TOC) concentrations in 12 groundwater monitoring wells were generally consistent and ranged between 0.23 mg/L and 2.7 mg/L. Corrective action wells E-05 and E-17 had slightly higher

³ Reporting limit is defined as the lower limit at which a laboratory can accurately detect the concentration of a specific compound, using the method specified in the permit requirement.



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 ESA
 14 March 2011
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TOC concentrations (2.6 and 2.7 mg/L), while the remaining wells averaged approximately 1.2 mg/L. In contrast, VD2 in the unsaturated zone had TOC at 39 mg/L and the leachate sample from LS2 had 420 mg/L.

Semiannual Groundwater and Annual Unsaturated Zone Sampling Results

Detection and Corrective Action Well Inorganic and VOC Concentrations

Concentrations of inorganic compounds remained stable in detection and corrective action wells during the November 2010 monitoring event, with the exception of a slight increase in Total Kjeldahl Nitrogen (TKN) in corrective action well E-05 to 5.5 mg/L, which is the highest historic concentration for well E-05.

With the exception of E-20B, no VOCs were detected above the reporting limit in any of the detection or corrective action wells. The groundwater sample from E-20B had vinyl chloride detected at 0.68 µg/L. Well E-20B is a corrective action well and verification sampling is not required. Vinyl chloride has been historically detected in well E-20B since 1999 and has been attributed to landfill gas as the source of vinyl chloride or other VOCs. Detection wells PC-1B and PC-1C are currently used to monitor for potential migration of VOCs down-gradient of E-20B. Wells PC-1B and PC-1C have not had any VOC detections since the start of monitoring in 2006, with the exception of those attributable to laboratory cross-contamination.

Unsaturated Zone Inorganic and VOC Concentrations

During 2010, VD2 had a historical high concentration of TKN at 16 mg/L. All other inorganics and VOCs at VD2 were similar to historic concentrations. Under Order No. R5-2009-0055 (2009 WDR), TKN is not a required monitoring parameter for the unsaturated zone.

During 2010, the VD sample had a trace detection (2.1 µg/L) of isopropyl ether. This was the first historical detection of isopropyl ether in VD. SCS Engineers concluded that VOCs detected at VD are likely from landfill gas and cited previous studies which identified landfill gas as the source of VOCs in VZM-A and VD2.

Concentrations of tetrahydrofuran detected in VZM-A and VD (5.6 µg/L and 7.3 µg/L, respectively) were lower during 2010 annual sampling compared to 2009 concentrations (21 µg/L in VZM-A and 11 µg/L in VD), which were the highest historical detections at the unsaturated zone monitoring points. The tertiary butyl alcohol (TBA) concentration in VZM-A was also lower (100 µg/L) in 2010 compared to 2009 (330 µg/L). Concentrations of VOCs and inorganics in unsaturated zone monitoring points will be evaluated in subsequent monitoring reports for potential increasing trends.

Leachate Inorganic Concentrations

During 2010, an annual sample was collected from LS2. A sample was not collected from LS due to limited leachate volume. The 2010 Report states sampling of LS will be attempted during the 1st Quarter 2011 monitoring event.



Kelly Runyon
ESA
14 March 2011
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LS2 had concentrations of tetrahydrofuran (82 µg/L) and TBA (1,500 µg/L) above reporting limits. The tetrahydrofuran concentration was similar to historic values, but TBA was slightly higher than the 2009 concentration. Results for all other VOCs and inorganics in LS2 were similar to previous concentrations.

Quality of Laboratory Work

Section 3.0 of the 2010 Semiannual-Annual Report summarizes laboratory and field Quality Assurance Quality Control (QA/QC) samples and results, states instances where results were outside of control limits and whether corrective action was required. No corrective actions were deemed necessary and the report concludes that all data were acceptable for their intended use. The QA/QC issues noted are not necessarily unusual for this type of project, but the detail on acceptable control limits are presented in the analytical laboratory reports found in the report appendices. It would be helpful if the QA/QC summary listed the control limits for the parameters discussed, such as relative percent difference, to give an indication of how far the results were outside these limits. For example, if a laboratory control sample and laboratory control duplicate sample have a relative percent difference that is not acceptable, how far above the acceptable range were the results? Also, the report does not provide a reference for the Quality Assurance Project Plan (QAPP) that is being followed for this work. If the CMC is concerned about this issue, they could ask Waste Management for a copy of the RWQCB-approved QAPP and to report back on whether the Regional Water Board accepted each of the statements in the report that no corrective actions were necessary. After that, if the CMC believes that additional review is needed, they could request that a third-party data validation firm review the laboratory results.

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CMC Agenda Item 6.4
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memorandum

date March 24, 2011
to ALRRF Community Monitor Committee
from Kelly Runyon
subject CMC Meeting of 4/13/11 - Agenda Item 6.4- Review of Reports from Community Monitor

Attached are our inspection reports for January and February of 2010. The March inspection occurred too late for inclusion in this packet. The January inspection was unannounced and took place on January 19, accompanying the LEA. The February inspection was announced and took place on February 24. It focused on stormwater controls.

During both inspections, all landfill operating areas were observed. Recent LEA inspection reports were reviewed on-line, and the Special Occurrences Log was reviewed in February. It described one incident involving an end-dump truck delivering auto-shredder fluff that tipped over while unloading, and an injury (a laceration requiring medical treatment) to an office worker who fell.

In preparing these reports, issues that cause concern are marked with yellow rectangles in the left-hand margins of the monthly inspection reports. For January, a very minor imbalance in the December tonnage data is noted. In February, an erosion problem above Basin B is so noted. It will continue to be observed in subsequent months. An effective repair may not be possible until the end of the rainy season, due to access difficulties while the soil is soft.

ALRRF Community Monitor Monthly Report**January 2011****Reports Received**Monthly Tonnage Report for December 2010, received January 17, 2011

Tonnage Summary:		<u>tons</u>
Disposed, By Source Location		
1.1	Tons Disposed from Within Alameda County	65,391.85
1.2	Tons Disposed from City of San Francisco TS	32,253.68
1.3	Other Out of County Disposal Tons	4,131.57
	subtotal Disposed	<u>101,777.10</u>
Disposed, By Source Type		
2.1	C&D	153.23
2.2	MSW	96,569.42
2.3	Special Wastes	5,059.68
	subtotal Disposed	<u>101,782.33</u>
	Difference Not Yet Reconciled	5.23 0.01%
Other Major Categories		
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	105.55
2.5	Revenue Generating Cover	16,944.90
	Total, 2.1 - 2.5	118,832.78
Materials of Interest		
2.3.1	Friable Asbestos	505.15
2.3.2	Class 2 Cover Soils	1,832.36
2.5.1	Auto Shredder Fluff	10,667.36
2.5.2	Processed Green Waste/MRF fines, Beneficial Use (GSET)	1,430.31

Title V air quality report, May - November 2010MMRP Annual Progress Report 2010

ALRRF Community Monitor Monthly Report**January 2011****Site Visit**Site Inspection Jan. 19, 2011, 2:30 PM to 3:45 PM

- Attended by Kelly Runyon and Wing Suen. Escorted by Enrique Perez. Unannounced.
- Observed refuse receiving, placement and compaction. One dozer pushing refuse, and one compactor spreading and compacting. Three tippers available.
- Very light refuse transfer truck traffic. Observations of fill activity were made from the back deck of a tipper for 5 to 10 minutes, without interfering with operations. The LEA noted several whole tires among the refuse that was spread for compaction.
- General public and non-transfer-truck tipping area is adjacent to the main working face.
- The cover vegetation test plots on the north side of Fill Area 1 are still in place.
- Stockpiles near working face included tire chips, treated auto shredder fluff, and clean soil.
- No green waste, or green + food waste, stockpiles seen on site.
- C&D pile was of reasonable size and had no prohibited materials visible.
- Shallow ponding near C&D pile was being repaired during this visit.
- A lengthy visit to the landfill gas plant, and discussion with the manager on site, gave the LEA and myself a more complete understanding of this aspect of operations.
- Water storage pond continues to hold water for use when raw water supply is not available.
- The wire fencing around the asbestos area was being repaired.

Truck Count, January 11, 2011, 6:45 - 8:45 AM

- Maximum number refuse trucks in one hour: 25, from 7:17 to 8:16 A.M.

Stormwater Controls and Best Management Practices

- Ditches and drains show no sign of clogging. East side silt sumps appear clean.
- Some erosion had previously occurred on side slopes near the southwest corner of the landfill top deck. This was partially repaired but repair was limited by continuing wet weather. A pipe has been installed to provide a downdrain from that area.
- Basin A water level was below discharge and its banks were clean. Basin B was above the base of the discharge cowling ("mushroom head") but below the high water line. Basin C was not observed. At Basins A and B, the banks were generally clean.

Observation of Environmental Controls

- Intermittent, fresh litter was seen along the shoulders of Altamont Pass Road, from Cooper Road to Dyer Road and again near the site entrance.
- Litter fences generally were in good repair and reasonably clean.
- Litter cleanup appears to be keeping pace with the large amount of windblown material that continues to accumulate east of the east edge of Fill Area 1.
- Seagulls were active near the working face. The bird cannon did not appear to be operating. Other bird-detering noisemakers are currently in short supply.
- LNG plant appeared to be operating; its flare (A-16) was operating. Both IC engines were running. Both turbines were operating but the flare at the turbine house was not.
- The small secondary pond for truck wash water is in good repair and apparently has not been used. It has accumulated a foot or two of rainwater.

ALRRF Community Monitor Monthly Report**February 2011****Reports Received**Monthly Tonnage Report for January 2010, received February 11, 2011

Tonnage Summary:		<u>tons</u>	
Disposed, By Source Location			
1.1	Tons Disposed from Within Alameda County	59,212.40	
1.2	Tons Disposed from City of San Francisco TS	29,453.76	
1.3	Other Out of County Disposal Tons	<u>1,059.91</u>	
	subtotal Disposed	89,726.07	
Disposed, By Source Type			
2.1	C&D	246.44	
2.2	MSW	87,721.41	
2.3	Special Wastes	<u>1,758.22</u>	
	subtotal Disposed	89,726.07	
	Difference Not Yet Reconciled	0.00	0.00%
Other Major Categories			
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	3.49	
2.5	Revenue Generating Cover	25,672.37	
	Total, 2.1 - 2.5	115,401.93	
Materials of Interest			
2.3.1	Friable Asbestos	446.20	
2.3.2	Class 2 Cover Soils	4,828.32	
2.5.1	Auto Shredder Fluff	17,488.14	
2.5.2	Processed Green Waste/MRF fines, Beneficial Use (GSET)	1,124.88	

Second Semiannual - Annual Groundwater Monitoring Report, 2010

ALRRF Community Monitor Monthly Report**February 2011****Site Visit**Site Inspection Feb. 24, 2011, 9:00 to 10:15 AM

- Attended by Kelly Runyon. Escorted by Enrique Perez. Announced.
- Observed refuse receiving, placement and compaction. One dozer pushing refuse, and one compactor spreading and compacting. Three tippers available. General public tipping area is alongside tippers. Fill is progressing southwestward, toward scale house.
- Auto fluff piled at base of fill (for later use as cover) has fragments of car parts visible: hoses, cables etc.
- Refuse transfer truck traffic was light; trucks were being tipped immediately upon arrival.
- Main road is not deteriorating as quickly as I expected, between scales and entry to top deck.
- Did not observe asbestos area, but heard about two deliveries, over Enrique's radio.
- No green waste, or green + food waste, stockpiles seen on site.
- C&D pile was normal size and had no prohibited materials visible.
- Water storage pond still holds water, has about 3 feet of freeboard .
- Solidification area not active. Material is ready but an excavator is not present to mix it.

Stormwater Controls and Best Management Practices

- Most ditches and drains clean; one segment needs tumbleweeds removed.
- Basin A water level was about 18" below base of mushroom head. Banks were clean. Some windblown plastic in low area near pond inlet. Basin B was above the base of the mushroom head but a few inches below the high water line. Basin C water very close to discharge level. Riser is tilted, may need repair. Minor amount of litter along south bank.
- Above Basin B, the discharge from the v-ditch to the north is causing erosion downslope from the end of the ditch, both below and above the K-rail that was placed at the end of the ditch to direct flow southward onto the rocks that are intended to control erosion. This area will need repair, if not immediately then at the end of the rainy season.
- Also some erosion along south side of large boulders near Basin B inlet.

Observation of Environmental Controls

- Scattered litter visible on Altamont Pass Road from Dyer to the site.
- Litter fences generally were in good repair.
- Fresh windblown litter visible to Basin B and a little beyond, but not so much in the distance.
- Bird scare guns in use. Fewer gulls than in past few months; most flying high above site.
- LNG plant appeared to be operating; its flare (A-16) was operating. Both IC engines were running. Both turbines were operating but the flare at the turbine house was not.
- The small secondary pond for truck wash water is in good repair and appears to have been used. Water several feet deep.

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CMC Agenda Item 6.5
www.esassoc.com

memorandum

date March 24, 2010
to ALRRF Community Monitor Committee
from Kelly Runyon
subject CMC Meeting of 4/13/11 - Agenda Item 6.5 - Annual Report

This report has been finalized based on Community Monitor Committee members' comments during the January 12, 2011 meeting. No additional comments were received after that time.

In finalizing the document, the primary change was the addition of a discussion of the effects of AB32 in relation to requirements placed on the Altamont Landfill. This is in the second bullet point on page 1-3 of the report.

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ALRRF COMMUNITY MONITOR ANNUAL REPORT 2010

Prepared for
ALRRF Community Monitor Committee

January 12, 2010

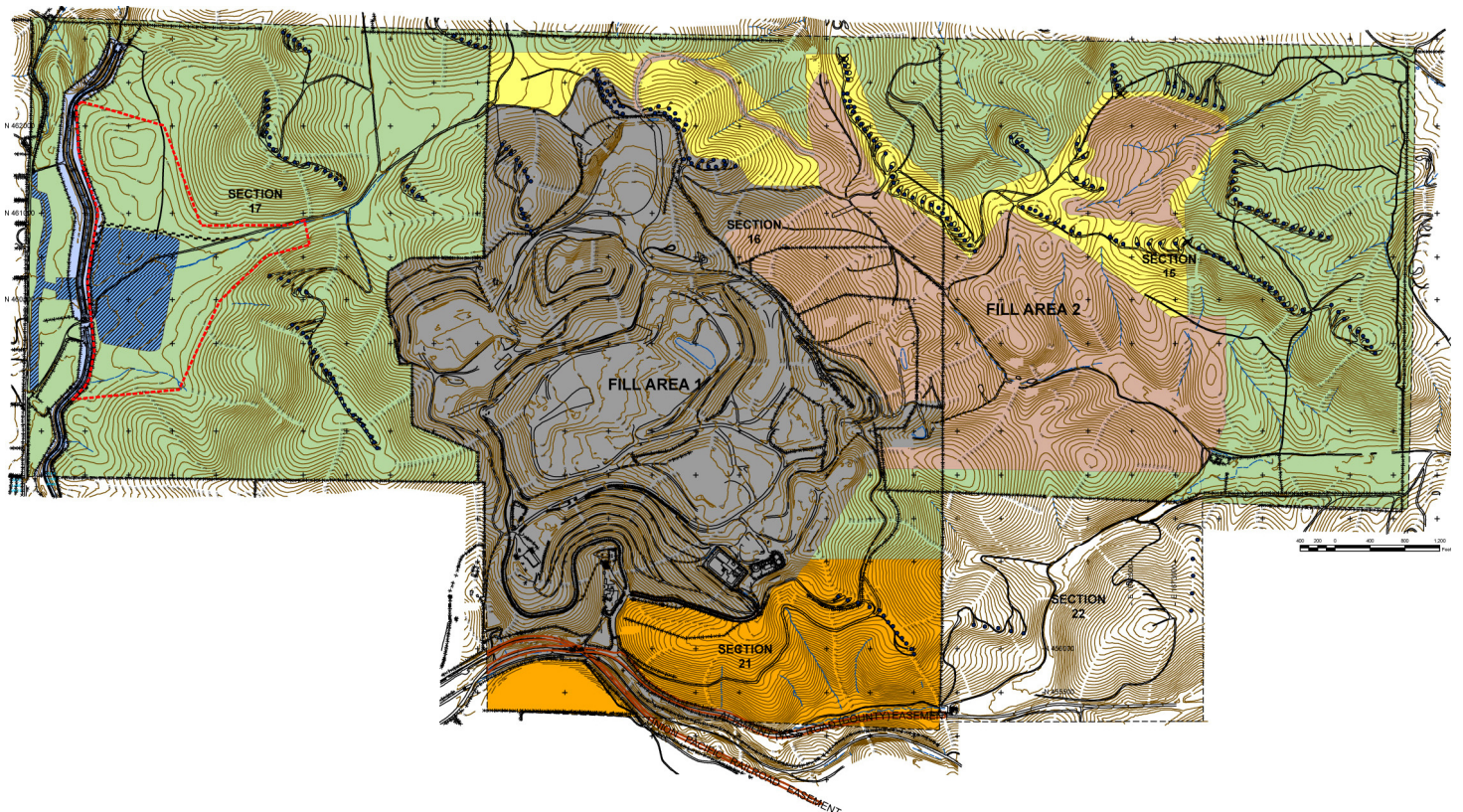


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SECTION 1

Introduction

1.1 Settlement Agreement

In December 1999, a Settlement Agreement was reached among parties involved in a lawsuit regarding the proposed expansion of the Altamont Landfill and Resource Recovery Facility (ALRRF). The Settlement Agreement established the Community Monitor Committee (CMC) and a funding mechanism for a technical consultant, referred to as the Community Monitor (CM).

The CM's scope of work is defined in a contract between the CM and the CMC, but the Settlement Agreement also defines the purview of the CMC and the CM. In broad terms, the CM is to review certain reports and information, as defined; monitor incoming traffic by conducting truck counts, as described in the Settlement Agreement; and inspect the ALRRF site no more than once a month.

The Settlement Agreement also requires that the ALRRF operator, Waste Management of Alameda County (WMAC), pay invoices submitted by the CM to the CMC, if the work represented in those invoices is consistent with the CM's scope of work and the CM role as defined in the Settlement Agreement.

The City of Livermore provides staff and administrative support to the CMC, as well as management of the CM contract and space for CMC meetings. The City also acts as financial agent for the CMC, pursuant to a letter agreement dated July 6, 2004.

1.2 Prior Community Monitor Work

Available records indicate that the CMC retained a technical consultant as the CM from 2005 through 2007.

In mid 2007, the CMC selected the current CM team of Environmental Science Associates and Treadwell & Rollo. This team began work in February 2008. In 2008 and 2009, report reviews, reviews of Class 2 soil analysis files, and site inspections were carried out as intended. In 2008, the primary issue of concern was the rate at which groundwater monitoring wells were purged during sampling. This was resolved satisfactorily. In 2009, the CM team took a close look at the methodology used by ALRRF and its consultants to track variations in groundwater quality. No issues or areas of concern arose as a result of this effort; the team was satisfied that the method conforms to regulatory requirements and is conservative.

1.3 Overview of Operations, Regulations and Permits

Like most large landfills throughout California, the ALRRF performs a variety of functions that support the region's management of solid wastes. These functions continue to grow and evolve as increasing emphasis is placed on reducing and recovering wastes, but the primary function of the site continues to be the safe disposal of solid wastes by placing, compacting and covering these materials. Federal, State and local regulations require that:

- Wastes are covered to control litter, prevent fire, and prevent the spread of disease.
- Wastes are placed and compacted to be physically stable.
- A liner and liquid recovery system prevent groundwater contamination by leachate.
- Landfill gas is controlled by an extraction system.
- Emissions from energy systems (diesel engines and landfill gas systems) are controlled.
- Other air pollutants and nuisances (dust, odor, litter, etc.) are prevented.
- Stormwater erosion is controlled and stormwater runoff is tested for pollutants.

Compliance with these requirements protects the environment and public health, and it also presents opportunities to develop and support innovative methods for improved waste management. Currently, such activities on the ALRRF include:

- using landfill gas to produce electricity and a liquid fuel (LNG);
- stockpiling and processing materials for beneficial use on site, such as using waste concrete for wet-weather roads and access pads;
- using contaminated soils and other wastes (biosolids, treated auto shredder fluff) as cover material, as permitted;
- stockpiling construction and demolition materials for processing elsewhere; and
- hosting site visits, by prior arrangement, for public education.

The ALRRF property covers more than three square miles. Within that area, the portion that is delineated as landfill is divided into Fill Area 1 (currently active) and Fill Area 2 (anticipated to be developed in the near future). The active parts of Fill Area 1 cover approximately 211 acres.

Lands surrounding the active area are managed primarily as grazing land, with portions leased for wind energy. These surrounding lands also provide habitat for several special status species. The active area will be supplemented by the expansion area (Fill Area 2) in the near future. In 2010, the last major permits for the development of Fill Area 2 were obtained. Construction of Fill Area 2 may begin in 2011, although the need for Fill Area 2 may be less immediate if disposed tonnage continues to diminish and proposed design revisions of the final contour of Fill Area 1 are approved.

1.3.1 Industry Trends

Long-term disposal options for the counties surrounding Alameda County are subject to change, as various disposal sites in the region seek to expand but are faced with uncertain time frames for expansion. Trends in the landfill disposal industry within the greater Bay Area have affected, and will continue to affect, operations and future developments at the ALRRF:

- The recession, and ongoing efforts to reduce waste and increase recycling, have contributed to a downward trend in disposal tonnages.
- There are no new landfill sites currently in development in the region, and several sites (West Contra Costa, Sonoma County, Tri-Cities) have closed in recent years or are in the process of closing. Several sites (Redwood Landfill, Potrero Hills and Keller Canyon)

- are attempting to expand the daily volume and/or total volume that they may accept, but these expansions are being challenged and the outcome is uncertain.
- Another trend in the industry, long-distance rail-haul of refuse, will likely have an effect on the ALRRF site in the future. In 2010, of the approximately 1.04 million tons of refuse disposed at the ALRRF, 37% originated in San Francisco, under a contract that expires when the total delivered tonnage reaches 15 million tons. This is currently projected to occur as soon as 2014 or 2015. The City is in the process of negotiating for the subsequent rail haul of its wastes to Ostrom Road Landfill, in Yuba County. It appears possible that San Francisco refuse will cease to be delivered to the ALRRF in 2014 or 2015.
 - AB32, the California Global Warming Solutions Act of 2006, has led the California Air Resources Board to develop regulatory requirements that affect landfills in several distinct ways, depending on their size and their closure status. For the ALRRF, the only direct effect of AB32 has been to modify the requirements related to surface emission monitoring to detect escaping landfill gas. The new statewide regulations are more stringent than previous BAAQMD requirements; this will impact the cost of surface emissions monitoring. AB32 also imposes a broader requirement statewide, for mandatory commercial recycling. This has implications for the ALRRF in terms of (a) the potential for reduced refuse tonnage in the future, and (b) the possible need for MRF capacity to process more commercial recyclables.

1.3.2 Site-Specific Constraints and Opportunities

The Settlement Agreement added new conditions to the Use Permit for the ALRRF. Solid wastes from out-of-county sources are strictly limited to those covered by existing disposal agreements. During peak traffic hours, the number of refuse trucks entering the landfill is limited. Numerous conditions intended to protect natural resources on the ALRRF property were imposed. Also, the size of the future expansion area was limited to 40 million tons of capacity, with a footprint of approximately 250 acres. In addition to Use Permit conditions, the Settlement Agreement establishes the CMC and the CM role, as described above; and it sets up mitigation funding related to the landfill expansion.

The physical setting of the ALRRF site also presents certain constraints and opportunities. Hilly terrain and high winds require constant attention to windblown litter, especially film plastic bags and foam plastic packaging. Proximity to the South Bay Aqueduct has led to the recent eminent-domain condemnation of a portion of the landfill property, for use as a reservoir, by the California Department of Water Resources; and this has complicated the ALRRF's efforts to comply with a Use Permit requirement for 750 acres to be set aside for biological habitat mitigation and buffer area.

Local policies and needs are likely to result in further changes. The Alameda County Waste Management Authority and Recycling Board goal of 75% waste diversion by 2010 is continuing to decrease waste flows into the ALRRF, most recently through a ban on plant debris disposal enacted by the ACWMA. That agency is also promoting efforts in many local jurisdictions to divert more organic refuse, including food scraps, into composting processes rather than landfill disposal.

A variety of other recent site-related developments may be viewed as constraints, opportunities, or (in some cases) both:

- The last major permit package for the construction and operation of Fill Area 2, involving biological and wetland mitigations, was completed in 2010, and the Conservation Plan Area and related mitigation areas were defined.
- Construction of a reservoir by the California Department of Water Resources on the western side of the property began in earnest and continued throughout 2010.
- A landfill gas (LFG) to liquefied-natural-gas (LNG) plant has been constructed at the site and is in operation, reducing greenhouse gas emissions while helping to control landfill gas.
- The volume of refuse delivered to the site declined sharply soon after the current recession began in late 2008, and it is continuing to decline, presumably due to a decrease in business activity and consumer purchasing.

SECTION 2

Community Monitor Activities and Issues

2.1 Introduction

Under the terms of the Settlement Agreement, when the ALRRF is in compliance with operating requirements the Community Monitor (CM) has three ongoing duties:

- Review reports, data and information related to the ALRRF's reports that are required to be submitted to regulatory agencies
- Conduct monthly inspections of the ALRRF facility
- Review the records of testing and acceptance of "Class 2 soils", i.e. soils known to come from a contaminated site.

Throughout the year 2010, the CM was active in each of these areas, as described in Sections 2.3 through 2.6 below.

2.1.1 Operational Improvements and Changes

Through report reviews and site visits, several new developments in ALRRF facilities and operations in 2010 became apparent:

- The plant debris ban enacted by the Alameda County Waste Management Authority took effect, eliminating plant debris as a source of Alternative Daily Cover.
- The on-site wastewater treatment plant ceased to operate and was "mothballed."
- The LNG plant and its associated flare began operations.
- Numerous additional landfill gas wells were brought on line in two rounds of installation. The first round was completed in early 2010 and the second round occurred in late summer of 2010.
- A new set of perimeter probes for landfill gas, required by new State regulations, were installed along the perimeter of the combined Fill Areas 1 and 2.
- One of these probes indicated a high level of landfill gas at the perimeter, requiring remediation. When existing gas wells could not correct the problem, a string of four new wells was installed near that probe to intercept migrating gas. This appears to have been successful.
- A previously-unused pond on the site was brought into service to store raw water, because direct access to raw water from a local canal was temporarily suspended due to construction and/or repair.
- A small secondary storage basin was constructed to hold wet-weather overflow from the truck wash water clarifier.
- More intensive and frequent monitoring and cleaning of stormwater basins A, B and C was begun.

- Additional stormwater pollution-control Best Management Practices (BMP's) were installed in an effort to reduce the presence of contaminants in storm water.
- Daily cover was applied more frequently in an effort to reduce the spread of litter.
- The use of treated auto shredder fluff as daily cover was increased, to offset the loss of plant debris as a cover material (due to the plant debris landfill ban).

2.2 Compliance

The Settlement Agreement describes the CM's Scope of Work to include "issuing a written report each year summarizing the ALRRF's compliance record for the period since the last such report with respect to all applicable environmental laws and regulations." This Annual Report provides that summary. In 2008 and 2009 there were no violations or substantial out-of-compliance conditions to report.

However, in 2010, the continuing presence of high levels of landfill gas at one of the newly-installed perimeter probes led to the recording of a Violation in the Local Enforcement Agency's inspection reports, from January 11 through May 20, 2010. The May 27 inspection report states that the problem was remediated and "... Compliance ... has been achieved." It should be noted that throughout this period, the ALRRF was making efforts to solve this problem, first by using existing gas wells, then by installing four new wells designed to intercept gas near the perimeter where the probe is located.

2.3 Review of Reports

2.3.1 Semiannual Groundwater Monitoring Reports

Two groundwater monitoring reports were reviewed in 2010. The first covered the time frame from July through December of 2009; the second, January through June of 2010. Both reports reflect revised Waste Discharge Requirements issued by the Central Valley Regional Water Quality Control Board that took effect in April of 2009.

In 2010, groundwater monitoring and sampling activities at the ALRRF were performed by SCS Engineers, with testing conducted by TestAmerica, Inc. Treadwell & Rollo, Inc. reviewed the two semi-annual groundwater monitoring reports and prepared memoranda to summarize their review comments.

Groundwater monitoring activities and analytical results for the ALRRF were in compliance with the groundwater sampling plan and WDRs. Specific issues identified by Treadwell & Rollo during 2010 included:

- First occurrences of two uncommon contaminants at well E-23, in extremely low (parts-per-billion) concentrations,
- Difficulties with apparent laboratory contamination of some samples, and
- Variations in concentrations of some organic and inorganic constituents at various monitoring wells.

2.3.2 Annual Mitigation Status Report

This report, covering calendar year 2009, was received in March 2010. It is a table that lists each of the conditions described in the current Conditional Use Permit (CUP), followed by a description of the implementation status of that condition or mitigation.

We found that the status descriptions accurately reflected the current status of each mitigation measure.

2.3.3 Semiannual Title V Report

Title V is one of several programs authorized by the U. S. Congress in the 1990 Amendments to the federal Clean Air Act (CAA). The Bay Area Air Quality Management District (BAAQMD) administers Title V requirements for the ALRRF. Title V operating permits include the requirements of all regulations that apply to operations. Hence, the Title V reports provide a comprehensive review of compliance with BAAQMD permits and regulations.

In 2010, we received the Title V reports for the periods June – November 2009, and December 2009 – May 2010. These reports largely consist of routine documentation of landfill gas control operations and source testing, but they also document new or unique developments at the site that can have an effect on air emissions. In 2010 there were several such developments:

- Approximately 25 new landfill gas wells were installed and placed into service. We updated our schematic diagram and illustration of the locations of these wells. These were part of the July 2010 CMC Agenda packet.
- The substantial number of surface emissions exceedances in August 2009 led to the preparation by the CM of a detailed description of the requirements of existing and new regulations with respect to this issue, for the CMC.
- The LNG plant was placed into service in August, 2009 and has continued to operate, gradually increasing its production rate.

As part of our review we updated a stacked-bar chart showing the day-by-day consumption of landfill gas by each of the major pieces of LFG control equipment. That bar chart was included in the March 2010 and September 2010 CMC Agenda packets.

2.3.4 Monthly Tonnage Reports

Each month the ALRRF provides a report to County Planning and other interested parties, providing several tables detailing the quantities of materials received in that month. The most recent 12 reports cover December 2009 through November 2010. All of these reports indicate compliance with the requirements of permits and the Settlement Agreement. In addition, the following points were noted:

- Refuse tonnages were well below EIR / CUP limits. They exhibited a decreasing trend throughout the year, except for the increase in July 2010 when Tri-Cities refuse began to be received.
- The monthly quantities of special wastes, particularly Class 2 cover soil, and biosolids, varied widely. Biosolids in particular continued to show wide variation, compared to 2009.
- Monthly tonnages of Class 2 cover soil showed a wide variation from month to month throughout the 12-month period.

2.3.5 Storm Water Annual Report, 2009-2010

This report provided a record of stormwater monitoring that took place during the most recent “water year”, from July 1, 2009 through June 30, 2010. It includes results from the water quality sampling that is required when there are discharges from the three stormwater detention basins (denoted A, B and C) to local drainages. In the first storm event with discharges (October 2009), all three basins discharged and were sampled. In the second event for which sampling was required, only basins B and C discharged and were sampled.

Testing found slightly elevated concentrations (above benchmark values) for zinc, total suspended solids, nitrate, and iron in Basins B and C, and slightly elevated iron levels in Basin A. Best Management Practices were augmented in 2010, in an effort to reduce these concentrations.

2.3.6 Remediation of Landfill Gas (Methane) Exceedances

Section 2.1.1 of this report mentions an exceedance of the regulatory threshold for landfill gas at one of the newly installed perimeter probes, and the ALRRF’s efforts to correct that problem. In conjunction with this issue, we reviewed copies of emails provided by ALRRF, showing their communication with CalRecycle and the LEA. The issue was satisfactorily resolved in May of 2010.

2.3.7 Summary

In our review of received reports, we indicated the need to continue to closely track changes in the concentrations of contaminants in groundwater. In general, our reviews to date have found no indication of non-compliance.

2.4 Five-Year Permit Review

The five-year permit review process began in the spring of 2010. The ALRRF submitted a partial draft revised Joint Technical Document (JTD) to the LEA, CalRecycle and the Regional Water Board in April, with a final, complete version submitted in mid June. Various features of the design and operation of Fill Areas 1 and 2, as detailed in the JTD, were reviewed with the Community Monitor Committee in the July 14 meeting. The perceived potential for increased truck traffic related to future composting and material recovery operations was an area of particular concern for Committee members. However, the permitting for those facilities would be a separate process, to take place at a later time.

Ultimately, the LEA determined that the changes to the JTD did not require a permit revision, so the public-input process that is anticipated in the Settlement Agreement will not be taking place in connection with this permit review.

2.5 Site Inspections

Twelve on-site inspections were held during 2010. To obtain the best possible understanding of the range of operating conditions, the inspection day and time, and certain other aspects of these inspections, were varied as shown in the table below.

Table 2-1
Site Inspection Summary

Date	Day of Week	Inspection Time	Announced In Advance?	With LEA staff?	Topic Emphasized
Jan 20	Weds	9 AM	yes	no	Stormwater; Plant debris
Feb 25	Thurs	9 AM	yes	no	Refuse handling
Mar 31	Weds	2 PM	yes	no	Stormwater management
Apr 14	Weds	5 AM	yes	no	Refuse handling; truck traffic
May 20	Thurs	10 AM	no	yes	Stormwater basins
Jun 23	Weds	4 AM	yes	no	Fill areas; truck traffic
Jul 9	Fri	10 AM	yes	no	Litter; refuse placement
Aug 18	Weds	3 PM	no	yes	General operations
Sep 8	Weds	7 PM	yes	no	Truck traffic & queuing
Oct 15	Fri	9 AM	yes	no	Stormwater management prep
Nov 30	Tues	1 PM	yes	no	Stormwater system status
Dec 10	Fri	1 PM	no	no	Refuse, litter, birds, ponds

In general, satisfactory conditions were observed, and minor problems were rectified prior to the next inspection. There were no observed problems regarding refuse placement, public safety or traffic management. Throughout these inspections, staff and management were forthcoming regarding operating practices and current conditions. Distinct operations, such as the stockpiling and processing of specific materials, took place in well defined areas. No instances of unpermitted activities were noted.

This year our observations have been focused on:

- Windblown litter, primarily plastic bags, carried onto lands (within the landfill property) east of the site
- The installation and performance of stormwater Best Management Practices
- Compliance with the Plant Debris Ban
- Operations of landfill gas control equipment
- The performance of new components including the “drop and hook” area, the mulch bunkers, the raw water pond and the secondary basin for the truck wash
- General observations of fill activities, including spreading, compaction and traffic control during normal and off-hours operations
- The usage of space to store equipment and material on site

The Scope of Work for the Community Monitor specifies that at least three inspections will be performed off hours, and that approximately four to six are to be performed jointly with the LEA. As shown in the table above, three off-hour and two joint inspections were conducted in 2010.

One aspect of each inspection is to review inspection reports filed by the Local Enforcement Agency. In 2010 the LEA reports made note of one violation (high landfill gas concentrations, described above) and several Areas of Concern:

- Windblown litter
- Litter visible on Altamont Pass Road
- Adequacy of daily cover (one instance, promptly rectified)
- Protection of the asbestos fill area from refuse fill operations when in close proximity
- Maintaining load-checking records and training

We also review the Log of Special Occurrences during inspections. In 2010, there were minimal incidents of end-dump trucks overturning while unloading. One small, localized fire occurred and was quickly extinguished by on-site staff. Also, a refuse transfer truck parked near the scale house began to roll while unattended and collided with a structure near the scales; there were no injuries.

In addition to the on-site inspections, counts of arriving refuse trucks were conducted semiannually by the CM in January and July of 2010. These counts continued to be far below the limit stipulated in the CUP.

2.6 Class 2 Soils File Review

The ALRRF is permitted to accept Special Wastes that include soils from sites known to be contaminated, if a waste profile and applicable laboratory reports indicate that these soils comply with the landfill's Waste Acceptance Criteria. The profile information is kept on file in the administration offices of the landfill. These soils are generally referred to as Class 2 Cover Soils.

Treadwell & Rollo conducted file reviews to verify that Class 2 Cover Soil profiles for soils received in 2010 follow Waste Acceptance Criteria as defined in the Regional Water Control Board order governing the ALRRF. Treadwell & Rollo conducted two Class 2 Cover Soil file reviews, in April and August of 2010. A third review, originally scheduled for December, has been postponed until January 2011 because of scheduling conflicts. Treadwell & Rollo personnel reviewed a total of 88 Class 2 Cover Soil files in 2010. All of those files were found to be complete and correct.

Based upon file reviews completed in 2010, ALRRF is following Waste Acceptance Criteria as defined in the Regional Water Control Board order governing the Site. Treadwell & Rollo will continue to conduct quarterly file reviews during 2011. The frequency of review events may be adjusted depending on the number of new profiles approved for disposal at ALRRF.

SECTION 3

Looking Ahead: Anticipated Efforts and Issues

3.1 Introduction

In the 2011 contract year, our efforts will continue to focus on report review, site inspections and Class 2 soils file review. However, there may be a change of emphasis if the ALRRF begins the development of Fill Area 2. If that occurs, we also expect to spend time reviewing submitted plans for Fill Area 2.

3.2 Issues to be Tracked in 2011

3.2.1 Report Review Work

With regard to report review, the following issues will continue to be monitored in the coming year:

- Groundwater monitoring methods.
- Groundwater quality, including the vadose zone.
- Stormwater quality and management practices.
- Performance of new gas probe network and LNG plant.
- Additional changes to the landfill gas extraction system.
- Surface emissions monitoring under new regulations.

3.2.2 Site Inspection Work

With regard to site inspections, all operations will continue to be observed, and the following areas will receive emphasis.

3.2.2.1 Landfill Gas Control System

Performance of this system is closely related to groundwater quality, and it takes place within a complex regulatory framework involving Federal permits, local permits, new State regulations, and ALRRF CUP conditions. Physical changes to this system will include the further addition of landfill gas extraction wells and ongoing operation of the LNG plant.

3.2.2.2 Stormwater Controls and Monitoring

During wet weather months we will monitor conditions at all stormwater basins.

3.2.2.3 Windblown Litter

This will be an issue as filling continues in Fill Area 1, which is generally higher than its immediate surroundings and subject to strong winds through much of the year.

3.2.2.4 Fill Area 2

If physical preparations or development occur in Fill Area 2, we will ask to observe these operations.

3.2.3 Class 2 Soils File Review

As noted above, we intend to continue our review in January 2011, and at several other times through the year.

3.3 Project Management Considerations

The budget for the CM in the 2010 contract year has been adequate and has enabled us to focus closely on several areas, including the five-year permit review and Class 2 soils file review. Budget should be adequate for work load in 2011, but the development of Fill Area 2 (if it occurs) could require some extra care in managing time and prioritizing work to stay within budget.

The shift from bimonthly to quarterly meetings of the Community Monitor Committee will reduce the number of meetings attended from 6 per year to 4 but is not otherwise expected to have a material effect on the work load and budget for the Community Monitor. Due to the semiannual reporting cycles for air and water related issues, the April and November meetings are likely to be more intensive than the January and July meetings.