

ALRRF COMMUNITY MONITOR ANNUAL REPORT 2014

Prepared for
ALRRF Community Monitor Committee

January 6, 2014



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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 Settlement Agreement defines the purview of the CMC and the CM. The CM's scope of work is further defined in a contract between the CM and the CMC. 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.

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 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 for 2014.

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.

1.2 Prior Community Monitor Work

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

In mid 2007, the CMC selected the current CM team of Environmental Science Associates and Treadwell & Rollo (now Langan Treadwell Rollo). This team began work in February 2008. From 2008 through 2014, the team has carried out report reviews, Class 2 soil analysis file review, and site inspections as intended. In 2008, the primary 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 areas of concern were identified. In 2010, landfill gas perimeter probes were installed to comply with new regulations, and one of those probes detected landfill gas at levels that exceeded regulatory limits. This was abated by installing

several gas extraction wells close to those probes. In 2011, fine material¹ from the Davis Street Material Recovery Facility (MRF), used as Alternative Daily Cover, was beginning to include some municipal solid waste materials, such as plastics from consumer goods. Ultimately, the use of this material was approved by the LEA through a special study of its performance in 2013. Two ongoing problems, windblown litter and seagull activity, worsened in 2012; and while the gull problem has varied seasonally, the litter problem has continued as Fill Area 1 approaches its maximum permitted elevation. Other issues from 2012, 2013 and 2014 are described below in Section 2.3, Compliance and Significant Incidents.

1.3 Regional Context

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:

- Although populations and economic activity have increased in the Bay Area in the past few years, the average quantity of refuse brought to the ALRRF declined slightly during 2014. It appears that ongoing efforts to reduce waste and increase recycling have offset any upward trend in disposal tonnages.
- There are no new landfill sites currently in development in the region. However, on a regional basis there appears to be adequate capacity for refuse disposal in the short to medium term, at least through the year 2035².
- Three efforts that would affect disposal capacity for the region are in progress, but their outcome continues to be uncertain.
 - The City of San Francisco and its refuse collection service provider, Recology, are working to obtain permission for the rail haul of San Francisco wastes to Recology's Ostrom Road Landfill in Yuba County. A draft EIR for this activity is in preparation, and a final decision on this issue is expected in 2015.³ In case of a delay in that approval, San Francisco is also seeking approval to haul its refuse to Recology's Hay Road Landfill, near Vacaville, by truck beginning in 2015. Either of these alternatives would reduce the inbound refuse tonnage to the ALRRF by roughly 30 percent.
 - The proposed Potrero Hills Landfill expansion in Solano County came a step closer to approval when, in April 2014, the State Court of Appeal overruled a lower court's denial of a landfill expansion permit from the Bay Conservation and Development Commission. In Late July, the State Supreme Court declined to review that decision. Hence, it appears likely that this landfill will expand.
 - Redwood Landfill near Novato faced opposition to the adoption of the mitigated alternative in its Environmental Impact Report for its planned expansion. A court ruling set aside the EIR and the associated solid waste facility permit. The County appealed this decision, and the California Court of Appeal, First District, overturned it; however, this decision is being appealed to the State Supreme Court. At this time (late 2014) the facility's permits remain in effect and it continues to operate.

¹ MRF fines: Fine material produced by waste sorting systems that recover materials from dry wastes and wastes self-hauled to the Davis Street Transfer Station.

² This estimate is based on a simple and conservative set of calculations assuming steady growth in population, no increase in diversion, the continued delivery of San Francisco refuse to the ALRRF, and the ability for some regional disposal sites to receive all materials when other facilities reach their present capacity.

³ The March 2013 Notice of Preparation for the Draft EIR for the Rail and Permit Amendment Project stated that 2015 is the likely time frame for the completion of environmental review.

1.4 Site-Specific Constraints and Opportunities

The Settlement Agreement added constraints on operations, by adding 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. Various 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 establishes 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. In 2014, the windblown-litter problem continued due to the increased exposure of the working face to wind as Fill Area 1 nears completion. However, the earthwork for Fill Area 2 has continued throughout 2014 and this lower, less windy area may begin to receive refuse in 2015. At that point the litter problem is expected to greatly diminish, because landfill activity will be taking place within canyons at lower elevations, rather than on hilltops.

1.5 Overview of Operations, Regulations and Permits

1.5.1 Operational Functions and Requirements

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 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 at the ALRRF:

- Wastes are covered to control litter, prevent fire, and prevent the spread of disease.
- Wastes are placed and compacted to be physically stable.
- Plant debris is not to be disposed; if received, it must be separated and reclaimed by composting or other methods. Currently it is back-hauled to the Davis Street facility for processing and eventual use as compost or biomass fuel.
- A liner and liquid recovery system prevent groundwater contamination by leachate.
- Landfill gas is controlled by an extraction system. Currently the gas is used to produce fuel (LNG/CNG) and electrical energy.
- Emissions from combustion and processing (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 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 fuel (LNG/CNG);

- stockpiling and processing materials for beneficial use on site, such as using waste concrete for wet-weather roads and access pads;
- blending liquids and dry fine materials to make a soil-like product that can be landfilled;
- using contaminated soils and other wastes (biosolids, shredded tires, MRF fines, treated auto shredder fluff, etc.) as cover material, as permitted;
- stockpiling construction and demolition (C&D) materials and scrap metal for processing elsewhere;
- providing an area for the separation of plant debris from other wastes, to avoid landfilling plant debris; 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 (currently being constructed). The active parts of Fill Area 1 cover approximately 211 acres. Fill Area 1 also includes an Asbestos-Containing Waste landfill operation which occupies several acres within the Fill Area 1 footprint.

Lands surrounding the active area are managed primarily as grazing land, with portions leased for wind energy. These surrounding lands also provide suitable habitat for several special status species. Design revisions in 2010 for the final shape of Fill Area 1 increased its capacity, further increasing its expected lifetime.

Much of the work done by the Community Monitor involves the review of data and reports produced by, or required of, the ALRRF. This is largely driven by the requirements of regulatory and permitting agencies, as described below.

1.5.1.1 Water

In California, the State Water Resources Control Board and its Regional Water Quality Control Boards (RWQCBs) protect groundwater and surface water resources through laws, regulations and permit requirements. Because the ALRRF property drains into the Central Valley, it is the Central Valley RWQCB that issues the Waste Discharge Requirements for the site. These WDR's set various operating requirements and also define the programs that monitor water quality by periodically testing groundwater wells and storm water discharges. The RWQCB also works with staff at the ALRRF to address special problems that may arise, such as the proper disposition of wastes that may have been brought to the landfill without necessary testing for hazardous materials. The Community Monitor reviews semiannual groundwater monitoring reports, the annual stormwater monitoring report, and the annual Storm Water Pollution Prevention Plan update.

1.5.1.2 Air

The Bay Area Air Quality Management District (BAAQMD) administers its own regulations, specifically Regulation 8 Rule 34 regarding landfill gas control, as well as relevant State and Federal regulations. At the Federal level these are referred to as Title V requirements. The operation of (and especially the air emissions from) the landfill gas control systems, various diesel engines, and other processes that produce air emissions are regulated through permit requirements. Every six months the ALRRF produces a "Title V report" that summarizes emission test results and system performance in great detail, as required. The Community

Monitor reviews these reports as they are issued. The landfill also produces an annual estimate of greenhouse gas emissions, as required by Federal regulations.

1.5.1.3 Disposed Wastes

There are two agencies that regulate solid waste disposal in Alameda County: the Alameda County Department of Environmental Health is the Local Enforcement Agency (LEA), and the California Department of Resources Recycling and Recovery (CalRecycle), which supports and oversees the LEA. The LEA is the main enforcement agency for the Solid Waste Facility Permit (SWFP) that delimits many aspects of operations at the ALRRF, such as operating hours, landfill cover materials and cover frequency, types of materials that are allowed to be disposed, etc. The SWFP is reviewed and updated every five years, and the CMC and CM closely follow that process, as delineated in the Settlement Agreement. The CM also reviews ALRRF inspection reports made by the LEA, as those reports become publicly available; and each year at least four of the monthly CM site inspections are done conjunction with the LEA, as required in the CM's Scope of Work.

1.5.1.4 Land Use

Concurrently with the Settlement Agreement, Land Use Permit C-5512 for the ALRRF site was updated to incorporate various mitigations identified in the Settlement Agreement. These modifications include restrictions on waste quantities, limits on truck traffic, and other operational constraints, as well as certain biological resource protection measures discussed in the next section of this report. The Community Monitor tracks compliance through a combination of direct inspection, review of data from ALRRF operations, and review of the annual Mitigation Monitoring Report submitted to County Planning by the ALRRF.

An additional Land Use Permit (PLN 2010-00041) was issued by Alameda County in 2013 for the future development and use of composting and material recovery operations at the ALRRF. The Committee has taken the position that the additional permit is within their purview.

1.5.1.5 Local Requirements: Stopwaste.Org

The Alameda County Waste Management Authority and Recycling Board (Stopwaste.Org) waste diversion goal is continuing to be pursued, most recently through the implementation of mandatory recycling at businesses and commercial source separation of compostable materials in many Alameda County cities. These requirements are implemented at the local level by agencies' opting into (or out of) the ordinance's requirements. In addition, Stopwaste.Org has enacted, and its member agencies have agreed to participate in, a single-use bag ban ordinance.

These waste diversion efforts represent a constraint because they limit the flow of refuse to the ALRRF, but they are also an opportunity for the ALRRF to (a) reduce its litter cleanup effort if the bag ban has a material effect, and (b) provide processing of recyclables in a MRF that may be developed at the landfill in the future.

1.5.2 Requirements For Fill Area 2 Development and Use

The current active area (Fill Area 1) 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. Environmental mitigations associated with the development and use of Fill Area 2 were

established in Use Permit C-5512 and were refined in meetings between ALRRF staff/consultants and several regulatory agencies. The Use Permit environmental mitigations are listed in Table 1-1 below. Subsequent permits from resource agencies may have imposed further requirements.

Table 1-1
ALRRF Environmental Mitigations for Fill Area 2 Development

CUP Cond. No.	CONDITION (Abridged)	Applicable Project Phase
3 [c]	Update General Industrial Stormwater Permit; revise Stormwater Pollution Prevention Plan to include Fill Area 2 measures	Prior to Construction of Fill Area 2
13	Locate soil stockpiles within basins in the existing topography, with heights generally not to exceed surrounding ridge lines.	Current Operations Forward
14	Prior to excavation and construction, the prime construction contractor and any subcontractor(s) shall be cautioned to protect cultural resources and artifacts, human remains, bottles, and other cultural materials from the project site.	Prior to Construction of Fill Area 2
16	Set aside a total of 750 acres for biological habitat mitigation and buffer area.	Prior to Construction of Fill Area 2
17	Prior to activities which could disrupt the target species in the expansion area, the operator shall finalize and implement a mitigation program.	Prior to Construction of Fill Area 2
18	The mitigation program shall be monitored annually for five years. If not successful, it will be reinitiated, after modification as necessary, and monitored for a succeeding five-year period.	Prior to Construction of Fill Area 2
19	If required, conduct surveys for the species listed in this condition. If these species are present, determine and implement suitable mitigation.	Prior to Construction of Fill Area 2
20	Conduct pre-construction surveys for species listed in this condition. If present, avoid or relocate the animals.	After obtaining required permits; Prior to Construction of Fill Area 2
21	Provide long-term maintenance of mitigation lands until a qualified organization is found.	After implementation of wetlands and habitat mitigation measures
26	Submit a post-construction compliance report to FWS within 45 days of completion of each major project component (e.g., stockpiles, water pipeline, stormdrain, basin construction).	During Construction of Fill Area 2
28	Implement a Wetlands Mitigation Plan based on the information sources and agency approvals detailed in this condition. Include the specific elements listed by this condition.	Prior to Construction of Fill Area 2
29	Monitor the replacement wetlands for five years or until performance standards are met, whichever occurs first.	After implementation of wetlands and habitat mitigation measures
31	Maintenance and monitoring of the wetlands shall be the responsibility of the operator, with the assistance of qualified consultants, until it can find a qualified organization to assume that responsibility.	After implementation of wetlands and habitat mitigation measures
33	Implement a mitigation plan for the alkali sink based on details in this condition.	Prior to Construction of Fill Area 2
34	Conduct bi-annual monitoring of the alkali sink determine whether performance standards are being met. If monitoring shows that the sink is declining, take additional mitigation measures.	After implementation of wetlands and habitat mitigation measures
35	Water delivered to the alkali sink shall pass through detention basins to remove sediment, and untreated leachate delivered into the alkali sink shall meet applicable water quality standards.	After implementation of wetlands and habitat mitigation measures
36	The operator shall fence the area to keep livestock out of the alkali sink.	After implementation of wetlands and habitat mitigation measures
41	During landfill development, investigate slope stability whenever there is more than six inches of rain in a three-day period after seasonal (Oct through Apr) rainfall totals 15+ inches.	During Construction of Fill Area 2

CUP Cond. No.	CONDITION (Abridged)	Applicable Project Phase
42	Retain a qualified engineering geologist to identify any potential instability and to recommend remedies, within one week of such rainfall.	During Construction of Fill Area 2
73	Revise the Landfill Gas Management Plan for Fill Area 1 to make it apply to the Expansion area. Include a system to detect and control potentially volatile gases generated by the proposed project.	Before Expansion Active
82	Provide the option of retrofitting existing noise-sensitive land uses along Altamont Pass Road to reduce exterior noise levels to 45 dBA, Ldn. Homes shall be retrofit prior to filling in the Class II Landfill Expansion Area.	Prior to Operations in Fill Area 2

In 2014, the CM made observations during site visits that pertain to several of the above Conditions; but other than a map of the Conservation Plan Area (Condition 16), no documents specific to these Conditions (such as post-construction compliance reports or mitigation monitoring reports) have been provided to the CM as yet. The CM does review the ALRRF annual mitigation monitoring report, which briefly summarizes the status of compliance with each of the 106 CUP Conditions.

Earthwork for Fill Area 2 began in 2013 and has continued throughout 2014. At this time no further environmental review is expected to be necessary for disposal to begin in Fill Area 2; but if anticipated composting and material recovery processes are developed at the ALRRF, those are likely to need environmental review to comply with the California Environmental Quality Act.

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 2014, the CM was active in each of these areas, as described below.

2.2 Monitoring of Improvements and Changes

Through report reviews and site visits, several new developments in ALRRF facilities and operations in 2013 became apparent:

- **Additional landfill gas wells** were being installed in December of 2014. Several landfill gas wells that were becoming unproductive were taken off line as well. Landfill gas production, which had been declining, may increase as a result. Data on gas production during the latter part of 2014 will be available to the CM in early 2015.
- **Excavation of the upper (northern) portion of Fill Area 2** continued through the spring and summer of 2014. By late summer, the bulk of the excavation was complete, sedimentation basins were constructed, and the access road was under construction. Access road paving was nearly completed by the end of 2014. The very low amount of rainfall through October of 2014 enabled the access-road earthwork to proceed very quickly. After excavation is done, the landfill liner and other environmental management systems will need to be installed before refuse can be received in Fill Area 2.
- **The north soil stockpile** continued to receive excavated soil from Fill Area 2.
- **Additional stormwater controls** were installed in the latter part of 2014, in a continuing effort to improve sediment control and reduce pollutants in discharges from the storm water basins. These included the placement of processed green (plant) material on outside slopes, supplemented with straw matting where access for heavy equipment was blocked by pipes that convey stormwater and landfill gas. In addition, ditches were lined with fabric to trap silt, and ditches and road surfaces were graded in an effort to minimize erosion and ponding. In the July 2013 – June 2014 reporting year, there were no discharges from the storm water basins, due to the lack of rainfall. However, a series of

storms in November and December provided enough precipitation for all three basins to fill and discharge in December of 2014.

- **One of the four transfer-truck tippers was converted to use CNG fuel**, and there are plans to convert a second tipper similarly.
- **Additional litter fences**, both stationary and portable, were fabricated and installed in an effort to further reduce windblown litter from Fill Area 1.

2.3 Compliance and Significant Incidents

As noted above, the Settlement Agreement defines 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.

2.3.1 Compliance Incidents Documented by the LEA

As of mid November 2014, two distinct Violations and five Area of Concern notices were issued by the Local Enforcement Agency (LEA). The Violations were caused by high levels of methane gas at two gas perimeter probes (GP-8C and GP-20). High methane at GP-8C persisted for several weeks, beginning in early September, then fell below the regulatory limit by mid-October. Then, in mid-November, probe GP-20 exceeded the regulatory limit and a Violation was issued. During this same period, sampling at probe GP-1 showed an immediate "spike" in methane which fell to near-zero during the sampling event. At all three locations, the gas was sampled for isotope analysis to determine if it originated from decay within the landfill or from another source. Preliminary results for probe GP-8 indicate that the methane was naturally occurring, not landfill gas.

The five Area of Concern notices were due to (a) the need for improved litter control (three instances, one in January and two in September) and (b) exposed refuse with inadequate cover in the other two cases. One exposed-refuse incident was due to the excavation of a solidification basin that was being constructed on the landfill; the other was apparently due to thinly applied Alternative Daily Cover in one area after relocating the tippers to a different part of the site. Both exposed-refuse incidents were promptly corrected to the satisfaction of the LEA. The January litter problem was addressed by a temporary litter crew that worked during February and part of March. The September Area of Concern was focused on persistent litter accumulation around the Asbestos-Containing-Waste portion of the landfill. This was addressed by focusing existing ALRRF litter cleanup forces on that area.

The number of birds (primarily seagulls) present near the working face of the landfill also continued to present difficulties for the operator and was noted repeatedly in the LEA's inspection reports. However this did not rise to the level of a Violation or an Area of Concern in the LEA's reports.

2.3.2 Water Board Violations and Concerns

2.3.2.1 Material with High Copper Content, 2013 - March 2014

A Central Valley Regional Water Quality Control Board (Water Board) violation issued in 2013 was remedied in March of 2014 with the removal of approximately 134 cubic yards of potentially hazardous material. The contaminant was believed to have originated at a boat repair yard in San Francisco. On June 21, 2013, it was delivered in one or more refuse transfer trucks that also contained a substantial amount of municipal solid waste from San Francisco. Landfill records, sampling and testing were used to identify the area where the material had been deposited. The material was excavated from the ALRRF and delivered to a hazardous waste landfill.

2.3.2.2 Rough Grading of Fill Area 2, 2013 - April 2014

The Water Board issued a Notice of Violation to the ALRRF in April of 2014 for failure to submit rough grading plans for Fill Area 2 prior to the start of excavation work. The ALRRF had taken the approach that the rough earthwork was distinct from the containment system (liners, etc.) and that the submittal to the Water Board would involve the construction of the containment system, after the earthwork was complete. In May of 2014, ALRRF staff met with Water Board staff and submitted additional information regarding Fill Area 2. These discussions also resulted in a plan for additional groundwater monitoring well installations in Fill Area 2. ALRRF staff report that Water Board staff were satisfied and this issue is closed.

2.3.2.3 Remediation of Wastes Containing Dinoseb

In February of 2014, contaminated groundwater from a remediation site in the Central Valley was accepted for solidification and disposal at the ALRRF based on a profile sheet indicating that it was eligible for solidification as a Class 2 material. However, the liquid was later found to have contained dinoseb, a toxic herbicide, in concentrations requiring disposal as a hazardous waste. In May of 2014, the generator of the waste disclosed the issue to the landfill, and both the Water Board and the California Department of Toxic Substances Control were notified promptly. In February, ALRRF had mixed the contaminated water with solids and disposed the mix in the landfill. Fortunately, the approximate location could be determined using GPS data from the landfill mobile equipment. The Water Board issued a violation to the landfill and required that all of the contaminated material be removed, unless DTSC issued a waiver that would enable the landfill to accept the material. No waiver was issued, and a remediation plan was developed. Remediation work began in late October, and all of the suspect material was removed to an approved hazardous waste disposal site by mid December, 2014.

2.3.2.4 Other Issues

In addition to the above, Regional Water Board staff raised concerns about the following three topics:

Sampling of Valley Drain “VD” adjacent to Fill Area 1 – The internal sampling pump at this sampling point had failed, and in two consecutive quarters, samples were not taken as required. After this was raised by Water Board staff, it was remedied by using a manual bailer to retrieve samples.

Groundwater elevation errors at well WM-1 were found in several prior groundwater monitoring reports. The ALRRF groundwater sampling and analysis firm, SCS Engineers, corrected these errors and modified the groundwater elevation contour maps that were included with each semiannual monitoring report.

Remediating Groundwater near Well E-20B –ALRRF and their consultants SCS Engineers have stated that the contamination found at groundwater monitoring well E-20B can be attributed to landfill gas, but Regional Water Board staff do not agree. Water Board staff expressed the opinion that landfill leachate could be delivering contaminants as well, based on the presence of typical leachate constituents, including tetrahydrofuran. After further correspondence between ALRRF and the Water Board on this issue, the Water Board required submittal of an updated Corrective Action Plan for groundwater near this well, to include more frequent sampling of groundwater wells in the vicinity, and other measures, including an estimate of the time needed to reduce VOC contamination to non-detect levels around well E-20B.

Steep terrain near well E-20B is a constraint on installing new systems to reduce contaminants, but ALRRF proposed to install special gas extraction wells between E-20B and the landfill, and install a new groundwater monitoring well downslope / downgradient of E-20B, in addition to the improvements mentioned above. The new groundwater monitoring well was installed next to stormwater Basin B in September of 2014.

2.3.3 Other Incidents

2.3.3.1 Facility Damage

During 2014, three unusual incidents occurred that caused significant damage or required outside assistance. In June, a fully loaded transfer trailer backed onto a tipper while the tipping platform was raised. The rear wheels of the trailer dropped into a gap that would ordinarily be occupied by the tipping platform. Heavy equipment was needed to remove the trailer from this location.

In July, a rolloff truck carrying a drop box was departing the site when the box door swung open and struck the scale house (unoccupied at the time) damaging a security camera, an awning, and the building itself. Repairs were made promptly.

In late October, a driver lost control of his truck while passing the scale house area and struck the V-ditch and chain link fence along the east perimeter of the LNG plant.

2.3.3.2 Earthquake

On August 24, a magnitude 6.0 earthquake occurred in Napa, approximately 40 miles from the ALRRF. Thorough inspections found no damage to roads, equipment and landfill slopes. However, the elevated methane gas concentrations in gas probe GP-8C, noted above, were first detected two to three weeks after the earthquake. ALRRF staff have stated that the gas detected at probe GP-8C contains less CO₂ than typical landfill gas. This suggests that the newly discovered gas may have originated in rock beneath or outside of the landfill, and reached the probe as a result of the earthquake activity.

In addition, a spontaneous drop in the water level in stormwater Basin A became apparent a few weeks after the earthquake. However, it is not yet clear if this was caused by the continuing drought or a change in groundwater levels due to the effects of the earthquake, or something else entirely.

2.3.3.3 Fire

On October 1, a small grass fire occurred on landfill property to the west of Fill Area 1. It was quickly brought under control using landfill staff and equipment; the fire department was not called.

2.3.3.4 Wet Weather

A series of storms in November and December provided a cumulative rainfall total of 9.78 inches in the City of Livermore by late December, nearly double the average for the period beginning July 1; and the rainfall in the Altamont Hills was likely significantly higher than in the Livermore Valley. Eighty percent of this rain occurred in the first two weeks of December, creating extremely wet conditions that led to potholes on paved roads, ponding on portions of the landfill, and difficulty controlling vehicles in some situations. Part of the fence and gate at the Asbestos Area were damaged, and replacement was not immediately possible due to soft soil conditions. In spite of these difficulties, the storm water system appeared to be performing satisfactorily, without major damage from erosion in Fill Area 1. Minor erosion damage was quickly repaired.

2.3.4.5 Strike by Davis Street Transfer Station Workers

In September, an unanticipated one-week strike by workers in the material recovery facilities at Waste Management's Davis Street Transfer Station prevented that facility from processing construction and demolition wastes. As a result, some of those C&D materials were stockpiled at the ALRRF until the strike ended and processing systems could catch up with the backlog. This open stockpile appeared to be several hundred cubic yards in total volume and was visible throughout October and November. By mid December it was gone. The material did not appear to be putrescible and did not attract birds or other vectors.

2.3.4.6 Other Incidents

Throughout the year there were several incidents of end-dump trucks falling over sideways while unloading. This most often happens if the rear wheels are on uneven ground or if some of the material sticks to the dump bed after it is raised, causing the trailer to become unstable. Also, in October the fuel tank of an ALRRF vehicle was punctured, causing a small fuel leak which was contained.

2.4 Review of Reports

2.4.1 Groundwater

Two groundwater monitoring reports were reviewed in 2014. The first covered the time frame from July through December of 2013; the second covered January through June of 2014. Both reports reflect the Waste Discharge Requirements issued by the Central Valley Regional Water Quality Control Board that took effect in April of 2009.

Groundwater monitoring results did not differ appreciably from prior years. Contaminants, when present, were well below regulatory limits that would require remediation. For most contaminants, trends in the data were indistinct or gradually declining. We first noted in 2013

that the fuel additive MTBE and its degradation by-product tert-butyl alcohol appeared to have concentrations that are increasing in wells E-5, E-7 and E-20B, although not steadily. In general terms, the situation in 2014 is essentially the same, and continued monitoring of the reports on these wells is recommended.

2.4.2 Storm Water

The annual storm water report for 2013-2014 was issued in late June of 2014. It documents storm water protection measures and monitoring efforts as required by regulations and permits. It is similar to prior years' reports in that it shows a few storm water pollutants exceeding "benchmark" levels during the reporting year in spite of improvements to the storm water pollution protection systems at the site. These improvements include Best Management Practices (BMP's) such as silt traps in drain inlets, installing wattle upslope of drainage ditches, and other means of preventing and controlling erosion. It concludes with a commitment to increase the use of BMP's for the 2014-2015 rainy season; and indeed there were additional BMP's installed at the site in the fall of 2014. These are withstanding the high runoff volumes from recent storms and appear to be performing satisfactorily.

2.4.3 Air Quality

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

In 2014, we received the Title V reports for the periods June – November 2013, and December 2013 – May 2014. These reports describe 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. Results from 2014 are similar to those from 2013:

- Surface emissions monitoring continued to occur, and although exceedances of methane were found, they were typically remedied on the first try, without the need for repeated repairs.
- The LNG plant continued to operate, and unscheduled down-time was minimal, especially in the first half of 2014.
- All control devices passed their emissions tests without incident.

In addition, a series of new landfill gas wells was being installed in the latter part of 2014. The exact number of wells completed was not available in time for this report.

In 2013, we noted that landfill gas consumption diminished because less gas was available. This was the first time that the system was constrained by a lack of gas. The reduced consumption continued in 2014. The effect of adding additional gas wells will be evaluated when those data are available.

2.4.4 Mitigation Monitoring

The Mitigation Status Report covering calendar year 2013 was received in January 2014. It is a table that lists each of the conditions described in the current Conditional Use Permit (CUP-5512), 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.

The primary new development in 2014 was the construction of a designed wetland area, east of Fill Area 2, to meet environmental requirements for the construction of Fill Area 2. As of December 2014, the earthwork and flow controls for the wetland were in place but the vegetation specified for the wetland has not yet been installed.

2.5 Review of Records

Several types of site records were reviewed by the Community Monitor in 2014. The Community Monitor's scope of work requires the periodic review of files that contain lab analyses and other descriptions of **Class 2 soils** (considered hazardous by California standards, but not by Federal standards) that are brought to the site for use as cover soil. Also, the **Special Occurrences Log** for the ALRRF was examined several times during the year, as part of monthly site inspections. The **LEA's weekly inspection reports** are publicly available on the CalRecycle web site and were checked by the Community Monitor every few weeks, to identify any new issues that may have arisen.

2.5.1 Class 2 Soils

An ongoing task for the Community Monitor team is the periodic review of files containing profiles (sample analyses) for Class 2 soils that are imported for use as cover soil in the Class 2 portion of the ALRRF. For efficiency, this is currently conducted two to three times per year, and it requires a full day for a qualified specialist from Treadwell and Rollo to review each file to be sure that it is complete and within the regulatory limits for Class 2 materials. In 2013, these reviews were conducted in May and November. A total of approximately 125 files were reviewed. No out-of-compliance profiles were found, and all files were complete.

2.5.2 Special Occurrences Log

Each permitted solid waste disposal site in California must keep a Log of Special Occurrences to document unusual and potentially disruptive incidents, including fires, injury and property damage, accidents, explosions, receipt or rejection of prohibited wastes, lack of sufficient number of personnel, flooding, earthquake damage and other unusual occurrences. The ALRRF log was checked throughout 2014. As in prior years, the most common incident was the occasional mishap involving large end-dump semi-trailers that become unbalanced while the bed is elevated, causing the truck bed to fall to one side. Fortunately, there were no injuries associated with these incidents. Other logged incidents included the receipt of wastes high in dinoseb, a fire in the area west of the active landfill, and several mishaps with vehicles. Additional detail on several of these items may be found in Section 2.3 above.

2.5.3 LEA Inspection Reports

In 2014, ongoing difficulties with windblown litter were again noted in many of the LEA inspection reports. Other less frequent notations included insufficient cover (two Area of Concern notices issued); the condition of the entry road (continuing to be repaired as needed); and management of storm water, in December of 2014.

2.6 Monthly Inspections

Twelve site inspections were held during 2014. To obtain the best possible understanding of the range of operating conditions, the inspection day and time were varied as shown in Table 2-1 below.

Table 2-1
Site Inspection Summary

Date	Day of Week	Inspection Time	Announced in Advance?	With LEA staff?
Jan 30	Thurs	9:30 AM	yes	no
Feb 13	Thurs	10:00 AM	no	yes
Mar 27	Thurs	12:30 PM	yes	no
Apr 30	Wed	3:30 PM	yes	no
May 28	Wed	11:30 AM	yes	no
Jun 11	Wed	1:00 PM	no	yes
Jul 23	Wed	7:30 PM	yes	no
Aug 26	Tues	10:00 AM	yes	no
Sep 17	Wed	9:30 AM	yes	no
Oct 27	Mon	11:00 AM	yes	no
Nov 7	Fri	8:30 AM	yes	no
Dec 18	Thurs	10:00 AM	no	yes

In general, satisfactory conditions were observed, although windblown litter and bird (seagull) presence were persistent issues. Most minor problems were rectified prior to the next inspection. Details are available in the monthly site visit reports provided to CMC members. 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.

In 2014 our observations continued to focus on:

- Storm drainage and erosion control, including the installation and performance of stormwater Best Management Practices.
- Traffic on site, and the adequacy of crews and equipment to handle incoming traffic and waste volumes.
- General observations of fill activities, including spreading, compaction and traffic control during normal and off-hours operations.
- Observation of issues of concern, including the increased presence of seagulls and the quality of materials used as Alternative Daily Cover.
- Management of windblown litter, which is an ongoing problem as Fill Area 1 reaches its maximum height.

In addition, the continued excavation of a portion of Fill Area 2 was observed throughout the year, concluding with construction and paving of the Fill Area 2 entry road.

The Scope of Work for the Community Monitor specifies that at least three inspections be performed off hours, and that approximately four to six be performed jointly with the LEA. As shown in the table above, one off-hour (July) and three joint inspections were conducted in 2014.

To compensate for the shortfall in off-hour and joint inspections in 2014, more of these types of inspections will be scheduled in 2015 and 2016.

In addition to the on-site inspections, counts of arriving refuse trucks were conducted by the Community Monitor in January and July of 2014. These counts continued to be well below the limit stipulated in the CUP.

SECTION 3

Looking Ahead: Anticipated Efforts and Issues

3.1 Introduction

In the 2015 contract year, the CM will continue to perform report reviews, site inspections and Class 2 soils file review. As Fill Area 1 nears completion, operations will become more complex in order to control the final height and shape of the filled area, and windblown litter will probably continue to be an issue. Also, as the ALRRF continues the development of Fill Area 2, the CM may need to review mitigation plans and reports for the Conservation Plan Area or other parts of the site. ALRRF staff have stated that Fill Area 2 may begin to receive refuse for disposal as soon as mid-2015.

3.2 Issues to be Tracked in 2015

3.2.1 Ongoing 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 landfill gas handling equipment.
- Additional changes to the landfill gas extraction system.
- Surface emissions monitoring.
- Reports related to the development and use of Fill Area 2.
- Effects of any development of composting, digestion or material recovery operations on the landfill.

3.2.2 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 are likely to include the further addition of landfill gas extraction wells, decommissioning of wells that are no longer productive and ongoing operation of the LNG plant, turbines, flares, etc. In 2015, the effect of newly added gas extraction wells on the concentrations of contaminants in well E-20B will be of special interest.

3.2.2.2 Stormwater Controls and Monitoring

Throughout the year, and especially during wet weather months, we will monitor conditions at all stormwater basins.

3.2.2.3 Windblown Litter

As noted above, this will continue to be an issue for Fill Area 1.

3.2.2.4 Fill Area 2

The CM will continue to observe construction, which will likely involve the completion of the main access road and installation of liner materials in the excavated area. If mitigation plans regarding the Conservation Plan Area or the Conservation Easement are submitted to a regulatory agency, they will be reviewed to the extent required by the Settlement Agreement.

3.2.2.5 Possible Increases in Certain Groundwater Contaminants

Although they are below regulatory trigger levels, the concentrations of MTBE, tert-butyl alcohol, and tetrahydrofuran appeared to be increasing in three groundwater monitoring wells in 2014. We will continue to check these levels as data become available.

3.2.2.6 Regulatory Issues

An unusual degree of regulatory scrutiny of the ALRRF occurred in 2014, giving rise to two issues which, at this writing, are not fully resolved:

- Concern regarding groundwater contaminants at Well E-20B
- Methane appearing in perimeter gas probes where it had not been previously detected

We will continue to document the status of these issues.

3.2.3 Class 2 Soils File Review

As required in our Scope of Work, we intend to conduct this review several times through the year 2015.

3.3 Project Management Considerations

As our current contract continues, we expect the budget to be sufficient through the remaining two years of the 3-year contract period. The greatest effort is likely to occur in the latter part of 2015, when the five-year Solid Waste Facility Permit review is expected to take place. The current permit lists August 22, 2015 as the next permit review date.