



COMMUNITY MONITOR COMMITTEE

Altamont Landfill Settlement Agreement

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

www.altamontcmc.org

VOTING MEMBERS

Robert Carling
City of Livermore

Jerry Pentin
City of Pleasanton

Donna Cabanne
Sierra Club

David Tam
Northern California
Recycling Association

NON-VOTING MEMBERS

Audrey Lundin
Waste Management
Altamont Landfill and
Resource Recovery
Facility

Arthur Surdilla / Wing Suen
Alameda County

Robert Cooper
Altamont Landowners
Against Rural
Mismanagement (ALARM)

STAFF

Judy Erlandson
City of Livermore
Public Works Manager

AGENDA

DATE: **Wednesday, January 17, 2018**
TIME: **4:00 p.m.**
PLACE: City of Livermore
Maintenance Services Center
3500 Robertson Park Road

1. Call to Order
2. Introductions
3. Roll Call
4. Approval of Minutes (From October 11, 2017)
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 **Responses to Committee Member Questions:**
 - Mitigation Land Proximity to ALRRF
 - Possible Causes for Occurrence of Naphthalene
 - Description of Buttonwillow Facility
 - 6.2 **Reporting Requirements for Wetland Mitigation**
 - 6.3 **Five-Year Permit Review**
 - 6.4 **Review of Reports Provided by ALRRF**
 - 6.5 **Review of Documents on GeoTracker web site**
 - 6.6 **Reports from Community Monitor**
 - 6.7 **2017 Draft Annual Report**
 - 6.8 **Meeting Times and Dates (Committee Members)**
 - 6.9 **Announcements (Committee Members)**
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 Monitor Committee meeting is scheduled to take place at 4:00 p.m. on **April 11, 2018** at 3500 Robertson Park Road, Livermore.

Informational Materials:

- Community Monitor Roles and Responsibilities
- List of Acronyms
- Draft Minutes of October 11, 2017
- Reports from ESA and subcontractors

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 Maintenance Service Center, 3500 Robertson Park Road, Livermore, and on the Community Monitor Committee web site, <http://www.altamontcmc.org>.

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 in 2015) 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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COMMUNITY MONITOR COMMITTEE

Altamont Landfill Settlement Agreement

Minutes of October 11, 2017

DRAFT

1. Call to Order
The meeting was called to order at 4:00 p.m. Ms. Erlandson advised the Committee that Mr. Tam and Mr. Runyon were delayed but would be arriving soon.

 2. Roll Call

Members Present:	Donna Cabanne; Jerry Pentin; Robert Carling; Audrey Lundin; Arthur Surdilla; David Tam (arrived 4:24 PM)
Absent:	Robert Cooper, Altamont Landowners Against Rural Mismanagement
Staff:	Judy Erlandson, City of Livermore Public Works Department; Kelly Runyon, Community Monitor (arrived 4:14 PM)
Others:	Marcus Netz II, ALRRF

 3. Introductions
Those in attendance introduced themselves.

 4. Approval of Minutes
Approval of the July 2017 minutes was moved by Ms. Cabanne and seconded by Mr. Carling. The minutes were approved by all voting members present (3-0).

 5. Open Forum
There was no Open Forum discussion.

 6. Matters for Consideration
Due to the delayed arrival of Mr. Tam and Mr. Runyon, Mr. Pentin reordered the agenda.
 - 6.7 2018 Meeting Schedule
Approval of the proposed 2018 schedule, with no changes, was moved by Ms. Cabanne and seconded by Mr. Carling. It was approved by all voting members present (3-0).

 - 6.8 Announcements
No announcements were made by the members present.
- Mr. Runyon arrived at 4:14 PM, and Mr. Pentin reordered the agenda.

- 6.1 **Responses to Committee Member Questions**
Landfills Using Evapotranspiration (ET) Covers – In response to previous questions from Mr. Tam and Ms. Cabanne, Mr. Runyon stated that the Regional Water Board office regulating the China Grade Landfill is the Fresno office of the Central Valley Regional Water Quality Control Board; he also described the proposed sequence of ET cover application in the ALRRF's permit documents. No further questions were raised on these topics.
- Map of Conservation Plan Area (CPA) – To clarify the boundaries of the CPA for Committee members, Mr. Runyon provided a copy of the site map that shows the CPA and other land areas as designated by the ALRRF. Mr. Tam asked about the intended future uses of the Conservation Reserve Area. Mr. Runyon stated that it is vacant land, not currently used for landfill functions, and not part of the Conservation Plan Area easement.
- 6.2 **Five-Year Permit Review and CASP Project**
 Mr. Runyon stated that the final approval of the Solid Waste Facility Permit had not been issued by the Local Enforcement Agency (LEA). Mr. Surdilla confirmed that the review was still in progress.
- 6.3 **Review of Reports Provided by ALRRF**
Conservation Plan Area Monitoring – Mr. Runyon noted that in contrast to the previous two years, in lieu of a formal monitoring report, ALRRF's monitoring consultant had prepared a brief memo describing monitoring activities for the year. Mr. Runyon gave a verbal summary. He also stated that reporting requirements under the mitigation permits were complex, and that he would check with ESA staff (who have experience with such permits) on whether more detailed reporting was required.

Ms. Cabanne expressed concern that the memo suggests finding a mitigation area off site where more favorable conditions might exist for establishing a new wetland. She recalled a requirement in the Settlement Agreement that mitigation land be on, or close to, the ALRRF site. Mr. Runyon agreed to identify that condition for the next Committee meeting. Mr. Nettz noted that the ALRRF intends to establish the wetland at the site if possible.

Committee members also expressed concern regarding the reported deaths of several California Tiger Salamanders due to the pumping of stormwater from a detention basin.

Air Emissions Report – Mr. Runyon summarized recent events related to air emissions from the ALRRF, noting that in the most recently installed landfill gas wells, there was a cluster of wells that were recovering gas with higher than normal temperature. He also stated that at those wells, there was no sign of combustion beneath the landfill.

Semiannual Groundwater Monitoring Report – Mr. Runyon described several new developments that were identified in this report. Regarding the detection of

naphthalene in MW-19, Mr. Carling asked how that substance might have occurred in that location. Mr. Runyon said that he would look into that and report back. Regarding the discharge of captured leachate into a solidification basin, Ms. Cabanne asked where that material was ultimately disposed. Mr. Netz replied that after solidification it had been placed in the Class 2 portion of Fill Area 1.

6.4 Review of Documents on Geotracker Web Site – In reviewing the Ongoing Topics portion of this item, the following discussions occurred:

Ms. Cabanne asked that the response of the Central Valley Regional Water Quality Control Board (Water Board) to the *Standard Operating Procedure for Solidification* submitted by the ALRRF be summarized when it becomes available.

Ms. Cabanne asked that when internal stormwater samples are taken this rainy season, the findings be reported to the Committee. Mr. Runyon noted that this would probably occur at the April Committee meeting.

Regarding the Water Board's concern regarding the lack of landfill gas probes in certain portions of the landfill perimeter, Mr. Runyon agreed to continue to report the Water Board's response to recent and future submittals by the ALRRF on this topic.

In discussion of the cleanup of hazardous soil erroneously brought to the ALRRF, Ms. Cabanne asked for general information describing the "Buttonwillow" site which ultimately received that material. Mr. Runyon said that he would provide a description at the next meeting.

New Topic: The ALRRF's interest in separately managing captured leachate and underdrain liquid, and the Water Board's response to the ALRRF's Work Plan, was a new topic on the Geotracker web site. Regarding the Water Board's objection to the ALRRF's proposal to use underdrain (non-leachate) water in composting processes, Ms. Cabanne asked Mr. Surdilla if this was permissible from CalRecycle's point of view, and he agreed to check on that. Mr. Netz added that there is no intent to use leachate in compost.

6.5 Reports from Community Monitor

In reviewing reports of tonnage received and site inspections, Mr. Runyon noted that the completion of the evapotranspiration (ET) cover test area has been delayed due to differential settlement in that portion of Fill Area 1. He also reported that a surge in tonnage from Newark in July and August was not from the South Bay wetland restoration project, but from a large construction project that was delivering contaminated soil for disposal as special waste at the ALRRF. He provided an estimate of the traffic that these deliveries might have added, and noted that this increase would not have caused exceedance of the Conditional Use Permit traffic limitation.

Ms. Cabanne asked if this material was still being received. Mr. Runyon stated that he did not know, because the tonnage report for September had not yet been provided. Mr. Netz added that he believed that a small amount of this material was still being delivered.

Mr. Runyon also noted that repair of the small landslide near Fill Area 2 was scheduled for later in October.

In discussion of other on-site activities, Mr. Netz also mentioned that he expected construction of the CASP composting operation to be complete in November.

6.6 Topics for Annual Report

Committee members indicated agreement with the proposed topics of special interest. Mr. Tam also expressed interest in whether preservation or enhancement of wildlife corridors at the site is explicitly required. Mr. Runyon stated that he would address this topic in the Annual Report.

6.8 Announcements (continued)

Mr. Tam expressed gratitude to a City of Pleasanton staff member who provided him with a ride to the meeting location.

7. Agenda Building

No additional items were suggested.

8. Adjournment

The meeting was adjourned at 5:20 p.m.

memorandum

date December 22, 2017
 to ALRRF Community Monitor Committee
 from Kelly Runyon
 subject CMC Meeting of 1/17/18 - Agenda Item 6.1 - Responses to Committee Members'

Questions

Mitigation Land Proximity to ALRRF

At the October 11, 2017 Community Monitor Committee meeting, in discussion of the possible need to provide wetland mitigation off site, Ms. Cabanne recalled that the Settlement Agreement contained a condition requiring the use of lands on or near the ALRRF site for mitigation, and she asked that this condition be identified.

Condition #16 in the ALRRF's Conditional Use Permit C-5512, adopted in 2000, contains the language in question. It begins:

The operator shall set aside a total of 750 acres for biological habitat mitigation and buffer area...

Land Dedication for Habitat Preserve. To the extent that off-site habitat mitigation is required by the United States Fish and Wildlife Service ("FWS"), the operator will enter into a Conservation Agreement with FWS and the Livermore Area Recreation Park District and/or the East Bay Regional Park District regarding the acquisition, operation and maintenance of a Habitat Preserve (the "Preserve") in the Altamont or other suitable area in eastern Alameda County. The operator's requirement for multi-species off-site mitigation acreage shall be met by the operator by the dedication of public open space in the Altamont or other suitable area in eastern Alameda County...

(emphasis added)

This condition is triggered if "off-site habitat mitigation is required" by the FWS. The permit documents that we have reviewed, including the 82-page Biological Opinion from the FWS, do not contain such a requirement. All of the relevant Federal and State regulatory agencies accepted the use of the 991.6 acre Conservation Plan Area as adequate for mitigation purposes, without requiring mitigation off site. Moreover, the California Department of Fish and Wildlife has approved the use of the Cosumnes Floodplain Mitigation Bank for channel mitigation and has informed the Army Corps and FWS of its approval, in a December 6, 2017 email.

Possible Causes for Occurrence of Naphthalene

At the October 11, 2017 Committee meeting, during discussion of contaminants found during initial sampling (but not in subsequent resampling) of the new monitoring well MW-19, Mr. Carling asked for an explanation of how naphthalene could have been present in the initial sample.

Naphthalene has been classified as a possible human carcinogen (IARC, 2002). It is a relatively stable solid that can sublime (vaporize) if exposed to air but is nearly insoluble in water. It was commonly used for several agricultural purposes in the mid 20th century, mainly as an insecticide. At well MW-19, it might have been present as a residue from agricultural activity (e.g. in soil or cattle manure) and entered the well as spilled soil or windblown dust during drilling.

Naphthalene was the original substance used in mothballs, which in addition to killing moth larvae in closets are sometimes used as an odorous deterrent to protect structures or vehicles from destructive wildlife activity. Naphthalene was also used to treat livestock; cattle were force-fed naphthalene pellets for deworming, and poultry can be treated for external parasites by adding naphthalene powder to their dust-bathing area. Also, naphthalene was sometimes used to control boring insects in fruit orchards, by direct application of naphthalene crystals to trees.

Description of Buttonwillow Facility

At the October 11, 2017 Committee meeting, when it was reported that hazardous material removed from the ALRRF was delivered to the “Buttonwillow facility”, Ms. Cabanne asked for a description of this facility.

The Clean Harbors Buttonwillow hazardous waste disposal facility is a 320-acre site about 8 miles west of the town of Buttonwillow, in western Kern County. It is permitted to receive, store, treat and dispose (by landfilling) various types of hazardous wastes. It was first permitted as a Class II oily waste disposal site in 1982. After several changes in ownership and owner names, it was upgraded to a hazardous waste disposal facility in 1994 operated by Safety-Kleen, Inc. In 2002, it was acquired by Clean Harbors Buttonwillow LLC, an affiliate of the hazardous waste disposal company Clean Harbors, Inc., which has operations across the US, including over 50 hazardous waste management facilities.

Because it is a disposal site in an area zoned for agriculture, it has a Conditional Use Permit from Kern County, and CEQA documents were prepared describing potential impacts and mitigations.

In December 2014, the facility obtained a modification to its Conditional Use Permit from the Kern County Board of Supervisors to construct and operate a new hazardous/ nonhazardous landfill unit at the site, and to accept and transfer a wider range of wastes. An addendum to its EIR was prepared at that time.

Since then, monthly inspections by the LEA and 18-month inspections by CalRecycle have found no violations or areas of concern. Documents posted by the Regional Water Board indicate that other than a minor exceedance of arsenic levels above background in the fourth quarter of 2016, there have been no groundwater quality issues since at least 2005.

memorandum

date December 22, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 1/17/18 - Agenda Item 6.2 - Reporting Requirements for Wetland Mitigation

At the October 11, 2017 Community Monitor Committee meeting, in a discussion of a memorandum from the ALRRF's wetland mitigation compliance consultant, Dudek Inc., I proposed to review the reporting requirements in the permits for the expansion of Fill Area 2. That review has led to the following findings. They are subject to revision if additional information becomes available.

Reporting Requirements in Federal and State Agency Permits

In the first five years after Fill Area 2 construction begins, the reporting requirements of the Federal and State permits call for:

- A Baseline survey of the entire Conservation Plan Area, in the first year.
- Annual Reconnaissance Surveys, with reports that include annual Rangeland Survey results.
- A Status Report to the California Department of Fish and Wildlife, at the end of year 4.
- A Periodic Survey Report to the three major agencies (CDFW, USFWS, Army Corps) at the end of year 5.
- Continuing Reconnaissance and Periodic Surveys, with reports, for the anticipated life of Fill Area 2.

These reporting requirements tacitly assumed that the constructed wetland would be functioning more or less as intended, so that monitoring would be meaningful. However, at the ARLLF, events unfolded differently.

The mitigation wetland was constructed in late 2013 and planted in December of 2013. In February 2014, a series of heavy rainstorms inundated the wetland, covering the new plantings with sediment. The continuing drought in 2014 exacerbated this damage, and a late-November 2014 rain event brought more sediment to the wetland. At that point it had completely ceased to function as intended. Meanwhile, the channel restoration intended for the northeast corner of the site was on hold due to drought conditions. (Later studies of soil and hydrology in 2016 and 2017 found it to be infeasible.)

From information provided by the ALRRF, it is evident that ALRRF staff and Dudek were communicating with the permitting agencies about these issues to find a way forward with mitigations that would be successful. An October 16, 2017 memo from Dudek to the agencies summarizes the outcome of those discussions: a plan to reconstruct the mitigation wetland in its current location, and to purchase mitigation credits for a similar channel mitigation project in a 2:1 ratio (1.04 acres restored vs. 0.52 acres taken) at the Cosumnes Floodplain Mitigation Bank in Sacramento County, approximately 21 miles north of Stockton. This has been approved by the California

Department of Fish and Wildlife, and that approval has been communicated to the Army Corps and the US Fish and Wildlife Service.

Completion of these mitigations, by reconstructing the on-site wetland and executing an agreement with the Cosumnes Floodplain Mitigation Bank, is expected by the end of 2017. This is expected to “reset” the monitoring and reporting requirements, though it may not be necessary to repeat the Baseline study.

CUP Differs from Other Permits

The Conditional Use Permit, prepared in the year 2000, describes mitigations that include 750 acres of “biological habitat mitigation and buffer area” on ALRRF property. It also anticipates the possibility of additional off-site mitigations being required. For wetland mitigation, it requires “the creation of 2.5 acres of seasonally inundated wetlands in four units in Section 17” which is the westernmost part of the ALRRF property.

The suite of Federal and State permits¹ was finalized in 2011, after detailed investigation and further input from ALRRF, its consultants, and regulatory agencies’ staff about the species of special concern, the final footprint of Fill Area 2 and ancillary land uses, and the area of the channels and wetlands that would be eliminated by Fill Area 2. These permits incorporate-by-reference the ALRRF’s August 2010 Conservation Management Plan and its Appendices which cover Grazing, Pest Management, and Waters and Wetlands Mitigations. In the Conservation Management Plan, the mitigations were described as the 991.6-acre Conservation Plan Area; a created wetland one acre in size in Section 15 near the Eastern Alkali Wetland; and restoration of 0.5 acres of channel in the northeast corner of the ALRRF site.

¹ Army Corps of Engineers’ Permit SPK-1993-00056, August 15, 2011; US Fish and Wildlife Service Biological Opinion 1-1-04-F-0488, June 21, 2010; Regional Water Board Water Quality Certification December 22, 2010; California Department of Fish and Game Consistency Determination 2080-2010-035-03, October 7, 2010 and Streambed Alteration Agreement 1600-2004-0359-R3, October 14, 2010.

memorandum

date December 22, 2017
to ALRRF Community Monitor Committee
from Kelly Runyon
subject CMC Meeting of 1/17/18 - Agenda Item 6.3 - Five-Year Permit Review

Five-Year Review of Solid Waste Facilities Permit

The LEA is continuing to review the Joint Technical Document and related material applicable to the reissuance of the ALRRF Solid Waste Facility Permit.

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memorandum

date December 22, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 1/17/18 - Agenda Item 6.4 - Review of Reports Provided by ALRRF

The semiannual reports on groundwater monitoring and air emissions will be received in early 2018, and reviews will be provided at the April 2018 meeting.

Item 6.5 (Review of Documents on Geotracker Web Site) includes reviews of several focused reports recently submitted by the ALRRF or its consultants to the Central Valley Regional Water Quality Control Board.

In connection with Item 6.2 (Reporting Requirements for Wetland Mitigation), the ALRRF has provided several documents that contain useful background information regarding the permitting and development of the wetland mitigation measures. These are listed below for reference. They are not monitoring reports, and they do not describe current conditions, so they have not been summarized for the Committee's consideration at this time.

- June 8, 2012 Notice of Recordation of Conservation Easement (for Conservation Plan Area)
- August 15, 2011 Department of the Army Permit
- December 22, 2010 Central Valley Regional Water Quality Control Board Water Quality Certification
- October 7, 2010 California Department of Fish and Game Consistency Determination
- August 17, 2010 California Department of Fish and Game Streambed Alteration Agreement
- August 2010 Conservation Management Plan, with Appendices

ALRRF staff also provided a copy of the specification for hydroseeding the Evapotranspirative Cover Test Area. It includes the following species:

- California Brome (*Bromus carinatus*)
- Meadow Barley (*Hordeum brachyantherum*)
- Creeping Wild Rye Grass (*Leymus triticoides*)
- California Poppy (*Eschscholzia californica*)
- Sky Lupine (*Lupinus nanus*)
- White Yarrow (*Achillea millefolium*)
- Bicolored Lupine (*Lupinus bicolor*)

These are appropriate native species; the grasses are perennial natives, and the lupines will add nitrogen to the soil to support plant growth over the years. A local source for the seed mix is identified in the specification. The specification calls for hydroseeding in late summer / early fall, with fertilizer and inoculant added, protecting the seed with straw that is free of noxious weeds.

I have several concerns regarding the planting of the ET cover area:

- After hydroseeding, supportive irrigation may be needed if the weather pattern causes germination and then provides no additional rain water for several weeks.
- Driving on the hydroseeded area should be avoided while these plants are growing. There are landfill gas wells and lysimeters in the ET cover area that will need to be accessed during the growing season, and surface emission monitoring will need to be performed; ideally, access to the ET cover test area should be on foot to minimize damage to the new vegetation.
- A procedure for identifying and removing weeds will be needed.
- Currently, the soil that has been prepared for the ET cover area is stockpiled nearby, uncovered. Covering these stockpiles with tarps would be a costly step, but it could prevent windborne weed seeds from accumulating on the piles, and possibly germinating, over the next several months.

These concerns are not the hydroseeding contractor's responsibility, but the ET Cover Work Plan includes a Monitoring Plan that could be augmented to address these issues. For example, the drone photography called for in the Monitoring Plan is intended to measure bare (unvegetated) areas but it could also be used to identify areas where weeds are emerging.

memorandum

date December 22, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 1/17/18 - Agenda Item 6.5 - Review of Documents on GeoTracker Web Site

Reports from the ALRRF to the Central Valley Regional Water Quality Control Board (Water Board), and Water Board responses, have been reviewed as they have been posted on the Water Board's GeoTracker website. These include reports describing aspects of ALRRF operation that are of interest to Water Board staff, as well as Water Board requests for further information. Below, for ongoing topics, new information is summarized in *italicized* additions to the summaries provided for the Community Monitor Committee's previous meeting. These are followed by new topics, which are summarized in plain text.

Ongoing Topics

Identifying Sources of VOC's in Storm Water

A December 1, 2016 letter from SCS Engineers (on behalf of ALRRF) to Central Valley Regional Water Board staff addresses that Water Board's requirement for a Work Plan to identify and evaluate potential sources of VOCs that may have impacted stormwater at the facility. On June 30, SCS Engineers submitted a Progress Letter to the Water Board on behalf of the ALRRF. It notes that no samples were taken in 2017, because the wet season came to an end after April 26 with no additional rainfall. A September 13, 2017 letter from Water Board staff requires that "a report documenting the results of the investigation ... be submitted by 30 June 2018." *No further documents or correspondence on this subject have been made available to date.*

Additional Monitoring Well Installed; VOC's Found, but Resampling Is Needed to Confirm

A December 15, 2016 report by Geosyntec addresses requirements in the 2016 WDRs to evaluate the adequacy of the current groundwater monitoring system and propose additional wells to adequately monitor Fill Area 2 throughout its development. Subsequently, a May 23, 2017 Monitoring Well Installation Report by Geosyntec has been submitted, documenting the installation of one upgradient well (MW-19) and two downgradient wells (MW-14R, MW-21) adjacent to the Phase 1 portion of Fill Area 2. It also proposed locations for additional wells MW-20 and MW-22 to monitor the Phase 2 and Phase 3 areas, respectively. *A report from Geosyntec Consultants, dated November 17, 2017, describes the installation of monitoring well MW-20. The installation was straightforward. The initial sampling from that well detected low levels of five VOC's, but two of those VOC's were also found in "blank" quality assurance samples, so duplicate samples are being re-analyzed, and the well will be resampled in December 2017.*

Soil Gas Monitoring Locations

A February 28, 2017 report by Geosyntec on behalf of the ALRRF proposes soil gas monitoring locations to satisfy the soil gas monitoring conditions in the current Waste Discharge Requirements. In an April 25 letter, Water Board staff call for a “detailed rationale for the spatial distribution selected for the unsaturated zone monitoring devices proposed around the entire outside perimeter of each waste management unit” by May 31. An Addendum dated May 30, 2017, prepared by Geosyntec Consultants, responds to the Water Board by describing the existing soil gas probe system, noting where shallow groundwater constrains the installation of additional probes; the Addendum also describes the groundwater protection and leak detection systems designed for Fill Area 2 in detail. *The Water Board’s response was included in a letter to ALRRF dated November 9. In that letter, Water Board staff (a) rejected the ALRRF’s plan to use existing gas probes and required probes to be installed at the edge of each Phase of Fill Area 2; (b) stated that more than (the proposed) one new probe UGP-1 at the downslope edge of Phase 1 will be needed to assure early detection of a release; and (c) rejected the ALRRF’s position that shallow groundwater near the downslope edge of Phase 1 would cause gas probes there to potentially impact groundwater quality. The Water Board then required the ALRRF to carry out its proposed gas monitoring plan AND submit a revised work plan to install several additional gas probes that meet certain criteria as described.*

ET Cover Planning, Design and Installation

An April 14 letter from Waste Management to the Water Board transmitted an Evapotranspirative Cover Work Plan prepared by Geosyntec. This is in response to an October 19, 2016 letter from Water Board staff which outlined the needed content for the Work Plan. The Work Plan shows 3 feet of vegetative cover to be placed in the test area over 1 foot of existing intermediate cover, with the top 2 feet lightly compacted to 90 percent relative compaction prior to planting. The report also indicates that a full design package with construction drawings, specifications and a Construction Quality Assurance Plan will be prepared. *A September 25, 2017 letter from Waste Management informed the Water Board that due to differential settlement of recently-placed waste in the ET Cover test area, the area will need to be regraded before completing the cover soil installation; thus, the ET Cover test will need to be postponed one year, until the latter part of 2018.*

Leak from Leachate Pipe

An April 14 letter from Waste Management to Water Board staff reported a leak from a leachate pipe on ALRRF property immediately adjacent to Fill Area 1. The leachate plus rainwater, approximately 500 gallons in all, was captured using a vacuum truck and deposited in the solidification basin. Subsequently, the Water Board issued a Notice of Violation for having put the leachate in the solidification basin. This is expressly prohibited in Discharge Specification B1 of the current Waste Discharge Requirements. The NOV requires by 30 May 2017, a report prepared as an operation manual, outlining how accumulated liquid from any and all future leachate and/or condensate leaks will be contained, extracted, transported, and properly disposed. *To date, no further information from ALRRF or the Water Board has been made available on GeoTracker.*

Management of Liquid from Leachate Seep

A May 12 letter from Water Board staff commented on the removal of litter, as noted above; it also addressed the management of liquid from an apparent leachate seep that has occurred several times along a bench road on the south side of Fill Area 1. The letter expresses some concern about how the seep liquid was reportedly managed, and it requires a report providing additional detail by June 30, 2017. *To date, no further information from ALRRF or the Water Board has been made available on GeoTracker.*

Fill Area 1 Leachate and Underdrain Liquids Management; Use of Underdrain Liquid in Compost

On June 30, the ALRRF submitted a Work Plan for Fill Area 1, Leachate and Non-Leachate Liquids Management to the Water Board, as required by the 2016 Waste Discharge Requirements. This report, prepared by Golder Associates, describes existing systems handling liquids that, in the future, will be delivered to the two newly-constructed ponds serving Fill Area 1. One of those ponds is intended for leachate, the other for non-leachate liquids such as groundwater seepage collected by the landfill underdrain system. The report also describes several modifications to the existing system, to better isolate leachate from non-leachate liquids and, potentially, make good-quality non-leachate available for uses such as maintaining moisture levels in organics that are being composted. Water Board staff responded with a letter, dated August 13, that stated several explicit requirements to better protect water quality. For example, they prohibited the use of non-leachate water for compost moisture conditioning, because VOC's have been detected in samples of underdrain water. They also explicitly required an acknowledgement of these requirements (by 15 Oct 2017) and a copy of the final plans and specifications for the liquids management system improvements (by April 27, 2018) prior to implementing the work plan, as required, by 1 July 2018. *In their acknowledgement dated October 13, 2017, Waste Management stated that "Based on test results and if determined to be suitable, WMAC plans to use these non-leachate liquids as quench water in composting operations and/or for dust control within or outside of the landfill." In a response dated November 2, Water Board staff stated that the proposed use would require separate Waste Discharge Requirements, i.e., a separate Water Board permit, preceded by submittal of a Report of Waste Discharge from ALRRF to the Water Board (in essence, a permit application).*

New Topics

Spring Survey Report and Water Board Response

Geosyntec Consultants submitted a required Spring Survey Report, dated August 29, 2017, to fulfill a permit requirement to identify all springs within a 1-mile radius of the present and future footprint of disposed waste at the ALRRF. They identified three springs near Fill Area 2 by first reviewing recent aerial photos, then physically inspecting potential spring locations as indicated by that imagery, in May 2017. They also used a similar report, prepared in 1994, as a check. They found two active springs and one inactive (but recently active) spring. They concluded that sampling at the springs is not recommended, based on the springs' location in relation to the existing groundwater monitoring network. The Water Board responded as part of a letter dated November 2, 2017, requiring sampling of the active springs because they are downgradient of impacted wells E-20B and MW-12, and because the nearby well cluster is not routinely sampled.

Leachate Seep Notification and Water Board Response

An October 5, 2017 letter from the ALRRF provided formal notification to the Water Board about a leachate seep that occurred along the northern border of Fill Area 1 on September 29. The letter documents the extent of the seep and makes it clear that all escaped leachate (estimated to be approximately one gallon) was captured. Because the seep had flowed into a concrete lined drainage ditch, the ditch was isolated and rinsed, and the rinse water was also captured. The collected liquid was recirculated in the Class 2 portion of the landfill. The Water Board's response notes that "a March 2017 Google Earth photograph shows substantial ponding ... just northeast of the ... seep ...". (In fact this was disposed biosolids, which contain enough moisture to have a wet surface, but this was not ponded water.) The letter also recommended that this area and the solidification basins be considered as possible sources for the leachate seep, and that the nearby area be regraded to prevent ponding.

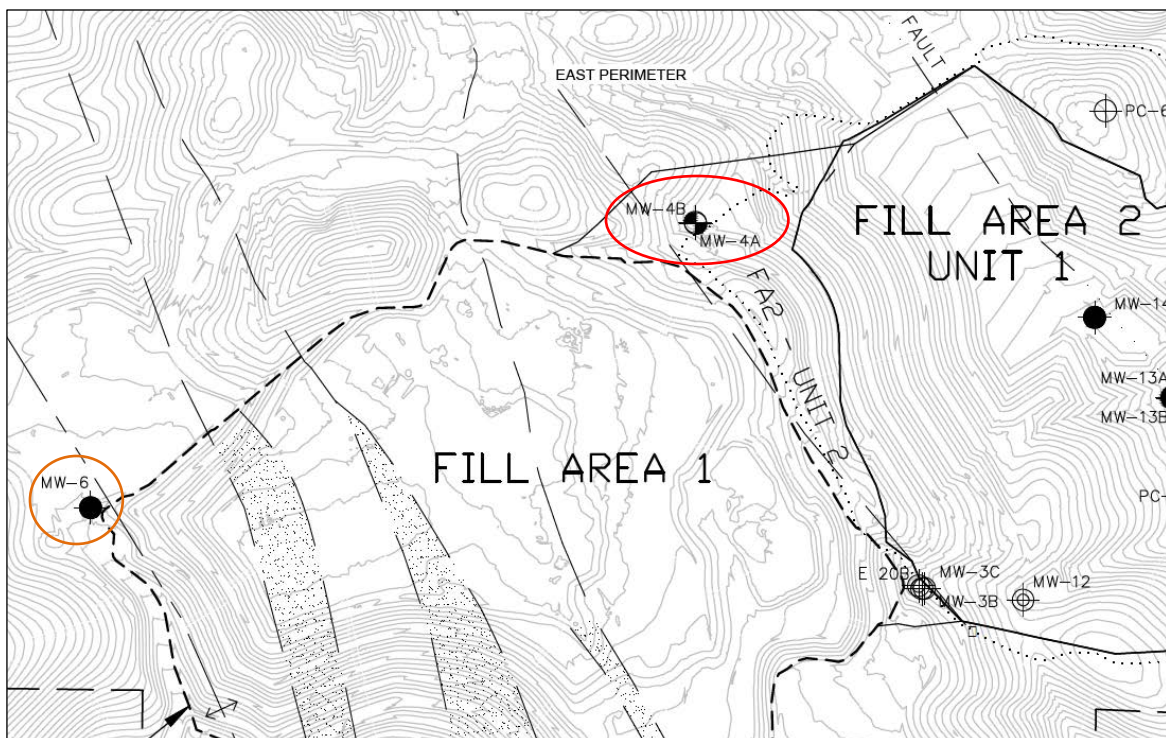
Notice of Violation and Work Request

Samples from monitoring well MW-4, which is outside the northeast edge of Fill Area 1, contained exceedances of certain inorganics and VOCs in May 2017. In resamples taken in June and July, bicarbonate alkalinity, 1,1-DCA, cis-1,2-DCE, and MTBE were detected in all samples during that period. In the initial sample, calcium and two other VOCs had also been detected.

The Water Board notice states in part: "...now that a release is confirmed, the Discharger is required to establish an evaluation monitoring program" that meets certain specified requirements. The notice also points out that detection at this site is contrary to the landfill's hydrogeologic model, which states that groundwater flow generally follows topography and thus would not be migrating toward MW-4. It concludes with this paragraph:

To comply with the requirements outlined in both the WDRs and Title 27, Waste Management shall submit a work plan, by 22 December 2017, to implement an evaluation monitoring program to assess the nature and extent of the release identified in MW-4A. Given the release was detected along the unmonitored northern limit of Fill Area 1, where the Discharger's Hydrogeologic Model suggest a release was unlikely to occur, the evaluation monitoring program must address the entire 3,500 foot long northern boundary of the site, between wells MW-4A and MW-6.

The image below, taken from the ALRRF Joint Technical Document, shows the locations of MW-4 and MW-6 in relation to the landfill footprint. (Several northwest-to-southeast lines show old earthquake fault traces that happen to be documented for reference in this drawing.) The Work Plan was not available in time for this agenda packet, but it will be summarized for the Committee when it becomes available.



Winterization Plan

The ALRRF submitted its annual Winterization Plan, as required, showing photos of stormwater controls throughout the site. The controls include measures used in prior years, such as wattle, straw mat, silt removal from ditches and drains, etc. New this year: water bars have been installed on steep unpaved roads to prevent erosion, by diverting water into roadside ditches. In addition, sediment removal from Fill Area 1 stormwater basins B and C is shown in this document.

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memorandum

date December 22, 2017
to ALRRF Community Monitor Committee
from Kelly Runyon
subject CMC Meeting of 1/17/18 - Agenda Item 6.6 - Reports From Community Monitor

Attached are inspection reports for October through December of 2017.

The October inspection was announced and took place on October 10.

The November inspection was announced and took place on November 28. It was preceded by a two-hour truck count, which found that refuse truck traffic was well below the limit in the Conditional Use Permit.

The December inspection was unannounced and took place on December 20, with the LEA.

During these inspections, all landfill operating areas were observed. Recent LEA inspection reports were reviewed on-line.

Details about operations-related matters are provided in the attached reports. Issues that cause special concern are marked with yellow rectangles in the monthly inspection reports.

Also attached are graphs showing monthly tonnages by type of material for the most recent 12-month period. Figure 6.6-1 shows the breakdown of materials that make up Revenue-Generating Cover. Figure 6.6-2 shows these same quantities, plus the Municipal Solid Waste (MSW) and Special Waste tonnage for each month. Tonnage specifically from the City of Newark appears as an orange line on this graph.

In addition, a review of Class 2 soil files was conducted at Waste Management's Oakland offices. This review covered 102 files, all but two of which contained the expected profile test results. The two unprofiled sources were from small residential projects; this was confirmed using Google Maps to check the source addresses. ALRRF staff informed us that when the source is obviously a small residential project, they do not require laboratory profiling.

ALRRF Community Monitor Monthly Report**October 2017**Monthly Tonnage Report for September 2017, received October 16, 2017

Tonnage Summary:		<u>tons</u>	
Disposed, By Source Location			
1.1	Tons Disposed from Within Alameda County	83,183.11	
1.2	Other Out of County Disposal Tons	<u>2,472.62</u>	
	subtotal Disposed	85,655.73	
Disposed, By Source Type			
2.1	C&D	977.23	
2.2	MSW	67,939.52	
2.3	Special Wastes	<u>16,738.98</u>	
	subtotal Disposed	85,655.73	
		0.00	0.00%
Other Major Categories			
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	85.23	
2.5	Revenue Generating Cover	<u>84,845.28</u>	
	Total, 2.1 - 2.5	170,586.24	
Materials of Interest			
2.3.1	Friable Asbestos	413.81	
2.3.2	Class 2 Cover Soils	<u>56,290.31</u>	
2.5.1	Auto Shredder Fluff	12,408.15	
2.5.2	Processed Green Waste/MRF fines, Beneficial Use (GSET)	20.96	
2.5.3	MRF Fines for ADC	2,387.99	

Large Volumes from Newark (and Livermore)

- In August the site received 31,832.16 tons of special waste for Class 2 disposal, about 10x the usual; in September, this diminished to 13,700.92 tons, still well above normal. Across the same time frame, disposal deliveries from Newark went from 30,267.59 tons down to 9,832.12 tons, and there was an unusually large quantity from Livermore: 2,116.28 tons. It appears that most of the Class 2 special waste originated from those two cities.

ALRRF Community Monitor Monthly Report**October 2017**Site Inspection October 10, 2017, 10:30 AM - 12 noon.

- Attended by K. Runyon. Escorted by Enrique Perez and Audrey Lundin. Announced.
- Refuse filling was occurring in the Class 2 area on the northeast part of the site. Two tippers, two dozers and one compactor were operating. Site equipment operators were also using a wheeled loader to dislodge material stuck in a Fremont transfer truck.
- The solidification pits were inactive during this visit. They appeared to be in good condition.
- The C&D bunker was about 1/4 full; the plant debris bunker was about 1/2 full. No prohibited materials were seen.
- Additional portable litter fences were present downwind of the working face.
- The "blanketing" of tall permanent litter fences, noted in the September visit, was not seen this time.
- The seagull population appeared to be at normal levels for the summer season. Bird scare munitions ("screamers") were in use. The cannon was out of service during this site visit.
- Shredded wood, stockpiled for use as ADC, was closely observed. Very minor amounts of non-wood material, such as small shreds of plastic, were visible in the stockpile. These may have blown onto the pile after delivery; in any case they would not interfere with the material's performance as cover.



Shredded wood stockpile



Closeup of shredded wood

ALRRF Community Monitor Monthly Report**October 2017**Stormwater Controls and Best Management Practices

- Basin A water level was about 2-3 feet below its discharge elevation. The discharge riser was fully exposed. No litter was seen.
- Basin B held a small amount of water, well below the base of the discharge riser. The new basin upstream of Basin B was empty. No litter was observed at either location.
- At the truck wash overflow basin, previously-observed invasive plants continued to be present, and an additional weed, stinkwort (*Dittrichia graveolens*) was blooming on the flat ground immediately north of the basin.
- Workers were observed installing wattle to side slopes between Fill Area 1 and Fill Area 2.

Asbestos Disposal Area

- The area was in good condition, with one load staged for cover later in the day.

Leachate Seep

- Staff reported that a leachate seep had been discovered recently on the north side of Fill Area 1. The leachate was intercepted before it could travel beyond the V-ditch where it was first observed. Tire chips were staged nearby to be used in an interceptor ditch if needed.

Evapotranspirative (ET) Cover Test Area

- The 10-acre test area for evapotranspiration (ET) cover appeared to be unchanged from previous site visits, but staff reported that differential settlement has occurred, and this is likely to interfere with preparations for the planned test.
- Soil screening and blending for the ET cover area was continuing, but no additional soil had been placed above the initial layer of cover material, first observed in June.

Fill Area 2

- The area appeared to be undisturbed and in good condition, with very little windblown litter.
- The small landslide area was unchanged from last month, but staff reported that repair would occur later in October.

ALRRF Community Monitor Monthly Report

November 2017

Monthly Tonnage Report for October 2017, received November 8, 2017

Tonnage Summary:		<u>tons</u>
Disposed, By Source Location		
1.1	Tons Disposed from Within Alameda County	83,637.95
1.2	Other Out of County Disposal Tons	1,912.38
	subtotal Disposed	<u>85,550.33</u>
Disposed, By Source Type		
2.1	C&D	1,237.26
2.2	MSW	69,568.42
2.3	Special Wastes	14,698.63
	subtotal Disposed	<u>85,504.31</u>
	Difference due to new out-of-County source (City of Richmond).	-46.02
	Corrections have been made to the tonnage database.	-0.05%
Other Major Categories		
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	187.67
2.5	Revenue Generating Cover	88,181.36
	Total, 2.1 - 2.5	173,873.34
Materials of Interest		
2.3.1	Friable Asbestos	436.55
2.3.2	Class 2 Cover Soils	64,182.65
2.5.1	Auto Shredder Fluff	13,954.36
2.5.2	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00
2.5.3	MRF Fines for ADC	3,273.41

ALRRF Community Monitor Monthly Report**November 2017**Site Inspection November 28, 2017, 9:00 - 10:45 AM

- Attended by K. Runyon, escorted by Audrey Lundin and Tianna Nourot. Announced.
- The parking lot near the mechanics' shop had been repaved and re-striped.
- The truck wash water basin weed situation was unchanged. The tamarisk has continued to sprout from stems that had appeared dead after treatment in 2016.
- Refuse filling was occurring from the winter pad in the northeast part of the site. Two tippers were operating, and two dozers and two compactors were spreading and compacting waste. There was no queue of transfer trucks. The public unloading area was adjacent to the tippers, to the east.
- The solidification pits were available, and the blue-flag pit was receiving waste. No mixing or loadout was occurring.
- The C&D bunker was 1/4 full; the plant debris bunker, 3/4 full. Neither had any prohibited items.
- ALRRF staff stated that the leachate seep along the north edge of the site has not recurred.
- Some windblown litter was evident on the south face of Fill Area 1. This is being addressed by the litter pickup crew.
- An enormous flock of gulls (rough estimate: three or four thousand) was seen resting in the CASP curing area, on the west side of the Fill Area 2 access road. This was in addition to the usual number of gulls at the working face. The bird cannon was in use.
- At the ET test area, a shallow valley has formed in the upper portion, near a gas well; the bottom of this valley is indicated with a yellow dashed line in the photo below.



- The soil preparation area, where ET cover soil is prepared and blended, was inactive.
- The new leachate and underdrain ponds for Fill Area 1 were not yet in service.

ALRRF Community Monitor Monthly Report**November 2017**Fill Area 2

- The Fill Area 2 access road has been reopened, as construction of the CASP site apparently is nearing completion. The alternate route to FA2, a steep dirt road down to the office and unloading area, has had water bars installed to direct runoff to the roadside ditch, to prevent erosion.
- The area appeared to be undisturbed and in good condition, with no windblown litter visible.
- The small landslide area above the west side of FA2 has been repaired and regraded. The repair area is about three times as wide as the obvious portion of the slide had been. The area did not appear to have been hydroseeded. See photo below.



- The apparent groundwater seep immediately south of the Fill Area 1, Phase 3 excavation was visible as wet soil at the surface.

Stormwater Controls and Best Management Practices

- Basin A is being prepared for excavation, to restore capacity and remove encroaching vegetation. A small backhoe was present, and the water had been drained to an unusually low level. Staff reported that the water was tested as part of the draining process. No litter was seen in the basin. Staff also mentioned that an underground power line near Basin A had been confirmed as out-of-service, enabling the excavation to proceed.
- Basin B held a small amount of water, below the base of the discharge riser. No litter was evident. The basin upstream of Basin B was empty and free of litter.
- Basin C water level was below the base of its discharge riser. No litter was evident.
- After the recent rains, the only ponding seen was near the wastewater treatment system, outside of the refuse fill area.
- In Fill Area 2, Basin SB-A appeared to be empty and free of litter. SB-1 water level was below the base of the discharge riser.

ALRRF Community Monitor Monthly Report

December 2017

Monthly Tonnage Report for November 2017, received December 15, 2017

Tonnage Summary:		<u>tons</u>	
Disposed, By Source Location			
1.1	Tons Disposed from Within Alameda County	69,845.93	
1.2	Other Out of County Disposal Tons	<u>1,739.47</u>	
	subtotal Disposed	71,585.40	
Disposed, By Source Type			
2.1	C&D	373.76	
2.2	MSW	67,305.34	
2.3	Special Wastes	<u>3,906.30</u>	
	subtotal Disposed	71,585.40	
		0.00	0.00%
Other Major Categories			
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	103.17	
2.5	Revenue Generating Cover	33,454.37	
	Total, 2.1 - 2.5	105,142.94	
Materials of Interest			
2.3.1	Friable Asbestos	594.34	
2.3.2	Class 2 Cover Soils	15,639.86	
2.5.1	Auto Shredder Fluff	11,227.61	
2.5.2	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00	
2.5.3	MRF Fines for ADC	1,605.86	

ALRRF Community Monitor Monthly Report**December 2017**Site Inspection December 20, 2017, 9:00 - 11:00 AM

- Attended by K. Runyon, accompanying LEA Arthur Surdilla. Escorted by Audrey Lundin and Brenda Perez. Announced.
- Refuse filling was occurring in the southeast portion of the site, about 200 feet north of the ET Cover Test area.
- Two tippers were available, and one of them was operating during these observations. Two dozers and one compactor were spreading and compacting waste. There was no queue of transfer trucks. The collection-truck unloading area was adjacent to the tippers, to the east. The general public unloading area was north and west of the tippers.
- Cover material was being stockpiled downslope of the general public area.
- The solidification pits were available but not active.
- The C&D bunker was 1/2 full; the plant debris bunker, 3/4 full.
- ALRRF staff stated that the leachate seep along the north edge of the site has not recurred. Leachate near the surface is being captured by an interceptor trench.
- A new condensate handling system was being installed, to direct condensate through a new poly tank on the west edge of the top deck, then to the flare for destruction.
- Portable wind screens were being moved into place in anticipation of predicted strong winds from the north.
- As in November, a very large flock of gulls was seen resting in the CASP curing area, on the west side of the Fill Area 2 access road. This was in addition to the usual number of gulls at the working face. The bird cannon was in use.
- The ET cover test area appeared unchanged from the previous site visit.
- The soil preparation area, where ET cover soil is prepared and blended, was inactive. The soil stockpiles were not covered.
- The new leachate and underdrain ponds for Fill Area 1 were dry.
- The location and condition of monitoring well MW-4 were observed. Everything appeared normal. Some minor erosion was seen in the adjacent swale, from a stormwater downdrain at the upper end of the slope.
- Landfill staff stated that in the past several weeks, several new landfill gas wells were installed along the east side of the landfill, north of the asbestos area.

Fill Area 2

- The area appeared to be undisturbed and in good condition, with no windblown litter visible.
- The repaired landslide area above the west side of FA2 has been hydroseeded.

ALRRF Community Monitor Monthly Report**December 2017**Stormwater Controls and Best Management Practices

- Basin A was in the process of being excavated. Staff reported that Basins B and C had also been excavated, to increase capacity. Before-and-after photos of the upper end of the basin:



- After the recent rains, the only ponding seen was alongside a perimeter road, outside of the refuse fill area.
- In Fill Area 2, Basin SB-A appeared to be empty and free of litter. SB-1 and SB-2 water levels were below the bases of their discharge risers.

Special Occurrences Log (last summarized early July 2017)

- An unusually large number of overturns of end-dump trucks have occurred since the last summary. These occurred on August 25; September 6, 12, 19, 25 and 27; and October 12. Causes ranged from driver inattention to stuck material to possibly unbalanced loads. Other incidents were:
 - Aug 17: Hydraulic hose leak on third-party truck, after weighing in. Oil properly disposed.
 - Aug 18: Grass fire near Fill Area 2 and CASP site. Caused by "hot" electrical line that occurred during installation of CASP equipment.
 - Sep 29: Leachate seep along northwest edge of landfill. All material captured in V-ditch or on nearby ground.
- Oct 5: Leak of refrigerant from LNG plant. Over 500 lb of refrigerant, consisting of liquid nitrogen and several hydrocarbons, were vented to the atmosphere. Linde is investigating.
- Nov 13: Truck fuel tank punctured. 30 - 35 gallons of diesel fuel leaked, captured using soil.
- Nov 29: Leachate leakage from pump in Fill Area 1 unit 1. Liquid was captured; liquid and contaminated soil were disposed in Fill Area 1 unit 2 (Class 2 area, with leachate recirculation).
- Dec 6: Condensate leak from pump inside containment area surrounding the on-site wastewater treatment plant. Liquid covered an extensive area approximately 2 to 3 inches deep. Plan is to pump the liquid to a storage tank, clean the containment area and properly dispose of the rinsate.

Figure 6.6-1 Monthly Volumes of Revenue-Generating Cover

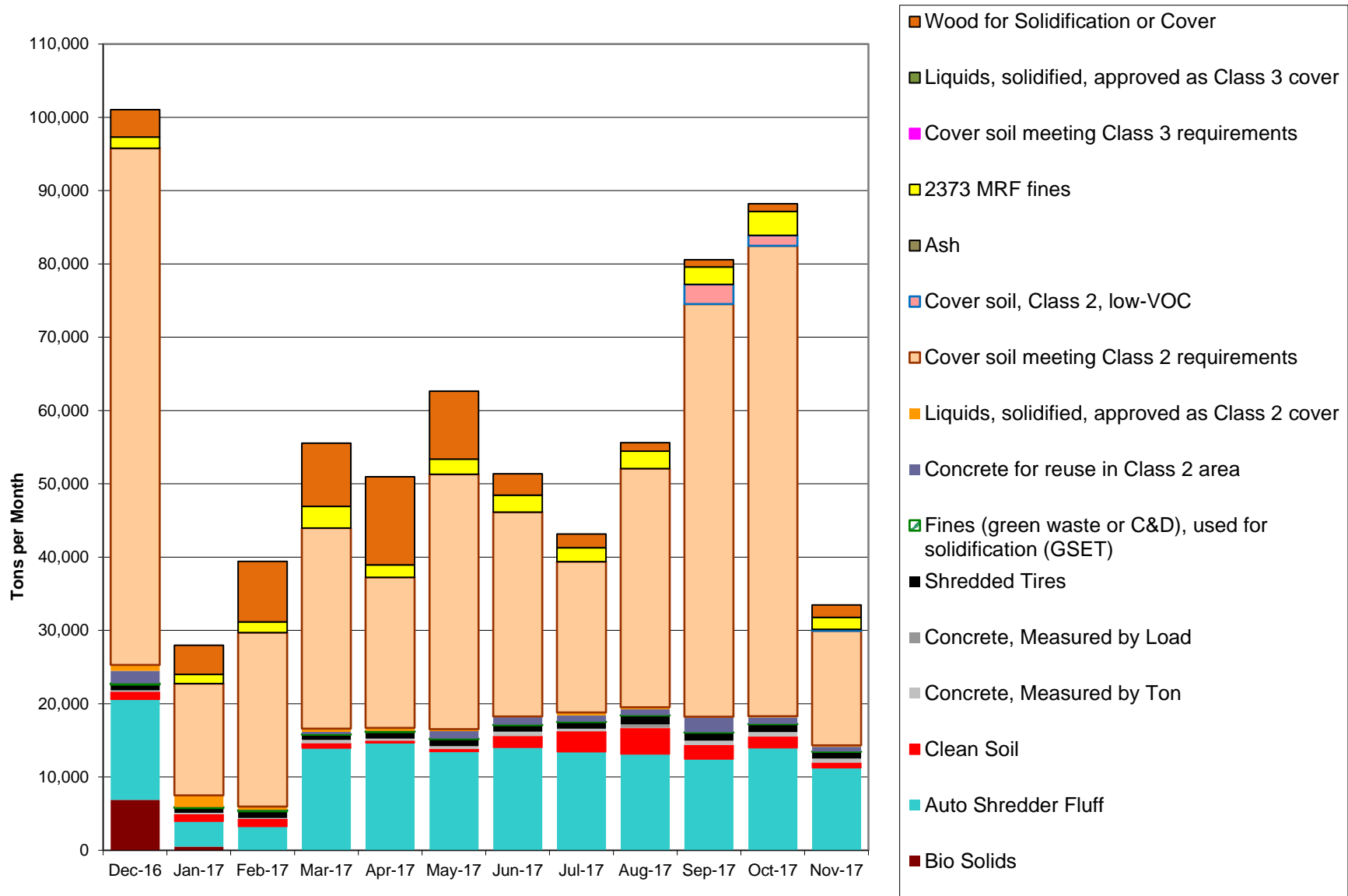
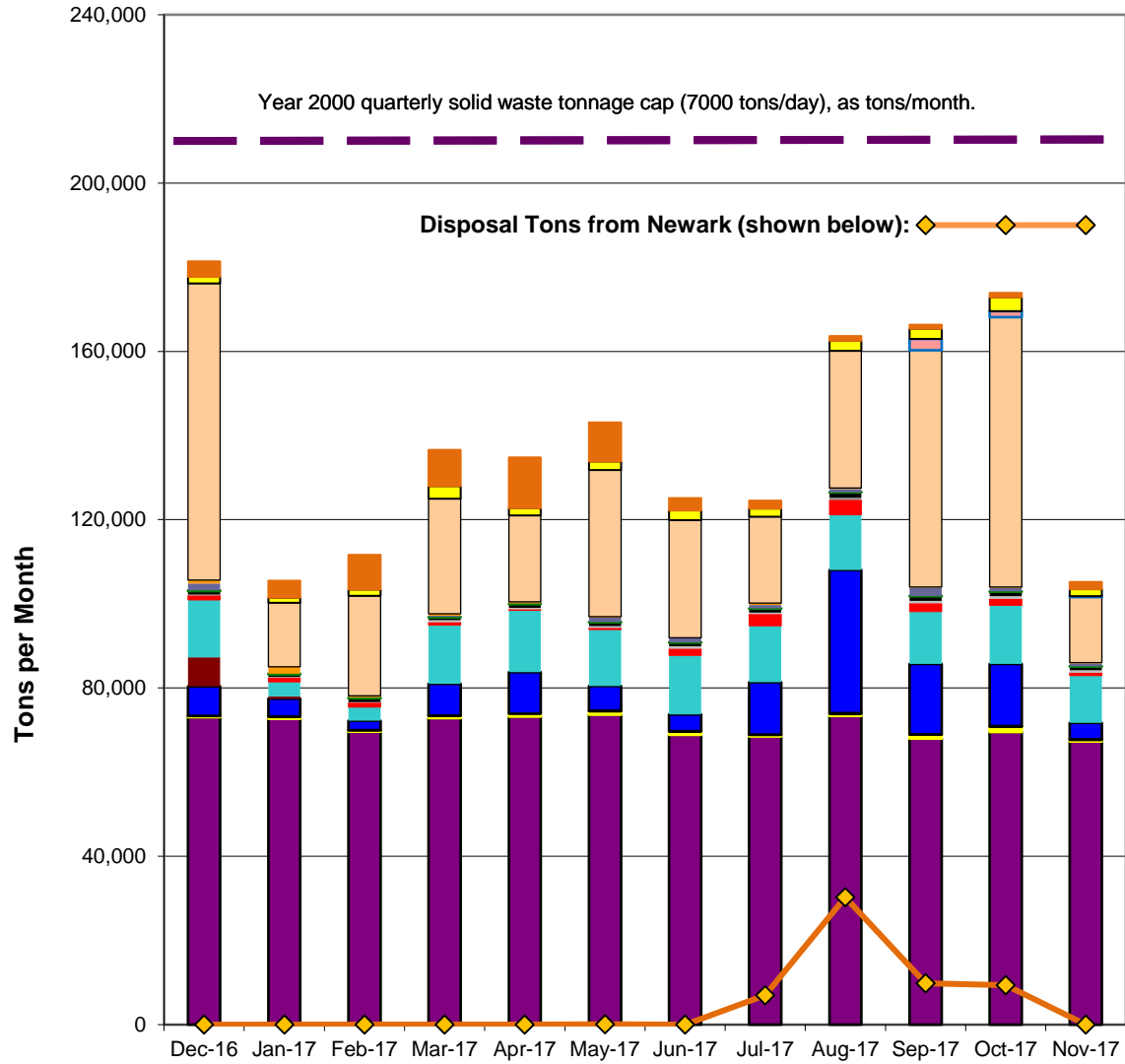


Figure 6.6-2 Monthly Volumes of Landfilled Materials



- Wood For Solidification or Cover
- Liquids, solidified, approved as Class 3 cover
- Cover soil meeting Class 3 requirements
- 2373 MRF fines
- Ash
- Cover soil, Class 2, low-VOC
- Cover soil meeting Class 2 requirements
- Liquids, solidified, approved as Class 2 cover
- Concrete for reuse in Class 2 area
- Fines (green waste or C&D), used for solidification (GSET)
- Shredded Tires
- Concrete, Measured by Load
- Concrete, Measured by Ton
- Clean Soil
- Auto Shredder Fluff
- Bio Solids
- Special Waste
- Redirected Waste (RDW)
- Construction and Demolition (C&D)
- MSW

memorandum

date December 24, 2017
to ALRRF Community Monitor Committee
from Michael Burns, Kelly Runyon
subject CMC Meeting of 1/17/18 - Agenda Item 6.7 - Draft Annual Report

The draft Annual Report for 2017 is hereby submitted for review. There is new or updated information in many areas, especially the following sections:

- 1.3 Regional Context and Landfill Capacity Needs
- 1.5.2 Requirements for Fill Area 2 Development and Use
- 2.2 Monitoring of Improvements and Changes
- 2.3.2 Water Board Violations and Concerns
- 2.4.4 Mitigation Monitoring
- 2.5.1 Class 2 Soils

Topics new this year are discussed in the following sections:

- 1.5.2 Mitigation Pond status; Conservation Plan Area wetlands
- 1.5.2.2 Wildlife corridors and connectivity
- 2.2 Evapotranspirative cover test area; Stormwater-related monitoring
- 2.5.2 South Bay salt pond soils, and related materials

When all Committee member comments and corrections are received, the Annual Report will be finalized and posted on the Community Monitor Committee web site.

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ALRRF COMMUNITY MONITOR ANNUAL REPORT 2017

DRAFT

Prepared for
ALRRF Community Monitor
Committee

January 17, 2018



The photo on the cover of this report shows *Croton setiger*, commonly known as dove weed or turkey mullein. This low-growing native plant tolerates full sun and blooms in mid to late summer. Livestock generally avoid consuming it. The photo was taken on September 13, 2017 in the northeast portion of the ALRRF Conservation Plan Area, near Stock Pond 6.

ALRRF COMMUNITY MONITOR ANNUAL REPORT 2017

DRAFT

Prepared for
ALRRF Community Monitor Committee

January 17, 2018

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SECTION 1

Introduction

1.1 Background: 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 limited the expansion to a second permitted operational area, known as Fill Area 2, adjacent to the existing Fill Area 1. The Settlement Agreement established the Community Monitor Committee (CMC) and a funding mechanism for its technical consultant, 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 twelve times each year. 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 2017.

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 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 Langan (formerly Treadwell & Rollo). This team began work in February 2008. From 2008 through 2015, 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, the ALRRF sought to use fine material¹ from the Davis Street Material Recovery Facility (MRF) as Alternative Daily Cover. The use of this material was approved by the LEA through a special study 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. Since mid-2013, the CM's observations and document reviews have included the construction of Fill Area 2 and related mitigation measures. The excavation and preparation of the Phase 1 portion of Fill Area 2, together with related improvements including stormwater basins, a truck wash system, a leachate containment pond and access road, etc., were monitored in 2014 and 2015.

In March of 2015, the Five-Year Permit Review process began when the Local Enforcement Agency (LEA), which is the Alameda County Department of Environmental Health, requested the ALRRF to submit an application and a revised draft of its Joint Technical Document², which contains a detailed description of Fill Area 2 development plans, design details, and operating procedures.

On July 31, 2015, the revised JTD was submitted to the LEA and the Central Valley Regional Water Quality Control Board (Water Board). After a substantial number of revisions to address ALRRF concerns about the feasibility and reasonableness of certain requirements, Waste Discharge Requirements (WDRs) were issued in July 2016, with certain details to follow later in 2016.

Throughout this process, the LEA held its permit review in abeyance while the Water Board issues were resolved. Subsequently, the LEA's review has required more than a year to complete, and it was still in progress in late 2017.

1.3 Regional Context and Landfill Capacity Needs

Events in the landfill disposal industry and demographic shifts within the greater Bay Area have affected, and will continue to affect, operations and future developments at the ALRRF. Prior Annual Reports have discussed impending landfill capacity changes and changes in landfill usage that could directly affect the life expectancy of regional landfills including the ALRRF.

Those issues have largely abated, but legislative and regulatory developments have new implications for landfill life in the region and statewide. The bellwether for this trend was AB 1594, which was passed in 2014. It stipulates that beginning in 2020, green material alternative daily cover (ADC) will no longer count as diversion under the 50 percent diversion mandate for local jurisdictions established by AB 939. Green material ADC will instead count as disposal from that year forward.

The 2015-16 legislative session in California gave rise to several new laws that are intended to dramatically reduce the disposal to landfill of organic wastes (plant debris, food scraps and

¹ MRF fines: Fine material produced by sorting systems that recover materials at the Davis Street Transfer Station.

² Under California regulations, a Joint Technical Document (JTD) is a detailed description of all of the means and methods by which a disposal site will satisfy State requirements to protect water resources and safely dispose of permitted wastes.

similar materials that readily decompose). In Alameda County, this material is nearly 30% of the waste stream³.

These new laws are now being implemented, with regulations in the final stages of development. The two pieces of 2016 legislation with the most direct effect are SB 1383 and AB 901. SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020, and a 75 percent reduction by 2025. The bill provides CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets, and establishes an additional target that not less than 20 percent of edible food that is currently disposed of is recovered for human consumption by 2025.

AB 901 changes how disposal and recycling is reported to CalRecycle. Waste, recycling, and compost facilities, as well as exporters, brokers, and transporters of recyclables or compost will be required to submit information directly to CalRecycle on the types, quantities, and destinations of materials that are disposed of, sold, or transferred inside or outside of the state. The intended effect is to provide a more accurate assessment of progress toward State goals.

One result of this activity has been a tangible commitment by waste industries in California to provide organics diversion facilities. In Alameda County, the largest-scale examples are the development of the 500 ton per day CASP facility at the ALRRF, and the proposal to add approximately 100 tons per day of anaerobic digestion and subsequent composting capacity to the diversion processes performed at the Davis Street Transfer Station. This could lead to a reduction of roughly 600 tons per day disposed at the ALRRF, which would be a 25% reduction in the current rate of disposal there. This has obvious implications for the landfill's phased-development plans, and it may also impact the rate at which energy can be recovered in the future.

1.4 Site-Specific Constraints and Opportunities

The 1999 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. Numerous conditions intended to protect natural resources on the ALRRF property were imposed. These were extensively refined during the development of permit conditions from the State and Federal natural resource agencies with permit authority: The US Army Corps of Engineers, the US Fish and Wildlife Service, the California Department of Fish and Wildlife, and the Central Valley Regional Water Quality Control Board. This process required several years and concluded in 2012.

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. As Fill Area 1 neared its final elevation in 2016, the windblown-litter problem continued due to the

³ CalRecycle 2014 Waste Characterization Study: <https://www2.calrecycle.ca.gov/WasteCharacterization/>, accessed December 2017.

increased exposure of its active face to wind. The landfill has added staff dedicated to litter cleanup and has taken other steps to reduce the exposure of refuse to the wind. Local and state bans on the use of plastic bags by retailers may be helping to reduce this problem, but the widespread use of plastic trash bags and plastic film continues to produce windblown litter at the ALRRF. Ultimately, the solution will occur when disposal operations move into Fill Area 2, which will be less exposed to the wind for many years into the future.

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 prevents groundwater contamination by leachate.
- Landfill gas (LFG) is controlled by an extraction system. Currently the gas is used to produce fuel (liquefied and compressed natural gas, LNG/CNG) and electrical energy.
- Emissions from combustion and processing (diesel engines and landfill gas systems) are controlled to meet Bay Area Air Quality Management District standards.
- 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 at the ALRRF include:

- using LFG to produce electricity and fuel (LNG/CNG);
- using CNG fuel for on-site operations, as fuel for tipper engines;
- stockpiling and processing materials for beneficial use on site, such as using waste concrete for wet-weather roads and access pads;
- blending liquids and other materials to make a soil-like product that can be landfilled or used as cover;
- 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 (not yet active).

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.

In 2010, design revisions for the final shape of Fill Area 1 increased its capacity, further increasing its expected lifetime. Settlement of in-place refuse has also added to the life of Fill Area 1, so that Fill Area 2 is not expected to receive refuse until 2019.

Lands surrounding Fill Areas 1 and 2 are managed primarily as grazing land. These surrounding lands also provide suitable habitat for several special status species.

Much of the work done by the CM involves the review of data and reports produced by, or required of, the ALRRF by 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 most of the ALRRF property drains into the Central Valley, the Central Valley RWQCB issues and administers the Waste Discharge Requirements (WDRs) for the site. These WDRs set various operating requirements, and they also define the programs that monitor water quality by periodically testing groundwater wells as well as storm water basin contents and discharges. The RWQCB also requires the ALRRF to address incidents that increase risk to groundwater, such as the inadvertent receipt of wastes that contain unpermitted levels of hazardous materials. The CM reviews semiannual groundwater monitoring reports, the annual stormwater monitoring report, and the annual Winterization Plan update, as well as correspondence and required reports that the RWQCB posts on its GeoTracker web site.

1.5.1.2 Air

The Bay Area Air Quality Management District (BAAQMD) administers its own regulations, including 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 as required. The CM 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 at the State level, the California Department of Resources Recycling and Recovery (CalRecycle) 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 in 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 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 Section 1.5.2 below. The CM tracks compliance through direct inspection, review of data from ALRRF operations, and review of periodic reports submitted to regulatory agencies by the ALRRF, including the annual Mitigation Monitoring Report submitted to County Planning. Annual monitoring surveys of the on-site Conservation Plan Area are also reviewed by the CM.

An additional Land Use Permit (PLN 2010-00041) was approved by Alameda County in March of 2013 for the future development and use of composting and material recovery operations at the ALRRF. Currently Waste Management's position is that this permit is not within the purview of the CMC, but the CMC has taken the position that the additional permit *is* within their purview. At this writing, the ALRRF is completing construction of a compost facility adjacent to the north end of Fill Area 1.

1.5.1.5 Waste Diversion Requirements

Section 1.3 of this Annual Report describes recent State legislation that requires increased solid waste diversion (or reduction) and more comprehensive reporting of disposed and diverted quantities. Currently, CalRecycle is developing regulations to implement these requirements.

At the local level, the Alameda County Waste Management Authority and the Source Reduction and Recycling Board (StopWaste) waste-diversion goal is continuing to be pursued, most recently through the implementation of (a) mandatory recycling at businesses and (b) source separation of compostable materials in many Alameda County cities. These requirements are implemented at the local level, by each of StopWaste's member agencies; in most cases StopWaste provides monitoring and enforcement. In addition, StopWaste has developed, and most of its member agencies have adopted, a single-use bag ban ordinance; and most StopWaste member agencies have adopted a ban on the disposal of plant debris in local landfills.

1.5.2 Requirements For Fill Area 2 Development and Use

1.5.2.1 Background

The current active area (Fill Area 1) will be supplemented by the expansion area (Fill Area 2) in the near future. In 2011, the last major permits for the development of Fill Area 2 were obtained after agreement was reached between regulatory agencies and Waste Management regarding mitigation for the loss of a wetland channel and the loss of habitat for special status species. Mitigations were established by Alameda County in Use Permit C-5512 and in permits from several State and Federal agencies:

- US Army Corps of Engineers, which had jurisdiction over wetlands.
- US Fish and Wildlife Service, which consulted on wildlife protective measures.
- Central Valley RWQCB, which certified that the mitigations would protect water quality.

- California Department of Fish and Game (now Fish and Wildlife), which placed specific conditions on work in the stream bed and concurred with the USFWS' Biological Opinion.

The fundamental requirements of these permits are:

- The dedication of a large portion of ALRRF land as a Conservation Easement, in perpetuity.
- The creation of additional wetland, in the form of a new pond between Fill Area 2 and the Eastern Alkali Wetland.
- The enhancement of a riparian channel approximately the same size as the channel to be displaced by Fill Area 2.

To guide these efforts and the many related requirements, the ALRRF and its consultants prepared the following documents:

- Conservation Management Plan
- Pest Management Plan
- Grazing Plan
- Waters and Wetlands Mitigation Plan

The ALRRF dedicated the 991.6-acre Conservation Easement in 2012 and built the mitigation wetland pond in 2013.

1.5.2.2 Corridors and Connectivity

The Biological Opinion from the USFWS describes the need for wildlife connectivity and wildlife corridors in eastern Alameda County, to provide for wildlife movement and thereby enhance species health by preventing inbreeding. The Biological Opinion states that this need exists for three of the four protected species in the area: San Joaquin Kit Fox, California Red-Legged Frog, and California Tiger Salamander. The ALRRF's Conservation Management Plan contains the following requirements in the Minimization and Mitigation sections of the document:

MIN-31 – The project proponent will contribute funding to conduct a research study of wildlife passage at local over- and under- crossings to determine if these conduits provide conductivity [sic] for wildlife through the Interstate 580 corridor. The study will entail the periodic placement of motion-activated camera station, track plates, and other approved sampling method. The project proponent will provide the Service and/or CDFG with as much as \$50,000 to perform the study. With the approval of the Service and CDFG, the project proponent may contract the study to an approved third party.

MIT-7 – The mitigation pond/wetland will be constructed in an upland area... immediately upstream from the Eastern Alkali Wetland. ... This area provides suitable upland refugial habitat for tiger salamanders and suitable dispersal habitat for red-legged frogs to the Eastern Alkali Wetland and the Southern Alkali Wetland.

These requirements are also stated in the USFWS Biological Opinion, which in turn is referenced by the CDFG Consistency Determination.

1.5.2.3 Current Status

Unfortunately, the pond built in 2013 was badly damaged by sediment inflow due to unusually heavy rainfall in early 2014. Also, the channel enhancement was put on hold due to the drought that occurred between 2011 and 2016. To remedy this situation, the ALRRF is having the pond

rebuilt and is purchasing off-site wetland channel mitigation credits from the Cosumnes Floodplain Mitigation Bank in southern Sacramento County.

In 2017, the CM reviewed a summary of wildlife mitigation activities and issues. The CM also reviews the ALRRF annual mitigation monitoring report, which briefly summarizes the status of compliance with each of the 106 Conditions in Conditional Use Permit C-5512.

The final version of the Joint Technical Document for the ALRRF states that “Fill Area 1 is expected to reach capacity in about 2019. FA2 is currently being designed to be operational when FA1 approaches its final capacity.”⁴ This estimate should be considered as tentative.

⁴ JTD section 4.1.1.2, page 32.

SECTION 2

Community Monitor Activities and Issues

2.1 Introduction

Under the Settlement Agreement, the Community Monitor (CM) has three ongoing duties:

- Review reports, data and information that are required to be submitted by Waste Management of Alameda County to regulatory agencies, or that provide information regarding the ALRRF's compliance with applicable environmental laws and regulations (Settlement Agreement Sections 5.7.1.- 5.7.3)
- Conduct inspections of the ALRRF facility up to 12 times per year (Sections 5.7.7, 5.8)
- Review the records of testing and acceptance of "Class 2 soils", i.e. soils known to come from a contaminated site (Section 5.7.9)

Throughout 2016, 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 became apparent in 2017:

- **Landfill gas wells** that had been installed in the last few months of 2016 were brought on line by early 2017. Several landfill gas wells that were becoming unproductive were taken off line as well. A cluster of wells with higher than normal gas temperatures was identified and monitored for possible subsurface combustion, which was found not to be occurring.
- To **deter seagulls** visiting the active face of Fill Area 1, a depredation permit was obtained, and birds were periodically shot and killed for several months. The effect on bird visitation was minimal, and the practice was suspended.
- The two **Fill Area 1** ponds, intended to hold leachate and underdrain water separately, were completed. Discussion of the use of underdrain water to support compost operations was begun with the Water Board.
- **The maintenance shop parking area** was repaved and striped.
- **Operations roads and drainage** on the west side of Fill Area 1 were reworked to control erosion, improve drainage and trap silt. Fill Area 1 stormwater basins A, B and C were excavated to increase capacity, with the goal of improving the quality of discharged stormwater.
- In response to a directive from the Water Board, the ALRRF prepared a **plan to sample stormwater upstream of the Fill Area 1 stormwater basins**, in an effort to identify the sources of contaminants that have previously been detected in the basins.
- **In Fill Area 1**, the 10-acre Evapotranspirative (ET) Cover Test area was prepared by filling with refuse and applying intermediate cover as needed to achieve design grades with smooth slopes. Unfortunately, differential settlement caused uneven slopes, and the

- application of test cover was delayed for one year to allow the refuse below the ET area to stabilize and be regraded.
- **The litter collection crew** was maintained at five employees.
 - **The Bio-Fuel Systems, Inc. wood grinding operation** was unable to bring its wood stockpiles into compliance with regulatory requirements governing volume and throughput. The business ceased operation, and much of the stockpiled wood was shredded and used as alternative daily cover and solidification extender at the ALRRF. The former site of the Bio-Fuel operation is now vacant.
 - The received tonnage of **Class 2 cover soil**, compared to that of municipal solid waste, grew from 37% to 48% from January through November 2017.
 - In spite of extremely heavy rains from November 2016 through early April 2017, **erosion problems were minimal in and around Fill Area 1**. A minor landslide occurred on a side slope above Fill Area 2, but this was repaired in October and November of 2017.
 - In response to a November 2016 Notice of Violation from the Water Board for **windblown litter**, landfill workers and management focused on this issue and removed virtually all litter that was impacting Fill Area 2 and the south and east sides of Fill Area 1. In addition, the ALRRF replaced its “Trilo” vacuum litter collector with a similar machine that is more effective and more easily repaired.
 - In and around Fill Area 2, several **new groundwater monitoring wells** were installed, and samples were analyzed to establish background levels of naturally occurring minerals.

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. The regulatory agencies that administer these laws and regulations, as well as the environmental permits held by the ALRRF, include the following:

- Alameda County Planning Department
- Alameda County Department of Environmental Health
- Bay Area Air Quality Management District
- US Environmental Protection Agency
- California Department of Resources Recycling and Recovery (CalRecycle)
- Central Valley Regional Water Quality Control Board
- California Department of Fish and Wildlife
- US Army Corps of Engineers
- US Fish and Wildlife Service

To determine if there are trends in the compliance record, a list of compliance issues has been compiled; it is shown in Table 2-1, below. Persistent issues appear in the upper part of the table, followed by infrequent or one-time issues. To compile this table, the CM reviewed publicly available data from the regulatory agencies listed above, ALRRF correspondence with those agencies, and the CM’s monthly site inspection reports. The severity of the issues was rated subjectively by the CM using the 1 to 5 scale shown below Table 2-1. Issues that were judged to be beyond the control of the ALRRF are not included in the annual total of severity scores but are listed below the total line.

For the purposes of this report and table, the delivery of hazardous materials with incorrect profiles (showing them as non-hazardous) is considered to be beyond ALRRF's control; but the Water Board's position appears to be that ALRRF is responsible nevertheless. There were no new issues of this type in 2017, and cleanups were completed from two such incidents that occurred in 2016.

The total severity score for 2017 is significantly lower than in 2016. Also, on-site scrutiny by Water Board staff was less intensive in 2017, which may reflect some satisfaction by Water Board staff that issues identified in 2016 are being corrected. Also, for the first time in several years, there has not been an incident involving disposal of improperly profiled hazardous material at the ALRRF.

Four types of incidents that are of particular concern occurred in 2017:

- **End-dump Truck Overturns.** These seemingly random events become more frequent when more cover material is being delivered, and they were especially frequent this fall, with five occurring in September. In the ALRRF's written reports, inattention by the truck drivers is sometimes noted as a contributing factor. In one case, a truck overturned onto another vehicle; fortunately, there were no injuries from any of these incidents.
- **Leaks of leachate or landfill gas condensate from on-site piping.** These have occurred when a device (such as a check valve or pump) fails, or a pipe is broken by a piece of mobile equipment. In most cases these were discovered quickly enough to limit the volume spilled and quickly resolve the problem. In one case, the leak continued long enough to fill a secondary containment area to an estimated depth of 2 to 3 inches. Fortunately, the secondary containment functioned properly, and the liquid did not escape.
- **Seeps of leachate at the landfill surface.** The one such incident this year is noteworthy because it occurred on the opposite side of the landfill from the locus of several seeps that occurred in prior years. This may indicate a change in hydrology within Fill Area 1, possibly due to its increasing height.
- **Contamination at well MW-4A.** Until the spring of 2017, this well had no occurrences of contaminants; but beginning in May, sample analyses found several new VOC's as well as two minerals (bicarbonate alkalinity and calcium) with higher than normal concentrations. When retested, most of these contaminants continued to be found. The VOC's have also appeared in other wells along the east and south sides of Fill Area 1. The current hydrological model for the landfill, which describes the direction of groundwater flow, indicates that well MW-4 should be upgradient of the landfill; but these results indicate otherwise. This calls into question the assumptions that underlie the planning for current and future groundwater monitoring. In our estimation, this is a very serious issue.

Table 2-1
Compliance Issues Ranked by Severity

Issue	Severity						
	2011	2012	2013	2014	2015	2016	2017
Contamination at E-05, E-07, E-20B	2	2	2	2	2	2	2
Stormwater contamination	3	3	3	3	3	3	3
Windblown Litter	2	1	3	2	2	4	2
Birds	2	2	2	2	2	2	2
Erosion	2	1	-	-	3	2	1
Cover thin / absent	2	2	2	3	4	-	-
Worker injury	-	1	3	-	1	2	1
Condensate/Leachate Leakage	-	-	1	1	3	-	3
Ponding in low-lying area of landfill	-	1	1	2	-	-	-
Sediment in Wetland Mitigation Area	-	-	-	1	3	3	2
MRF fines suitability for ADC	4	4	-	-	-	-	-
Odor, on site	-	1	-	-	-	1	-
Leachate Seeps	-	-	-	-	1	1	2
Ponding on landfill due to water leak	1	-	-	-	-	-	-
Leachate Spill	-	4	-	-	-	-	-
CUPA inspection (Haz Mat Management)	-	-	4	-	-	-	-
Unpermitted construction of FA2	-	-	4	-	-	-	-
Groundwater Elevation Error	-	-	2	-	-	-	-
Sampling Pump Problem: VD-unsat	-	-	2	-	-	-	-
Late Annual Report to Water Board	-	-	-	-	4	-	-
Sampling Pump Problem: well E-05	-	-	-	-	2	-	-
Stormwater monitoring compliance (FA2 pond, tire and wood operations)	-	-	-	-	-	4	2
Material out of bounds (wood operation)	-	-	-	-	-	4	-
Erosion control (sitewide)	-	-	-	-	-	4	-
Waste outside active area (trash, pallets)	-	-	-	-	-	4	-
Leachate Leak Disposal							4
Contaminants at monitoring well MW-4A							4
Totals	18	22	29	16	30	36	28
Issues Beyond Control of ALRRF							
Truck overturn	1	1	1	1	1	3	3
Hazardous material delivered (ash, high in lead)	-	4	-	-	-	-	-
Fire in refuse &/or stored material	-	-	2	-	-	3	1
Material high in copper disposed (later removed)	-	-	4	-	-	-	-
Dinoseb solidification & disposal (later removed)	-	-	-	4	-	-	-
Liquid high in chromium, nickel received (removed before being disposed)	-	-	-	-	-	4	-
Soil high in benzene received, disposed	-	-	-	-	-	4	-
Methane Gas at Perimeter Probe(s) [cleared, 2016]	-	-	-	4	4	4	
Fire on ALRRF property, outside active areas	-	-	-	-	-	-	2

indicates that a violation was issued by a regulatory agency.

Severity Criteria

- 1: Minor or ongoing issue with little potential to harm environmental or public health; below regulatory thresholds.
- 2: Issue with some potential to harm environmental or public health; below regulatory thresholds; being addressed.
- 3: Issue with potential to harm environmental or public health; below regulatory thresholds; not improving, or new.
- 4: Issue with significant potential to harm environmental or public health, or resulting in a violation being issued.
- 5: Issue with significant potential to harm environmental or public health; violation issued; willful non-compliance.

2.3.1 Compliance Issues Documented by the LEA

In 2017, no Violations or Area of Concern notices were issued by the Local Enforcement Agency (LEA). LEA inspection reports indicate some concerns about the following:

- Muddy conditions and ponding during very wet weather in January through March
- Intermittent need for litter control on site and on Altamont Pass Road
- Condition of the yard that was occupied by Bio-Fuels, Inc. (now vacant)
- Bird activity at the refuse fill working face.

However, these concerns were comparatively minor and were not noted as formal Areas of Concern in the LEA's inspection report.

2.3.1.1 ALRRF Lessee Bio-Fuels Systems, Inc.

As noted elsewhere in this report, the waste wood processor Bio-Fuels Systems, Inc. ceased to operate at the ALRRF in mid 2017. Their on-site yard was vacated and all equipment and stockpiled materials were removed. Between October 2016 and June 2017, the ALRRF used several hundred tons per month of shredded wood waste from Bio-Fuels as alternative daily cover.

2.3.2 Water Board Violations and Concerns

2.3.2.1 2017 Violations

Disposal of escaped leachate into solidification basin – In early April 2017, ALRRF staff discovered leachate leaking from two failed gaskets in a leachate pipe. The liquid, including ponded rain water in the area, was cleaned up and disposed in a solidification basin. The event was reported to the Water Board in mid April. The current Waste Discharge Requirements explicitly prohibit the disposal of leachate in the solidification basins, so the Water Board issued a Notice of Violation and required that the landfill prepare and submit “a report prepared as an operation manual, outlining how accumulated liquid from any and all future leachate and/or condensate leaks will be contained, extracted, transported, and properly disposed.”

Contamination at Monitoring Well MW-4A – Well MW-4A monitors the shallow aquifer on the northeast side of Fill Area 1. Based on the hydrologic model of the ALRRF site, it is intended to monitor upgradient groundwater, that is, groundwater that is flowing toward Fill Area 1 from the north and northeast. However, beginning in May of 2017, sample analyses began to detect several VOC's that also have been found in detection wells along the southeast and south edges of Fill Area 1. Because the Waste Discharge Requirements for the ALRRF explicitly prohibit “the discharge of waste constituents to ... groundwater,” the Water Board issued a Notice of Violation and required the ALRRF to submit a plan for a monitoring program to assess the effect of this apparent release along the entire 3,500-foot northern boundary of the landfill.

2.3.2.2 Other Issues

There are several open issues that have arisen between the ALRRF and the Water Board since the current Waste Discharge Requirements (WDRs) were finalized in July 2016. They are briefly described below.

Identifying Sources of VOC's in Storm Water – At the Water Board's direction, the ALRRF has developed a sampling plan to try to detect storm water pollutants close to their origin on site. This plan will be acted upon in the 2017-2018 rainy season.

Soil Gas Monitoring Locations – To comply with soil gas monitoring required by the WDRs, the ALRRF proposed to monitor soil gases using a combination of existing gas monitoring probes and one new probe in Fill Area 2. The Water Board responded by requiring more probes, at locations closer to the waste footprint, and directing the ALRRF to revise its proposed plan accordingly.

Fill Area 1 Leachate and Underdrain Liquids Management – The ALRRF has proposed to upgrade its Fill Area 1 liquids management system so that leachate, from above the landfill liner, and underdrain water from below the liner are kept separate and managed differently. Specifically, the ALRRF is seeking the option to use underdrain water in its nearby CASP composting operation. The Water Board's response notes that contaminants (VOCs) have been detected in the underdrain water, and therefore the ALRRF must obtain Waste Discharge Requirements for this use, by submitting a Report of Waste Discharge and going through a Water Board permit process.

Leachate Seep on North Side of Fill Area 1 – In early November, a leachate seep was seen where none had occurred before, along the northwest edge of Fill Area 1. The leachate was contained and disposed, and a drain was installed to capture any future seepage before it could leave the waste footprint. The Water Board response noted possible ponding in the area during the rainy season (actually biosolids), as well as the proximity of the solidification basins, and recommended that both the ponding and the basins be evaluated for their contribution to the seep. The Water Board also recommended that the northwest boundary be closely monitored for future seeps.

Contamination at Well E-20B – In 2014, Water Board staff took issue with the assertion by ALRRF and SCS Engineers that the VOC contamination found at groundwater monitoring well E-20B can be attributed to landfill gas. After further discussion it was agreed that ALRRF should install special gas extraction wells between E-20B and the landfill, as well as one or more new groundwater monitoring wells downslope / downgradient of E-20B. Well MW-12 was installed soon thereafter, some 650 feet east of E-20B. It has detected VOCs as well, but fewer of them and in lower concentrations. A second downgradient well, MW-20, was installed in September 2017. The initial samples from that well contained low levels of five VOCs, but two of those substances were also detected in the equipment blank and field blank samples, and one in the method blank, casting some doubt on the initial findings. The samples are being re-analyzed, and new samples will be taken and analyzed in December 2017, to determine if the new well is in fact detecting contamination.

2.3.3 Other Incidents

The following information is based solely on reports filed in the site's Special Occurrences Log.

2.3.3.1 Facility Damage or Worker Injury

During 2017, there was one incident that resulted in an injury to landfill staff requiring outside assistance. In January, a Waste Management mechanic was struck on the lip when a pry bar came loose. He received first aid on site and later sought medical attention.

2.3.3.2 Fire

In late May and early June, there were two fires in the engine compartments of bulldozers that were handling refuse. These occurred on May 26 and June 2. They were extinguished by site staff.

On August 18, in the open space north of Fill Area 1 and south of the CASP receiving and composting area (which was under construction), an electrical line caused a grass fire that was extinguished by on-site equipment and staff, with assistance from the Alameda County Fire Department.

2.3.3.3 Vehicular Accidents

No collisions were recorded in 2017, but (as noted at the beginning of this section), an unusually large number of end-dump trailers overturned while unloading. This was especially frequent in September, when five such incidents occurred in a two-week period. Fortunately, there were no injuries, although in one case (in late June) an overturning trailer fell onto another vehicle. The ALRRF has placed an increased emphasis on safe behavior by its customers, enforcing their requirement for truck drivers to wear personal protective equipment when outside their vehicles, and posting signs along the landfill entry road with other safety reminders.

2.3.3.4 Other Incidents

Most of the recorded incidents not listed above involve the release of liquids, from customer trucks (fuel tank puncture, hydraulic line break) or from on-site equipment (valve, seal or gasket failures; unintentional damage to piping during excavation). Two unique incidents also occurred. The first resulted in serious injury at the ALRRF lessee, Shamrock (a tire shredding company) when a customer attempted to help move a piece of equipment and his leg became caught in it. The other was a leak at the LNG plant that resulted in a substantial release to the atmosphere of over 500 pounds of refrigerant, which contains several “greenhouse” gases.

2.4 Review of Reports

2.4.1 Groundwater

Two groundwater monitoring reports were reviewed in 2017. The first covered the time frame from July through December of 2016; the second covered January through June of 2017. Although the current Waste Discharge Requirements were finalized in July of 2016, the related Monitoring and Reporting Program was still a work in progress at that point. Consequently, the first monitoring report partially fulfills the new requirements, and the second report addresses them fully.

In general, groundwater monitoring results were similar to those from prior years. Contaminants, when present, were below regulatory limits that would require immediate remediation. For most contaminants, trends in the data were indistinct. Specifically, the fuel additive MTBE and its degradation by-product tert-butyl alcohol continued to be found in wells E-5, E-7 and E-20B, but in varying concentrations that do not show a clear trend.

The new WDRs required the addition of groundwater monitoring wells in and near Fill Area 2, and downgradient of well E-20B. The wells required for Fill Area 2 have not detected any contaminants known to originate from the landfill, but the new well MW-12, downgradient of E-

20B, has found very low levels of one VOC, 1,1-dichloroethane, which also appears at E-20B. It is too soon to identify any trend in concentrations at MW-12, but sampling will continue.

The most serious groundwater-related issue is the detection of several VOCs at monitoring well MW-4. This could be interpreted as an early indication of a contaminant plume appearing in a completely unexpected area where monitoring wells are few and far between. A more detailed description appears in Section 2.3.2.1, above.

2.4.2 Storm Water

A new set of annual requirements for industrial storm water monitoring and reporting took effect throughout California on July 1, 2015. Stormwater samples are to be taken when a “qualifying storm event”⁵ (QSE) occurs. Up to four such QSE’s are to be sampled at each discharge point during a stormwater year (July through June).

The annual storm water report for 2016-2017 was submitted to the State Water Resources Control Board under the facility ID of 5S01I000600.

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 2017, the CM received the Title V reports for the periods June – November 2016, and December 2016 – May 2017. These reports describe landfill gas control operations and source testing, and they also document new or unique developments at the site that can have an effect on air emissions. Results from 2017 are similar to those from 2016:

- 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.
- On June 6, 2016, the BAAQMD issued a permit to the ALRRF to continue to allow the landfill to decommission gas wells and install new wells, as needed, within specified limits. The limits in the previous version of this permit had been reached, because the ALRRF decommissions unproductive wells and installs replacements annually as needed. The new permit allows the landfill to decommission up to 100 vertical wells and 15 horizontal wells, and install up to 120 vertical wells and 25 horizontal wells or tire trench collectors.
- Under these new limits, nine vertical landfill gas wells were decommissioned, and 22 new wells were installed. The new wells began operation in December 2016.
- The LNG plant continued to operate, and unscheduled down-time was minimal, although scheduled repair and maintenance kept the plant off line for a total of 6 weeks in the second half of 2016.
- Two major power outages shut down the LNG plant and all other landfill gas combustion devices for a total of 5 days during the reporting year.
- All control devices passed their emissions tests without incident.

⁵ a precipitation event that: (1) produces a discharge for at least one drainage area; and, (2) is preceded by 48 hours with no discharge from any drainage area.

2.4.4 Mitigation Monitoring

The Mitigation Monitoring and Reporting Program Annual Progress Report, covering calendar year 2016, was completed on January 31, 2017 and was received by the CM in March 2017. 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. The status descriptions together with the verification notes generally reflected the current status of each mitigation measure. Updates to this table from the previous year are listed below, with reference to the applicable CUP Condition number(s).

- 3(b) – This requirement, to maintain a current Report of Disposal Site Information and the corresponding Solid Waste Facility Permit that incorporates Fill Area 2, is being addressed through the required 5-year update that began in 2015.
- 3(c) – This requirement, to maintain a current Report of Waste Discharge and the corresponding Waste Discharge Requirements (as well as a Stormwater Pollution Prevention Plan and the corresponding General Industrial Stormwater Permit) that incorporates Fill Area 2, is being addressed through the required 5-year update that began in 2015.
- 4.6 – This requirement, to adjust tonnage limits for partial years, was annotated by ALRRF staff to indicate that the expected start date for Fill Area 2 operations would be in the first quarter of 2019 (revised from the 2016 revision, which stated the second quarter of 2016).
- 9 – Regarding the timing and design of site closure, the Implementation Status of this Condition was revised to state that closure planning and design have been addressed in the revised Waste Discharge Requirements and are being reviewed by CalRecycle and the LEA.
- 26 – This Condition requires the ALRRF to submit a post-construction compliance report to the US Fish and Wildlife Service within 45 days of completing each major Fill Area 2 project component. The update states that such reports for Phase 1 of Fill Area 2, and for the leachate storage impoundment, were submitted in 2016.
- 32 – This Condition requires the ALRRF to avoid existing ponds in Fill Area 2 until replacement wetlands have been established and the California Tiger Salamander has been resettled. The update states that CTS surveys are conducted as needed, and the replacement wetlands have been established.
- 40 – This Condition requires that survey monuments be established on and near the landfill to monitor long-term settlement. The update states that those monuments have now been established.
- 106 – This Condition requires that the Operator implement the project within three years of its scheduled implementation date. From the update, it appears that the ALRRF considers this to be three years from the most recent predicted start date for the use of Fill Area 2, i.e. the first quarter of 2019.

In addition to the Annual Progress Report described above, the ALRRF has begun to submit annual reports to inform the natural-resource agencies about progress on their permit requirements for Fill Area 2 expansion: establishing the Conservation Plan Area, constructing the wetland mitigation project, protecting existing wetlands and surface waters, etc. The first such report, for 2014, was provided to the CM in November 2015 and a number of deficiencies were noted. The report for 2015 was provided in August of 2016; it was more thorough and clear, but

it did not directly address several of the performance goals for the Conservation Plan Area. In 2016-2017, the ALRRF and its mitigation consultants focused on the need to restore the mitigation wetland and complete other mitigation requirements (channel enhancements), resulting in a plan outlined in a memo from ALRRF's consultants to the natural-resource agencies, as described in Section 1.5.2 above. To the best of our knowledge, the agencies have viewed this as a constructive approach and have not issued any violations or penalized the ALRRF to date.

2.5 Review of Records

Several types of site records were reviewed by the CM in 2017. The CM'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 twice 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 CM every few weeks, to identify any new issues that may have arisen.

2.5.1 Class 2 Soils

An ongoing task 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 Langan to review each file to be sure that it is complete and within the regulatory limits for Class 2 materials. In 2017, these reviews were conducted in July and December. Because Waste Management has consolidated these files from many of its sites into one office, the July review was conducted in that office (Fresno). For the December review, the files were made accessible electronically from Waste Management's Oakland office, saving travel time.

A total of 233 files were reviewed in 2017, 15% more than the previous year. No out-of-compliance profiles were found, and all files were complete, with two exceptions. Both of those were from small residential excavation projects; in such cases, with no evidence of prior commercial or industrial use at the site, Waste Management does not require a full laboratory profiling.

2.5.2 Other Materials

In 2016, the ALRRF received a substantial amount of soil from restoration work at former salt ponds at the edge of the Bay in Newark. This soil was too salty to be used as cover, so it was disposed, causing a significant surge of more than 20% in monthly disposed tonnage for August 2016. Since the salt pond project is a multi-year undertaking, tonnage from Newark was tracked closely in 2017, to determine if this surge would recur. It did not, but other major projects in Newark led to a similar increase in special wastes received in August, September and October of 2017.

2.5.3 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 four times during 2017. As in prior years, the most common incident involved 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, despite their being unusually numerous in 2017 (a total of 10). ALRRF staff attribute some of these overturns to high winds hitting the truck as it is emptying; in addition, the high volume of Class 2 soil loads received this year made overturns more likely during the high volume months of September (5) and October (1).

Other logged incidents included three fires. Two were small but destructive, taking place in bulldozer engine compartments where trash and wood particles had built up; they were extinguished by facility staff. The third incident required a response from Alameda County FD; it was a grass fire near the construction site for the future composting facility, caused by a hot electrical line.

2.5.4 LEA Inspection Reports

In 2017, there were no Violations or formal Areas of Concern noted in these reports. The reports did frequently note the presence of litter and large numbers of seagulls, as well as issues related to high precipitation early in 2017, oversize wood stockpiles at the site leased by Bio-Fuels, Inc., and a small landslide at Fill Area 2, among other things. They were consistent with Community Monitor observations.

2.6 Monthly Inspections

Twelve site inspections were held during 2017. To obtain the best possible understanding of the range of operating conditions, the inspection day and time were varied as shown in Table 2-2 below. Off-hours inspections, outside of the hours that the landfill is open to the public, are shown with gray highlighter.

Table 2-2
Site Inspection Summary

Date	Day of Week	Inspection Time	Announced in Advance?	With LEA staff?
Jan 19	Thurs	2:15 PM	yes	no
Feb 10	Fri	1:00 PM	yes	no
Mar 23	Thurs	1:30 PM	no	yes
Apr 12	Wed	2:00 PM	yes	no
May 23	Tues	5:00 AM	yes	no
Jun 27	Tues	12:30 PM	yes	no
Jul 7	Fri	11:15 AM	no	yes
Aug 15	Tues	4:00 PM	yes	no
Sep 13	Wed	2:45 PM	no	yes
Oct 10	Tues	10:30 AM	yes	no
Nov 28	Tues	9:00 AM	yes	no
Dec 20	Wed	9:00 AM	no	yes

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

packets. 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 2017, observations by the CM focused on:

- Construction of the evapotranspirative cover test area.
- Status and repair of the minor landslide on the west side of Fill Area 2.
- Operations during extreme wet weather in the early part of the year.
- Condition of wetland areas in the Conservation Plan Area.
- Occurrences of invasive plants in certain locations on the site.
- Storm drainage and erosion control, including the installation and performance of stormwater Best Management Practices and the status of the stormwater basins.
- Observation of issues of ongoing concern, including the presence of large numbers of seagulls and management of windblown litter.

The Scope of Work for the CM 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, two off-hour and four joint inspections were conducted in 2017.

In addition to the on-site inspections, a count of arriving refuse trucks was conducted by the CM in November of 2017. This count was well below the 50 truck per hour limit stipulated in the CUP.

SECTION 3

Looking Ahead: Anticipated Efforts and Issues

3.1 Introduction

In the 2018 contract year, the CM team will continue to perform report reviews, site inspections and Class 2 soils file review. As Fill Area 1 continues to be used, its increasing height and mass may cause new problems, such as increased seepage incidents; and existing issues such as windblown litter and bird activity are likely to continue. Also, as the ALRRF continues the development of Fill Area 2, the CM will review mitigation plans and reports for the Conservation Plan Area or other parts of the site, as needed. The four-year test of evapotranspirative (ET) cover methods is expected to begin in the latter part of 2018; the completion of construction will be documented, and monitoring reports will be reviewed as they become available.

3.2 Issues to be Tracked in 2018

3.2.1 Ongoing Review

The following issues will continue to be monitored in the coming year:

- Implementation of requirements of the 2016 Waste Discharge Requirements.
- Completion of the Five Year Permit Review.
- Concurrence of natural-resource agencies with off-site wetland mitigations.
- Groundwater monitoring methods and data quality.
- Groundwater quality, including the vadose zone.
- Stormwater quality and management practices.
- Performance of landfill gas handling equipment.
- Proposed changes to the landfill gas extraction system and the handling of extracted-water (condensate, leachate and underdrain liquids).
- Effects of any development of composting or material recovery operations on the landfill.
- Refuse truck traffic counts.
- Completion and performance of the 10-acre ET cover test site.

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, 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 2018, three topics will continue to be of interest:

- The effect of new gas wells on the concentrations of contaminants in well E-20B.
- The requirement to report landfill gas data to the Regional Water Board, and related requirements for increased gas probes and analyses.
- Gas temperatures, particularly in the high-temperature cluster of wells in Fill Area 1 Unit 2.

3.2.2.2 Stormwater Controls and Monitoring

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

3.2.2.3 Windblown Litter

This will continue to be an issue for Fill Area 1. The effectiveness of current control measures, as well as any noticeable effect from upstream measures such as plastic bag bans, will be evaluated.

3.2.2.4 New Construction and Monitoring

The CM will observe work on the ET cover test area, as well as any Fill Area 2 construction that may take place. Reconstruction and establishment of the Mitigation Wetland, and progress reports regarding the Conservation Plan Area, will continue to be reviewed to the extent required by the Settlement Agreement.

3.2.2.5 Groundwater Contaminants and Groundwater Data

The CM team will continue to check concentrations of MTBE, tert-butyl alcohol, and tetrahydrofuran, which showed an increase in 2015 but not since then. The team will also watch data from wells E-20B, MW-4, MW-12, MW-20 and other wells that have shown traces of contamination. The quality of the groundwater sampling and analyses, especially the occurrence of contaminants in quality-control samples and field samples, will also continue to be monitored.

3.2.2.6 Responses to Notices of Violation

A serious NOV with long-term implications for groundwater quality monitoring was issued by the Regional Water Board in the latter part of 2017. The CM will review the ALRRF's responses as they become available.

3.2.3 Class 2 Soils File Review

As required in the Scope of Work, the CM will conduct this review at least twice during 2018.

3.3 Project Management Considerations

As the current contract continues, the budget is expected to be sufficient through 2018. Kelly Runyon will continue with the lead role as Community Monitor, as a subcontractor to ESA. Michael Burns will continue to serve as ESA's Project Manager and will provide his own expertise, that of other ESA staff, and the environmental consulting firm Langan, providing expertise related to groundwater quality protection.