



# COMMUNITY MONITOR COMMITTEE

## Altamont Landfill Settlement Agreement

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

[www.altamontcmc.org](http://www.altamontcmc.org)

### VOTING MEMBERS

Ben Barrientos  
City of Livermore

Jeff Nibert  
City of Pleasanton

Donna Cabanne  
Sierra Club

Alexandra Hoffmann-Bradley  
Northern California  
Recycling Association

### NON-VOTING MEMBERS

Marcus Netz  
Waste Management  
Altamont Landfill and  
Resource Recovery  
Facility

Arthur Surdilla /  
Ryan Hammon  
Alameda County

Robert Cooper  
Altamont Landowners  
Against Rural  
Mismanagement (ALARM)

### STAFF

Judy Erlandson  
City of Livermore  
Public Works Manager

## AGENDA

DATE: **Wednesday, January 11, 2023**

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 July 13, 2022)
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 Election of the Chair (City of Livermore staff)**
  - 6.2 Responses to Committee Member Questions**
  - 6.3 Water Board Requests**
  - 6.4 Review of Documents on GeoTracker web site**
  - 6.5 Review of Reports From ALRRF**
  - 6.6 PFAS Updates**
  - 6.7 Reports from Community Monitor**
  - 6.8 2023 Committee Meeting Schedule**
  - 6.9 2022 Draft Annual Report**
  - 6.10 Announcement (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 tentatively scheduled to take place at 4:00 p.m. on **April 12, 2023**, at 3500 Robertson Park Road, Livermore.

### Informational Materials:

- Community Monitor Roles and Responsibilities
- List of Acronyms
- Draft Minutes of July 13, 2022

**City of Livermore**  
**HOW TO PARTICIPATE IN A COMMUNITY MONITOR COMMITTEE MEETING:**  
**You can participate in the meeting in a number of ways:**

The **Community Monitor Committee Agenda and Agenda Reports** are prepared by the Community Monitor and City staff and are available for public review on Wednesday evening, seven days prior to the Community Monitor Committee meeting at the Maintenance Service Center, 3500 Robertson Park Road, Livermore. The agenda is also available at <http://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 at the Maintenance Service Center, 3500 Robertson Park Road, Livermore, and included in the agenda packet available at <http://altamontcmc.org/>.

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 CONTACT THE ADA COORDINATOR AT [ADACOORDINATOR@CITYOFLIVERMORE.NET](mailto:ADACOORDINATOR@CITYOFLIVERMORE.NET) OR CALL (925) 960-4170 (VOICE) OR (925) 960-4104 (TDD) AT LEAST THREE (3) BUSINESS DAYS IN ADVANCE OF THE MEETING.

**Submission of Comments Prior to the Meeting:**

**Email Comments** may be submitted by the public to the City of Livermore Public Works Department via email at [SolidWaste\\_Recycling@livermoreca.gov](mailto:SolidWaste_Recycling@livermoreca.gov). Items received by 12:00 pm on the day of the meeting will be provided to the Committee and will be available on the meeting agenda prior to the meeting. These items will not be read into the record.

**Submission of Comments During the Meeting:**

During the meeting, the Open Forum agenda item is an opportunity for the public to speak regarding items not listed on the agenda. Speakers may also provide comments on any item listed on the agenda. Speakers are limited to a maximum of 500 words per person, per item. The Committee is prohibited by State law from taking action on any items that are not listed on the agenda. However, if your item requires action, the Committee may place it on a future agenda or direct staff to work with you and/or report to the Committee on the issue.

For questions regarding the Community Monitor Committee, please contact Public Works at (925) 960-8015.

## **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 2025) 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
- F. 5.7.7);
- G. Counting trucks arriving at the Altamont Landfill (section 5.7.8); and
- H. Reviewing waste testing data and source information (section 5.7.9).

### **Waste Management of Alameda County's Responsibilities**

Per the settlement agreement, Waste Management is responsible for:

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

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## **List of Acronyms**

Below is a list of acronyms that may be used in discussion of waste disposal facilities. These have been posted on the CMC web site, together with a link to the CalRecycle acronyms page:

<https://www.calrecycle.ca.gov/lea/acronyms>.

Updates will be provided as needed. This list was last revised on September 21, 2022.

### Agencies

ACWMA – Alameda County Waste Management Authority  
ANSI – American National Standards Institute  
ARB or CARB – California Air Resources Board  
ASTM – American Society for Testing and Materials  
BAAQMD – Bay Area Air Quality Management District  
CDFW – California Department of Fish and Wildlife (formerly California Department of Fish and Game or CDFG/DFG)  
CDRRR – California Department of Resources Recycling and Recovery, or CalRecycle  
CIWMB – California Integrated Waste Management Board (predecessor to CDRRR – see above)  
CVRWQCB – Central Valley Regional Water Quality Control Board  
CMC – Community Monitor Committee  
DTSC - Department of Toxic Substances Control  
DWR – Department of Water Resources  
EMP – Evaluation Monitoring Plan  
EPA – United States Environmental Agency  
LEA – Local Enforcement Agency (i.e., County Environmental Health)  
RWQCB – Regional Water Quality Control Board  
SWRCB – State Water Resources Control Board

### Waste Categories

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

### Water Quality Terminology

BMP – Best Management Practice – A general term to identify effective means of pollution control, especially in the contexts of stormwater and air quality.  
IDL – Instrument Detection Limit – The smallest concentration of a specific chemical, in reagent grade water, that can be detected, with 99% confidence, with the detection instrument (e.g. the mass spectrometer).  
MCL – Maximum Contaminant Level – The legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act.  
MDL – Method Detection Limit – The smallest concentration of a specific chemical, in a sample that contains other non-interfering chemicals, that can be detected by the prescribed method, including preparatory steps such as dilution, filtration, digestion, etc.  
NAL – Numeric Action Level – A concentration of a stormwater pollutant above which, the discharger must plan to reduce this concentration.  
RL – reporting limit: in groundwater analysis, for a given substance and laboratory, the concentration above which there is a less than 1% likelihood of a false-negative measurement.  
SWPPP – Storm Water Pollution Prevention Plan

Substances or Pollutants

ACM – asbestos-containing material

ACW – asbestos-containing waste

ADC – Alternative Daily Cover. For more information:

<https://www.calrecycle.ca.gov/lgcentral/basics/adcbasic>

BTEX – benzene, toluene, ethylbenzene, and xylene (used in reference to testing for contamination)

CH<sub>4</sub> – methane

CO<sub>2</sub> – carbon dioxide

COD – Chemical Oxygen Demand – A measure of the degree to which a wastewater discharge can deplete the oxygen in a body of water.

DO – dissolved oxygen

HHW – household hazardous waste

LFG – landfill gas

LNG – liquefied natural gas

MEK – methyl ethyl ketone

MIBK – methyl isobutyl ketone

MTBE – methyl tertiary butyl ether, a gasoline additive

NMOC – Non-methane organic compounds

NTU – nephelometric turbidity units, a measure of the cloudiness of water

PFAS – Per- and polyfluoroalkyl substances

TCE - Trichloroethylene

TDS – total dissolved solids

TKN – total Kjeldahl nitrogen

TSS – Total Suspended Solids

VOC – volatile organic compounds

Documents

CCR – California Code of Regulations (includes Title 14 and Title 27)

CDO – Cease and Desist Order

CoIWMP – County Integrated Waste Management Plan

CUP – Conditional Use Permit

JTD – Joint Technical Document (contains detailed descriptions of permitted landfill operations)

MMRP – Mitigation Monitoring and Reporting Program

RDSI – Report of Disposal Site Information

RWD – Report of Waste Discharge

SRRE – Source Reduction and Recycling Element (part of CoIWMP)

SWPPP – Stormwater Pollution Prevention Plan

WDR – Waste Discharge Requirements (Water Board permit)

General Terms

ALRRF – Altamont Landfill and Resource Recovery Facility

ASP – Aerated Static Pile composting, which involves forming a pile of compostable materials and causing air to move through the pile so that the materials decompose aerobically.

BGS – below ground surface

BMP – Best Management Practice

CASP – Covered Aerated Static Pile (ASP) composting

CEQA – California Environmental Quality Act

CL – Concentration Limit (statistical limit of background concentrations for specific constituents in groundwater monitoring wells)

CQA – Construction Quality Assurance (relates to initial construction, and closure, of landfill Units)

CY – cubic yards

GCL – geosynthetic clay liner

GPS – Global Positioning System

IC engine – Internal combustion engine

Rev. 07/06/2021

General Terms (continued)

LCRS – leachate collection and removal system

LEL – lower explosive limit

mg/L – milligrams per liter, or (approximately) parts per million

µg/L – micrograms per liter, or parts per billion

PPE – personal protective equipment

ppm, ppb, ppt – parts per million, parts per billion, parts per trillion

RAC – Reclaimable Anaerobic Composter – a method developed by Waste Management, Inc., to place organic materials in an impervious containment, allow them to decompose anaerobically, and extract methane during this decomposition.

SCF – Standard cubic foot, a quantity of gas that would occupy one cubic foot if at a temperature of 60°F and a pressure of one atmosphere

SCFM – standard cubic feet per minute, the rate at which gas flows past a designated point or surface

STLC – Soluble Threshold Limit Concentration, a regulatory limit for the concentrations of certain pollutants in groundwater

TTLC – Total Threshold Limit Concentration, similar to STLC but determined using a different method of analysis

TPD, TPM, TPY – Tons per day, month, year

WMAC – Waste Management of Alameda County

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# COMMUNITY MONITOR COMMITTEE

## *Altamont Landfill Settlement Agreement*

Minutes of July 13, 2022

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### **DRAFT**

1. Call to Order  
The meeting came to order at 4:00 PM.
  
2. Roll Call  
Members Present: Robert Carling, City of Livermore; Valerie Arkin, City of Pleasanton; Donna Cabanne, Sierra Club; Arthur Surdilla and Ryan Hammon, Alameda County Department of Environmental Health (LEA); Marcus Netz II, Altamont Landfill and Resource Recovery Facility (ALRRF).  
  
Absent: David Tam, Northern California Recycling Association (NCRA); Robert Cooper, Altamont Landowners Against Rural Mismanagement (ALARM)  
  
Staff: Marisa Gan and Judy Erlandson, City of Livermore; Mukta Patil and Maria Lorca, Langan/Community Monitor  
  
Others:
  
3. Introductions  
All those present introduced themselves.
  
4. Approval of Minutes of July 13, 2022 meeting  
Ms. Arkin moved approval, Ms. Cabanne seconded, and the minutes were approved 3-0; Mr. Tam was absent.
  
5. Open Forum  
There was no open forum discussion.

6. Matters for Consideration

6.1 Response to Committee Member Questions

Ms. Lorca presented the responses to the committee member questions.

No follow up questions were asked by committee members regarding treated wood waste and groundwater sampling at MW-40.

Litter Fence

Ms. Cabanne and Mr. Carling asked updates on the progress of the litter fence and if the fence was effective in controlling litter migration. Mr. Netz explained that the broken section had been effectively repaired, and that planned fencing could slow down based on availability of third party installers, and the supply chain issues. Mr. Netz continued to explain that the steel poles used for the new fencing are more durable than the wooden poles, yet harder to install on the ground; the perimeter fencing has been effective, and the wooden poles in the old fence had broken due to the sustained pressure from the wind on the litter covered net.

6.2 Cease and Desist Order (CDO)

Ms. Patil presented new developments regarding the CDO, which were summarized in the packet table.

With respect to Item 12 on the table, Ms. Carbanne asked if the monitoring wells had been sampled prior to abandonment. The CM confirmed the sampling was conducted. Mr. Carling asked if the CDO was still in effect and if it had a punitive impact. Mr. Netz explained that the CDO continued to be in effect, and that it provided guidance on continued landfill monitoring. Mr. Netz explained that most landfills are built on rectangular shapes in flat areas and the phased approach in a canyon setting for Fill Area 2 (FA2) posed new challenges. The CVRWQCB issued the CDO to adjust the monitoring program based on the unexpected challenges for building and maintaining FA2. Mr. Netz continued to explain that the solidification basins had been operating on top of FA1 for years, and that WMAC agreed to build new solidification basins as a compromise to comply with present day landfill design standards.

6.3 Review of Documents on GeoTracker

Ms. Patil provided a summary of the items from the GeoTracker tables provided in the meeting packet.

Mr. Carling noted it was not easy to compare the number of bags of trash picked as reported in the responses from ALRRF to the Investigative Order, and as gallons reported in the CVRWQCB inspection report. The CM was not able to provide additional details during the meeting, and explained that WMAC reports the number of bags picked up to the regulatory agencies.

Ms. Cabanne asked if results were available from the January 28, 2022 FA1 subdrain liquid spill. The CM did not know if results were available. She also asked what was done

with the soil that was affected by the spill. Mr. Netz explained the soil was disposed of in the landfill.

Ms Cabanne asked what an optional demonstration report (ODR) is. Ms. Patil explained the term is used for reports to evaluate and demonstrate the reason for changes in groundwater chemistry; when a release is identified, a report of waste discharge is presented, which summarizes the source of the release and the corrective actions to be implemented, that was the case for the MW-38 area.

With respect the exceedance in monitoring wells MW-10 and MW-18, Ms. Cabanne asked why the groundwater level change would affect chemical concentrations. Ms Patil explained that increases in the groundwater elevations could mobilize chemicals that are present in zones that were previously dry; alternatively there could be an effect on the different sources of where the groundwater is reaching the wells, such as a combination of fresh rain water and the groundwater that has remained in the ground for longer periods of time.

Ms. Cabanne asked about the Cost Estimates for Evaluation of Reasonably Foreseeable Releases, if the CM could provide the estimated costs to provide replacement water to the downgradient property owners in the October meeting packet, and confirm if the costs included replacement water for livestock. Ms. Patil confirmed an update would be provided in the following meeting.

With respect to the repairs following the storm event that had occurred in October 2021, Ms. Cabanne asked what kind of event would trigger reporting. Mr. Netz explained that WMAC reports all these events to the regulatory agencies, even if it may appear to be an over reporting, to ensure the landfill stays in compliance. Regarding the October 2021 event, he continued to explain that the affected areas were identified and repaired. Also, to identify issues, during construction of FA2 which has large slopes, a GPS monitoring network has been installed, which is used to prevent overfilling of the landfill areas, and continue the stair step approach. Based on their construction, the erosion has not impacted active landfill areas, only the side slopes which can be repaired without large impacts.

Ms. Arkin asked which techniques were used to prevent windblown litter from escaping. Mr. Netz explained that ALRRF uses the best known industry practices to prevent this issue, for example the tippers are located in ways to prevent the wind from distributing litter as the refuse is dumped; there are bull screens used as a line of defense in front of the active face, and the perimeter fencing acts as a third line of defense. He further explained that at the time of the permitting, it was not expected that the strong winds would be a concern at the bottom of the canyon.

#### 6.4 Review of Reports Provided by ALRRF

Ms. Lorca presented an overview of the groundwater monitoring and the air emission reports. No questions were asked as follow up for these reports.

Ms. Patil provided an overview of the updated Mitigation Monitoring and Reporting Program (MMRP), the Evapotranspirative (ET) Cover, and the mitigation wetland annual status reports.

Based on the recommendations provided for the ET Cover vegetation estimates, Mr. Carling and Ms. Cabanne asked if there were aerial photographs for the spring period available for review. The CM noted that this was not known, and it is WM's consultant responsible for the work who makes this decision.

Ms. Cabanne requested that the CM visited the mitigation pond in August to observe the water level during the summer period. Ms. Patil agreed. Ms. Cabanne also asked if any actions were to be taken if the water level at the mitigation pond does not meet the performance standard of three feet of water in the deepest end by the last week of August each year. Ms. Patil agreed to follow up on this question.

#### 6.5 PFAS Updates

Ms. Patil summarized the PFAS updates presented in the meeting packet.

Ms. Cabanne commented that there was a hypothesis that the shorter chain PFAS currently in use would have a lower health risk than the longer chain PFAS that were used in the past, and it appears that it has not been the case. She asked if any resampling would be conducted at the ALRRF to understand which PFAS containing materials are being disposed and if these compounds have affected groundwater. Ms. Patil explained that the State Water Resources Control Board (SWRCB) may provide updates and present new standards later in 2022.

#### 6.6 Reports from Community Monitor

Ms. Lorca explained that in June the CM conducted a Class 2 soil profile review at the WMAC facilities. All of the data for the 40 profiles reviewed seemed to be within compliance. She further explained that a second review would be conducted on July to complete the review of the 91 profiles for the December 2021 to May 2022 period.

Ms. Lorca continued to summarize the CM site visits, tonnage reports, as well as figures with tonnages plots.

Ms. Cabanne asked about the abundance of birds that are usually observed near the active face of the landfill, and if hawks could be brought to scare the birds. Mr. Netzt welcomed the suggestion and explained that the property is too large of an area to control. He noted that he is aware that other landfills use hawks and it has been ruled out for ALRRF.

With respect to the ET Cover vegetation coverage, Ms. Cabanne asked what could be done. Ms. Lorca commented that ESA had recommended hydroseeding or hand planting the areas, and also noted that there could be issues with the compaction of the cover in certain areas.

The CMC members also asked about the litter control measures that WMAC has taken. Mr. Netzt explained that each day there is five to nine people on WMAC staff, who are assigned to litter pickup, and in 2021 a third party crew was also hired to assist picking litter outside of the property boundary. He reported that additional staff would be assigned as needed. Mr. Netzt continued to explain that perimeter fencing would be installed in the following month.

Ms. Cabanne asked if biosolids would be considered hazardous materials and noted that they may contain PFAS. Mr. Carling asked if biosolids could still be used as alternative daily cover, since it was his understanding that municipalities have had issues identifying



locations for disposal since January, when a provision of SB1383 came into effect. Mr. Netz explained that the biosolids could still be used as alternative daily cover for landfill operations, and it was his understanding that it could not be counted as a diversion of organic waste for the generator, which could be the challenge for municipalities. Mr. Netz further clarified that for example compost overs could continue to be used as alternative daily cover, but are not considered organic waste diversion.

6.7 Announcements

No announcements were made.

6.8 Agreement for Consulting Services with Langan

The Committee agreed to extend the current contract for an additional three years, as the contract provides. Mr. Carling moved approval, Ms. Cabanne seconded, and the minutes were approved 3-0; Mr. Tam was absent.

7. Agenda Building

No items were added to future agenda.

8. Adjournment

The meeting was adjourned at 5:55 p.m. The next meeting will be held on Wednesday October 12, 2022 at 4:00 p.m. at the Livermore Maintenance Services Center at 3500 Robertson Park Road.

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## COMMUNITY MONITOR COMMITTEE STAFF REPORT

TO: Community Monitor Committee Members  
FROM: Judy Erlandson, Public Works Manager  
SUBJECT: Community Monitor Committee Election of Chair

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### RECOMMENDED ACTION

Staff recommends the Community Monitor Committee elect a Committee Chairperson.

### DISCUSSION

The Settlement Agreement, dated November 30, 1999, 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. (Settlement Agreement), describes the duties and obligations of the Community Monitor Committee, but does not require the selection of a Committee Chairperson.

Although not required by the Settlement Agreement, staff recommends the Community Monitor Committee select a Chairperson to preside at all regular meetings and decide upon all points of order and procedure during the meeting.

If the Committee chooses to appoint a Chairperson, election shall be by majority vote of the Committee. If a quorum of three of the four Committee members is present, all three committee members would have to vote, and vote unanimously, in order to take this action.

Approved by:

A handwritten signature in black ink that reads "Judy Erlandson". The signature is written in a cursive style and is positioned above a horizontal line.

Judy Erlandson  
Public Works Manager

<b>MEETING DATE:</b> <b>01-11-2023</b>
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<b>AGENDA ITEM:</b> <b>6.1</b>
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1814 Franklin Street, Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001

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**To:** ALRRF Community Monitor Committee

**From:** Langan – Community Monitor

**Date:** January 11, 2023

**Re:** **CMC Meeting of 1/11/2023 - Agenda Item 6.2 - Responses to Committee Members' Questions**

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### **Changes in Groundwater Chemistry**

At the July 13, 2022 meeting, Ms. Cabanne asked what an optional demonstrational report (ODR) is. The term is used for reports to evaluate and demonstrate the reason for changes in groundwater chemistry; when a release is identified, a report of waste discharge is presented, which summarizes the source of the release and the corrective actions to be implemented, which was the case for the MW-38 area.

Ms. Cabanne asked why the groundwater level change would affect chemical concentrations, in relation to MW-10 and MW-18. The increases in the groundwater elevations could mobilize chemicals that are present in zones that were previously dry; alternatively there could be an effect on the different sources of where the groundwater is reaching the wells, such as a combination of fresh rain water and the groundwater that has remained in the ground for longer periods of time.

### **Cost Estimates for Evaluation of Reasonably Foreseeable Releases**

At the July 13, 2022 meeting, Ms. Cabanne asked about the Cost Estimates for Evaluation of Reasonably Foreseeable Releases, and if the CM could provide the estimated costs to provide replacement water to the downgradient property owners in the October meeting packet, and confirm if the costs included replacement water for livestock.

In a follow up letter dated February 25, 2022, WMAC has indicated that according to a well survey completed by Geosyntec Consultants, there are ten domestic and two agricultural wells that are located within a 1-mile radius of ALRRF. Eleven of the wells are located to the west and southwest of the FA1, which resides on the opposite side of the Altamont Anticline. Geosyntec believes this indicates that FA1 and FA2 are located within a separate watershed that drains to the east. WMAC believes that this provides assurance that domestic water supplies would not be affected by a potential release. Additional funding has been considered for potential installation of Permeable Reactive Barriers (PBRs). PBRs is a system that could be used as an additional safeguard measure. This system would be constructed at the mouth of both drainage locations, downgradient of FA1 and FA2. The cost of this system would be over \$5 Million. The Revised 2021 Update of Corrective Action Plans and Cost Estimates Evaluation of Reasonably Foreseeable Releases at FA1 and FA2, estimated a budget of \$2,631,000. WMAC argued that the neighboring wells would not be affected as the release would be remediated prior to reaching the water users, and estimated that the cost of replacement would be zero.

On April 12, 2022, the Central Valley Regional Water Quality Control Board (CVRWQCB) responded to WMAC statements regarding Cost Estimates for Foreseeable releases. In this letter, CVRWQCB indicates that they will not, at this time, require any additional financial assurance funding beyond what has been proposed in the FA1 and FA1 Revised CAP Cost Estimates, but if they find that replacement water or correction action beyond LFG extraction and a PRB is required to address a release, WMAC will then be required to additional corrective action measures.

## **Mitigation Pond**

At the July 13, 2022 meeting, Ms. Cabanne requested that the CM visit the mitigation pond in August to observe the water level during the summer period. She also asked if any actions were to be taken if the water level at the mitigation pond does not meet the performance standard of three feet of water in the deepest end by the last week of August each year.

During the August 23, 2022 CM site visit there was no surface water present in the mitigation pond. In their 2021 Annual Status Report for the Mitigation Wetland, Kleinfelder did not recommend measures to be taken to maintain the water level in the pond. Based on the evaluation of the report, the CM (ESA) recommended that if limited hydrology at the pond in the summer months persists in summer 2023, remedial action should be considered, such actions would include modification of the pond to optimize hydrology.

## **Biosolids and the Implementation of SB1383**

At the July 13, 2022 meeting, Ms. Cabanne asked if biosolids could be considered hazardous materials and note they may contain per- and polyfluoroalkyl substances (PFAS). Mr. Carling asked if biosolids could still be used as alternative daily cover, since it was his understanding that municipalities have had issues identifying locations for disposal since January, when a provision of Senate Bill (SB) 1383 came into effect. Mr. Netzt explained that the biosolids could still be used as alternative daily cover for landfill operations, and it was his understanding that it could not be counted as a diversion of organic waste for the generator, which could be the challenge for municipalities. Mr. Netzt further clarified that for example compost overs could continue to be used as alternative daily cover, but are not considered organic waste diversion.

SB 1383 is a statewide effort to reduce emissions of short-lived climate pollutants (SLCP), diverting organic waste from landfills into recycling activities and food recovery organizations. As part of SB 1383, counties should take the lead collaborating with the jurisdictions located within the county in planning organic waste recycling and food recovery capacity needed, to 1) Reduce organic waste disposal 75% by 2025, and 2) Rescue for people to eat at least 20% of currently disposed surplus food by 2025<sup>1</sup>. Requirement for new or exploding landfill include implementing and organic waste recovery activity<sup>2</sup>, and its impacts must be documented in a report submitted to CalRecycle no later than January 1, 2023.

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<sup>1</sup> <https://calrecycle.ca.gov/organics/slcp/>

<sup>2</sup> <https://calrecycle.ca.gov/organics/slcp/tpf/>

1814 Franklin Street, Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001

**To:** Community Monitor Committee

**From:** Langan – Community Monitor

**Date:** January 11, 2023

**Re:** **CMC Meeting of 1/11/23 – Agenda Item 6.3 – Central Valley Regional Water Quality Control Board (CVRWQCB) Requests Progress Update**

The Central Valley Regional Water Quality Control Board (CVRWQCB) issued Cease and Desist Order<sup>1</sup> (CDO) R5-2021-001 for the ALRRF on April 22, 2021. In the CDO, the CVRWQCB alleged the ALRRF was being operated outside of applicable federal and state regulations, and the Waste Discharge Requirements (WDRs). The CDO provided a list of various items the Discharger (ALRRF) had performed out of compliance and also provided a time schedule with specific requirements to compel the Discharger to resolve past compliance issues, achieve compliance with Title 27 and the WDRs, and conform to its Notice of Applicability (NOA) in a time frame acceptable to the CVRWQCB.

On June 28, 2022, CVRWQCB conducted a targeted inspection of the Altamont Landfill. The report provides a summary of inspection and outlines Areas of Concern (AOC), required to maintain compliance with the WDRs and Title 27. The AOCs included in the report are listed below:

1. The leachate line from FA1/U1 to LSI-1 had become clogged and the line needs to be replaced. In the interim, trucks were being used to batch extract and move leachate from the FA1/U1 leachate sump to LSI-1. WMAC was reportedly actively working to replace the line.
2. The FA2 Leachate Collection and Remove System (LCRS) discharge line was connected to a small holding tank and not LSI-3. Trucks were being used to batch extract and move leachate from the small holding tank. WMAC stated that the FA2 LCRS line to LSI-3 would be completed before this wet season, similarly to the lines that had been constructed in the past wet seasons.
3. The culvert that directs storm water run-off from the eastern side of FA1, including from Basin D and the area around E-20B, was partially obstructed and had no designed outfall containment structures or Best Management Practices (BMPs). As construction continues in FA2, storm water run-off from this location will be rerouted around FA2, and WMAC was reportedly working to complete this before the 2022/2023 wet season.
4. CVRWQCB staff observed waste worked into soil east of the Maintenance Shop. Site maps indicated the area is located within the limits of FA1/U1, where 12-inches of

<sup>1</sup> According to California Water Code Section 8701.2 - Cease and desist order, if the Water Board or executive officer determines that any person or public agency has failed to adequately respond to a notice of violation, the board or executive officer may issue an order directing that the person or public agency to whom the notice of violation was issued to cease and desist. A cease and desist order is an order by an administrative agency that requires certain practices specified to stop.

intermediate cover, void of waste, should be present. The observed waste quantity at the time of the inspection may expose FA1, and its unlined unit. CVRWQCB requested to address the lack of cover.

5. There was no collection tank for the FA2 under drainpipe. Liquid was detected in the FA2 underdrain in 2017, 2019 and 2020; therefore some type of holding tank is needed for the storage and sampling of this liquid, should it begin to flow again prior to final disposal.
6. Significant erosion was observed in the downstream containment berm of storm water retention basin SB-F.
7. Cattails were observed in LSI-3. Vegetation should be removed before the roots reach the liner.
8. The labels on the FA1/U1 LCRS, underdrain, and vadose zone access points have become faded and/or fallen off. Labels on all three site's surfaces impoundment access points: LCRS, leak detection and vadose zone locations were not clearly labeled.
9. The freeboard measurement markings on the LSI-1 and LSI-2 have faded and are illegible.
10. Improvements need to be made to the northeastern corner of the LSI-1, to prevent windblown leachate foam to be over topped. Additionally, leachate-stained sandbags and hay bales were present along the northeastern corner of LSI-1.
11. No exposed surface seeps were observed at any of the three primary FA1 seep locations. However, two large patches of green vegetative growth were observed on the closed portion of FA1/U1. The area should be investigated to determine whether seeps are occurring at this location.
12. Large areas of exposed soil remain atop and on the side slopes of FA1 and large areas of exposed soil remain within and around FA2.
13. CVRWQCB staff observed windblown litter east of FA2, as far east as the Frog Pond, and as far south as the mitigation wetland. WMAC is reportedly actively mitigating windblown waste.

On September 1, the CVRWQCB issued a violation for windblown litter outside of the waste management units, within the property. The CVRWQCB noted litter was reported in the July 28, 2022 LEA inspection and observed by CVRWQCB staff in their August 4 inspection. The CVRWQCB requested WMAC takes appropriate measures to maintain compliance with the WDRs and Title 27, and to notify the CVRWQCB staff when all the windblown material has been returned to the appropriate waste management unit and is under approved cover material. A confirmation inspection is to be scheduled following completion of the windblown material removal.

Table 6.2.1 provides an update of the CVRWQCB requests, including the requirements outlined in the CDO, AOCs and Violations, the expected completion timeline and progress that has been made on each item. Waste Management has continuously sent letters from their external counsel in response to the investigative order issued by the CVRWQCB in October 2021, objecting the technical reporting requested regarding windblown litter, and informing on the number of litter bags that have been picked-up outside of the property boundary since the July 2021.



# MEMO

The Community Monitor will continue to review items on GeoTracker and discuss with WMAC during site visits to provide updates on the work and deliverables requested by the CVRWQCB.

**Table 6.3-2**  
**Tracking Table for Water Board Requests**  
**Altamont Landfill Resource and Recovery**  
**Livermore, CA**

CMC Meeting of 1/11/23 - Agenda Item 6.3  
Langan Project: 750657603  
January 2023

<b>Task</b>	<b>Due Date</b>	<b>Completed</b>	<b>Comments</b>
<b>Cease and Desist Order (CDO) R5-2021-001</b>			
1. Update the Sampling and Analysis Plan for the interim POC detection monitoring program	7/21/2021 4/4/2022	Yes, revised plan submitted on 4/4/22	
2. Revise the background water quality values and update the concentration limits (CLs)	4/21/2022	Yes, submitted on 5/13/22	
3. Install groundwater monitoring wells (interim and final) for FA2			
(a) Work plan to install the groundwater monitoring wells (interim and final) for FA2	7/21/2021	Yes, submitted on 7/20/21	
(b) Install Interim POC Wells	2021-2024	Ongoing	Phase 5 wells proposed for 2022. Phase 6 wells proposed for 2023. Phase 8 wells proposed for 2024.
(c) Report installation within 60 days of installing any new groundwater monitoring well or soil gas monitoring well.	Ongoing	Ongoing	
(d) Install Final Permanent FA2 limit wells	2021 and 2022	Yes, installation report submitted on 12/2/2021	
(e) Report installation within 60 days of installing any new groundwater monitoring well or soil gas monitoring well.	Ongoing	Ongoing	Monitoring well installations have been reported within schedule.
(f) Implementation of a Water Quality Monitoring and Response Program for FA2 Unit 1	TBD	Yes, completed with the SAP revisions and new monitoring well network.	
4. Install soil gas monitoring wells (interim and final) for FA1 and FA2			
(a) Work plan to install the soil gas monitoring wells (interim and final) for FA1 and FA2	7/21/2021	Yes, submitted on 8/3/2021	
(b) Install Interim Monitoring Wells FA1	Week of May 31, 2021	Yes, submitted on 7/20/21	
(c) Install Interim Monitoring Wells FA2	9/21-10/21; 2021-2023	Ongoing	Same schedule as item 3(b).
(d) Report installation within 60 days of installing any new groundwater monitoring well or soil gas monitoring well.	Ongoing	Ongoing	Monitoring well installations have been reported within schedule.
(e) Install Final Monitoring Wells	TBD	Yes, installation report submitted on 12/2/2021	
5. Surface Water Monitoring Plan to conduct surface water monitoring for surface water flowing out of FA2	7/21/2021	Yes, submitted on 7/16/21	
(a) Surface Water Monitoring	Ongoing	Yes, Second Semiannual 2021 results submitted on 2/1/22	
6. Document the results of the MW-4A evaluation monitoring program (including groundwater and soil gas sampling) in separate corrective action status reports to be submitted semi-annually	8/1/2021	Yes, second report submitted on 2/1/22 Ongoing	
7. Groundwater and soil gas monitoring network along the northern and eastern limits of FA1			
(a) Work plan to install the groundwater and soil gas monitoring network along the northern and eastern limits of FA1	6/21/2021	Yes, submitted 5/10/2021; approved 5/19/2021	
(b) Install groundwater and soil gas monitoring network along northern and eastern limits of FA1	Week of May 31, 2021	Yes, submitted on 8/3/2021	
8. Update corrective action financial assurance cost estimates for FA1 and FA2	7/21/2021 3/1/2022	Yes, submitted 2/25/2022	Revised cost estimates were approved by the CVRWQCB on 4/21/2022.

**Table 6.3-2  
Tracking Table for Water Board Requests  
Altamont Landfill Resource and Recovery  
Livermore, CA**

<b>Task</b>	<b>Due Date</b>	<b>Completed</b>	<b>Comments</b>
9. Report outlining the LFG extraction wells operations as part of the Corrective Action Program to address the LFG impacts outside the limits of FA1	5/22/2021	Yes, submitted 5/21/2021	
10. Submit a Report of Waste Discharge to install off-waste liquid solidification basins	10/19/2021	Yes, submitted 10/19/2021	
11. Report Installation and operation of new off-waste footprint solidification basins	TBD (June 2023)		Report no later than 12 months from approval of the Report of Waste Discharge (submitted June 2022).
12. Notify the CVRWQCB 30 days prior to removal of interim monitoring devices	Ongoing during Fill Area 2 expansion	Ongoing	Fill Area 2 wells MW-24, MW-25, and MW-26 (interim Phase 3 detection monitoring wells) were destroyed on 24, 25, 26 May 2021. The CVRWQCB was notified prior to well destruction.
<b>Composting Facility (For Reference Only)</b>			
Submit an updated Permit Design Package for Contact Water Pond 2 or an alternative treatment or storage approach (Composting General Order)	7/21/2021	Yes, revised on 3/28/22	
Build additional compost leachate storage capacity	TBD		
Enhanced reporting requirements per CASP General Order	4/1/2023	Ongoing	
<b>Facility Inspection Report July 1, 2022</b>			
1. Clogged leachate line from FA1/U1 needs replacement as it is clogged.	Before onset wet season 2022/23	Work in progress	Winterization Report has details - submitted - pending CVRWQCB review
2. WMAC to connect FA2 LCRS line to LSI-3 before wet season.	Before onset wet season 2022/23	Work in progress	Winterization Report has details - submitted - pending CVRWQCB review
3. WMAC to reroute obstructed culvert that directs storm water from FA1, Basin D and E-20B.	Before onset wet season 2022/23	Work in progress	Winterization Report has details - submitted - pending CVRWQCB review
4. Address lack of cover at FA1/U1. 12 inches of immediate cover should be present.	9/30/2022	Yes, submitted on 9/30/2022	14-18 inches of intermediate cover applied to surface and compacted multiple times.
5. No collection tank observed for the FA2 under drainpipe. Some type of holding tank is needed for the storage and sampling of this liquid, should it begin to flow again.	10/15/2022	Reportedly completed <sup>1</sup>	
6. Significant erosion was observed in the downstream containment berm of storm water retention basin SB-F.	10/15/2022	Reportedly completed <sup>1</sup>	
7. Cattails were observed in the LSI-3. Vegetation should be removed before the roots reach the liner.	9/30/2022	Yes, submitted on 9/30/2022	
8. Labels on the FA1/U1 LCRS, underdrain, and vadose zone access points as well as site's surface impoundment access points: LCRS, leak detection and vadose zone locations were not clearly labeled.	9/30/2022	Yes, submitted on 9/30/2022	
9. The freeboard measurement markings on the LSI-1 and LSI-2 have faded and are illegible.	9/30/2022	Yes, submitted on 9/30/2022	

**Table 6.3-2**  
**Tracking Table for Water Board Requests**  
**Altamont Landfill Resource and Recovery**  
**Livermore, CA**

CMC Meeting of 1/11/23 - Agenda Item 6.3  
Langan Project: 750657603  
January 2023

<b>Task</b>	<b>Due Date</b>	<b>Completed</b>	<b>Comments</b>
10. Improvements to be made to northeastern corner of the LSI-1, to prevent windblown leachate foam from over topped. Leachate-stained sandbags and hay bales were present.	End of October	Reportedly completed <sup>1</sup>	
11. Two large patches of vegetative growth observed on closed portion of FA1/U1. Area should be investigated to determine if seeps are occurring at this location.	9/30/2022	Yes, submitted on 9/30/2022	
12. Large areas of exposed soil remain atop and on the side slopes of FA1 and large areas of exposed soil remain within and around FA2.	Work to be completed by 10/31/22 Work Report to be submitted by 11/15/22	Reportedly completed <sup>1</sup>	
13. Windblown litter observed east of FA2 as far east as Frog Pond and as far south as the mitigation wetland.	Continuous, notify Water Board when additional fencing installed	Reportedly completed <sup>1</sup>	
<b>Notice of Violation September 1, 2022</b>			
Notify the CVRWQCB staff when all the windblown material has been returned to the appropriate unit and is under approved cover material to schedule an inspection.	TBD		An inspection report has not been posted to Geotracker

**Notes:**

<sup>1</sup> - WMAC staff reported completion per 9/20/22 Site visit.

POC - Point of Compliance

FA - Fill Area

CLs - Concentration Limits

LFG - Landfill Gas

CVRWQCB - Central Valley Regional Water Quality Control Board

LEA - Local Enforcement Agency

WMAC - Waste Management of Alameda County

TBD - To Be Determined. These deadlines depend on activities which have not yet been completed.

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**To:** ALRRF Community Monitor Committee

**From:** Langan – Community Monitor

**Date:** January 11, 2023

**Re:** **CMC Meeting of 1/11/2023 – Agenda Item 6.4 – Review of Documents on Geotracker Web Site**

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**This is the abridged version of this memorandum. It is limited to new items reported in Geotracker since the previous Community Monitor Committee packet for the July 2022 meeting was completed, plus any prior items that provide useful background information for the new items.** The complete, current version of this Review of Documents is located on the Community Monitor Committee web site and can be accessed using this link<sup>1</sup>.

In this memo, each topic is given its own table where relevant documents are summarized in chronological order. For ease of reference, the topics are grouped under major headings, and in the electronic version of this memo, [links](#) enable the reader to skip to a topic of interest and return to the top of the list when finished.

In the list, those topics that include a recent important development or Violation are marked with a special bullet:

- This topic links to a list of documents that contains a recent violation or important development.

Summaries of the documents added since the previous Community Monitor Committee meeting are indicated with a **heavy black border**. They largely consist of Waste Management of Alameda County (WMAC) responses to Central Valley Regional Water Quality Control Board (CVRWQCB) requests and notices, as well as design reports and reports describing specific incidents.

Violations and important areas of concern are highlighted in **pink** and **yellow**, respectively. Other noteworthy new items are highlighted in **green**. The topic list begins on the following page. When a single document addresses multiple topics, its summary is placed under the most general category available, which is often the first topic, Refuse Disposal Operations.

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<sup>1</sup> <https://altamontcmc.org/agendas-etc-2020-2023>

# MEMO

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## **Topic List**

### **Landfill Operations**

- [Revised Configuration and Phasing Schedule for Fill Area 2](#)
- [Windblown Litter](#)

### **Liquids Management**

- [Solidification Basins](#)

### **Monitoring Program**

- [New or Pending Monitoring Wells](#)
- [Exceedances in Monitoring Wells](#)
- [Monitoring Program](#)

### **Stormwater Management**

- [Concentration Limits for Monitoring Wells](#)

### **Other Topics**

- [CVRWQCB Inspections](#)
- [CASP \(For Information Only\)](#)

# MEMO

## LANDFILL OPERATIONS

### Revised Configuration and Phasing Schedule for Fill Area 2

### Topics

<b>From</b>	<b>Format   Date</b>	<b>Key Point(s)</b>
CVRWQCB	Report   February 22, 2022	The Design Report – Fill Area 2, Phase 5 Construction & Stormwater Improvements provides plans and specifications. Phase 5 is expected to be constructed during the spring, summer and fall of 2022. This report includes the geologic, hydrogeological and geotechnical conditions, site seismicity, a description of the design details for the containment system, slope stability analysis, and stormwater conveyance.
Geosyntec	Construction Quality Assurance Report   March 16, 2022	The Report of Construction Quality Assurance (CQA) documents the CQA activities associated with the construction of the Phase 4 containment cell and related stormwater improvements in FA2. Geosyntec Consultants were on-site continuously during the mass excavation, subgrade preparation and liner installation. The report was prepared by Geosyntec, who concluded that the construction was completed in compliance with the approved design report, construction documents, CQA Plan, and recommendations during construction.
Geosyntec	Correspondence   May 16, 2022	Response to comments provided by the CRWQCB regarding the “Design Report - Fill Area 2, Phase 5 Construction & Stormwater Improvements.
CVRWQCB	Staff Letter   May 20, 2022	CVRWQCB staff reviewed and approved the Report of CQA Phase 4 Storm Water Improvements, dated March 16, 2022. On June 23, 2021, CVRWQCB approved the Design Reports revisions. The construction was documented in accordance with Title 27, WDRs and CDO.
CVRWQCB	Letter – Notice   July 21, 2022	The CVRWQCB staff reviewed the Design Report, as well as the May 16, 2022 Response to Comments regarding Design Report and July 1, 2022 clarification to the Design Report. According to the CVRWQCB staff, they support the improvements and recommendations described in the Design Report. This letter approves WMAC to proceed with construction, provided they adhere to the recommendations made in the Design Report, related revisions and the WDRs, CDO, and Title 27. The notice does not authorize discharge of wastes to Phase 5 until the final documentation report has been reviewed and approved by the CVRWQCB staff.

### Windblown Litter

### Topics

<b>From</b>	<b>Format   Date</b>	<b>Key Point(s)</b>
ALRRF / KSC	Correspondence   February 1, 2022	The response from ALRRF and KSC (WMAC’s legal counsel) to the CVRWQCBs 13267 Investigative Order (Order) states ALRRFs objection to the request of information. ALRRF denies any alleged liability arising from windblown litter or the allegations in the Order

# MEMO

From	Format   Date	Key Point(s)
	February 16, 2022 March 3, 2022 March 16, 2022 April 19, 2022 June 29, 2022 July 8, 2022 September 20, 2022 September 27, 2022 October 10, 2022 October 24, 2022	and asserts privileges, protection, and objects to Order and its technical report requirements.
ALRRF / KSC	Correspondence   November 14, 2022	The response from WMAC and KSC (WMAC legal counsel) to the CVRWQCBs 13267 Investigative Order (Order) states WMAC's objection to the request of information. WMAC denies any alleged liability arising from windblown litter or the allegations in the Order and asserts privileges, protection, and objects to Order and its technical report requirements. The letter addresses that, subject to and without waiving its objections, WMAC had collected and removed approximately 2,221 bags of litter from the Bethany Reservoir and 21,002 bags of windblown litter from a location outside the boundary of FA2, between July 15, 2021 and November 10, 2022.

## LIQUIDS MANAGEMENT

### Solidification Basins

### Topics

From	Format   Date	Key Point(s)
Golder Associates, Inc.	June 30, 2022	On June 30, 2022, Golder prepared the FA2 Solidification Basins Report of Waste Discharge (ROWD) on behalf of WMAC. This report describes the plans to relocate the solidification operations to concrete lined-basins outside of the FA2 landfill footprint.
Geosyntec	Other Report/Document  November 8, 2022	On November 8, 2022, Geosyntec prepared the Solidification Basin Monitoring Plan on behalf of WMAC. The CVRWQCB requested WMAC submit a ROWD to install new solidification basins off of the landfill footprint. A ROWD for the two new solidification basins were submitted to CVRWQCB on June 30, 2022. This monitoring plan includes: background, groundwater monitoring, surface water monitoring, leak detection system monitoring, vadose zone monitoring, visual inspection programs and reporting.



# MEMO

## MONITORING WELLS

### New or Pending Monitoring Wells

### Topics

From	Format   Date	Key Point(s)
WMAC	Correspondence   September 12, 2022	WMAC has requested the CVRWQCB extend the installation a monitoring well and a gas probe within the stability berm construction, per the 2022 CDO. The extension comes as a result of grading operations within the area of the proposed monitoring well and gas probe locations. WMAC is requesting installation be delayed until 2023 as the well and probe would only be sample once during the 4 <sup>th</sup> quarter of 2022, prior to destroying them for the berm construction activities.

### Exceedances in Monitoring Wells

### Topics

From	Format   Date	Key Point(s)
ALRRF/ SCS Engineers	Letter   November 3, 2021	Resampling results for MW-38 per Order No. R-5-2016-0042-1, performed on September 30, 2021, confirmed the detection of six measurably significant VOCs in groundwater at ALRRF. A preparation of an Amended Report of Waste Discharge to establish an Evaluation Monitoring Program in accordance with Title 27 is due within 90-days of confirming the measurably significant result (February 2, 2022).
Geosyntec	Report   February 2, 2022	The Amended Report of Waste Discharge and Evaluation Monitoring Plan was prepared to evaluate the detections of VOCs in groundwater at monitoring well MW-38. MW-38 was installed as part of the monitoring network in FA1 in June 2021. Six VOCs were detected in the first sampling event (September 9, 2021). The initial indication of release was confirmed by a resampling event on September 30, 2021. Additional samples from MW-38 were collected on November 5, 2021 and January 10, 2022. To further define and address this documented release and its impacts to groundwater at MW-38, Waste Management proposes to: <ol style="list-style-type: none"> <li>1. Install two to three additional LFG extraction wells along the eastern side of FA1 in the vicinity of MW-38.</li> <li>2. Install one groundwater monitoring well east of MW-38.</li> <li>3. Install two additional multi-depth soil gas monitoring probes, one adjacent to the well proposed in item 2 above, and one north of MW-38, between UGP-5 and gas probe LOC-3.</li> <li>4. Conduct monthly sampling of MW-38 during the first quarter of 2022, and to begin routine sampling of the proposed soil gas probes and groundwater monitoring well in accordance with the MRP once they are installed.</li> </ol>
CVRWQCB	Letter   February 15, 2022	CVRWQCB staff reviewed WMAC's "Amended Report of Waste Discharge and Proposed EMP for MW-38". CVRWQCB staff concurred with the scope of work proposed in the EMP.

# MEMO

From	Format   Date	Key Point(s)
Geosyntec	Other Documents / Report   May 13, 2022	The Amended Report of Waste Discharge documents the Evaluation Monitoring Plan (EMP) investigation results for the FA1 MW-38 area. The report summarizes geologic logging, well installations and gas probe installations, and groundwater and soil gas sampling results. One monitoring well MW-53 and two nested LFG probes (UGP-15 and UGP-16) were installed. The report concludes the nature and extent of the release in groundwater has been defined in accordance with the EMP and WDR criteria. WMAC has made modifications to the Gas Collection and Control System (GCCS) along the eastern side of FA1 between June 2021 and May 2022 to enhance LFG extraction in this area and revised the CAP in May 2022. MW-53, UGP-15 and UGP-16 will continue to be monitored semi-annually in accordance with the CAP and MRP until they are destroyed for the construction of FA2 Phase 12.
Geosyntec	CAP/RAP   May 2, 2022	The Engineering Feasibility Study for MW-38 proposes a Corrective Action Program (CAP) for the LFG release in the MW-38 area from the unlined FA1 Unit 1. The investigation results will be submitted by May 13, 2022. The proposed corrective action measure is LFG extraction. Nine LFG extraction wells proposed to be added to the CAP for MW-38 area. It is also proposed to include MW-38 and MW-53 and gas probes UGP-4, UGP-5, UGP-15 and UGP-16. The wells will be sampled semi-annually until MW-53 needs to be destroyed for FA2 Phase 12.
WMAC	Correspondence   September 20, 2022	Indicated by WMAC on July 21, 2022, during the first semiannual 2022 period in FA1, monitoring wells MW-2A, MW-6 and MW-10 detected measurably significant results for inorganic constituents. Resampling events that took place on July 28 and August 17, 2022 results did not verify the exceedance of chemical oxygen in MW-6 or chloride in MW-10, however it did indicate exceedance for COD in MW-2A. ALRRF states that several method blank detections have been associated with COD results over the past year and that water quality for this well will continue to be assessed in accordance with the WDR.
CVRWQCB	Staff Letter   December 13, 2022	CVRWQCB reviewed WMAC's Amended Report of Waste Discharge (AROWD) for MW-38 Area dated May 13, 2022. This report documents the installation of two new multi-level soil gas probes, the installation of one new downgradient groundwater monitoring well and the sampling of these new monitoring points. The CVRWQCB has concluded LFG has continued to migrate from FA1 along the northeastern limit of the unit and the proposed CAP is not sufficient. A revised AROWD must be submitted by March 31, 2023.

# MEMO

## Monitoring Program

## Topics

From	Format   Date	Key Point(s)
CVRWQCB	Correspondence   January 27, 2022	The CVRWQCB reviewed the July 20, 2021 SAP. The CVRWQCB requires revisions to specific sampling procedures to ensure consistent and representative sampling is completed across the site. The CVRWQCB requested the revised SAP by April 4, 2022.
Geosyntec	Other Report / Document   April 4, 2022	The revised Sampling and Analysis Plan (SAP) was prepared for the interim point of compliance (POC) detection monitoring program in FA2. The SAP includes sampling and analytical methods for groundwater, surface water, and the unsaturated zone.
CVRWQCB	Staff Letter   July 14, 2022	The CVRWQCB reviewed and provided comments on WMAC's February 1, 2022 Second Semiannual-Annual 2021 Groundwater Monitoring Report. The CVRWQCB outlined concerns with the site's monitoring program that needs to be addressed in all future monitoring reports to help achieve and maintain compliance with the site's WDRs, the CDO and Title 27. A detailed description of the comments has been included in Agenda Item 6.4 of the October 12, 2022 CMC Meeting Packet.
CVRWQCB	Staff Letter  September 19, 2022	The CVRWQCB staff reviewed and approved WMAC's September 12, 2022, FA2 Stability Berm Construction and Request for Extension of Monitoring Well and Gas Probe (Report). The CVRWQCB staff have no objection to the extension request and have changed the compliance date to December 31, 2022 for the installation of final CDO required outside perimeter well MW-59 and soil gas probe UGP-19.

## STORM WATER MANAGEMENT

### Concentration Limits for Monitoring Wells

## Topics

From	Format   Date	Key Point(s)
GeoChem Applications	Report   May 13, 2022	All existing and proposed wells per the CDO are required to use concentration limits proposed in the Discharger's February 21, 2020 FA2 Addendum to Supplemental Concentration Limits (Report). There are three sets of concentration limits for each of the site's groundwater zones: alluvial zone, weathered zone and unweathered zone. The concentration limits were based on groundwater data collected from multiple FA2 wells through 2018. The update incorporates the latest groundwater sampling data collected through December 2021.

# MEMO

CVRWQCB	Staff Letter   July 18, 2022	The review of the May 13, 2022 Water Quality Protection Standard (WQPS) Update contains revised WQPS concentration limits for three zones. The CVRWQCB found the proposed CLs for alluvium zone: the proposed 2022 temporary CLs are acceptable, with the exception of the proposed limits for calcium, chloride and TDS, which remain at their 2018 levels. For the weathered zone: The proposed 2022 temporary concentration limits are acceptable. For the unweathered Zone: The proposed 2022 temporary concentration limits are acceptable with the exception that the calcium limit not be greater than 103 mg/L and chlorine be no greater than 423 mg/L.
GeoChem Applications	Other Report/Document   October 27, 2022	On October 27, 2022, WMAC submitted the 2022 2-Year Groundwater Concentration Limits Update for FA1 and FA2 prepared by GeoChem Applications. The report presents the 2022 two-year update to groundwater concentrations for monitoring parameters for applicable FA1 and FA2 monitoring wells. The updated concentration limits are based on historical baseline monitoring data through June 2022 for each constituent and were statistically calculated using the intra-well data evaluation procedure.

## OTHER TOPICS

### CVRWQCB Inspections

### Topics

From	Format   Date	Key Point(s)
CVRWQCB	Site Visit / Inspection / Sampling   May 11, 2022	CVRWQCB (staff) performed a pre-Waste Discharge Requirements (WDRs) inspection on April 27, 2022. WMAC submitted a Report of Waste Discharge (ROWD) for a new solidification basin and appurtenances (Solidification Basin Design Report dated October 19, 2021), a design report for construction and stormwater improvements for operations expansion to Fill Area 2 (Phase 5 Design Report dated February 22, 2022) and a Report of Construction Quality Assurance (Phase 4 CQA Report dated March 16, 2022). The areas inspected included: the active solidification basins on FA1, the Sedimentation Basin D (SB-D), the proposed solidification basin area north of FA2, stockpile extender materials within the FA2 footprint, Phase 4 and Phase 5 of FA2, mass grading and separation activities in the adjacent Phase 5 contamination cell, and SB-H. No regulatory decisions were made during this inspection.
CVRWQCB	Facility Inspection Report   July 1, 2022	On June 28, 2022, CVRWQCB conducted a targeted inspection of the Altamont Landfill. The report provides a summary of inspection and outlines 13 Areas of Concern, required to maintain compliance with the WDRs and Title 27. A detailed description of the AOCs and work requested was provided in Agenda Item 6.2 of the October 12, 2022 CMC Meeting Packet.

# MEMO

From	Format   Date	Key Point(s)
CVRWQCB	Site Visit / Inspection / Sampling   September 1, 2022	On August 4, 2022, the CVRWQCB performed a construction observation inspection of the FA2 Phase 5 and participated in an onsite briefing. Based on staff observation and discussion with the WMAC, CQA Engineer, and Contractor, it appeared the respective parties are applying experience and knowledge gained in previous FA2 Phase cells toward the completion of Phase 5 cell. The discharger should continue effort to minimize exposure of the low permeability layer, which prevents desiccation, and maintain adequate records and documentation. No regulatory decisions were made during the onsite meeting or inspection.
CVRWQCB	Notice of Violation   September 1, 2022	On June 28, 2022 the CVRWQCB staff conducted an inspection of ALRRF. During this inspection, staff observed windblown litter outside the active FA2 area to the east as far as the Frog Pond and as far south as the Mitigation Pond. Alameda County staff conducted an inspection of ALRRF on July 28, 2022 where staff observed large amounts of windblown litter to the east of the active FA2 area as well as within the Back 40 area to the eastern edge of the site. Additionally, CVRWQCB inspected ALRRF on August 4, 2022 where they also observed windblown litter outside the active FA2 area. They observed noticeable amounts of plastic waste had accumulated on the control fences. The accumulation of waste outside of the active fill areas is a violation of the WMAC's WDRs. CVRWQCB would like WMAC to take appropriate measures to comply with the WDRs and Title 27 including immediately ceasing the discharged windblown litter beyond the active fill area and proceed by notifying the CVRWQCB when the windblown litter has been returned to the appropriate unit and is under cover material so the CVRWQCB can re-visit.

## CASP (For Information Only)

## Topics

From	Format   Date	Key Point(s)
CVRWQCB	Facility Inspection Report  July 19, 2022	On June 28, 2022 CVRWQCB staff conducted an inspection of the CASP Facility. The CASP pad, CASP Pad catch basin, Curing Pad, and concrete lined U-ditch were observed in good condition. Run-on and run-off controls observed in good condition. Additionally, WMAC has begun construction of a second compost leachate surface impoundment and additional waste control fencing around the Curing Pad. The Areas of Concern noted during the inspection included: <ol style="list-style-type: none"> <li>1. Notable waste along the northern limit of the CASP Pad, with concern of flow obstruction to catch basin.</li> <li>2. A bag of collected waste in the concrete lined leachate U-ditch</li> <li>3. Notable waste along the eastern limit of the Curing Pad</li> <li>4. Illegible freeboard markings in the surface impoundment</li> </ol>

# MEMO

From	Format   Date	Key Point(s)
		<p>The containment, collection and removal of windblown waste across the site’s composting operation is an ongoing operational task, and the completion of the under-construction waste control fencing should help with the containment of windblown waste. WMAC has to submit a report that documents the correction of each noted Area of Concern by September 2, 2022.</p>
WMAC	Correspondence  August 31, 2022	<p>WMAC has addressed CVRWQCB requests per their July 19, 2022 letter, regarding AOCs notified after an inspection of the CASP Facility on June 28, 2022. WMAC has taken action on AOC’s by removing additional windblown debris from along the northern limit of the CASP pad and catch basin, removing a bag of collected waste from concrete lined U-ditch, and clearing debris along the eastern limit of the Curing pad. Additionally, WMAC has refreshed freeboard markings of the contact water pond. WMAC will continue to address windblown waste across CASP Facility.</p>
WMAC	Correspondence  September 30, 2022	<p>WMAC has notified CVRWQCB of a spill event that occurred at the CASP Facility at ALRRF. This correspondence is a follow up report to a phone and email notification provided to CVRWQCB on September 20-21, 2022. During the installation construction of a new Contact Water Pond (CWP-2), a short period of rainfall allowed water to bypass the CWP and drain down an adjacent slope area. The soil from the slope is being removed and replaced with clean soil. A berm was constructed to eliminate future discharge of stormwater during the rest of construction. Expected completion is October 15, 2022.</p>
Geosyntec	Other Report/Documen t  October 27, 2022	<p>On October 20, 2022, WMAC submitted the Construction Quality Assurance (CQA) Report prepared by Geosyntec to the CVRWQCB documenting the construction of Contact Water Pond 2 (CWP-2). The report concludes the composting facilities improvements were constructed in conformance with the Design Report, the construction drawings and specifications, and the approved changes implemented in the field during construction.</p>
CVRWQCB	Staff Letter  December 13, 2022	<p>CVRWQCB reviewed WMAC’s 2021 Annual Monitoring and Maintenance Report (Annual Report). This letter reports the concerns that should be addressed to ensure that future monitoring reports fully comply with the Composter General Order, Notice of Applicability. Additionally, it includes six action items that WMAC is required to maintain compliance within their reporting, one of these items being the submittal of the 2022 Annual Monitoring Maintenance Report, due April 1, 2023.</p>

**TO:** Community Monitor Committee

**FROM:** Langan – Community Monitor

**DATE:** January 11, 2023

**SUBJECT: CMC Meeting of 1/11/23 – Agenda Item 6.5 – Review of Reports from ALRRF: Groundwater Analysis Progress Report #29 Langan Project No. 750657603**

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Langan Engineering and Environmental Services (Langan) has reviewed hydrogeologic data for the Altamont Landfill and Resource Recovery Facility (ALRRF) located near Livermore, California. The work and resulting data were conducted by SCS Engineers, and presented in the following reports:

- SCS Engineers, First Semiannual-Annual 2022 Groundwater Monitoring Report, Altamont Landfill and Resource Recovery Facility (WDR Order No. R5-2016-0042-01), Long Beach, California, dated August 2022.
- SCS Engineers First Semiannual 2022 Corrective Action Status Report, Altamont Landfill and Resource Recovery Facility (Order No. R5-2021-0022), Long Beach, California, dated July 2022.

The reports address the monitoring and reporting requirements of the Central Valley Regional Water Quality Control Board (CVRWQCB) Waste Discharge Requirements (WDR) Order No. R5-2016-0042 and the related Monitoring and Reporting Program (MRP), adopted on October 27, 2016 for the ALRRF, which is owned and operated by Waste Management of Alameda County, Inc. (WMAC) and Cease and Desist Order (CDO) No. R5-2021-0020, adopted on April 22, 2021. This memorandum describes the results of the above efforts and provides Langan’s opinions and recommendations for the Community Monitor Committee (CMC). The report was reviewed for issues described in previous CMC meeting minutes, to address provisions stated in the CDO adopted in 2021, and for potential trends in groundwater analytical data over recent years.

In a letter dated July 14, 2022, the CVRWQCB provided comments and requests related to the Second Semiannual Annual 2021 Groundwater Monitoring Report. SCS Engineers made changes and additions to reflect the comments received from the Second Semiannual Annual 2021 Groundwater Monitoring Report.

The First Semiannual 2022 groundwater sampling activities for Fill Area 1 (FA1) and 2 (FA2) were conducted from January through June 2022. This period included semiannual sampling of interim point of compliance (POC) wells for Phase 4 installed in October 2021 and abandoned in April 2022 after semiannual sampling, quarterly sampling of wells under additional evaluation, final landfill perimeter monitoring wells, and the new wells MW-38 and MW-53 were installed and sampled in April 2022. Two new monitoring wells were installed in the First Semiannual 2022 period for detection monitoring purposes; they were sampled for the first time for Contaminants

of Concern (COC) parameters to comply with Order No. R5-2016-0042-1. Wells and monitoring points were generally found to be in compliance during the First Semiannual sampling event.

## **LABORATORY QA/QC**

During the First Semiannual 2022 monitoring event, there were less QA/QC issues compared to the Second Semiannual 2021 monitoring event.

All ice chests containing groundwater samples collected during the First Semiannual 2022 period arrived at the laboratory (TestAmerica in Colorado) with temperatures between 0.2 and 6.0 degrees Celsius, which is at or below the recommended 6.0 degrees Celsius. Due to quality control compliance, instrument malfunction/error, and/or laboratory analyst error, one or more samples for nitrate, cyanide, sulfide, and total dissolved solids (TDS), and five samples for volatile organic compounds (VOCs) were analyzed outside of recommended method hold times.

Acetone, bromodichloromethane, chloroform, ethylbenzene, tert-butyl alcohol, tetrahydrofuran, 1,2-dichloroethane, xylenes, and toluene were detected in trip, field, and/or equipment blanks associated with one or more sample lots. No other VOCs were detected in the trip, field, and equipment blanks. One or more of these VOCs was also detected in ALRRF groundwater samples.

During the First Semiannual 2022 monitoring event, the laboratory reported that calcium, chromium, iron, magnesium, manganese, sodium, tin, and zinc (Method 6010B); dissolved nickel (Method 6020); dissolved mercury (Method (7470A); bicarbonate alkalinity (Method 2320B); sulfide (Method 9034); chemical oxygen demand (Method 410.4); and acetone, carbon disulfide, iodomethane, naphthalene, vinyl acetate, and 1,2,4-trichlorobenzene (Method 8260B) were detected in one or more of the method blanks associated with groundwater samples.

Values reported between the method detection limit (MDL) and the reporting limit (RL) should not be considered a reliable quantitative result given the method uncertainty at this low range. The RL was established to protect against false positives within the MDL - RL range. This is typically why no action is usually taken on the basis of these detections.

For the duplicate samples collected during the First Semiannual 2022 period, the primary and duplicate sample concentrations were within the acceptable relative percent difference limits, except for chemical oxygen demand (associated with a method blank detection) and manganese in MW-45A, and sulfate (both concentrations below RL) and manganese (associated with a method blank) in MW-46B.



## SECOND SEMIANNUAL 2021 GROUNDWATER SAMPLING RESULTS

### Detection and Corrective Action Wells<sup>1</sup> Inorganic and Volatile Organic Compound Concentrations

The 2016 MRP identifies two sets of corrective action groundwater monitoring wells: 1) well E-20B along the east side of FA1 and downgradient (detection) well MW-27 (this well replaced well MW-12), and 2) wells E-05 (now replacement well E-05R<sup>2</sup>) and E-07 in the main canyon south of FA1 and their downgradient (detection) wells E-03A and E-23. Additional detection wells have been added to the MRP, due to indications of possible groundwater impacts at other locations on site. Table 6.5-1 (below) summarizes the monitoring well network, which is also presented in Figure 6.5-5. In addition, landfill gas extraction is the corrective action is ongoing in the vicinity of monitoring wells MW-4A and MW-38.

**Table 6.5-1**

<b>FA1</b>	
Detection Monitoring Groundwater Monitoring Wells	MW-3B
Corrective Action Program Groundwater Monitoring Wells	E-03A, E-05R, E-07, E-20B, E-23, MW-27
Evaluation Groundwater Monitoring Wells	MW-1A, MW-2A, MW-3B, MW-4A, MW-5A, MW-6, MW-7, MW-31
Class II Surface Impoundment "FA1 South LSI" Evaluation Monitoring Groundwater Well	MW-11
Point of Compliance (POC) (or Final Edge of Waste) Monitoring Wells	MW-37, MW-38, MW-39, MW-40
Evaluation Groundwater Monitoring Well for MW-38	MW-53
<b>FA2</b>	
Detection Monitoring Groundwater Monitoring Wells	MW-10, MW-19, PC-6B, PC-6B[R], WM-2, PC-2A, PC-2C
Class II Surface Impoundment (LSI-3) Detection Groundwater Monitoring Wells (listed in MRP as SI-1)	MW-8A, MW-8B, MW-15A, MW-15B, MW-16, MW-17, MW-17R, MW-18
Interim Phase 4 Groundwater Monitoring Wells	MW-30, MW-32, MW-33, MW-36
Point of Compliance (POC) (or Final Edge of Waste) Monitoring Wells	MW-34A, MW-34B, MW-35A, MW-35B, MW-41A, MW-41B, MW-42A, MW-42B, MW-43, MW-44A, MW-44B, MW-45A, MW-45B, MW-45C, MW-46A, MW-46B, MW-47A, MW-47B, MW-48A, MW-48B, MW-49A, MW-49B, MW-50, MW-51, MW-52

<sup>1</sup> Monitoring wells included in the Corrective Action Program (CAP) and Detection Monitoring Program (DMP) of the MRP, used for compliance monitoring.

<sup>2</sup> Wells that have an "R" after their number are replacement wells, installed because the original well became dry.

# MEMO

As part of FA2 Phase 4/Phase 5 construction, wells PC-1A, PC-1B, and PC-1C were abandoned February 2022 and MW-30, MW-32, MW-33, and MW-36 were abandoned in April 2022. MW-9 will start to be sampled on a semiannual basis for Fill Area 2 detection monitoring purposes during the Second Semiannual 2022 period. Groundwater wells MW-15A and PC-6B were dry during the First Semiannual 2022 sampling event and therefore no samples could be collected. Interim detection monitoring wells MW-30, MW-32, MW-33, and MW-36 for Fill Area 2 Phase 4 were installed in late 2021. These wells were sampled at least once before being abandoned in April 2022. As part of the evaluation of the MW-38 area, new well MW-53 was installed on April 13, 2022. E-05R was sampled for the first time during the First Semiannual 2022 period.

Based on the analytical results of the First Semiannual 2022 monitoring event, concentration limit exceedances were observed for the inorganic monitoring parameter, chemical oxygen demand, for FA1 wells MW-2A, MW-4A, MW-5A, MW-6, and MW-7. For wells MW-4A, MW-5A, and MW-7, the First Semiannual 2022 chemical oxygen demand concentrations had associated method blank detections of 9.08 mg/l, indicating a likely significant high concentration bias for these results. Therefore, the actual concentration of chemical oxygen demand for these samples relative to their CL is indeterminate. A systematic error affecting the chemical oxygen demand results for all of the above wells is possible. However, there is no direct evidence that the chemical oxygen demand results for well MW-2A and MW-6 have been affected by analytical bias. For wells MW-2A and MW-6, the CVRWQCB was notified of these Fill Area 1 initial statistical exceedances by phone and by email on July 21, 2022. These wells will be resampled and the results will be submitted under separate cover. Other than the above noted initial chemical oxygen demand exceedances, there were no new concentration limit exceedances identified for the inorganic monitoring parameter sample data for Fill Area 1 wells for the First Semiannual 2022 sampling event.

An initial concentration limit exceedance of chloride was identified for MW-10 during the First Semiannual 2022 sampling event. The CVRWQCB was notified of the initial chloride exceedance in MW-10 by phone and by email on July 21, 2022. MW-10 was planned to be resampled for chloride and submitted.

Recurring exceedances were noted for the following parameters: chloride and chemical oxygen demand in MW-8A, dissolved calcium, chloride and TDS in MW-8B, dissolved calcium in MW-10, chemical oxygen demand, dissolved calcium, chloride, sulfate, and TDS in PC-2A, chloride in MW-18, and dissolved calcium, chloride, sulfate, and TDS in WM-2. The previously seen exceedance of chloride and TDS was not observed again at PC-1C.

Recurring exceedances were noted for chloride in MW-30, dissolved calcium and chloride in MW-33, and calcium in MW-36 during the First Semiannual 2022 period. For samples collected in April 2022, MW-30, MW-33, and MW-36 showed no exceedances aside from initial exceedances for bicarbonate alkalinity, chloride, sulfate, and TDS in MW-36. No further action was taken for MW-36 because it was abandoned April 2022.

In response to Second Semiannual 2021 initial statistical exceedance of dissolved calcium at MW-10, bicarbonate alkalinity in MW-16, and chloride in MW-18, resampling was conducted on February 10 and 23, 2022. Resample results for the three wells were submitted to the

CVRWQCB in a WMAC March 21, 2022 letter with conclusions a) concentrations of bicarbonate alkalinity in MW-16 were below the statistical limit and therefore this exceedance was not verified, and b) the concentrations of both resampling results confirmed the dissolved calcium exceedance in MW-10 and the chloride exceedance in MW-18. It was recommended that the water chemistry in MW-10 and MW-18 continue to be assessed in accordance with WDR/MRP requirements. For the First Semiannual 2022 period, MW-10 dissolved calcium and MW-18 chloride exceeded the statistical limit again and MW-16 bicarbonate alkalinity was below the limit. In response to Second Semiannual 2021 initial statistical exceedances of chemical oxygen demand and sulfate in PC-2A resampling was conducted on February 10 and 23, 2022. Resample results were submitted to the CVRWQCB in a Waste Management Alameda County (WMAC) March 18, 2022 letter, which indicated that the resample concentrations confirmed the initial statistical exceedances and determined that the results were due to ongoing storm water effects.

For WM-2, the report Assessment of Inorganic Water Quality Changes in WM-2 (SCS, June 11, 2021) concluded that the water quality changes do not appear to be associated with Fill Area 2 landfilling activities. Since 2019, a significant amount of earthwork has been conducted in the area north of WM-2, including clay mining, processing and stockpiling, construction of a water supply pond, and development of borrow soil and boulder stockpiles. As a result, the topography has been altered significantly and a depression has been created north of WM-2 where storm water accumulates. These changes appear to have altered the natural recharge processes and resulted in changes in inorganic water quality. In an email dated June 15, 2021, the CVRWQCB requested that the water quality changes in WM-2 continue to be monitored. WMAC has continued to report water quality data from this well in accordance with the 2016 WDR/MRP.

No VOCs were detected above their primary Maximum Contaminant Levels (MCLs) in any Fill Area 1 or Fill Area 2 groundwater monitoring well samples during the First Semiannual 2022 period.

## Fill Area 1

For Fill Area 1, no VOCs were detected in First Semiannual 2022 samples from Fill Area 1 detection and evaluation monitoring wells E-03A, E-21, E-22, E-23, MW-1A, MW-2A, MW-3B, MW-4B, MW-5A, MW-6, MW-7, MW-11, MW-31, MW-39, and new wells MW-53, during the First Semiannual 2022 event.

Point of Compliance well MW-37 had a below RL concentration of carbon disulfide in a sample taken May 2022. No VOCs were detected in March 2022. Therefore, no further action is required. Point of Compliance well MW-40 had recurring VOC detections below their respective RLs for tert-butyl alcohol and methyl tert-butyl ether (MTBE). The VOCs detected in MW-40 are generally not typical of landfill gas (LFG)-affected groundwater observed at ALRRF and the review of the inorganic data (including chloride) does not suggest a leachate effect to groundwater. However, an Optional Demonstration Report (ODR) for the two VOCs in MW-40 was prepared and submitted under separate cover<sup>3</sup>. The ODR concluded that leachate and landfill gas were unlikely

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<sup>3</sup> SCS Engineers. *Monitoring Well MW-40 Optional Demonstration Report. Altamont Landfill and Resource Recovery Facility, Alameda County, California.* Dated February 8.

sources of the VOCs due to chemistry of the groundwater and location of the well. The ODR also includes the potential for the detected VOCs (MTBE and tert-butyl-alcohol) to be attributed to residual gasoline related to historical operations. The CVRWQCB responded in an email on February 14, 2022 that continued monitoring and periodic evaluations of MW-40 will be required.

POC monitoring well MW-38 had six VOC detections during the sampling event in September 2021, which were confirmed in a resampling event. A Proposed Evaluation Monitoring Plan (EMP)<sup>4</sup>, Engineering Feasibility Study (EFS)<sup>5</sup>, and initial and revised Amended Report of Waste Discharge (AROWD<sup>6</sup>) were submitted to the CVRWQCB (Geosyntec, February 2, 2022; May 9, 2022, and May 13, 2022). It was concluded that the VOC concentrations in groundwater at MW-38 were due to LFG effects. On February 15, 2022, the CVRWQCB indicated that the monitoring of water quality in the MW-38 area (including newly installed downgradient well MW-53) should be included in the CDO status report for the corrective action areas. Additional details and current results for MW-38 and MW-53 are included in the Corrective Action Status Report for the First Semiannual 2022 period (SCS, July 29, 2022).

#### E-20B and downgradient wells

In monitoring well E-20B, 1,1-DCA and DCFM were detected at concentrations above RLs. These VOCs have been detected in E-20B since 1999. Below RL concentrations of diethyl ether was also detected in E-20B during the Second Semiannual 2021 monitoring event. These results were also consistent with past results at E-20B. Concentrations of cis-1,2-dichloroethene (cis-1,2-DCE), MTBE and tert-butyl-alcohol, substances that have been previously observed in E-20B samples, were not detected in the First Semiannual 2022 sample.

None of the VOCs that have historically or currently been detected in E-20B were detected in down gradient monitoring wells PC-1B, PC-1C, or MW-27 during this, or any previous, reporting period.

The groundwater data collected during this reporting period indicates that LFG extraction continues to be effective in addressing gas effects at well E-20B as VOC concentrations at E-20B have decreased significantly over time.

#### MW-4A

No statistical exceedances were observed in MW-4A during this period. No VOCs were detected in the First Semiannual 2022 samples from MW-4A, MW-4B, or MW-31.

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<sup>4</sup> Geosyntec Consultants, February 2, 2022. Amended Report of Waste Discharge and Proposed Evaluation Monitoring Plan for MW-38, Altamont Landfill and Resource Recovery Facility, Alameda County, California

<sup>5</sup> Geosyntec Consultants, May 2, 2022; Revised May 9, 2022. Engineering and Feasibility Study for MW-38 Area, Altamont Landfill and Resource Recovery Facility, Alameda County, California

<sup>6</sup> Geosyntec Consultants, May 13, 2022. Amended Report of Waste Discharge for MW-38 Area, Altamont Landfill and Resource Recovery Facility, Alameda County, California

The groundwater data collected during this reporting period indicated that the LFG extraction continues to be effective in addressing gas effects at well MW-4A. No LFG-related VOCs have been detected at MW-4A since the Third Quarter 2019. The concentrations of bicarbonate alkalinity have fluctuated from slightly below to slightly above the statistical concentration limit, and there has been no calcium statistical exceedance since 2017.

## Fill Area 2

Wells associated with FA2 were evaluated with the same statistical protocols used for FA1 wells as mentioned above. A summary of VOCs detected in FA2 is presented in Table 6.5-3, attached at the end of the memo.

No VOCs were detected in samples from Fill Area 2 detection monitoring wells MW-8B, MW-10, MW15B, MW-16, MW-17, MW-18, MW-19, MW-27, MW-34A, MW-35A, MW-41A, MW-41B, MW-42A, MW-44A, MW-45A, MW-45C, MW-46A, MW-47B, MW-48A, MW-48B, MW-49A, MW-53, PC-6B(R), WM-2, PC-2A, and PC-2C. No VOCs were detected in Fill Area 2 interim Phase 4 monitoring wells MW-32, MW-33, and MW-36.

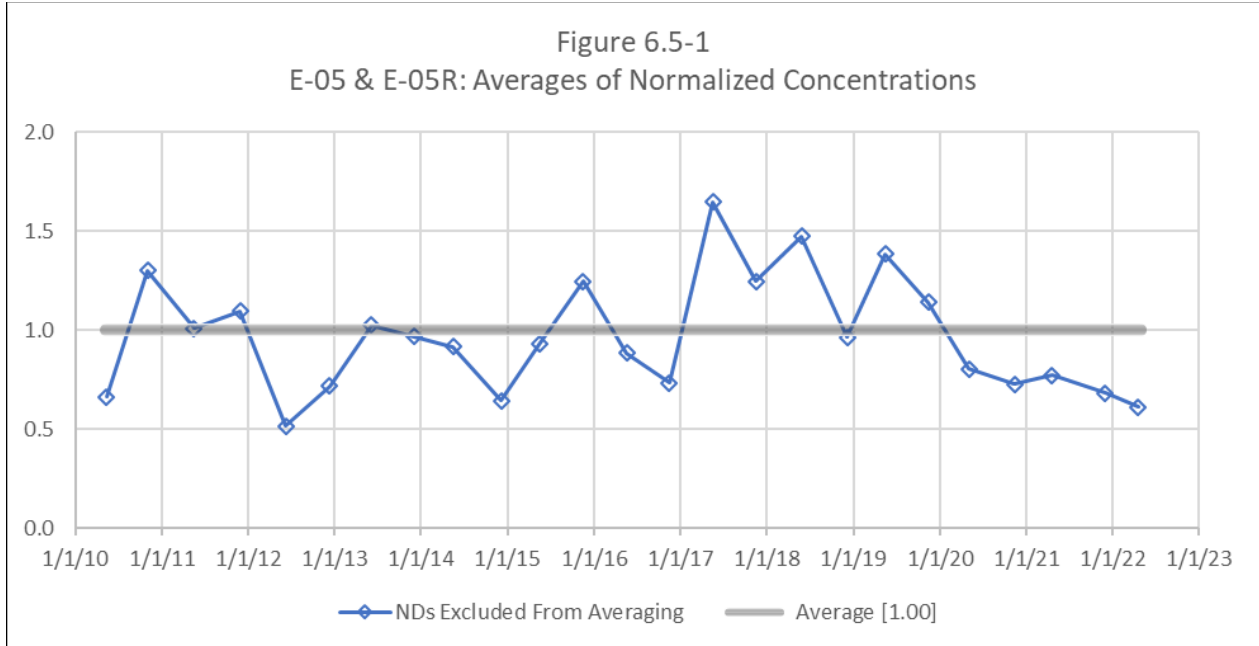
Final FA2 POC monitoring well MW-34B had a naphthalene detection above the RL (May 2022). The CVRWQCB agreed to a plan of continued monitoring because naphthalene was not detected in any other nearby wells. Final FA2 POC monitoring well MW-45B had two VOCs detected at concentrations below their RLs. Final FA2 POC monitoring well MW-49B had carbon disulfide detected above the RDL. An ODR for carbon disulfide was submitted to the CVRWQCB on March 3, 2022. The ODR explained an alternative source for the carbon disulfide – a unique geochemical low yielding zone that the well is screened in. In an email from CVRWQCB, they found the alternative source plausible and agreed with the proposal to continue monitoring. First semiannual samples from monitoring wells MW-8A, MW-53, and MW-52 either were non-detection for all VOCs or had a singled below RL concentration of a VOC. An ODR for toluene and xylene was submitted to CVRWQCB in March 2022, recommending ongoing monitoring of MW-41A following confirmation of VOC concentrations in December. The CVRWQCB agreed.

Final FA2 POC monitoring well MW-30 had xylene detections between the DL and the RL. MW-17R had iodomethane detected below the RL. MW-35B had acetone and btomomethane below the RL. MW-43 had carbon disulfide below the RL. MW-44B had naphthalene below the RL. MW-46B had carbon disulfide and naphthalene below the RL. MW-47A had acetone below the RL. MW-50 had acetone and carbon disulfide below the RL. MW-51 had carbon disulfide below the RL. MW-52 had carbon disulfide below the RL. No further action was required for any of these wells.

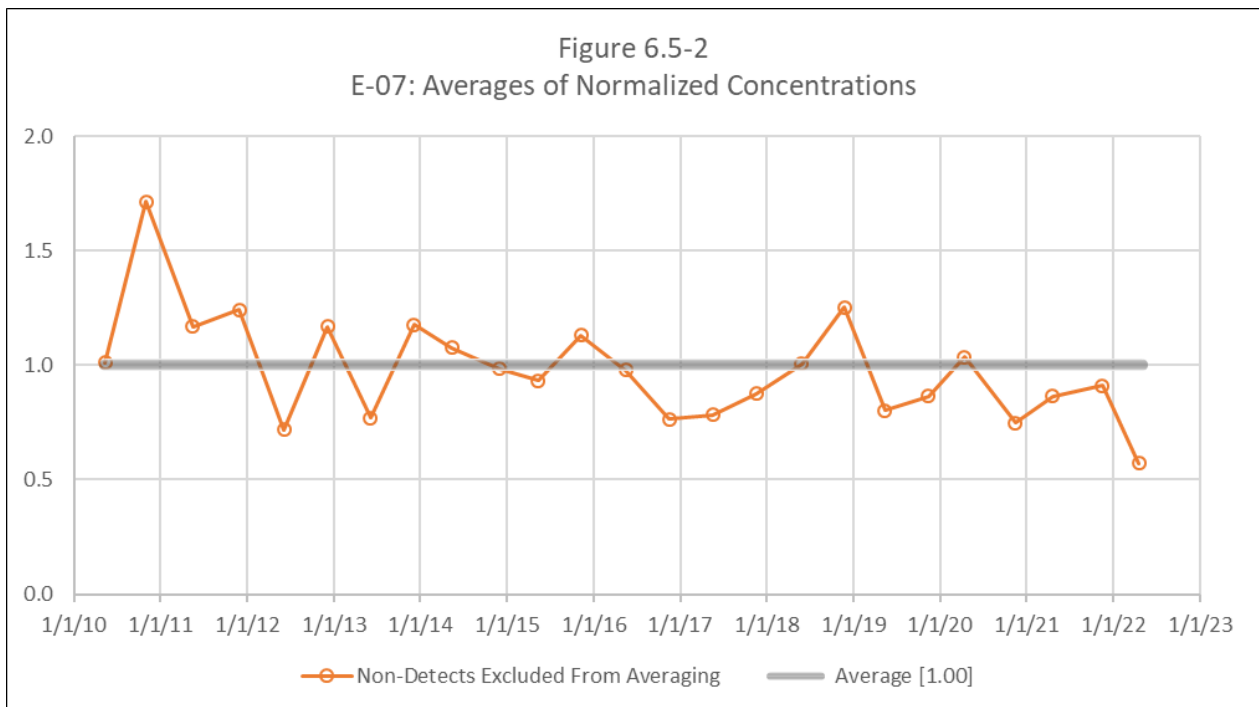
## Trends in VOC Data

The Community Monitor continued to review the trends in data from monitoring wells where VOCs have been detected and continued graphing the data over time for each contaminant in each well. We have normalized the concentration data (dividing each data point by the average for that substance at that well, with non-detects excluded) in order to pool all of the VOC data at a well and look for trends. We offer the following updated observations well-by-well, and the general observation that for most of these wells normalized concentration trends were close to,

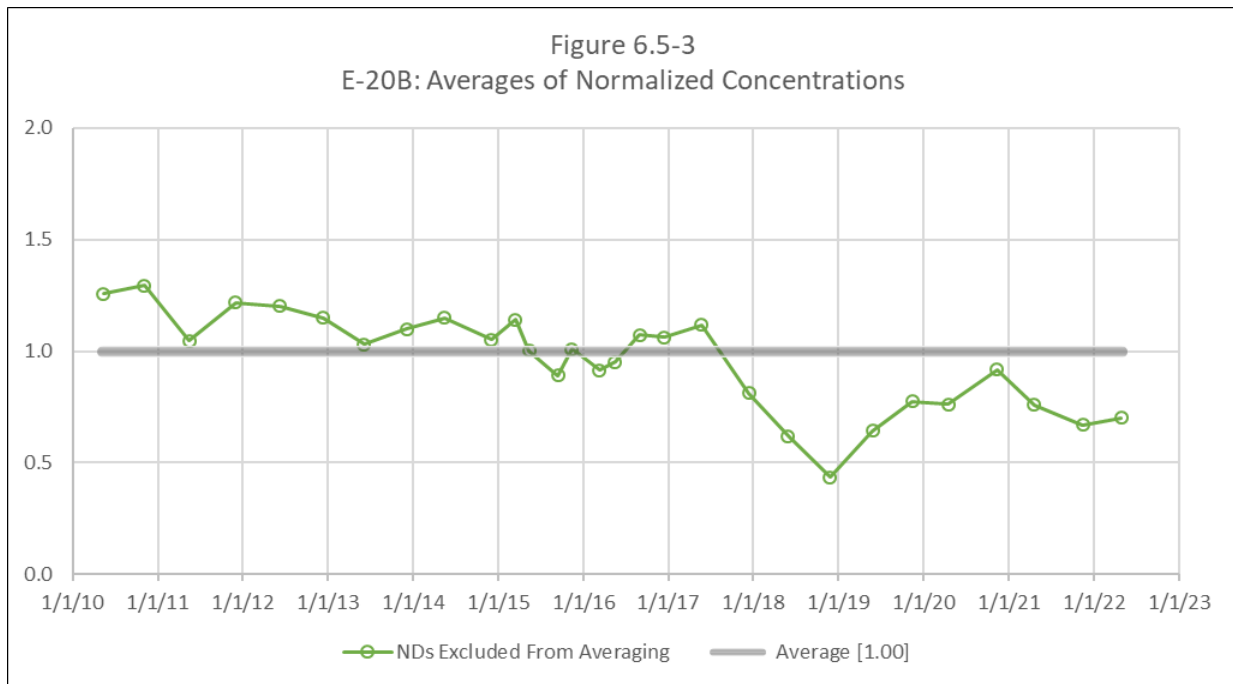
at, or below the average (i.e. 1.0), with the exception of MW-4A for which VOCs were not detected.



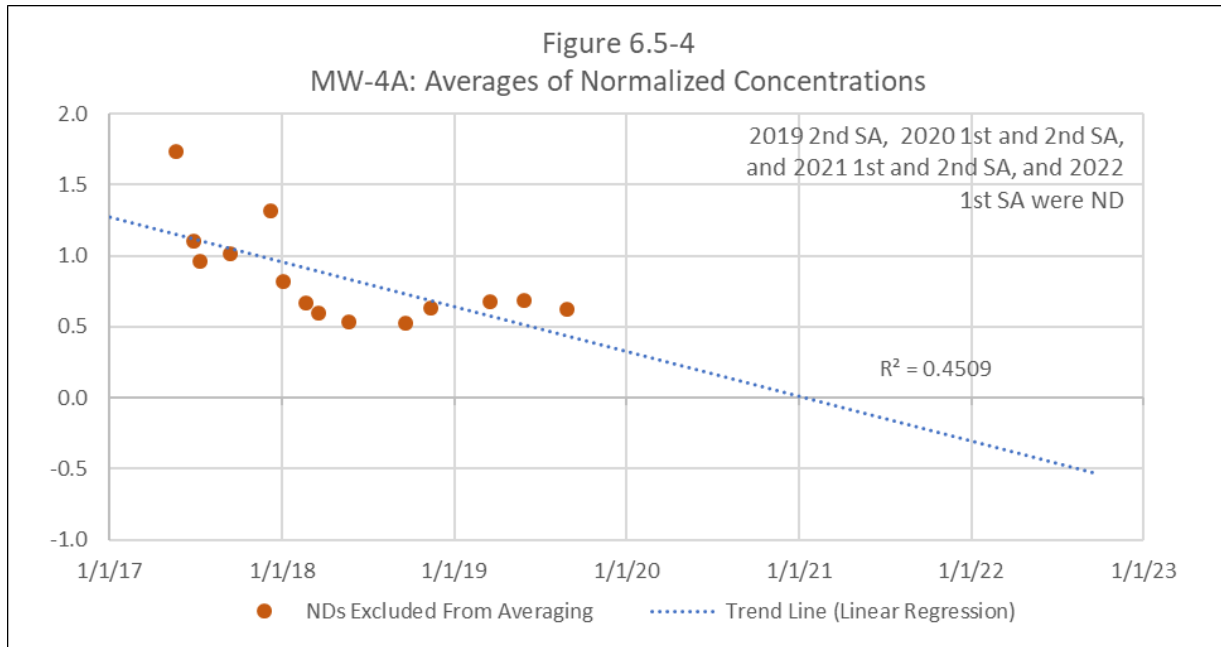
At Well E-05, at the toe of FA1, the data has shown below average concentrations since May 2020. The April 2022 sample showed a slight decrease in concentration, with respect to the previous sampling event. Concentrations at E-05 will continue to be tracked.



At well E-07, in the same location as E-05 though screened deeper, the April 2022 sample was below average and showed a decrease with respect to the previous sampling event. No clear trend is observed for this well, and we will continue to monitor the normalized concentrations over time.



At well E-20B, on the east side of FA1, the average across all VOCs was showing a clear decline in 2017 – 2018, but the more recent samples had shown an increase from 2019-2021, which brought concentrations back to the historical average. The April 2022 sample was below average. Concentrations in this well will continue to be tracked.



At well MW-4A, at the northeast corner of FA1, samples collected during the past two and a half years had no detections of VOCs and therefore it appears that the downward trend continues.

## SUMMARY OF GROUNDWATER RESULTS

There were less occurrences of laboratory QA/QC issues compared to the previous reporting period; there were several concentrations that were observed in method blanks as well as in trip, field, and/or equipment blanks during the First Semiannual 2022 sampling event.

This period included semiannual sampling of interim point of compliance wells for Phase 4 (MW-30, MW-32, MW-33, and MW-36) installed in October 2021 and abandoned in April 2022 after semiannual sampling. This period also included quarterly sampling of wells under additional evaluation (MW-8A, MW-8B, PC-2A, and PC-2C). Final landfill perimeter monitoring wells (MW-34A, MW-34B, MW-35A, MW-35B, MW-37, MW-38, MW-39, MW-40, MW-41A, MW-41B, MW-42A, MW-42B, MW-43, MW-44A, MW-44B, MW-45A, MW-45B, MW-45C, MW-46A, MW-46B, MW-47A, MW-47B, MW-48A, MW-48B, MW-49A, MW-49B, MW-50, MW-51, and MW-52) were sampled quarterly if there was sufficient liquid. The new MW-38 area downgradient well (MW-53) was installed and sampled in April 2022 and will be sampled on a quarterly basis. For data collection purposes, semiannual sampling of Fill Area 2 well MW-9 will be initiated during Second Semiannual 2022. If sufficient water was present, this monitoring period included the first time sampling and analysis of Constituents-of-Concern (COC) parameters for newly installed monitoring wells MW-52 (insufficient water to be sampled during last period) and MW-53 to comply with the requirements in WDR.

In the Second Semiannual 2021 first quarter sampling event, all of the wells that had VOC detections in FA2 had toluene detections below the reporting limit but above the method detection limit. The toluene detections in the first sampling event did not trigger further action.



Toluene detections were only found in MW-8A and MW-43 in the Second Semiannual sampling events.

VOCs detected in corrective action monitoring wells E-05, E-07, and E-20B were generally consistent and within the ranges of previous detections observed at these wells. No VOCs were detected in E-03A, E-21, E-22, or E-23 located downgradient of E-05 and E-07. None of the VOCs that have historically or currently been detected in E-20B were detected in downgradient monitoring wells MW-39, MW-27 or MW-27 during this, or any previous, reporting period. LFG-related VOCs were detected in POC monitoring well MW-38. On February 15, 2022, the CVRWQCB indicated that the monitoring of water quality in the MW-38 area (including newly installed downgradient well MW-53) should be included in the CDO status report for corrective action areas. No LFG-related VOCs have been detected at MW-4A since the Third Quarter 2019. The concentrations of bicarbonate alkalinity at MW-4A have fluctuated from slightly below to slightly above the statistical concentration limit.

Initial concentration limit exceedances were identified for the following wells and inorganic parameters for Fill Area 1 wells for the First Semiannual 2022 sampling event:

- MW-2A. Chemical oxygen demand (sample concentration of 30 mg/l over the 13 mg/l limit).
- MW-6. Chemical oxygen demand (sample concentration of 21 mg/l over the 15 mg/l limit).

For Fill Area 2, the following initial statistical exceedance was observed for detection monitoring and interim POC wells during the First Semiannual 2022 period:

- MW-10. Chloride (sample concentration of 240 mg/l over the 229 mg/l limit).

The CVRWQCB was notified of these initial statistical exceedances by phone and by email on July 21, 2022. These wells will be resampled and the results will be submitted under separate cover. With the exception of a single below RL concentration, VOCs attributed to field and/or laboratory cross contamination, and/or VOCs already evaluated and either not confirmed or attributed to non-landfill operations, no VOCs were detected in detection monitoring, evaluation monitoring, POC, or interim wells for Fill Area 1 or Fill Area 2.

A corrective action Status Report for First Semiannual 2022 period was submitted under separate cover on July 29, 2022 for the CDO referenced corrective action areas MW-4A, E-20B, GP-9, and recently added corrective action area MW-38. For consistency, MRP corrective action area E-05R/E-07 was also included in the Status Report.

The GCCS system and LFG extraction wells are performing as expected and VOCs are continuing to decrease over time based on the VOC data, VOC time series plots, and LFG control system data.

# MEMO

CMC Meeting of 1/11/23 – Agenda Item 6.5 – Review of Reports from ALRRF:  
Groundwater Analysis Progress Report #29  
Langan Project No. 750657603  
January 11, 2023  
Page 12 of 12

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## RECOMMENDATION

We recommend continuing review of groundwater, unsaturated zone, leachate, and stormwater data as it becomes available, and evaluating for trends in data, especially for groundwater monitoring wells where VOCs have previously been detected. Also, we recommend to continue review of laboratory QA/QC issues.

Attachments: Figure 6.5-5 - Groundwater Monitoring Network  
Table 6.5-2 - Fill Area 1 Analytical Results Summary  
Table 6.5-3 - Fill Area 2 Analytical Results Summary

6.5.1.1\_Review of Reports From ALRRF\_Groundwater



**Table 6.5-3  
Fill Area 2 Analytical Results Summary  
Altamont Landfill Resource and Recovery  
Livermore, CA**

Area	Sample ID	Sample Date	Acetone	Benzene	Benzyl Alcohol	Bromomethane	2, Butanone	Carbon Disulfide	Chloro-benzene	Chloroform	1,4-Dichloro-benzene	cis-1,2-dichloroethene	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloropropane	1,2-Dichloroethane	Dichlorodi-fluoromethane	Dichloro-fluoromethane	Diethyl ether	Methylene Chloride	Methyl tert-butyl ether	Napthalene	Styrene	Tert-Butyl-Alcohol	Tetrachloroethene	Tetrahydrofuran	Toluene	Trichloroethene	Xylenes	Comment	
Fill Area 2	MW-8A	3/3/2022																									X <sup>2</sup>		X <sup>1,2</sup>	Final FA2 POC Monitoring Wells	
		4/27/2022																													
	MW-34B	3/2/2022																													Final FA2 POC Monitoring Wells
		5/9/2022						X <sup>1,2,7</sup>															X								
	MW-35B	3/2/2022	X <sup>1,2,7</sup>																												Final FA2 POC Monitoring Wells
		5/10/2022				X <sup>1,2</sup>																									
	MW-43	3/11/2022						X <sup>1,2</sup>																				X <sup>2</sup>			Final FA2 POC Monitoring Wells
		4/27/2022						X <sup>2</sup>																							
	MW-44B	3/1/2022																						X <sup>1,2,8</sup>							Final FA2 POC Monitoring Wells
		5/5/2022																						X <sup>2</sup>							
	MW-45B	3/3/2022	X <sup>2,8</sup>																					X <sup>2,7</sup>							Final FA2 POC Monitoring Wells
		5/4/2022																						X <sup>2</sup>							
	MW-46B	3/3/2022																													Final FA2 POC Monitoring Wells
		5/9/2022							X <sup>1,2,7</sup>															X <sup>1,2</sup>							
	MW-47A	3/15/2022	X <sup>1,2,4</sup>																												Final FA2 POC Monitoring Wells
		5/4/2022																													
	MW-49B	3/4/2022							X <sup>7</sup>															X <sup>1,2,7</sup>							Final FA2 POC Monitoring Wells
		5/5/2022							X <sup>8</sup>																						
	MW-50	3/11/2022																													Final FA2 POC Monitoring Wells
		5/5/2022	X <sup>1,2,8</sup>						X <sup>1,2,8</sup>																						
MW-51	3/18/2022							X <sup>1,2</sup>																						Final FA2 POC Monitoring Wells	
	5/6/2022																														
MW-52	3/16/2022	X <sup>1,2,7</sup>						X <sup>1</sup>																						Final FA2 POC Monitoring Wells	
	4/27/2022							X <sup>1,2</sup>																							

**Notes**

VOC - Volatile Organic Compound

POC - Point of compliance

<sup>1</sup> First detection

<sup>2</sup> Concentration reported is estimated because it is below the reporting limit and above its method detection limit.

<sup>3</sup> Analyte detected in associated trip blank.

<sup>4</sup> Analyte detected in associated equipment blank at a reportable limit.

<sup>5</sup> MW-8B, MW-15B, MW-10, MW-16, MW-17, MW-17(R), MW-18, MW-19, MW-27, MW-34A, MW-35A, MW-36, MW-41A, MW-41B, MW-42A, MW-44A, MW-45A, MW-45C, MW-46A, MW-47B, MW-48B, PC-2A, PC-2C, PC-6B(R), WM-2 were also sampled during this event. No detection of VOCs were reported for this sampling event.

<sup>6</sup> PC-1A, PC-1B and PC-1C were abandoned February 2022. MW-30, MW-32, MW-33, and MW-36 were abandoned April 2022

<sup>7</sup> Analyte was detected in method, trip, and/or field blanks associated with a different lot during the same event, but not detected in the quality control blanks associated with this particular sample.

<sup>8</sup> Analyte was reported in an associated method blank at a reportable limit.

<sup>9</sup> Sample collected at MW-19 and WM-47B without purge per RWQCB and SAP. No samples were collected at MW-42B. All three wells were purged/bailed dry, and no recharge occurred after 24 hours.

**To:** Community Monitor Committee

**From:** Langan – Community Monitor

**Date:** January 11, 2023

**Re:** **CMC Meeting of 1/11/23 – Agenda Item 6.5 – Review of Reports Provided by ALRRF: Air Emission Report**

## Air Emissions Report

The most recent Semi-Annual Report to the Bay Area Air Quality Management District (BAAQMD) covers the period from December 1, 2021 through May 31, 2022. The key points from this document are:

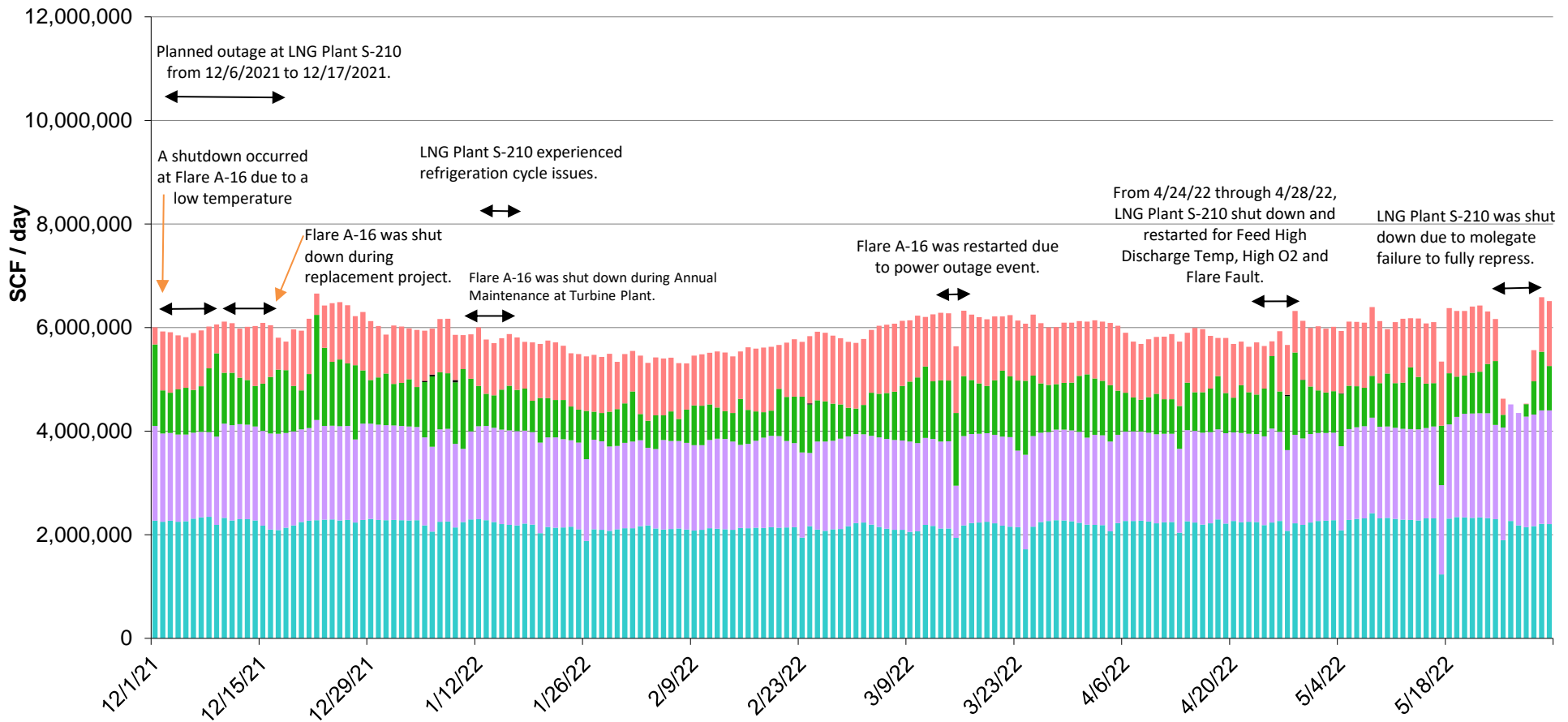
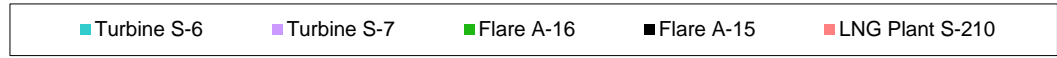
- New gas wells brought on line – During the reporting period, 11 new landfill gas extraction wells were brought on line.
- High temperature wells – During the reporting period, one well (well 799) showed high temperatures (131 Fahrenheit [F] or higher). Well 799 was decommissioned on March 21, 2022.
- Recent gas well decommissions – During the reporting period, a total of 5 existing wells were decommissioned, i.e., shut down and disconnected from the gas extraction system because they had become unproductive.
- Surface emissions monitoring - For the fourth quarter of 2021, monitoring took place in October and November, 2021; for the first quarter of 2022, it took place on 1 and 22 of February, 2022. In October and November, for the fourth quarter of 2021, there were 13 exceedances of the 500 parts per million by volume (ppmv) methane threshold. In February 2022, for the first quarter, the number of exceedances decreased to 10. All of the corrective actions to block these emissions were successful and passed their 10-day and 30-day follow-up tests.
- Emission Control Device Source Tests – Currently the operating emission control devices for landfill gas at the ALRRF consist of two turbines (S-6 and S-7) and two flares (A-15 and A-16). The two turbines were tested for compliance with emission limits in December 2021, while the main flare, A-16, and the back-up flare, A-15, and were tested in April 2021. All four devices passed by the BAAQMD Permit 8-34-412 and Condition Number 18773.
- Gas Migration at Perimeter Probes – In this reporting period, methane exceeding regulatory threshold of 5% was not found in any of the 50 perimeter probes installed around Fill Areas 1 and 2. Probe GP-20C and probe GP-8C, both have historically had

higher methane values that have been proven to be naturally occurring and not related to landfill operations. No exceedances were detected during this monitoring event.

- Gas Migration Near Groundwater Monitoring Wells – Throughout this monitoring period, the landfill gas wells nearest to groundwater monitoring wells E-05/E-07, E-20B, and MW-4A continued to be operated with as much vacuum as they would tolerate without pulling in air from above the ground surface. This was an effort to prevent landfill gas from reaching those groundwater wells, where low concentrations of VOCs have been detected.

Figure 6.5.2 shows the amounts of landfill gas consumed by each of the gas-consuming devices at the ALRRF. As shown in the figure, the gas system ran for most of the six-month reporting period. As shown in the figure, there were few major down times for the LNG Plant S-210 including shut down for planned outage, refrigeration cycle issues, Feed B high discharge temperature, molegate failure to fully repress and high oxygen in Feed as well as Turbine. Flare A-16 was shut down for low temperature alarm, during header work, refractory replacement, for an Annual High Voltage Maintenance and a power outage event. Turbine S-6 and Turbine S-7 ran smoothly through the six-month reporting period. S-7 Turbine was shut down for testing and maintenance. The LNG Plant S-210 and Flare A-16 were restarted and brought back online after each incident was resolved.

**Figure 6.5.2 - ALRRF Daily LFG Flow**  
(values derived from Title V Report)



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**To:** ALRRF Community Monitor Committee

**From:** Langan – Community Monitor

**Date:** January 11, 2023

**Re:** **CMC Meeting of 1/11/23 - Agenda Item 6.6 - Updates on PFAS regulations and monitoring requirements**

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## **PFAS MONITORING**

At the January 12, 2022 meeting Ms. Cabanne requested the Community Monitor to continue providing updates on new developments related to per- and polyfluoroalkyl substances (PFAS). She also asked about landfill corrective action for PFAS and how PFAS can be treated in groundwater. Based on the continued interest of the Committee Members on this topic, we have included it as its own agenda item.

California and Federal agencies are in the process of evaluating health risks and developing guidance for PFAS, as reported in the CMC meeting packet for the January 12, 2022 meeting. During the first two quarters of 2022, no relevant updates have occurred on PFAS monitoring requirements for landfills.

At the ALRRF, PFAS were sampled in November 2019 in response to the State Water Resources Control Board's (SWRCB) investigative order (WQ 2019-0006-DWQ). The concentrations reported at the ALRRF were below the maximum concentrations for groundwater and leachate at other landfills covered by the PFAS Order, and within the middle of the range. Neither the SWRCB nor the Central Valley Regional Quality Control Board (RWQCB) have requested additional monitoring at this moment.

On May 18, 2022, the U.S. Environmental Protection Agency (EPA) added five PFAS to a list of risk-based values for site cleanups<sup>1</sup>. These levels are used by the EPA and other agencies in the investigations of contaminated sites.

On June 15, 2022 the EPA announced new drinking water health advisories for PFAS<sup>2</sup>. The EPA issued interim, updated drinking water health advisories for two substances and final health advisories for two additional substances. These health advisories inform the maximum contaminant levels allowed in drinking water, and would not have an effect at this moment on landfills.

On August 17, 2022 the Division of Drinking Water presented at the State Water Resource Control Board meeting on the Notification and Response Levels for Perfluorohexane Sulfonic

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<sup>1</sup> <https://www.epa.gov/risk/regional-screening-levels-rsls-whats-new>

<sup>2</sup> <https://www.epa.gov/newsreleases/epa-announces-new-drinking-water-health-advisories-pfas-chemicals-1-billion-bipartisan>

Acid<sup>3</sup>. There is continued progress through the discussion of this topic from regulatory agencies but at this time no direct regulatory updates have occurred.

On August 26, 2022 the EPA announced under the Administrator Regan's PFAS Strategic Roadmap, significant action to protect communities health from the risks posed by certain PFAS's<sup>4</sup>. The EPA is proposing that PFAS become designated as a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or "Superfund." This would increase transparency around the releases of PFAS and help hold polluters accountable for the cleanup. This proposal applies toward PFOA and PFOS.

Regarding corrective actions, known technologies for treating PFAS in water include granular activated carbon, ion exchange, and reverse osmosis<sup>5</sup>. Granular activated carbon and ion exchange resins remove chemicals by sorption (the chemical is attached to the media), which reduces concentrations of chemicals in the effluent water of the system. Reverse osmosis removes contaminants by pushing water through a semipermeable membrane, effluent water has less chemicals, and a portion of the water (rejected water or concentrate) is collected for disposal. PFAS do not degrade in the environment, and one of the few technologies that can potentially destroy PFAS is incineration.

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<sup>3</sup> [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/pfas.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas.html)

<sup>4</sup> <https://www.epa.gov/newsreleases/epa-proposes-designating-certain-pfas-chemicals-hazardous-substances-under-superfund>

<sup>5</sup> Interstate Technology and Regulatory Council (ITRC), 2022. Treatment Technologies – PFAS — Per- and Polyfluoroalkyl Substances. [https://pfas-1.itrcweb.org/12-treatment-technologies/#12\\_1](https://pfas-1.itrcweb.org/12-treatment-technologies/#12_1). Accessed on March 10, 2022.

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**To:** ALRRF Community Monitor Committee  
**From:** Langan, Community Monitor  
**Date:** January 11, 2023  
**Re:** **CMC Meeting of 1/11/23 – Agenda Item 6.7 – Reports From Community Monitor**

## CLASS 2 SOIL FILE REVIEWS

In accordance with the Settlement Agreement, we reviewed Class 2 Soil Profiles at ALRRF on June 23, 2022, July 14, 2022 and December 7, 2022. The records reviewed correspond to soil accepted at the landfill between December 1, 2021 and November 31, 2022. A total of 185 soil profiles were provided for our review. We reviewed 40 soil profiles on June 23, 51 soil profiles on July 14 and 94 soil profiles on December 7, 2022. No out of compliance profiles were found.

## ALTAMONT MONTHLY OPERATIONS AND RECORDS REVIEW

During the third and fourth Quarters of 2022, three site visits were performed by the Community Monitor. In addition to site visits, summaries of LEA inspections available on CalRecycle's website are reviewed and important issues are highlighted in the monthly reports. The reports in this item include:

- Community Monitor Site Visit for July, which took place on July 28, 2022.
- Community Monitor Site Visit for August, which took place on August 23, 2022.
- Community Monitor Site Visit for September, which took place on September 20, 2022.
- Community Monitor Site Visit for October, which took place on October 19, 2022.
- Community Monitor Site Visit for November, which took place on November 17, 2022.
- Community Monitor Site visit for December, which took place on December 1, 2022.

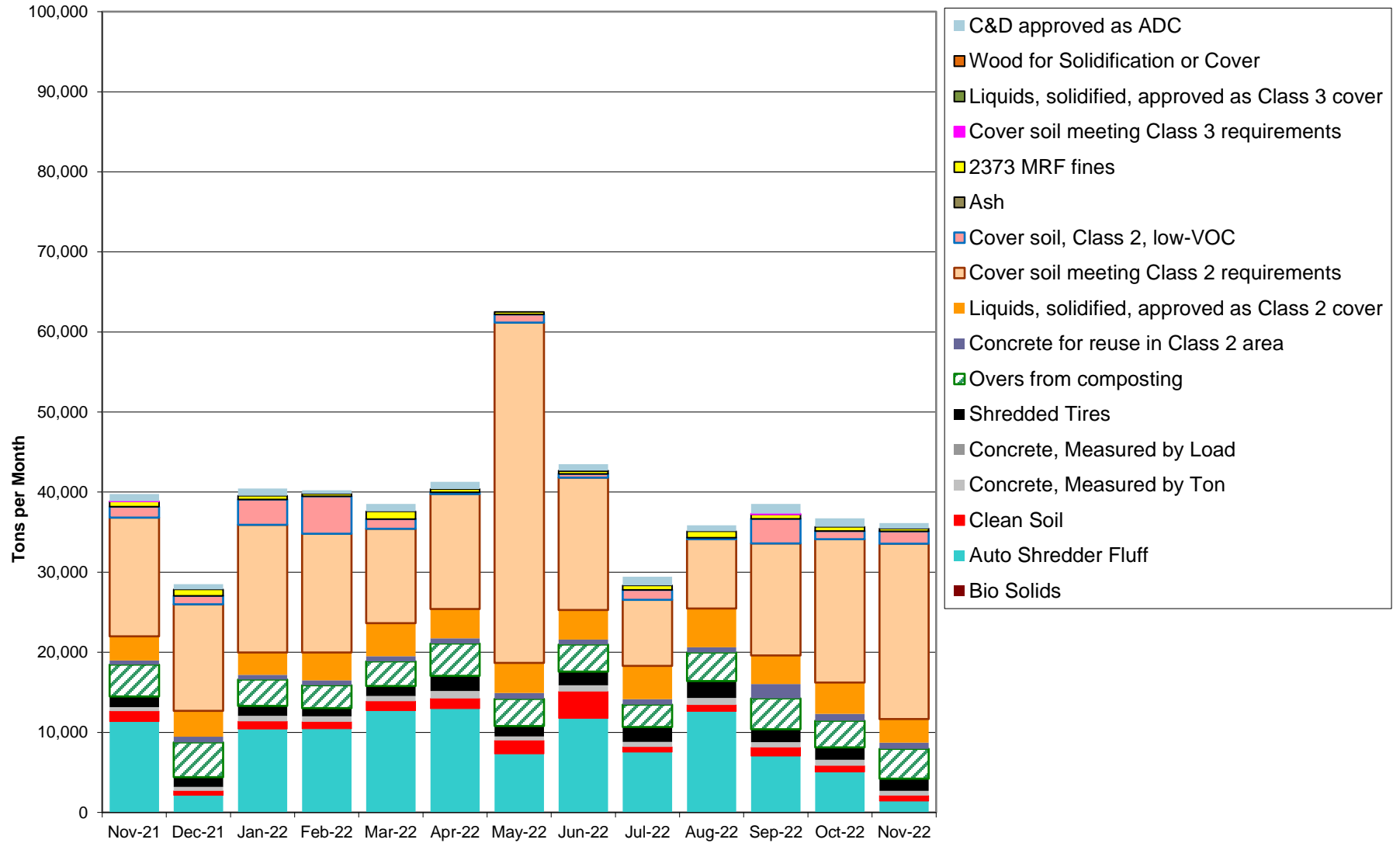
Details about operations-related matters are provided in the attached reports. Issues that cause special concern are marked with yellow rectangles in the monthly reports. For the third and fourth quarters, construction of additional landfill space in Fill Area 2, Phase 5 was ongoing. Construction of Phase 4 was completed in April, obtained regulatory approval and has been in use. Windblown litter issues continued to be of great importance, and WMAC dedicated resources to make improvements.

Also attached are graphs showing monthly tonnages by type of material for the most recent 12-month period. Figure 6.7-1 shows the breakdown of materials that make up

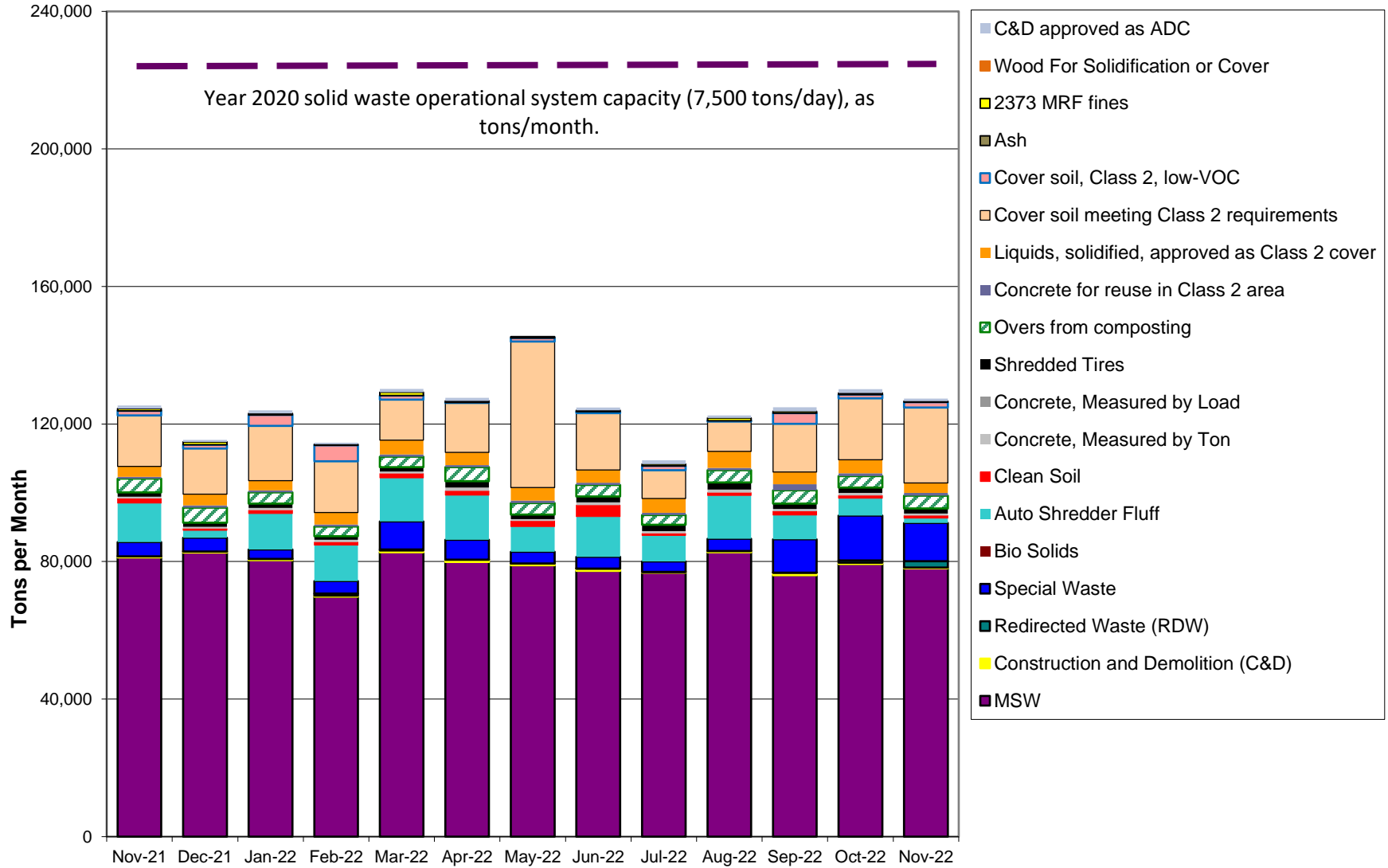
# MEMO

Revenue-Generating Cover. Figure 6.7-2 shows these same quantities, plus the Municipal Solid Waste (MSW) and Special Waste tonnage for each month.

**Figure 6.7-1 Monthly Volumes of Revenue-Generating Cover**



**Figure 6.7-2 Monthly Volumes of Landfilled Materials**



June 2022

**ALRRF Community Monitor Monthly Report**Monthly Tonnage Report for June 2022, received July 15, 2022

## Tonnage Summary:

		<u>tons</u>
Disposed, By Source Location		
1.1	Tons Disposed from Within Alameda County	79,387.22
1.2	Other Out of County Disposal Tons	1,955.01
	subtotal Disposed	<u>81,342.23</u>
Disposed, By Source Type		
2.1	C&D	645.86
2.2	MSW	77,285.33
2.3	Special Wastes	3,403.62
	subtotal Disposed	<u>81,334.81</u>
		-7.42 -0.01%
Other Major Categories		
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	0.90
2.5	Revenue Generating Cover	41,093.16
	Total, 2.1 - 2.5	<u>122,428.87</u>
Materials of Interest		
2.1.1	Fire Debris	0.00
2.3.1	Friable Asbestos	637.00
2.3.2	Treated Wood	178.56
2.5.1	Class 2 Cover Soils	17,000.26
2.5.2	Auto Shredder Fluff	11,755.50
2.5.3	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00
2.5.4	MRF Fines for ADC	366.90

**ALRRF Reports from Community Monitor**

**June 2022**

Site Visit June 29, 2022, 10:00 AM - 2:15 PM

- Attended by Maria Lorca (Langan, Community Monitor), accompanying the LEA.
- Escort: Jose Flores (Waste Management). Unannounced.
- Weather: Sunny, warm, windy.

General Observations

- Altamont Pass Road was clear and free of windblown debris near the entrance to the site. Traffic to the site was flowing freely through the road and the entrance of the Landfill.
- WMAC staff reported to have a five people crew working on litter pickup, and to be increasing the crew as needed on days where litter removal was needed.
- The main office area was in good condition. No windblown litter was observed in this area.

Neighboring Properties

- Small quantities of windblown litter was observed in the neighboring properties to the northwest of Fill Area 2 (FA2). At the time of the visit, a five-person crew was observed picking litter outside of the property boundary.



- The Bethany Reservoir was observed from the distance (approx. 2,000 feet). No apparent litter was observed from the view point.





### Fill Area 2 Operations

- Approximately 100 birds were present in FA2 during the time of the visit.
- Disposal operations were occurring on Phase 3. The active face and the public disposal area were on the northwest portion of FA2. The active face was small (approx. 50 feet by 80 feet) to prevent windblown litter escaping from it.
- Several temporary screens were placed at the toe of the active face.
- Windblown litter was observed in the perimeter of FA2. Permanent perimeter fencing held most of the litter within the property boundary.



### Fill Area 1

- Fill Area 1 (FA1) was observed from the Bird Perch and appeared to be in good condition. At the time of the site visit, no activity was observed at the top of FA1.
- LSI-1, which holds underdrain water, had 16 feet of free board. LSI-2, which holds leachate, had 9 feet of free board.
- At the Fill Area 1 solidification basins, the yellow basin (cover material production) was active and one person was observed in the area. The blue basin (blending for Class 2 disposal) was not active during the site visit.
- The asbestos containing facility was observed in good condition. Newly received friable asbestos containing material was contained in plastic bags, the area is covered often to prevent migration of the asbestos containing material.

### Other Environmental Observations / Issues

- WMAC staff reported that the Central Valley Regional Water Quality Control Board (CVRWQCB) had conducted an inspection on June 28, and requested improved visibility for the LSI ponds markers. No other issues were reported.
- FA2 Phase 4 construction was approved by the CVRWQCB on May 20, 2022. WMAC may commence use of Phase 4. At the time of the site visit, Phase 3 was the active phase, and WMAC reported use of Phase 4 was expected within a month.

### Special Occurrences

Two special occurrences were logged in June:

- June 9 – a third-party end dump truck had an accident outside of the landfill front gate. A sharp turn caused the trailer to flip over. No injuries were reported.
- June 11 – a fire was reported on the working face of the landfill (FA2). The fire was under control and fully extinguished within three hours. The log notes the fire was assumed to have started from a hot load.

**ALRRF Community Monitor Monthly Report**

Monthly Tonnage Report for July 2022, received August 16, 2022

Tonnage Summary:

		<u>tons</u>
Disposed, By Source Location		
1.1	Tons Disposed from Within Alameda County	78,892.10
1.2	Other Out of County Disposal Tons	1,162.69
	subtotal Disposed	<u>80,054.79</u>
Disposed, By Source Type		
2.1	C&D	237.69
2.2	MSW	76,755.04
2.3	Special Wastes	3,042.49
	subtotal Disposed	<u>80,035.22</u>
		-19.57 -0.02%
Other Major Categories		
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	1.25
2.5	Revenue Generating Cover	29,442.70
	Total, 2.1 - 2.5	<u>109,479.17</u>
Materials of Interest		
2.1.1	Fire Debris	0.00
2.3.1	Friable Asbestos	875.21
2.3.2	Treated Wood	160.48
2.5.1	Class 2 Cover Soils	9,490.79
2.5.2	Auto Shredder Fluff	7,550.97
2.5.3	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00
2.5.4	MRF Fines for ADC	540.40

## ALRRF Reports from Community Monitor

July 2022

### Site Visit July 28, 2022, 12:00 PM - 1:45 PM

- Attended by Maria Lorca and Reilly Hossner (Langan, Community Monitor). The LEA was conducted an unannounced inspection at the time of the site visit and the Community Monitor joined the LEA, and left before the Community Monitor visited the Back 40 and the ET Cover.
- Escort: Luis Rocha (Waste Management). Announced.
- Weather: Sunny, warm, windy.

### General Observations

- Altamont Pass Road was clear and free of windblown debris near the entrance to the site. Traffic to the site was flowing freely through the road and the entrance of the Landfill.
- WMAC staff reported to have a 10 people crew working on litter pickup.
- The main office area was in good condition. No windblown litter was observed in this area.

### Fill Area 1 Ponds

- The two LSI ponds were observed. LSI-1 which holds leachate had 11 feet of free board. Leachate was not flowing into the pond. LIS-2 which holds underdrain liquid had 17 feet of free board.

### Fill Area 2 Operations

- Disposal operations were occurring on Phase 4. Disposal operations began on Phase 4 earlier on the week. The active face was on Phase 4, and the public disposal area was on top of Phase 3. The active face was small (approximately 100 ft by 80 ft) to prevent windblown litter escaping from it.



- Several temporary screens were placed at the toe of the active face.



- Windblown litter was observed in the perimeter of FA2. Permanent perimeter fencing held litter within the property boundary.



Back 40

- Few pieces of windblown litter were observed in the Back 40, the area to the northwest of FA2.



Evapotranspirative (ET) Cover

- Most of the evapotranspirative (ET) cover area appeared to be in good condition.
- Most of the surface area had good vegetation cover, with the exception of the south corner of the top deck, which has not established vegetation.
- One visible crack was observed on the top deck of the ET cover.



Other Environmental Observations / Issues

- The Area of Concern issued by the LEA in their July 19 inspection remained during the July 29 inspection. The LEA observed few pieces of litter that had migrated offsite.

Special Occurrences

No special occurrences were recorded in July.

**ALRRF Community Monitor Monthly Report**

**August 2022**

Monthly Tonnage Report for August 2022, received September 15, 2022

Tonnage Summary:

		<u>tons</u>	
Disposed, By Source Location			
1.1	Tons Disposed from Within Alameda County	85,878.95	
1.2	Other Out of County Disposal Tons	746.64	
	subtotal Disposed	86,625.59	
Disposed, By Source Type			
2.1	C&D	366.07	
2.2	MSW	82,716.64	
2.3	Special Wastes	3,541.73	
	subtotal Disposed	86,624.44	
		-1.15	0.00%
Other Major Categories			
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	1.15	
2.5	Revenue Generating Cover	35,841.03	
	Total, 2.1 - 2.5	122,466.62	
Materials of Interest			
2.1.1	Fire Debris	0.00	
2.3.1	Friable Asbestos	625.61	
2.3.2	Treated Wood	602.22	
2.5.1	Class 2 Cover Soils	8,843.64	
2.5.2	Auto Shredder Fluff	12,634.40	
2.5.3	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00	
2.5.4	MRF Fines for ADC	826.88	

## ALRRF Reports from Community Monitor

August 2022

### Site Visit August 23, 2022, 10:00 AM - 12:00 PM

- Attended by Megan Rollo and Reilly Hossner (Langan, Community Monitor).
- Escort: Luis Rocha (Waste Management). Announced.
- Weather: Sunny, hot.

### General Observations

- Traffic to the site was flowing freely through the road and the entrance of the landfill.
- The scale houses appeared to be in good condition.

### Fill Area 1

- Fill Area 1 (FA1) was observed from the Bird Perch. The slopes and road were observed to be in good condition and showed no signs of erosion. No windblown litter was observed in on top of FA1.
- The two solidification basins were observed to be in good condition. At the time of the visit, no activity was observed in the solidification basins.
- The LSI ponds were in good condition. LSI-2, which holds underdrain and rainwater, was observed with 17 feet of freeboard and LSI-1, which holds leachate, had 10.5 feet of freeboard.
- North of the LSI ponds, to the west of FA1, a large soil stockpile was observed. The stockpile is native soil from the construction of FA2, and is being stored to be used as cover soil.

### Fill Area 2 Operations

- A low quantity of windblown litter was present near FA2 from the observation area at time of visit. WMAC staff reported that strong winds had been recorded in the weeks prior. A litter picking crew was observed.
- Few birds were observed in the vicinity of FA2 at time of visit.
- Three stockpiles of cover soil and Alternative Daily Cover (ADC) were observed near the Active Face, Phase 3 and Phase 4.
- Landfill operations were occurring on FA2 Phase 4. Observed crew laying down liner for FA2 Phase 5.





- LSI-3 was mostly dry at time of visit. WMAC staff reported pond has been mostly dry for about three weeks prior to visit. Cattails were observed at bottom and perimeter of pond.



#### Back 40

- The Back 40 is the portion of the property to the northeast of FA2. Windblown litter was not observed in this area. WMAC reported litter in the Back 40 is picked up twice each day, and the neighboring properties are inspected once a week.

#### Mitigation Pond

- The pond was dry at the time of the time visit. The pond is maintained with a fence to prevent cattle to access. Vegetation covered the area where pond water was previously present.



#### Other Environmental Observations / Issues

- WMAC staff reported that the LEA was inspecting the facility bi-monthly because the AOC was still maintained.

#### Special Occurrences

On August 19, 2022 at 7:00 am, a dump truck trailer overturned while making a left turn too quickly from East bound of Altamont Pass Road. The incident was resolved at 4:00 pm. No injuries reported.



**ALRRF Community Monitor Monthly Report**

**September 2022**

Monthly Tonnage Report for September 2022, received October 16, 2022

Tonnage Summary:

		<u>tons</u>	
Disposed, By Source Location			
1.1	Tons Disposed from Within Alameda County	79,261.26	
1.2	Other Out of County Disposal Tons	7,191.79	
	subtotal Disposed	86,453.05	
Disposed, By Source Type			
2.1	C&D	745.74	
2.2	MSW	76,002.38	
2.3	Special Wastes	9,725.65	
	subtotal Disposed	86,473.77	
		20.72	0.02%
Other Major Categories			
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	0.46	
2.5	Revenue Generating Cover	41,992.47	
	Total, 2.1 - 2.5	128,466.70	
Materials of Interest			
2.1.1	Fire Debris	745.74	
2.3.1	Friable Asbestos	763.67	
2.3.2	Treated Wood	156.08	
2.5.1	Class 2 Cover Soils	16,068.52	
2.5.2	Auto Shredder Fluff	7,038.09	
2.5.3	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00	
2.5.4	MRF Fines for ADC	553.03	

## ALRRF Reports from Community Monitor

September 2022

### Site Visit September 20, 2022, 9:00 AM - 12:00 PM

- Attended by Megan Rollo and Maria Lorca (Langan, Community Monitor); Ryan Hammon and David Maderos.
- Escort: Luis Rocha and Nick Araujo (Waste Management). Unannounced.
- Weather: Partly cloudy, 62 degrees.

### General Observations

- Traffic to the site was flowing freely through the road and the entrance of the landfill.
- The scale houses appeared to be in good condition.

### Fill Area 1

- Fill Area 1 (FA1) was observed from the Bird Perch. The slopes and road were observed to be in good condition and showed no signs of erosion, despite rain fall the day before. No windblown litter was observed in on top of FA1.
- The two solidification basins were observed to be in good condition.



- The LSI ponds were in good condition. LSI-2, which holds underdrain and rainwater, was observed with 17 feet of freeboard and LSI-1, which holds leachate, had 13 feet of freeboard.
- North of the LSI ponds, to the west of FA1, a large soil stockpile was observed. The stockpile is native soil from the construction of FA2, and is being stored to be used as cover soil.

### Fill Area 2 Operations

- A small quantity of windblown litter was present near FA2 from the observation area at time of visit. WMAC staff reported that strong winds had been recorded the week prior.
- Few birds were observed in the vicinity of FA2 at time of visit.
- Three stockpiles of cover soil and Alternative Daily Cover (ADC) were observed near the Active Face, Phase 3 and Phase 4.
- Landfill operations were occurring on FA2 Phase 3. Due to rainfall, operations at Phase 4 were postponed until soil dried enough to operate equipment on safety. WMAC staff noted they would likely begin operations shortly.



- WMAC Staff told Langan that the cattails present at LSI-3 had been removed.
- Installation of fencing at SUKA-7 was completed.



Back 40

- The Back 40 is the portion of the property to the northeast of FA2. Windblown litter was not observed in this area. WMAC reported litter in the Back 40 is picked up twice each day, and the neighboring properties are inspected once a week.



Other Environmental Observations / Issues

- WMAC staff reported that the LEA is inspecting bi-monthly because the AOC is maintained. The LEA was on Site at our time of visit, but did not inspect alongside Langan as they had prior obligation to inspect the CASP during scheduled period. LEA will inspect the rest of landfill throughout the afternoon of September 20, 2022.

Special Occurrences

No special occurrences were recorded in September.

**ALRRF Community Monitor Monthly Report**

**October 2022**

Monthly Tonnage Report for October 2022, received November 16, 2022

Tonnage Summary:

		<u>tons</u>	
Disposed, By Source Location			
1.1	Tons Disposed from Within Alameda County	89,445.34	
1.2	Other Out of County Disposal Tons	3,313.32	
	subtotal Disposed	<u>92,758.66</u>	
Disposed, By Source Type			
2.1	C&D	401.61	
2.2	MSW	79,286.69	
2.3	Special Wastes	13,068.82	
	subtotal Disposed	<u>92,757.12</u>	
		-1.54	0.00%
Other Major Categories			
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	634.14	
2.5	Revenue Generating Cover	36,722.73	
	Total, 2.1 - 2.5	<u>130,113.99</u>	
Materials of Interest			
2.1.1	Fire Debris	401.61	
2.3.1	Friable Asbestos	646.64	
2.3.2	Treated Wood	123.29	
2.5.1	Class 2 Cover Soils	18,925.63	
2.5.2	Auto Shredder Fluff	5,042.01	
2.5.3	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00	
2.5.4	MRF Fines for ADC	502.93	

## ALRRF Reports from Community Monitor

October 2022

### Site Visit October 19, 2022, 10:00 AM - 12:30 PM

- Attended by Megan Rollo and Maria Lorca (Langan, Community Monitor)
- Escort: Luis Rocha (Waste Management). Announced.
- Weather: Sunny, 77 degrees, no wind.

### General Observations

- Traffic to the site was flowing freely through the road and the entrance of the landfill.
- The scale houses appeared to be in good condition.

### Engineered Transport (ET) Cover

- No observation of hillside erosion or large cracks on the cover. No windblown litter observed.
- Native plants appear to be growing evenly across the top of the ET cover.



### Fill Area 1

- Fill Area 1 (FA1) was observed from FA1. The slopes and road were observed to be in good condition and showed no signs of erosion. No windblown litter was observed on top of FA1.
- The two solidification basins were observed to be in good condition. An auto-shredder stockpile was observed as well as active management of solidification pits.
- The LSI ponds were in good condition. LSI-2, which holds underdrain and rainwater, was observed with 17 feet of freeboard and LSI-1, which holds leachate, had 13 feet of freeboard. The image below shows LSI-2.





Asbestos Containing Waste Disposal Site (ACW)

- One load of friable asbestos was observed at the ACW site at time of visit. Friable asbestos containing material has to be wrapped in plastic before dumping per California regulations.
- ALRRF reported the friable asbestos loads are covered at the end of day.



Fill Area 2 Operations

- Windblown litter was only observed on the litter catching fences that border FA2.
- Almost no birds were observed in the vicinity of FA2 at time of visit.
- Landfill operations were occurring on FA2 Phase 4. Two stockpiles of cover soil and Alternative Daily Cover (ADC) were observed near the Active Face.
- Phase 5 construction was observed.



Back 40

- The Back 40 is the portion of the property to the northeast of FA2. Windblown litter was not observed in this area. WMAC reported litter in the Back 40 is picked up twice each day, and the neighboring properties are inspected once a week.

- Third party clean-up crew observed at Back-40.

Other Environmental Observations / Issues

- WMAC staff reported that the LEA is inspecting once a month and the AOC was removed during the September inspection.
- WMAC is undergoing a process to mitigate potential muddy roadways on site during the upcoming winter season. Winterization also includes creating a winter pad that consists of concrete and gravel on the higher portion of FA2.

Special Occurrences

On October 31, 2022 ALRRF was made aware that an employee had tested positive for COVID-19. Company protocol was instituted to ensure the facility was thoroughly disinfected and that the employee continued to seek proper medical attention.



**ALRRF Community Monitor Monthly Report**

**November 2022**

Monthly Tonnage Report for November 2022, received December 15, 2022

Tonnage Summary:

		<u>tons</u>	
Disposed, By Source Location			
1.1	Tons Disposed from Within Alameda County	80,735.01	
1.2	Other Out of County Disposal Tons	8,621.01	
	subtotal Disposed	<u>89,356.02</u>	
Disposed, By Source Type			
2.1	C&D	236.35	
2.2	MSW	78,011.48	
2.3	Special Wastes	11,108.19	
	subtotal Disposed	<u>89,356.02</u>	
		0.00	0.00%
Other Major Categories			
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	1,882.31	
2.5	Revenue Generating Cover	36,144.98	
	Total, 2.1 - 2.5	<u>127,383.31</u>	
Materials of Interest			
2.1.1	Fire Debris	236.35	
2.3.1	Friable Asbestos	434.35	
2.3.2	Treated Wood	152.76	
2.5.1	Class 2 Cover Soils	23,471.09	
2.5.2	Auto Shredder Fluff	1,423.30	
2.5.3	Processed Green Waste/MRF fines, Beneficial Use (GSET)	0.00	
2.5.4	MRF Fines for ADC	318.83	

## ALRRF Reports from Community Monitor

November 2022

### Site Visit November 17, 2022, 11:30 AM - 2:00 PM

- Attended by Megan Rollo (Langan, Community Monitor)
- Escort: Luis Rocha (Waste Management). Announced.
- Weather: Hazy, 61 degrees, light wind.

### General Observations

- Traffic to the site was flowing freely through the road and the entrance of the landfill.
- The scale houses appeared to be in good condition.

### Evapotranspirative (ET) Cover

- No observation of hillside erosion or large cracks on the cover. No windblown litter observed.
- ET cover vegetation, composed of a mix of native plants, appeared to be growing across the surface and slopes of the cover.

### Fill Area 1

- Fill Area 1 (FA1) was observed from the Bird Perch. The slopes and road were observed to be in good condition and showed no signs of erosion. No windblown litter was observed in on top of FA1.
- The two solidification basins were observed to be in good condition.
- The LSI ponds were in good condition. LSI-2, which holds underdrain and rainwater, was observed with 18 feet of freeboard and LSI-1, which holds leachate, had 13 feet of freeboard.
- A “back-splash” was implemented behind LSI-1 in response to a CVRWQCB Facility Inspection Report. The system was built to prevent leachate foam from migrating outside of the pond.



Asbestos Containing Waste Disposal Site (ACW)

- One load of friable asbestos was observed at the ACW site at time of visit. Friable asbestos containing material has to be wrapped in plastic before dumping per California regulations.
- ALRRF reported the friable asbestos loads are covered at the end of day.
- Roads in this area are beginning to go through winterization practices. Best management practices for Winterization include layering existing roadways with a combination of crushed concrete, followed by an asphalt pad overlaid. The picture below shows the first step in winterizing the roadway at the ACW.



Fill Area 2 Operations

- Windblown litter was only observed on the litter catching fences that border FA2.
- Some birds were observed in the vicinity of FA2 at time of visit.
- Two stockpiles of cover soil and Alternative Daily Cover (ADC) were observed near the Active Face, Phase 4.
- Landfill operations were occurring on FA2 Phase 4.
- Langan observed completed grading at the Phase 5 construction.
- On the outskirts of FA2, ALRRF addressed an AOC issued by the CVRWQCB, by installing “waddle” for erosion control, as a part of the Landfill’s Winterization Plan.



Back 40

- The Back 40 is the portion of the property to the northeast of FA2. Windblown litter was not observed in this area. WMAC reported litter in the Back 40 is picked up twice each day, and the neighboring properties are inspected once a week.



Other Environmental Observations / Issues

- WMAC staff reported that the LEA is inspecting once a month.
- WMAC is has begun a process to mitigate potential muddy roadways on site during the upcoming winter season. Winterization the first stage of the pads were observed throughout 50% of the landfill during visit. WMAC to include asphalt pad over the current concrete crushed pads. A Winterization Report was reportedly submitted to CVRWQCB, though it has not been made available for review.

Special Occurrences

On November 28, 2022, at approximately 7:50 AM, a third-party customer was driving to the landfill utilizing the main haul road. As the driver was making a right turn, the front end of the trailer roller over on its left side. The driver admitted he was speeding as he approached the curve. No injuries were reported.

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## COMMUNITY MONITOR COMMITTEE STAFF REPORT

TO: Honorable Chairperson and Community Monitor Committee Members  
FROM: Marisa Gan, Recycling Specialist  
SUBJECT: Scheduling Community Monitor Committee Meetings for 2023

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### RECOMMENDED ACTION

Staff recommends the Community Monitor Committee establish and approve the Community Monitor Committee Meeting Calendar for 2023.

### DISCUSSION

The Settlement Agreement, dated November 30, 1999, 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. (Settlement Agreement), describes the duties and obligations of the Community Monitor Committee, but does not require a minimum number of Committee meetings per year.

In November 2010, the Community Monitor Committee members determined that the Community Monitor Committee would meet quarterly on the second Wednesdays of January, April, July, and October at 4:00 pm at the Maintenance Service Center in the City of Livermore.

Suggested dates for the Community Monitor Committee meeting for calendar year 2023 are as follows:

- January 11
- April 12
- July 12
- October 11

All suggested meeting dates are scheduled on the second Wednesday of the month.

All meetings will be held at The Maintenance Services Center. The Maintenance Services Center lunchroom is available for the dates listed above. If an alternative

**MEETING DATE:**

**1-11-2023**

**AGENDA ITEM:**

**6.8**

schedule of regular meeting dates is chosen, these can be established pending venue availability.

ATTACHMENTS

1. None

Approved by:

A handwritten signature in black ink, reading "Judy Erlandson", written in a cursive style. The signature is positioned above a horizontal line.

---

Judy Erlandson  
Public Works Manager



1814 Franklin Street, Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001

**To:** ALRRF Community Monitor Committee  
**From:** Langan – Community Monitor  
**Date:** January 11, 2023  
**Re:** **CMC Meeting of 1/11/23 - Agenda Item 6.9 - Topics for 2022 Annual Report**

The draft of the Annual Report for 2022 is attached. The list below summarizes the topics-of-interest for 2022 that were identified by Committee Members. Each of these is addressed or updated in the appropriate section(s) within the reports, and those sections are identified below.

<u>Topic</u>	<u>Section(s)</u>
Fill Area 2 operations and expansion	
Construction activity during 2022	2.2 – 1 <sup>st</sup> bullet
Monitoring well replacement	2.2 – 2 <sup>nd</sup> bullet
Cease and Desist Order (CDO)	2.3.2.2
Fill Area 2 Detection Monitoring Program	
MW-4A Evaluation Monitoring Program	
Fill Area 1 Corrective Action Program	
Solidification basins	
Windblown litter incidents and controls	1.2, 1.4, 2.2, 2.3
PFAS regulatory updates	2.7
ET cover	2.2 – 7 <sup>th</sup> bullet

Information has been updated through the report to reflect changes that have occurred in this year.

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# COMMUNITY MONITOR ANNUAL REPORT 2022 ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY Livermore, CA

*Prepared For:*

**ALRRF Community Monitor Committee**

*Prepared By:*

**Langan Engineering and Environmental Services, Inc.  
1814 Franklin Street, Suite 505  
Oakland, CA 94612**

**DRAFT**

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**Megan Rollo  
Staff Scientist**

**DRAFT**

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**Maria E. Lorca, PG  
Project Geologist**

**DRAFT**

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**Mukta Patil, PE  
Senior Project Engineer**

**January 11, 2023  
750657603**

**LANGAN**

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## **1.0 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 (FA2), adjacent to the existing Fill Area 1 (FA1). 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 2022.

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**

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 (ESA) and Langan (formerly Treadwell & Rollo). This team began work in February 2008. From 2008 through 2019, the team carried out report reviews, Class 2 soil analysis file review, and site inspections as defined in the Settlement Agreement. From 2020, after a public procurement process to select a continuing CM, the CM team of Langan and ESA switched roles, with Langan

as the primary CM and ESA as a sub-contractor to Langan. The CM team continues to carry out report reviews, Class 2 soil analysis file review, and site inspections (when allowed), as defined in the Settlement Agreement.

- 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 (AOCs) 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 material<sup>1</sup> 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.
- In 2012, two ongoing problems, windblown litter and seagull activity, became more severe; and while the gull problem has varied seasonally, the litter problem has continued.

Since mid-2013, the CM's observations and document reviews have included the construction of FA2 and related mitigation measures. The excavation and preparation of the Phase 1 portion of FA2, together with related improvements, were monitored in 2014 and 2015.

In 2015, the Five-Year Permit Review process began when the Alameda County Department of Environmental Health, the Local Enforcement Agency (LEA), requested the ALRRF to submit an application and a revised draft of its Joint Technical Document<sup>2</sup> (JTD), which contains a detailed description of FA2 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 (CVRWQCB). Waste Discharge Requirements (WDRs) were issued by the CVRWQCB in mid-2016.

Throughout this process, the LEA held its permit review in abeyance while CVRWQCB staff prepared, and the CVRWQCB adopted, the WDRs. Subsequently, the LEA's review required

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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.

more than four years to complete. It was difficult for the ALRRF to refine its JTD to conform to the requirements of the WDRs and subsequent directives from CVRWQCB staff, and the sheer size and complexity of the JTD itself also impeded progress. The JTD, after several revisions, was finalized on April 30, 2020. The Five-Year Solid Waste Facility Permit (SWFP) was finalized and issued on September 2, 2020.

In 2021, as a result of COVID-19 health emergency and the statewide Shelter-in-Place Order issued in early March 2020, the CM site visits were suspended from January through March 2021.

### **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 may 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 resulted in new implications for landfill life in the region and statewide. The bellwether for this trend was AB 1594, which was passed in 2014. As of January 1, 2020, the use of green material as alternate daily cover (ADC) does not constitute diversion through recycling and is considered disposal for purposes of measuring a jurisdiction's 50 percent per capita disposal rate.

The 2015-2016 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 similar materials that readily decompose and produce methane, a potent greenhouse gas). In Alameda County, this material is approximately 30% of the waste stream<sup>3,4</sup>.

The two pieces of 2016 legislation with the most direct effect are SB 1383 and AB 901. SB 1383 established targets to achieve a 50 percent reduction in the statewide disposal of organic waste from the 2014 level by 2020, and a 75 percent reduction by 2025. AB 901 changed how disposal and recycling is reported to California Department of Resources Recycling and Recovery (CalRecycle). The intended effect is to provide a more accurate assessment of progress toward

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

<sup>4</sup> Alameda County 2017-2018 Waste Characterization Study: <http://www.stopwaste.org/sites/default/files/2017-18%20Alameda%20County%20Waste%20Characterization%20Study.pdf>, accessed December 2018.

State goals. Regulations that implement these measures are now in place, and CalRecycle is providing resource documents and workshops to support implementation<sup>5</sup>.

One result of this activity has been a tangible commitment by waste industries in California to provide additional organics diversion facilities. In Alameda County, two examples are the 500 tons per day Covered Aerated Static Pile (CASP) facility at the ALRRF, and the implementation of 100 tons per day of anaerobic digestion and subsequent composting capacity at the Davis Street Transfer Station. Taken together, these could reduce disposal at the ALRRF by up to 600 tons per day, which would be a 25% reduction in the current rate of disposal there. This reduction may be offset somewhat by the need for disposal of contaminants and oversize materials from compost operations.

Related State legislation passed in the 2017-2018 session provided further support for waste reduction through product stewardship, packaging, and enhanced organics-diversion requirements. The legislation passed in the first year of the 2019-2020 session has continued to focus on product stewardship while also removing some requirements to provide buy-back recycling centers.

Against this backdrop, the ALRRF began operation in FA2 on March 25, 2019. This triggered several constraints on the types, quantities and sources of materials received; these are described in the next section of this report. On April 27, 2022 the CVRWQCB conducted a final inspection and onsite meeting for FA2 Phase 4. This has been the active face of the landfill since.

#### **1.4 Site-Specific Constraints and Opportunities**

The 1999 Settlement Agreement added constraints on operations, by adding new conditions to the Conditional Use Permit for the ALRRF. Solid wastes from out-of-county sources were 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 (CVRWQCB). This process required several years and concluded in 2012.

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<sup>5</sup> <https://calrecycle.ca.gov/organics/slcp/education>

Some of these conditions did not take effect until FA2 began to receive refuse, on March 25, 2019. These conditions include limitations on the amounts of sludge, inert waste and special waste accepted from certain Bay Area counties, as well as self-hauled wastes from Contra Costa County. The specific restrictions are:

- Wastes collected for disposal under a municipal franchise may only be received from Alameda County, San Francisco, and the City of San Ramon in Contra Costa County. San Francisco and San Ramon wastes can only be received if those jurisdictions meet specified waste diversion goals.
- Non-franchise waste may only be received for disposal from Alameda County and San Francisco, plus up to 25,000 tons per year of sludge, inert waste and special waste from the other seven Bay Area counties. In addition, up to 25,000 tons per year of self-hauled wastes from Contra Costa County may be disposed.

Also, under the Settlement Agreement 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 Conditional Use Permit conditions, the Settlement Agreement established the CMC and the CM role, as described above; and it established mitigation funding related to the landfill expansion.

The physical setting of the ALRRF site presents certain constraints and opportunities. Canyons provide convenient high-volume fill sites, but hilly terrain and local high winds in the Altamont area require constant attention to windblown litter, especially film plastic. As FA1 neared its final elevation, windblown litter continued to be a problem due to the exposure of the landfill's active face to wind. That problem increased through 2019, despite the move to FA2 at a lower elevation. Although the ALRRF's litter collection crew has been able to repeatedly remove litter from large expanses of the ALRRF property, high-wind events in 2019 and 2020 quickly replenished windblown litter in those areas, requiring repeated cleanups. In 2021, the landfill experienced record wind speeds, exacerbating the existing windblown litter issue further around FA2. As a result, a section of the fencing was knocked down and windblown litter covered large expanses of the ALRRF property as well as neighboring properties, including Bethany Reservoir. The landfill has added additional staff dedicated to litter cleanup, has repaired and increased the perimeter fencing downwind of FA2, and is communicating frequently with CalRecycle and the LEA to provide updates on removal of the windblown litter. In 2022, CVRWQCB conducted a targeted inspection of the landfill. In summary, the CVRWQCB outlined 13 Areas of Concern required to maintain compliance with the EDRs and Title 27. On September 1, the CVRWQCB issued a violation for windblown litter outside of the waste management units, within the property. The CVRWQCB noted litter was reported in the July 28, 2022 LEA inspection and observed by



CVRWQCB staff in their 4 August inspection. The CVRWQCB requested WMAC takes appropriate measures to maintain compliance with the WDRs and Title 27, and to notify the CVRWQCB staff when all the windblown material has been returned to the appropriate waste management unit and is under approved cover material. A confirmation inspection was scheduled following completion of the windblown material removal. The CM provides an updated table of the CVRWQCB requests in the quarterly packets, including the requirements outlined in the Cease and Desist Order (CDO) R5-2021-0020, AOCs and Violations, the expected completion timeline and progress that has been made on each item. WMAC has continuously sent letters from their external counsel in response to the investigative order issued by the CVRWQCB in October 2021, objecting the technical reporting requested regarding windblown litter, and informing on the number of litter bags that have been picked-up outside of the property boundary since July 2021.

## **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. The CASP compost system adjacent to the landfill provides a convenient location for plant debris that is inadvertently delivered to the landfill.
- A liner and liquid recovery system is in place to prevent 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 (BAAQMD) 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);
- Stockpiling and processing materials for beneficial use on site, such as using demolished concrete for wet-weather roads and access pads;
- Blending liquids with dry materials in a solidification process to make a 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.) for 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 FA1 and FA2. FA1 covers approximately 235 acres, including an Asbestos-Containing Waste landfill operation which occupies several acres within the FA1 footprint. The FA2 footprint is approximately 250 acres. Although refuse and cover material are currently being delivered to FA2, FA1 has not closed, and it will likely receive additional refuse to reach its permitted final elevation. It is currently the site of the active asbestos landfill and two solidification basins. The solidification basins are proposed to be relocated to FA2 in 2023.

Lands surrounding FA1 and FA2 are mainly grazing land and some construction-support activities related to the continuing construction of FA2, which will take place in phases over several years. These surrounding lands include a Conservation Plan Area, protected with a permanent easement that provides suitable habitat for several special status species.

Much of the work done by the CM involves the review of data and reports 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 (SWRCB) 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 CVRWQCB issues and administers the 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 CVRWQCB 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 stormwater pollution prevention plan, annual stormwater monitoring reports, and the annual Winterization Plan update, as well as correspondence and required reports that the CVRWQCB posts on its GeoTracker web site<sup>6</sup>.

### 1.5.1.2 Air

The 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 submits a comprehensive "Title V report" to the BAAQMD. This report summarizes emission test results and landfill gas control system performance as required. The CM reviews these reports as they are issued. The landfill also produces an annual estimate of greenhouse gas (GHG) emissions, as required by Federal regulations. The most recent data available, for 2021, indicate that the ALRRF is the third highest GHG-emitting landfill in California, with 34,865 metric tons of total carbon dioxide ("greenhouse gas as carbon dioxide equivalent") emitted, behind the Kiefer Landfill in Sacramento County (114,051) metric tons of carbon dioxide emitted) and the Puente Hills landfill in Los Angeles County (110,292) metric tons of total carbon dioxide emitted).<sup>7</sup>

### 1.5.1.3 Disposed Wastes

Two agencies regulate solid waste disposal in Alameda County. At the county level, the LEA, and at the State level, CalRecycle which supports and oversees the LEA. The LEA is the main

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<sup>6</sup> ALRRF's profile can be accessed through:  
[https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=L10005834311](https://geotracker.waterboards.ca.gov/profile_report?global_id=L10005834311)

<sup>7</sup> Air Resources Board file <https://ww2.arb.ca.gov/mrr-data>, accessed December 14, 2022.

enforcement agency for the Solid Waste Facility Permit (SWFP) that governs 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 required by 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. The CM conducted 12 site visits in 2022 as required by the scope of work. Section 2.1 provides more details. Five of the 12 CM site visits in 2022 were performed with the LEA.

#### 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 specified by 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 site visits, 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. In April 2018, the ALRRF began operation of its CASP compost facility northeast of FA1. Currently, Waste Management's position is that the CASP facility is not within the purview of the CMC. However, the CMC has taken the position that the additional permit *is* within its purview.

#### 1.5.1.5 Waste Diversion Requirements

At the local level, the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board formed StopWaste as a joint powers agency to pursue local and state waste reduction and diversion goals. StopWaste has implemented mandatory separation of recyclables and compostables at businesses and multifamily properties throughout the county, and it provides public education, training and other assistance. In addition, StopWaste has developed, and all of its member agencies have adopted, a single-use bag ban ordinance; and StopWaste has adopted a countywide ban on the disposal of plant debris in local landfills.

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.

### 1.5.2 Requirements for FA2 Development and Use

#### *1.5.2.1 Background*

In 2011, the last major permits for the development of FA2 were obtained after agreement was reached between regulatory agencies and WMAC regarding mitigation for the loss of a wetland channel and the loss of habitat for special status species. Mitigations were established through Alameda County Conditional Use Permit C-5512 and permits from several State and Federal agencies:

- US Army Corps of Engineers, which had jurisdiction over wetlands.
- US Fish and Wildlife Service (USFWS), which consulted on wildlife protective measures.
- CVRWQCB, which certified that the mitigations would protect water quality.
- California Department of Fish and Wildlife (CDFW), which concurred with the USFWS' Biological Opinion and placed specific conditions on work in the wetland channel.

The fundamental requirements of these permits are:

- The dedication of 750 acres of ALRRF land as a Conservation Easement, in perpetuity.
- The creation of additional wetlands, in the form of a new pond between FA2 and the Eastern Alkali Wetland.
- The enhancement of a riparian channel approximately the same size as the channel to be displaced by FA2.

To guide these efforts and 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. In late 2017, the ALRRF executed an agreement with the Cosumnes Floodplain Mitigation Bank to fund river channel restoration and preservation in southern Sacramento County. The current status of these efforts is described in Section 1.5.2.3 below.

#### 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 CDFW with as much as \$50,000 to perform the study. With the approval of the Service and CDFW, 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 CDFW Consistency Determination.

#### 1.5.2.3 *Current Status*

Unfortunately, the wetland mitigation 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 has purchased off-site wetland channel mitigation credits from the Cosumnes Floodplain Mitigation Bank in southern Sacramento County and had the pond rebuilt and replanted in 2018. Also, to protect the pond from sediment inflow, in late 2018 the very extensive sedimentation basin SB-H was constructed between the pond and Fill Area 2. This basin SB-H performed well

throughout the 2018-2019 wet season. In the pond itself, it appears that there has been some mortality among the plants that were installed in late 2018. ALRRF management has stated that this is being addressed. In 2021 and 2022, the wetland mitigation pond was irrigated, shallow water was observed in the pond and vegetation grew.

In 2017, the CM reviewed a summary report describing wetland and wildlife mitigation activities and issues. Wetland and wildlife mitigation activities continued in 2018, 2019 and 2020 and 2021 with monitoring of construction areas and wildlife protection measures (e.g., relocating sensitive species such as California Tiger Salamander, when encountered). In 2021, the CM received the 2019 and 2020 Annual Status Reports that describe conservation activities. In 2022, the CM received the 2021 Annual Report by Kleinfelder.

The CM also reviews the ALRRF annual mitigation monitoring progress report, which briefly summarizes the status of compliance with each of the 106 conditions in Conditional Use Permit C-5512.

## **2.0 COMMUNITY MONITOR ACTIVITIES AND ISSUES**

### **2.1 Introduction**

Under the Settlement Agreement, the CM has three ongoing duties:

- Review reports, data and information that are required to be submitted by WMAC 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 2022 the COVID-19 restrictions that had been imposed in 2020 and 2021 were lifted and 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 were monitored in 2022:

- On April 27, 2022 the CVRWQCB conducted a final inspection and onsite meeting for FA2

Phase 4. On July 1, 2022 the CVRWQCB authorized construction of FA2 Phase 5 cell and stormwater improvements. Construction is expected to be completed spring 2023.

- Beginning February 14, 2022, WMAC began destroying wells PC-1A, PC-1B and PC-1C at the landfill. The PC-1 well cluster is located in the middle of the FA2 Phase 5 footprint and needed to be destroyed in order to accommodate grading for the continued construction of the landfill. In October 2021, the Phase 4 interim point of compliance wells MW-30, MW-32, MW-33 and MW-36 were installed and will continue to provide monitoring at the downgradient extent of Phase 4 through the 1<sup>st</sup> semi-annual monitoring event of 2022. The interim point of compliance wells for FA2 Phase 5 will be installed prior to the 2<sup>nd</sup> semi-annual monitoring event in 2022. These wells will replace the monitoring historically provided by the PC-1 well cluster. In the Amended Report of Waste Discharge for MW-38 prepared December 13, 2022, the CVRWQCB approved of the installation of two new multi-level soil gas probes (UGP-15 and UGP-16) and the installation of one new downgradient well (MW-58).
- In May of 2021, FA2 Phase 4 groundwater monitoring wells MW-13A, MW-13B, MW-24, MW-25, MW-26 and gas probe VP-3, located in the excavation footprint of Phase 4 of FA2 were destroyed to allow construction of the landfill to proceed. The wells were replaced by FA2 Phase 4 monitoring wells MW-30, MW-32, MW-33 and MW-36 and gas probe VP-4. In addition, four new groundwater monitoring wells (MW-37, MW-38, MW-39, and MW-4) and seven new multi-depth soil gas probes (UGP-2, UGP-3, UGP-4, UGP-5, UGP-6, UGP 7, and UGP-8) were installed in FA1 as required under the CDO adopted on April 22, 2021. E-05 was installed in 1985, had a 33 year old dedicated QED bladder pump installed in 1987, and had an obstruction 6 feet below the top of casing that potentially could be associated with root intrusion, a kink or break in the well casing, or other defect. E-05 was replaced to allow for further evaluation of the groundwater quality in the area.
- In the 12 months from June 2021 through May 2022, 13 poorly-performing landfill gas wells were decommissioned and 33 new landfill gas extraction wells were brought on line. Wells with higher than normal gas temperatures were monitored for possible subsurface combustion. Well 799 showed high temperatures and was decommissioned on March 21, 2022. Additionally, three wells (well 835, 836 and 837) showed high temperatures. A total of 13 existing wells were decommissioned, i.e., shut down and disconnected from the gas extraction system because they had become unproductive. During surface emission monitoring, there were 98 exceedances of the 500 parts per million by volume (ppmv) methane threshold total. All of the corrective actions to block these emissions were successful and passed their 10-day and 30-day follow-up tests. Methane exceeding regulatory threshold of 5% was not found in any of the 50 perimeter probes installed around Fill Areas 1 and 2. Probe GP-20C and probe GP-8C, both have historically had higher methane values that have been proven to be naturally occurring and not related to landfill operations. No exceedances were detected during this monitoring event. The landfill gas wells nearest to groundwater monitoring wells E-05/E-



07, E-20B, and MW-4A continued to be operated. This was an effort to prevent landfill gas from reaching those groundwater wells, where low concentrations of VOCs have been detected. Currently the operating emission control devices for landfill gas at the ALRRF consist of two turbines (S-6 and S-7) and two flares (A-15 and A-16). The two turbines were tested for compliance with emission limits in January and December 2021, while the main flare, A-16, and the back-up flare, A-15, and were tested in March and April 2021. All four devices passed by the BAAQMD under Permits (8-34-412 and 8-34-301.1) and Condition Numbers (18773 and 19235).

- In 2022, efforts continued to be made to reduce stormwater pollution. Drop inlets that were fitted in 2019 with “Ertec” filter cloth barriers to screen out silt had been damaged and accumulated sediment around the down drain. The sediment was removed and damaged guards were replaced as part of the 2021 winterization plan. In 2019, specialized Filtrexx™ wattles, designed to trap metals and hydrocarbons, were placed in ditches and along the bases of slopes, to trap hydrocarbons and other pollutants. The year old Filtrexx™ wattles were displaced with debris accumulation in certain locations. The debris was removed and the wattles replaced where necessary. Wattles were also installed upslope of certain concrete open channels. Inlets that were obstructed by vegetation, debris were removed and Filtrexx™ wattles were installed in preparation for rainy weather. Turf reinforcement mats (TRMs) and rip rap were installed within channels in the Phase 3 excavated area. The Winterization Plan for 2022-2023 was not available for review at the time of this annual report.
- During the 2021-2022 wet season, stormwater was sampled upstream of the FA1 stormwater basins, in an effort to identify the sources of volatile organic compounds (VOCs) that have previously been detected in the basins. It was not possible to identify specific sources, however; only low to non-detect concentrations and a single below reporting limit (RL) concentration of acetone were reported in samples. Acetone has historically been detected in equipment and field blanks associated with sampling. In addition, a single below RL concentration of acetone in a sample does not trigger either of the non-statistical indicators. Ketones also continue to be detected in interior stormwater samples upstream of the basins. Overall, the detections of VOCs were less frequent, presumably due to additional Best Management Practices (BMPs) put in place along the storm water conveyances. SCS Engineers and WMAC proposed that the 2014 Industrial Activities Storm Water General Permit (IGP) Order No. 2014-0057-DWQ for storm water samples no longer be analyzed for VOCs and that SW (interior locations of the site) storm water samples no longer be collected. For the time being, storm water samples will continue to be analyzed for VOCs.
- The 10-acre Evapotranspirative (ET) Cover Test area was observed during the May site visit. In general, most of the cover area had vegetation, with the exception of segments of the upper swale banks in the southern portion of the site, the southwestern and northwestern corners of upper flat area, and the northern end of the lower bench of the

ET cover area, which had no vegetation. Native species were observed throughout the ET cover. The visit occurred later in the year than normal, which resulted in fewer observation of flowering plants. There were only a few cracks observed on the surface, which were less than a 1/8-inch wide and appeared to be shallow. Approximately three erosional rills were observed on the slope between Ditch 1 and Ditch 2 along the ET Cover's northwestern boundary. This area did not support high vegetation establishment. It is recommended the erosional features in this area be addressed before hydroseed is reapplied. A negligible amount of windblown litter was observed at the ET cover. The plans for the ET Cover Test Area include annual monitoring, followed by a report to the CVRWQCB at the conclusion of the four-year study period. Since the ET Cover was completed on November 14, 2018, submittal of the Performance Monitoring report is scheduled for April 1, 2024.

- The Mitigation Pond had water present during the site visit conducted in May of 2022. A moderate amount of submerged vegetation is present in the pond, enough to support a breeding habitat for amphibians. ESA could not confirm whether or not the pond is on track to meet the goal of retaining 20 inches of water in the deepest end by the end of August. During the August visit there was no water observed at the Mitigation Pond. The CDFW Consistency Determination recommends monitoring reports be submitted to CDFW and USFWS to inform the agencies of the mitigation pond habitat conditions specifically for California red-legged frog and California tiger salamander that are being monitored.
- The windblown litter issue was reduced during 2022. The LEA issued a violation on June 29, 2022 as litter was observed outside of the property boundary in quantities larger than observed in other 2022 inspections. WMAC cleaned up the litter and the violation was reduced to an AOC on July 29, 2022. The LEA continued to inspect the landfill twice per month. On September 29, 2022 the LEA inspected the landfill and removed the AOC. Perimeter fencing has been installed to control the issues and continuous staffing of litter pickers to prevent litter from leaving the property boundary. The windblown litter issues appear to be improving.
- In the period from January through November 2022, the ratio of **Class 2 cover soil** to municipal solid waste increased to 23%. In 2021 that ratio had increased to 21% from 20% in 2020.

### 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, and 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
- 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; issues from 2016-2022 are shown in Table 2-1, below. Persistent issues appear in the upper part of the table, followed by infrequent or one-time issues. Past issues from 2011–2015 are shown in the 2017 Annual Report.

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, incidents involving the delivery of hazardous materials with incorrect profiles (showing them as non-hazardous) are considered to be beyond ALRRF's control; but the CVRWQCB's position appears to be that ALRRF is responsible nevertheless. Fortunately, no such issues occurred in 2022.

The total severity score for 2022 is slightly lower compared to 2021.

Two types of incidents that are of particular concern occurred in 2022:

- **End-dump Truck Overturns.** Within the ALRRF operating area, six dump-trucks overturned in 2022. No injuries were reported. The average number of overturns per year from 2012 through 2019 was six. This is a tiny fraction of the roughly 16,000 truckloads of Class 2 soil and treated auto shredder fluff brought to the facility each year, but the risk

of injury and damage in such incidents continues to be a concern for CMC members and ALRRF management. In 2019, the ALRRF increased its oversight of end-dump truck unloading and provides spotters for drivers to dump safely, which moderated the problem but did not eliminate it. Most of the dump truck accidents have been attributed to inexperienced or negligent drivers.

- **Windblown Litter.** This may be the single most persistent problem at the ALRRF. With the move of refuse fill operations from the FA1 hilltop into the FA2 canyon, additional fencing lining the perimeter of FA2 and the site, a reduction in windblown litter was expected. Windblown litter dispersed across site improved throughout 2022. During site visits, no windblown litter was observed in the Back-40, or at Bethany Reservoir when visited with LEA. However, ALRRF received an AOC and then a notice of violation (NOV) due to the amount of windblown litter deposited outside of the property. The litter cleanup crew has been enlarged (13) and is now a permanent part of the ALRRF work force. When necessary, the crew removes litter from neighboring properties to the east of the ALRRF. This is described further in section 2.2 above and section 2.3.1 and 2.3.2.1 below.

### 2.3.1 Compliance Issues Documented by the LEA

In 2022, one AOC notice and NOV were issued by the LEA. LEA inspection reports indicate concerns about the following:

- **Windblown Litter:** On June 28, 2022, CVRWQCB conducted an inspection of ALRRF and observed windblown waste outside of FA2 and as far east as the Frog Pond, near the eastern boundary of the Facility and as far south as the mitigated wetland. On July 28, 2022, LEA staff conducted an inspection of the ALRRF and observed significant amounts of windblown waste east of the active face in FA2 with litter observed as far east as the Back-40, near the eastern limit of ALRRF. The Alameda County staff also observed litter beyond the limits of site. Onsite accumulations of litter and offsite migration of litter, as observed during inspections, is a violation of the California Code of Regulations.

**Table 2-1  
 Compliance Issues Ranked by Severity**

<b>Issue</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Contamination at E-05, E-07, E-20B	2	2	2	2	2	2	2
Stormwater contamination	3	3	3	3	2	2	1
Windblown Litter	4	2	3	4	3	5	4
Birds	2	2	2	2	2	2	2
Erosion	2	1	-	3	2	2	1
Cover thin / absent	-	-	-	1	1	1	2
Worker injury	2	1	-	1	1	-	-
Condensate/Leachate Leakage	-	3	3	3	2	2	2
Ponding in low-lying area of landfill	-	-	1	2	2	2	1
Sediment in Wetland Mitigation Area	3	2	-	-	-	-	-
Odor, on site	1	-	-	1	-	-	-
Leachate Seeps	1	2	-	4	2	2	1
Erosion control (sitewide)	4	-	-	3	2	1	1
Waste outside active area (trash, pallets)	4	-	-	-	-	-	-
Leachate Leak Disposal	-	4	-	-	-	-	3
Contaminants at monitoring well MW-4A	-	4	-	-	-	3	2
Contaminants at monitoring well MW-38	-	-	-	-	-	-	2
Windblown litter beyond last litter fence	-	-	4	2	2	5	3
Disposal of liquid into pond without prior approval	-	-	4	5	2	-	-
Lack of means to record liquid level in ponds [cleared]	-	-	4	-	-	-	1
Failure to monitor landfill gas well	-	-	4	-	-	-	-
Incomplete groundwater monitoring report	-	-	4	-	-	-	-
Liquid separation not implemented, Fill Area 1				4	-	-	-
Medical waste (sharps) manifest issue	-	-	-	-	2	-	-
<b>Totals</b>	<b>36</b>	<b>28</b>	<b>44</b>	<b>40</b>	<b>27</b>	<b>29</b>	<b>28</b>
<b>Issues Beyond Control of / Refuted by ALRRF</b>							
Truck overturn	3	3	3	2	2	2	2
Methane Gas at Perimeter Probe(s) [cleared]	4	-	-	4	4	-	-
Fire in refuse &/or stored material	3	1	-	3	3	3	
Fire on ALRRF property, outside active areas	-	2	2	3	2	-	1
Positive COVID case	-	-	-	-	-	1	1

 Indicates that a violation was issued by a regulatory agency.

**Severity Criteria**

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

## 2.3.2 CVRWQCB Violations and Concerns

### *2.3.2.1 2022 Violations*

**Litter Control:** In September, the CVRWQCB issued a NOV in response to the excessive litter that was reported to be escaping from ALRRF property. The NOV requested weekly reporting. To address the violations, the CVRWQCB requested that ALRRF take appropriate measures to maintain compliance with the WDRs and Title 27 including immediately ceasing the discharge of windblown waste beyond the extent of the active Fill Area; notify the CVRWQCB staff when all the windblown material has been returned to the appropriate unit and is under approved cover material, so a confirmation inspection can be scheduled.

### *2.3.2.2 2022 Areas of Concern*

On June 28, 2022, CVRWQCB conducted a targeted inspection of the Altamont Landfill. The report provides a summary of inspection and outlines Areas of Concern, required to maintain compliance with the WDRs and Title 27. The Areas of Concern included in the report are listed below:

1. The leachate line from FA1/U1 to LSI-1 had become clogged and the line needs to be replaced. In the interim, trucks were being used to batch extract and move leachate from the FA1/U1 leachate sump to LSI-1. WMAC was reportedly actively working to replace the line.
2. The FA2 Leachate Collection and Remove System (LCRS) discharge line was connected to a small holding tank and not LSI-3. Trucks were being used to batch extract and move leachate from the small holding tank. WMAC stated that the FA2 LCRS line to LSI-3 would be completed before this wet season, similarly to the lines that had been constructed in the past wet seasons.
3. The culvert that directs storm water run-off from the eastern side of FA1, including from Basin D and the area around E-20B, was partially obstructed and had no designed outfall containment structures or Best Management Practices (BMPs). As construction continues in FA2, storm water run-off from this location will be rerouted around FA2, and WMAC was reportedly working to complete this before the 2022/2023 wet season.
4. CVRWQCB staff observed waste worked into soil east of the Maintenance Shop. Site maps indicated the area is located within the limits of FA1/U1, where 12-inches of intermediate cover, void of waste, should be present. The observed waste quantity at the time of the inspection may expose FA1, and its unlined unit. CVRWQCB requested to address the lack of cover.
5. There was no collection tank for the FA2 under drainpipe. Liquid was detected in the FA2 underdrain in 2017, 2019 and 2020; therefore some type of holding tank is needed for the storage and sampling of this liquid, should it begin to flow again prior to final disposal.
6. Significant erosion was observed in the downstream containment berm of storm water retention basin SB-F.
7. Cattails were observed in LSI-3. Vegetation should be removed before the roots reach the liner.

8. The labels on the FA1/U1 LCRS, underdrain, and vadose zone access points have become faded and/or fallen off. Labels on all three site's surfaces impoundment access points: LCRS, leak detection and vadose zone locations were not clearly labeled.
9. The freeboard measurement markings on the LSI-1 and LSI-2 have faded and are illegible.
10. Improvements need to be made to the northeastern corner of the LSI-1, to prevent windblown leachate foam to be over topped. Additionally, leachate-stained sandbags and hay bales were present along the northeastern corner of LSI-1.
11. No exposed surface seeps were observed at any of the three primary FA1 seep locations. However, two large patches of green vegetative growth were observed on the closed portion of FA1/U1. The area should be investigated to determine whether seeps are occurring at this location.
12. Large areas of exposed soil remain atop and on the side slopes of FA1 and large areas of exposed soil remain within and around FA2.
13. CVRWQCB staff observed windblown litter east of FA2, as far east as the Frog Pond, and as far south as the mitigation wetland. WMAC is reportedly actively mitigating windblown waste.

### 2.3.2.2 CDO

The CVRWQCB issued CDO R5-2021-001 for the ALRRF on April 22, 2021. In the CDO, the CVRWQCB alleges the ALRRF is being operated outside of applicable federal and state regulations, and the WDRs. The CDO provides a list of various items the Discharger (ALRRF) has performed out of compliance and also provides a time schedule with specific requirements to compel the Discharger to resolve past compliance issues, achieve compliance with Title 27 and the WDRs, and conform to its Notice of Applicability (NOA) in a time frame acceptable to the CVRWQCB. The items identified are not new and had been discussed during the past years with the CM, but the CDO raises the severity of the issues.

Requirements Outlined in the CDO include the following:

#### Implementation of FA2 Unit 1 Detection Monitoring Program

The CDO requires the Discharger to implement a CVRWQCB approved detection monitoring network. The Discharger has proposed and installed monitoring devices for FA2, nevertheless the CDO notes that it does not meet all the requirements outlined in the WDRs.

The following requirements will resolve this item:

- Installation of interim point of compliance (POC) wells in FA2 Unit 1.
- Installation of final permanent FA2 limit wells.
- Implementation of a Water Quality Monitoring and Response Program for FA2 Unit 1.

### MW-4A Evaluation Monitoring Program

In May 2017, MW-4A, located in the northeastern limit of FA1, reported exceedances of bicarbonate, calcium and five VOCs. Additional sampling confirmed a release in this area, which has been attributed to landfill gas. The Discharger has implemented focused extraction of landfill gas in this area and conducted additional investigation to define the extent of the release. A similar release had been documented in the vicinity of E-20B, which had implemented similar corrective actions. The CDO requires the Discharger to complete the MW-4A evaluation monitoring program addressing the following items:

- Monitoring of the nature and extent of the documented releases at MW-4A and E-20B
- Monitoring the effectiveness of corrective action near MW-4A and E-20B
- Establishment of a detection monitoring program along the northern and eastern (upgradient) limits of FA1

### Continued implementation of the FA1 Corrective Action Program

The Discharger has chosen landfill gas extraction as the corrective action measure to address landfill gas effects (as described above). The CDO requires continued implementation of the Corrective Action Program, and to submit the following:

Report outlining the Corrective Action Program (landfill gas extraction)

### Continued operation of solidification basins

Title 27 and the WDRs require that the solidification process does not result in the introduction of liquids into a solid waste management unit (WMU) in excess of the moisture holding capacity of the unit. The solidification basins at ALRRF are operated atop of FA1 Unit 2. These solidification basins do not comply with the WDR requirements. To bring this item back into compliance, the CVRWQCB included the following requirements in the CDO:

- The operation of the two solidification basins atop of FA1 Unit 2 can continue until new solidification basins are constructed
- The new solidification basins shall be moved outside of the existing WMUs, shall be completed as double lined containment systems, with a leachate recovery system (LCRS) installed between the liners, and a monitoring system

On October 19, 2021, in accordance with the CDO, Golder Associates Inc. (Golder) prepared the



Report of Waste Discharge (ROWD) for the proposed concrete-lined, Solidification Basins that will be re-located near Fill Area 2 (FA2) at the ALRRF. The basins will be constructed as Class 2 liquid waste management units and will be underlain by a geomembrane liner to provide a double containment system with a leachate collection and recirculation system (LCRS). A pan lysimeter will be constructed underneath the sump. On November 8, 2022, a monitoring plan for the solidification basins was prepared by Geosyntec. Once these plans are approved by the CVRWQCB, the construction of the new solidification basins can be completed.

#### Water Board Tracking Timeline

The timeline for the requirements and deliverables requested in the CDO are summarized below:

- Update the Sampling and Analysis Plan for the interim POC detection monitoring program no later than 90 days after adoption of the CDO (March 4, 2022).
- Revise the background water quality values and update the concentration limits (CLs) no later than one year after adoption of the CDO (April 21, 2022).
- Work plan to install the soil gas monitoring wells (interim and final) for FA1 and FA2 no later than 90 days after adoption of the CDO.
- Report installation within 60 days of installing any new groundwater monitoring well or soil gas monitoring well.
- Work plan to conduct surface water monitoring for surface water flowing out of FA2 no later than 90 days after adoption of the CDO.
- Notify the CVRWQCB 30 days prior to removal of interim monitoring devices.
- Document the results of the MW-4A evaluation monitoring program (including groundwater and soil gas sampling) in separate Corrective Action Progress reports to be submitted semi-annually by 1 August and 1 February each year.
- Update corrective action financial assurance cost estimates for FA1 and FA2 no later than 90 days after adoption of the CDO (Submitted February 25, 2022).
- Report the installation and operation of new off-waste footprint solidification basins no later than 12 months from approval of the Report of Waste Discharge (depending on approval, estimated June, 2023).

The CDO also provides items associated with the Composting General Order, which have been included below for information.

- The leachate storage capacity at the composting facility has to comply with the

requirement for storage for the 100-year wet year. The Discharger is required to submit an updated Permit Design Package for Contact Water Pond 2 or an alternative treatment or storage approach within 90 days from adoption of the CDO (Revised March 28, 2022).

- The composting general order regulates the characteristics of detention ponds at composting facilities. The CASP detention pond was designed to meet the 25-year, 24-peak storm event. The CDO requires additional compost leachate storage capacity.

The majority of the tasks listed in the CDO have been completed on or before the due date included in the CDO. However, some items have not been completed; this issue will continue to be tracked. The CM presents a table that lists updates of the requirements outlined in the CDO, the expected completion timeline and progress that has been made on each item on each quarterly packet.

Following an inspection dated July 1, 2022, the CVRWQCB has 13 requests pertaining to AOCs at the landfill. The timeline for the requirements and deliverables requested are summarized below:

- Repair clogged leachate line from FA1/U1 (Before onset wet season 2022/2023).
- Connect FA2 LCRS line to LSI-3 (Before onset wet season 2022/2023).
- Reroute obstructed culvert that directs storm water from FA1, Basin D and E-20B (Before onset wet season 2022/2023).
- Address lack of cover at FA1/U1. 12 inches of immediate cover should be present (Completed, submitted report September 30, 2022).
- No collection tank was observed for the FA2 under drainpipe. CVRWQCB requires some kind of holding tank for the storage and sampling of this liquid, should it begin to flow again (Reportedly completed October 15, 2022, pending report on Geotracker).
- Significant erosion was observed in the downstream containment berm of storm water retention basin SB-F (Reportedly completed, pending report on Geotracker).
- Cattails were observed in the LSI-3. Vegetation should be removed before the roots reach the liner (Completed September 30, 2022).
- The freeboard measurement markings on the LSI-1 and LSI-2 have faded and are illegible (Completed September 30, 2022).
- Improvements to be made to northeastern corner of the LSI-1, to prevent windblown leachate foam from over topped. Leachate-stained sandbags and hay bales were present (End of October, 2022)

- Two large patches of vegetative growth observed on closed portion of FA1/U1. Area should be investigated to determine if seeps are occurring at this location (Completed September 30, 2022).
- Large areas of exposed soil remain atop and on the side slopes of FA1 and large areas of exposed soil remain within and around FA2 (October 31, 2022; Resubmitted by November 15, 2022, reportedly completed, pending report on Geotracker).
- Windblown litter observed east of FA2 as far east as Frog Pond and as far south as the mitigation wetland (Reportedly completed).

Additionally, following the July 1, 2022, inspection the CVRWQCB issued a Notice of Violation (NOV):

- Notify the CVRWQCB staff when all the windblown material has been returned to the appropriate unit and is under approved cover material to schedule an inspection.

#### 2.3.2.4 Other Concerns

There are several open issues that have arisen between the ALRRF and the CVRWQCB since the current WDRs were finalized in July 2016. They are briefly described below. Most of these issues were included in the CDO issued by the CVRWQCB in 2021, and described in section 2.3.2.3.

**Identifying Sources of VOCs in Storm Water** – During 2021-2022, acetone was the only VOC detected above the RL concentrations in samples. Additionally, acetone was detected in samples in Basin C and in SB-F at below RL concentrations and in SB-H at an above RL concentration. These detections are likely due to field or laboratory cross contamination. Below RL concentrations of tert-butyl alcohol and carbon disulphide were detected in Basin C. It appears the detections of VOCs have decreased since 2020-2021 sampling events.

**Deviations from baseline concentration limits** – A two year update to concentration limits (CLs) for monitoring parameters for FA1 and FA2 groundwater detection monitoring wells (per the 2016 WDR's) was provided on October 27, 2022 and a FA2 CLs update report was presented on May 13, 2022 per the requirements of CDO. It is anticipated the 2024 update combines CLs for the complete well network. For FA 2, the CLs were established for three groundwater zones for monitoring wells: alluvial, weather bedrock and unweathered bedrock. The updated CLs are based on historical baseline monitoring data through 2021 for the CDO wells and through June 2022 for the WDR wells). CLs are established for each constituent and were statistically

calculated using the intrawell data evaluation procedure<sup>8</sup>. The 2022 updated CLs were similar to the previous CLs, which had been presented in 2016, 2018 and 2020.

### 2.3.3 Other Incidents

The following information is based on reports filed in the site's Special Occurrences Log and on Community Monitor site inspections.

#### *2.3.3.1 Vehicular Incidents*

Within the ALRRF operating area, six dump-trucks overturned in 2022. No injuries were reported.

#### *2.3.3.2 Fire*

Within the ALRRF operating area, one fire occurred at the ALRRF site in 2022. On June 11, 2022, a fire started on the active face of FA2. After three hours the fire was completely extinguished. ALRRF staff contained the fire, and notified the LEA and BAQQMD. The fire was said to have been started by a hot load.

## **2.4 Review of Reports**

### 2.4.1 Groundwater

Two groundwater monitoring reports were reviewed in 2022. The first covered the period from July through December of 2021; the second covered January through June of 2022.

The data in these reports indicate that most monitoring wells with VOC contamination are still fluctuating and a clear trend cannot be determined. However, all wells have VOC concentrations below the historical average for both the Second Semiannual 2021 and First Semiannual 2022 sampling events and it appears that VOCs are decreasing over time. These trends will continue to be tracked.

A new development in 2020 that has continued into 2022 has been an increase in concentrations of inorganic constituents (dissolved calcium, chloride, sulfate, total dissolved solids, bicarbonate alkalinity). The concentrations of bicarbonate alkalinity at MW-4A have fluctuated from slightly below to slightly above the statistical concentration limit. In the First Semiannual 2022 sampling event, MW-2A and MW-6 in FA 1 contained elevated chemical oxygen demand while MW-10 in FA-2 had elevated chloride. During the First Semiannual 2022 sampling event, LFG-related VOCs were detected in POC monitoring well MW-38. On February 15, 2022, the CVRWQCB indicated

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<sup>8</sup> 2020 2-Year Groundwater Concentration Limits Update for Fill Areas 1 & 2 Report by GeoChem Applications, dated October 2020

that the monitoring of water quality in the MW-38 area (including newly installed downgradient well MW-53) should be included in the CDO status report for corrective action areas. An Amended Report of Waste Discharge for MW-38 was submitted by WMAC on May 13, 2022 which recommended LFG extraction and additional perimeter monitoring in the area. On December 13, 2022 the CVRWQCB requested a more holistic corrective action program in the entire northeastern side of FA 1 to remediate groundwater impacts.

In the First Semiannual 2021 sampling event the following wells has one or more VOCs above the RL or two or more VOCs below the RL: MW-38, MW-40, MW-41A, MW-41B, MW-49B, MW-34B. CVRWQCB was notified that the following wells were resampled and VOCs were confirmed: MW-38, MW-40, MW-41A, MW-49B. In each case either an AROWD or ODR was submitted.

The Second Semiannual 2021 sampling event had a similarly concerning number of QA/QC issues as the previous reporting period. The QA/QC issues include field sampling and laboratory practices: contaminated trip and equipment blanks, hold time exceedances, and an increasing number of VOCs attributed to laboratory contamination. The first Semiannual 2022 sampling event had a reduced number of QA/QC issues.

#### 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”<sup>9</sup> (QSE) occurs. Up to four such QSE’s are to be sampled at each discharge point during a stormwater year (July through June). For each type of industrial facility, certain key pollutants must be monitored; and if concentrations of those pollutants exceed specified Numeric Action Levels (NALs), the facility must make a plan that describes Exceedance Response Actions (ERAs) to be implemented. In the first year of exceedance, “Level 1” ERAs are selected, which emphasize minimum BMPs. These are low-cost measures such as improving housekeeping, cleaning drain pipes, etc. If the exceedance continues into its second consecutive year, Level 2 ERAs must be developed, and these typically involve advanced BMPs such as specialized equipment, paving projects, etc.

Stormwater monitoring and reporting is especially complex at a landfill site, and even more so at a site that is expanding, like the ALRRF. The Monitoring and Reporting Program (MRP) developed for ALRRF required storm water sampling inside sedimentation basins on a semiannual basis. In

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<sup>9</sup> 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.

the 2019 – 2020 wet season, ALRRF implemented new and improved BMPs. The landfill has implemented all applicable minimum BMPs and several types of advanced BMPs, including additional straw wattles, Filtrexx™ SiltSoxx wattles, flocculent logs, and rock dams. The ALRRF has also been tracking the presence of VOCs in stormwater, under a separate requirement in the WDRs. Data from previous year's wet season sampling indicated improvement in the stormwater quality. During the 2018-2019, 2019-2020, and 2020-2021 wet periods, only low to non-detect VOCs were reported in Basin samples. However, ketones continued to be detected in interior stormwater samples. During 2021-2022, acetone was detected above the RL concentrations in samples from in Basin A and in Basin C. Additionally, acetone was detected in samples in Basin C and in SB-F at below RL concentrations and in SB-H at an above RL concentration. These detections are likely due to field or laboratory cross contamination. Below RL concentrations of tert-butyl alcohol and carbon disulphide were detected in Basin C.

#### 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 2022, the CM received the Title V reports for the periods June – November 2021, and December 2021 – May 2022. 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 the current reporting year are similar to those from the previous year:

- The required surface emissions monitoring (checking for methane leaks through the landfill cap) continued to occur, and although exceedances of methane were found, they were typically remedied on the first try, without the need for repeated repairs.
- From June 2021 – November 2021, 8 landfill gas wells were decommissioned, and 21 new wells were installed and began operation.
- From December 2021 – May 2022, 5 landfill gas wells were decommissioned, and 11 new wells were installed and began operation.
- The LNG plant continued to operate at a fairly steady production rate. There were a few brief unscheduled down-time events due to maintenance and planned utility shutdowns from June 2021 to November 2021, but after each of those problems was resolved, the

gas plant returned to steady production. From December 2021 to May 2022, there were shut downs due to maintenance, testing, shutdowns due to high oxygen in the feed, a power outage and control failures, a flare blow out, as well as to repair a faulty regulator. The frequency of major shut downs was approximately the same compared to previous reporting periods. After each of the problems was resolved, the gas plant returned to steady production.

- All control devices passed their latest emissions tests without incident.

#### 2.4.4 Mitigation Monitoring

The Mitigation Monitoring and Reporting Program Annual Progress Report, covering calendar year 2021, was reviewed by the CM during the third quarter of 2022. 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.

- Condition 4.4: This condition limits the amount of sludges, inert waste, and special waste accepted for disposal at ALRRF from outside Alameda County and San Francisco to not exceed 25,000 tons per calendar year. This condition is monitored through the life of ALRRF, and was not exceeded during year 2021. 159 additional loads (135 tons) were accepted inadvertently from outside the Nine Bay Area Counties in 2021. ALRRF has noted that additional training and procedural review have been implemented for scale house personnel and sales department to address such issues in the future.
- Condition 47: Seeps were encountered during Phase 4 construction on the western sideslopes, which were anticipated and mitigated by the Phase 4 design that incorporates geocomposite underdrains to intercept and convey groundwater to the underdrain system. No seeps were encountered on the floor, so finger drain trenches were not needed to supplement the underdrain gravel layer that extends across the entire Phase 4 floor.

In addition to the Annual Progress Report described above, in prior years the ALRRF has prepared 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 CM received the 2021 Annual Status Report for Mitigation Wetland Report prepared by Kleinfelder. ESA noted

that conditions in the wetland had improved with respect to previous years following the reconstruction of the wetland in 2018. Additional comments from the 2021 Annual Status Report for Mitigation Wetland include:

- “Given the comprised hydrology over the last two years due to below average rainfall, implementation of the Wetland Mitigation Plan (WMP) Remedial Action 1a (modification of pond to optimize hydrology) or Conservation Management Plan (CMP) Remedial Action 1a (translocate surplus egg-masses and/or larvae from viable ponds on or off the ALRRF site during next winter) are not recommended at this time. However, if limited hydrology persists over summer 2023, remedial action should be considered.”
- “CMP Remediation Action 1a required notification to the United States Fish and Wildlife Services (USFWS) and CDFW if California red-legged frog (CRLF) and California tiger salamander egg-masses, and five or more CRLF during the non-breeding season, are not present within a three-year period. The WMP includes similar performance criteria and notification obligation to the Corps... Given the re-construction of the mitigation pond was completed in December 2018, it is assumed the first monitoring year of a full CLRF breeding season begins November 2019... It is not recommended at this time however it should be considered in the future if performance standards are not met.”

2020 Annual Progress Report for the Evapotranspirative Cover report prepared by Geosyntec documents biological surveys conducted in the Conservation Plan Area. The CM review yielded the following comments on the report, which were provided to WMAC:

- ESA recommends the timing of the percent cover or percent bare cover estimate based on field observations and aerial imagery to occur in February to April, or May at the latest. In the 2020 Annual Report (report) Section 2.2.2 documents percent bare cover was estimated from an aerial photo of the ET Cover site in June 2020 and ground photos of the vegetation taken by Geosyntec in June, July and September. The Work Plan allows “percent cover (of the converse, percent bare area) will be assess by visual field sampling via aerial photography.” Completing the assessment in the spring would provide a more accurate estimate of the plant cover that is present.
- ESA recommends the monitor take photos along the edge of the lower perimeter at regular interval to document plant growth.



## 2.5 Review of Records

Several types of site records were reviewed by the CM in 2022. The CM's scope of work requires the periodic review of files that contain lab analyses and other descriptions of **Class 2 soils** (considered non-hazardous) that are brought to the site for use as cover soil.

The **Special Occurrences Log** for the ALRRF was examined four times during the year and summarized for the Committee. The **LEA's monthly inspection reports** are publicly available on the CalRecycle web site and were checked by the CM every month, to note any new issues that may have been identified by the LEA.

### 2.5.1 Class 2 Soils

An ongoing CM 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 generally conducted two to three times per year, and it requires at least one full day for a qualified specialist to review each file to be sure that it is complete and within the regulatory limits for Class 2 materials. This review was conducted twice in 2022, on June 23 and July 14, for Class 2 soils accepted in through May 2022, and on December 7, for Class 2 soils accepted through November 2022. The files are made accessible electronically from WMAC's Livermore office.

A total of 90 profiles were reviewed on June 23, 2022 and July 14, 2022 that corresponded to Class 2 soil accepted at the landfill between December 21, 2022 and May 31, 2022 that were not reviewed previously. A total of 94 soil profiles were reviewed on December 7, 2022 that corresponded to Class 2 soil accepted at the landfill between June 1, 2022 and November 30, 2022. During each review, no out-of-compliance profiles were found.

### 2.5.2 Special Occurrences Log

Each permitted solid waste disposal site in California must keep a Log of Special Occurrences to document unusual and potentially disruptive incidents, including fires, injury and property damage, accidents, explosions, receipt or rejection of prohibited wastes, lack of sufficient number of personnel, flooding, earthquake damage and other unusual occurrences. The ALRRF log was either checked by the CM in person during site visits or requested via email. Six dump trucks overturned in 2022. Two trucks were involved in an accident in FA2, no injuries were reported. One fire was reported on the working face of the landfill (FA2). It was reported to be started from a hot load and was fully extinguished within three hours.

### 2.5.3 LEA Inspection Reports

In 2022, there was one type of AOC noted in these reports. It pertained to high winds and increased windblown litter within the property boundaries as well as on surrounding properties. The LEA has requested for ALRRF to provide daily updates of litter collection and control activities in reports including photos, wind speed/direction, map of the collection area, amounts of waste collected, number of litter collection employees, and the number of hours worked.

## 2.6 Monthly Site Visits

Twelve site visits were held during 2022. The visit day and time were as shown in Table 2-2 below.

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. Distinct operations, such as the stockpiling and processing of specific materials, took place in well-defined areas. No instances of unpermitted activities were noted. There were no new problems seen regarding refuse placement, public safety or traffic management, whether on hours or off hours. Throughout these visits, staff and management were forthcoming regarding operating practices and current conditions.

**Table 2-2  
 2022 Site Visit Summary**

<b>Date</b>	<b>Day of Week</b>	<b>Visit Time</b>	<b>Announced in Advance?</b>	<b>With LEA staff?</b>
January 25	Tues	10:30 AM	no	yes
February 08	Tues	10:30 AM	yes	no
March 29	Tues	1:30 PM	yes	no
April 29	Fri	2:45 PM	yes	no
May 19	Thurs	11:30 PM	yes	no
June 29	Wed	10:00 AM	no	yes
July 28	Thurs	12:00 PM	yes	yes
August 23	Tues	10:00 AM	yes	no
September 20	Tues	9:00 AM	no	yes
October 19	Wed	10:00 AM	yes	no
November 17	Thurs	11:30 AM	yes	no
December 01	Thurs	9:00 AM	no	yes

In 2022, observations by the CM focused on:

- The operations in Fill Area 2.
- Additional perimeter and active phase fencing to mitigate litter effluent
- Completion and maintenance of the mitigation pond.
- Plant growth and soil conditions in the evapotranspirative cover test area.
- Storm drainage and erosion control.
- Observation of issues of ongoing concern, including the presence of large numbers of seagulls and management of windblown litter east of FA 2.
- Construction of FA 2 phases 5 and 6.
- Changes at the site that could harm the environment or public health.

No truck traffic counts were conducted in 2022, because ALRRF data on tonnage and traffic made it clear that the traffic volume requirements of the Conditional Use Permit were being met.

## **2.7 Per- and Polyfluoroalkyl Substances (PFAS) Updates**

The PFAS Order was given by the SWRCB as part of a statewide effort to obtain a preliminary understanding of PFAS compounds concentrations in groundwater and leachate at various landfills. The Order indicates this sampling is necessary to determine if PFAS compounds are present in and near waters that could be used for drinking water purposes. The SWRCB and RWQCBs will evaluate the data collected, and use it to support of any regulatory action to be implemented.

To be representative, samples were collected in November 2019 from a background well, a downgradient well, and a composite leachate sampling location, where possible. PFAS compounds were reported at higher concentrations in groundwater monitoring wells in the previously affected assessment and corrective action areas (E-05, E-07, E-20B, and MW-20) than the background or the detection monitoring program (DMP) wells. The highest PFAS concentrations in groundwater were reported in corrective action wells E-05 and E-07, located immediately downgradient of the old permitted unlined portion of FA 1. Relative to corrective action wells E-05 and E-07, lower concentrations of PFAS compounds were reported in the E-20B corrective action area, situated adjacent to the old unlined FA 1.

No additional PFAS sampling is proposed or required at this time. The SWRCB is analyzing the compiled data in airports, landfills and drinking water supply systems to aid in the development of Public Health Goals in drinking water. The concentrations reported at the ALRRF were below the maximum concentrations for groundwater and leachate at other landfills covered by the PFAS Order, and within the middle of the concentration ranges.

In 2021-2022 the United States Environmental Protection Agency (EPA) made several announcements regarding its goals for investigating, regulating, and remediating PFAS in consumer products and across environmental media, including the following:

- Emergency Planning and Community Right-to-Know Act and Toxic Substances Control Act Regulation. In 2022, EPA intends to propose rulemakings to (1) categorize PFAS on the Toxic Release Inventory list as “Chemicals of Special Concern” and remove the de-minimis eligibility from supplier notification requirements for all “Chemicals of Special Concern” and (2) add additional PFAS constituents to the Toxic Release Inventory. It also intends to finalize, by the end of 2022, an already proposed rule to collect data on PFAS that has been manufactured since 2011.
- Safe Drinking Water Act Regulation. The EPA plans to propose a rule setting national primary drinking water standards for two PFAS constituents, Perfluorooctanoic acid (PFOA) and Perfluorooctane sulfonic acid (PFOS), by fall 2022, with the intention of finalizing these standards by fall 2023.
- Clean Water Act Regulation. The EPA plans to propose a rule in summer 2023 that will restrict PFAS discharges from the organic chemicals, plastics and synthetic fibers, metal finishing, and electroplating industries. EPA also plans to continue to collect data and, where supported, initiate rulemakings that will restrict PFAS discharges from additional industrial categories, including electrical and electronic components, textile mills, landfills, leather tanning and finishing, plastics molding and forming, paint formulating, pulp, paper, paperboard, and airports.
- On October 26, 2021, the EPA built upon its PFAS Strategic Roadmap by announcing plans to initiate two proposed rulemakings; (1) to add PFOA, PFOS, Perfluorobutane sulfonic acid (PFBS) and GenX<sup>10</sup> to the list of Resource Conservation and Recovery Act (RCRA) Hazardous Constituents, which would result in these chemicals being regulated as hazardous waste under RCRA and (2) clarify that constituents classified as RCRA

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<sup>10</sup> GenX is the trademark name for a short-chain PFAS, that is being marketed as a replacement for PFOA.

hazardous wastes, such as these four chemicals, can be cleaned up through the RCRA corrective action process.<sup>11</sup> On July 30, 2021, related state information was released providing further support for PFAS regulation and remediation. The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) announced the availability of a draft technical support document for proposed Public Health Goals (PHGs) for PFOA and PFOS in drinking water. The public comment period for the draft ended on October 28, 2021. The intended effect once PFAS regulation and guidance is finalized at the Federal and State level is to comprehensively regulate and remediate PFAS.

### **3.0 LOOKING AHEAD: ANTICIPATED EFFORTS AND ISSUES**

#### **3.1 Introduction**

The 2020 contract year was the beginning of a new Community Monitor contract, with Langan providing CM services, assisted by ESA. The CM team will continue to perform report reviews, site inspections and Class 2 soils file reviews. In 2020, COVID-19 health emergency and the resulting Shelter-in-Place orders brought changes in the way the CM conducts monitoring of the landfill activities. Two Emergency Waivers, one for the COVID-19 emergency and the other for wildfires, were requested and received by the ALRRF.

The four-year test of evapotranspirative (ET) cover methods is ongoing; the liquids separation system continued to operate; and ALRRF proposed that storm water samples no longer be analyzed for VOCs and that SW storm water samples no longer be collected. Exceedances at several monitoring wells and windblown litter issues will continue to be tracked.

#### **3.2 Issues to be Tracked in 2023**

##### 3.2.1 Ongoing Review

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

- Implementation of requirements of the 2016 WDRs.
- Concurrence of natural-resource agencies with off-site wetland mitigations.
- Groundwater monitoring methods and data quality.

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<sup>11</sup> The National Law Review: EPA Makes PFAS Announcements, Issues PFAS Strategic Roadmap and Planned RCRA Hazardous Waste Designations <https://www.natlawreview.com/article/epa-makes-pfas-announcements-issues-pfas-strategic-roadmap-and-planned-rcra>, accessed November 2021.

- Groundwater quality, including the vadose zone below the landfill liners.
- Stormwater quality and management practices.
- Performance of the landfill gas system; decommissioning and installation of gas wells.
- Effects of composting or material recovery development or operations on the landfill.
- Refuse truck traffic counts, if needed.
- Performance of the 10-acre ET cover test site.
- CDO compliance.
- Reduction of windblown litter on and off ALRRF property.

### 3.2.2 Site Assessments

All operations will continue to be observed, with close attention to the following areas.

#### *3.2.2.1 Landfill Gas Control System*

This system protects both air and groundwater quality, and it operates 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 2023, four topics will be of special interest:

- The effect of the gas system on the concentrations of contaminants in wells E-20B and MW-4A.
- Implementation of the corrective action program in the MW-38 area.
- Gas temperatures, particularly in the high-temperature cluster of wells in FA 1 Unit 2.
- Implementation of gas collection in FA 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. The new additions to the stormwater pollution controls – skimmers, flocculant addition, Filtrexx™ check dams, and additional discharge points appear to have reduced contamination, although sporadic VOCs are still detected.

### 3.2.2.3 *Windblown Litter*

This will likely continue to be an issue for FA 2 and downwind areas. ALRRF has installed additional fences and maintained a 13-man crew to perform litter clean up as prevention to litter disposal offsite during 2022 through 2023.

### 3.2.2.4 *New Systems*

The CM will directly observe, and review available performance data, for:

- The ET cover test area
- The wetland mitigation pond
- Tipper and truck wash equipment in FA 2
- The liquids separation system
- Relocation of the solidification operations

In addition, monitoring reports on the Mitigation Wetland and the Conservation Plan Area, will be reviewed as they are provided.

### 3.2.2.5 *Groundwater Contaminants and Groundwater Data*

The CM team will continue to check concentrations of VOCs which show an increase. The team will also monitor data from wells E-20B, MW-4, MW-12, MW-20, MW-38 and other wells that have shown evidence 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.

### 3.2.3 Class 2 Soils File Review

As required by the Scope of Work, the CM will conduct this review at least twice during 2023.

### 3.2.4 Permit Requirements

In the Settlement Agreement, Section 4.3 defines the Expansion Date as “the date of the first deposition of solid waste in [Fill Area 2].” That occurred on March 25, 2019, triggering specific requirements in Conditional Use Permit C-5512, and in the resource-protection permit conditions that were imposed through the mitigations in the landfill-expansion EIR and the associated natural-resource-agency permits (Army Corps wetland permit, USFWS Biological Opinion, etc.; see Section 1.5.2, above).

#### 3.2.4.1 Tonnage Limitations

Section 4 of the Settlement Agreement contains numerous restrictions on the types and source jurisdictions of wastes that can be brought to the ALRRF during specified time frames prior to and after the Expansion Date. Specifically:

- After the Expansion Date, the amounts of Sludges, Inert Waste and Special Waste from outside San Francisco and Alameda Counties is limited to 25,000 tons per year, and these materials may only originate within the nine Bay Area counties.
- Self-Hauled wastes (of all types) from Contra Costa County are limited to 25,000 tons per year.
- Materials brought for disposal may only originate from Alameda County, San Francisco, and San Ramon.

#### 3.2.4.2 Natural Resource Protections and Reporting

The natural resource permits issued in connection with the ALRRF expansion contain over 80 explicit permit conditions, too many to enumerate here. In the near term, the following monitoring and reporting conditions are especially significant for the CMC:

- Every four years after the start of construction of FA 2 (which began in 2015), the CDFW is to receive a status report on the required periodic surveys of the Conservation Plan Area. The wildlife surveys focus on Western Burrowing Owl, San Joaquin Kit Fox, California Red-legged Frog, and California Tiger Salamander.
- Annual wetland monitoring reports are required by the Lake and Streambed Alteration Agreement, which was issued by the CDFW, for the first five years of operation of the wetland mitigations, i.e. the constructed pond.
- Reconnaissance survey reports for the Conservation Plan Area are also required by the CDFW. These include baseline and periodic surveys for sensitive wildlife species (see list above), and annual rangeland and general reconnaissance surveys. These are due on January 15 of the calendar year following the survey.

In 2022, we received and reviewed the 2021 Annual Progress Report. We will continue to request progress reports in the future.