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VOTING MEMBERS

Robert Carling City of Livermore

Jerry Pentin City of Pleasanton

Donna Cabanne Sierra Club

David Tam Northern California Recycling Association

<u>NON-VOTING</u> MEMBERS

Audrey Lundin Waste Management Altamont Landfill and Resource Recovery Facility

Arthur Surdilla / Wing Suen Alameda County

Robert Cooper Altamont Landowners Against Rural Mismanagement (ALARM)

<u>STAFF</u>

Judy Erlandson City of Livermore Public Works Manager

COMMUNITY MONITOR COMMITTEE Altamont Landfill Settlement Agreement

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

AGENDA

DATE: Wednesday, October 11, 2017

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 12, 2017)
- 5. <u>Open Forum</u> This is an opportunity for members of the audience to

comment on a subject not listed on the agenda.

No action may be taken on these items.

6. Matters for Consideration

6.1 Responses to Committee Member Questions:

- Evapotranspiration Cover Installation Sequence
- Map of Conservation Plan Area
- 6.2 Five-Year Permit Review
- 6.3 Review of Reports Provided by ALRRF
- 6.4 Review of Documents on GeoTracker web site
- 6.5 Reports from Community Monitor
- 6.6 2017 Annual Report Topics
- 6.7 2018 Meeting Schedule
- 6.8 Announcements (Committee Members)

7. Agenda Building

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

8. Adjournment

The next regular Community Monitor Committee meeting is tentatively scheduled to take place at 4:00 p.m. on **January 10, 2018** at 3500 Robertson Park Road, Livermore.

Informational Materials:

- · Community Monitor Roles and Responsibilities
- List of Acronyms
- Draft Minutes of July 12, 2017
- Reports from ESA and subcontractors

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

PURSUANT TO TITLE II OF THE AMERICANS WITH DISABILITIES ACT (CODIFIED AT 42 UNITED STATES CODE SECTION 12101 AND28 CODE OF FEDERAL REGULATIONS PART 35), AND SECTION 504 OF THE REHABILITATION ACT OF 1973, THE CITY OF LIVERMORE DOES NOT DISCRIMINATE ON THE BASIS OF RACE, COLOR, RELIGION, NATIONAL ORIGIN, ANCESTRY, SEX, DISABILITY, AGE OR SEXUAL ORIENTATION IN THE PROVISION OF ANY SERVICES, PROGRAMS, OR ACTIVITIES. TO ARRANGE AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PUBLIC MEETING, PLEASE CALL (925) 960-4586/4582 (VOICE) OR (925) 960-4104 (TDD) AT LEAST 72 HOURS IN ADVANCE OF THE MEETING.

The Community Monitor Committee Agenda and Agenda Reports are prepared by City staff and are available for public review on the Thursday prior to the Community Monitor Committee meeting at the Maintenance Service Center, located at 3500 Robertson Park Road, Livermore. The Community Monitor Committee Agenda is available for public review at the Maintenance Service Center, 3500 Robertson Park Road, Livermore, and on the Community Monitor Committee web site, http://www.altamontcmc.org.

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

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

Community Monitor Committee Roles and Responsibilities

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

Community Monitor Committee's Responsibilities

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

- A. Interviewing, retaining, supervising, overseeing the payment of, and terminating the contract with the Community Monitor;
- B. Reviewing all reports and written information prepared by the Community Monitor; and
- C. Conferring with the Community Monitor and participating in the Five Year Compliance Reviews (next due in 2015) and the Mid-Capacity Compliance Review (due when the new cell is constructed and capacity is close to 50%, unlikely to occur before 2028) (Condition number 6 of Exhibit A of the Agreement).

Community Monitor's Responsibilities

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

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

Waste Management of Alameda County's Responsibilities

Per the settlement agreement, Waste Management is responsible for:

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

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List of Acronyms

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

http://www.ciwmb.ca.gov/LEACentral/Acronyms/default.htm. 1

Updates will be provided as needed. This list was last revised on April 4, 2017.

<u>Agencies</u>

ACWMA - Alameda County Waste Management Authority

ANSI – American National Standards Institute

ARB or CARB - California Air Resources Board

ASTM – American Society for Testing and Materials

BAAQMD - Bay Area Air Quality Management District

CDFG or DFG - California Department of Fish and Game

CDRRR - California Department of Resources Recycling and Recovery, or CalRecycle

CIWMB - California Integrated Waste Management Board (predecessor to CDRRR - see above)

CMC - Community Monitor Committee

DWR - Department of Water Resources

LEA – Local Enforcement Agency (i.e., County Environmental Health)

CVRWQCB, RWQCB or Water Board – Central Valley Regional Water Quality Control Board, unless otherwise noted.

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

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.

RL – reporting limit: in groundwater analysis, <u>for a given substance and laboratory</u>, the concentration above which there is a less than 1% likelihood of a false-negative measurement.

Substances or Pollutants

ACM – asbestos-containing material

ACW - asbestos-containing waste

ADC – Alternative Daily Cover. For more information: http://www.ciwmb.ca.gov/lgcentral/basics/adcbasic.htm1

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

CH4 - methane

CO2 - carbon dioxide

DO - dissolved oxygen

HHW - household hazardous waste

Rev. 4/4/2017

¹ This link may need to be typed into your search bar to work correctly.

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

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)

ColWMP - 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 ColWMP)

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 - Same as ASP, above; but the "C" denotes that the pile is covered.

CEQA - California Environmental Quality Act

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

CY - cubic yards

GCL - geosynthetic clay liner

GPS - Global Positioning System

IC engine - Internal combustion engine

LCRS - leachate collection and removal system

LEL - lower explosive limit

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

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

PPE – personal protective equipment

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

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



COMMUNITY MONITOR COMMITTEE

Altamont Landfill Settlement Agreement

Minutes of July 12, 2017

DRAFT

1. <u>Call to Order</u>

The meeting was called to order at 4:05 p.m.

Roll Call

Members Present: Donna Cabanne; David Tam; Jerry Pentin; Marcus Nettz;

Arthur Surdilla

Absent: Robert Carling; Robert Cooper, Altamont Landowners

Against Rural Mismanagement

Staff: Judy Erlandson, City of Livermore Public Works

Department; Kelly Runyon, Community Monitor

3. Introductions

Those in attendance introduced themselves.

4. <u>Approval of Minutes</u>

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

5. Open Forum

There was no Open Forum discussion.

- 6. Matters for Consideration
 - 6.1 Responses to Committee Member Questions <u>Landfills Using Evapotranspiration (ET) Covers</u> – In response to Committee Members' interest in ALRRF's pending test of an ET cover design, Mr. Runyon provided supplemental written information and verbal descriptions of the design and status of several ET cover applications in landfills with annual rainfall amounts similar to that at the ALRRF. He also explained how ET cover performance is monitored, using lysimeters, and described the issues that have arisen at the Keifer Landfill, in Sacramento County, where an invasive plant unbalanced the mix of vegetation in an ET area, requiring replanting over much of the 20-acre area. Mr. Tam asked the name of the contact at Sacramento County who provided this description. Mr. Runyon identified him as Tim Israel, an engineer on staff at Sacramento County Department of Public Works. He also noted that despite these issues, the County is adding a second ET cover area this year. In discussion of existing covers and liners at the ALRRF, Mr. Nettz pointed out that Fill Area 1 Unit 2 has a membrane liner (as opposed to

compacted clay soil) to comply with Federal and State regulations that took effect in 1994 and are referred to as "Subtitle D" regulations. Mr. Runyon also pointed out that to comply with regulations, the ET cover needs to be as effective as the existing landfill liner in preventing water from penetrating. Mr. Pentin asked if the portion of the ALRRF that is clay-lined (Unit 1) will have an ET final cover. Mr. Runyon replied that the portion of Unit 1 that is already closed will not need changes to its final cover, but the portion that has not been previously closed, as well as all of Unit 2 (membrane lined) will be closed with an ET cover, provided that the 10-acre, 4-year cover test satisfies regulatory criteria. Mr. Nettz provided further clarification in response to questions from Mr. Pentin regarding lysimeter placement and cover penetration. Regarding the invasive plant problem that occurred at Keifer Landfill, Ms. Cabanne expressed concern that preventive measures would be needed to prevent such a problem from occurring in the ET cover at the ALRRF. Mr. Runyon concurred and noted that inspection and weed control need to be a part of cover maintenance. He then pointed out that ET final cover at the Forward Landfill, near Manteca, has been performing reasonably well, without problems like those at Keifer. He also briefly described the Spadra Landfill, in Los Angeles County, and the China Grade landfill in Kern County, both of which are apparently also performing satisfactorily with ET cover. Mr. Tam asked which Regional Water Board regulates the China Grade landfill. Mr. Runyon said that he would look into that. He also provided an illustration showing where the 10acre ET test area is being installed at the ALRRF, and an excerpt from the ALRRF's Waste Discharge Requirements that states the performance requirements and timeline for ET cover at the ALRRF. Ms. Cabanne asked how much area at the ALRRF would be covered at a time, with ET cover, if it is approved. Mr. Runyon said that he would check, and would also look into the postclosure maintenance (and repairs, if needed) that are required for this type of cover system at ALRRF. In response to Ms. Cabanne's concerns, Mr. Nettz emphasized that the 10-acre test had been designed to evaluate performance on parts of the landfill which present challenges in terms of slopes and liner characteristics. Mr. Tam asked if the ultimate use of the closed section would be grazing; Mr. Nettz responded that no firm plans have been made for the ultimate use of the site.

<u>Fill Area 2 Excavation Phases</u> – Mr. Runyon provided a recent diagram with the phasing sequence shown, and gave a verbal update on the sequence, stating that Phase 2 is immediately east of Phase 1, and Phase 3 is on the opposite (west) side of Phase 1. Ms. Cabanne asked for confirmation of the Conservation Plan Area. Mr. Runyon gave a brief verbal description and stated that he would provide a map at the next meeting.

<u>Limit on Class 2 Cover Soil</u> – Mr. Runyon explained that there is no explicit limit on the quantity of Class 2 cover soil. Ms. Cabanne expressed some concern about the volume of Class 2 cover soil occupying volume that could otherwise be used for refuse disposal.

Status of Minor Landslide in Fill Area 2 – Mr. Runyon stated that the slide appears to be stable but has not yet been repaired; he understands that repair is planned for later in the year. Mr. Nettz added that the landfill has a 4-step plan for repair and has selected a contractor to do the work. The four steps are (1) excavate the loose soil; (2) excavate below the slide to establish a firm base for repair; (3) replace the slide area with compacted soil; (4) install appropriate stormwater controls. The work is planned for later in the summer, with stormwater controls installed by October 15

6.2 Five-Year Permit Review and CASP Project

Mr. Runyon stated that the final approval of the Solid Waste Facility Permit had nott been issued by the Local Enforcement Agency (LEA). Mr. Surdilla confirmed that the review was still in progress. Mr. Runyon also noted, for the record, that the CASP compost operation's operating plans indicate that the CASP operation may use up to 20 acres of space on the landfill for the compost curing process.

6.3 Review of Reports Provided by ALRRF

Mr. Runyon summarized several small reports and correspondence between the ALRRF and the Central Valley Regional Water Quality Control Board, on the following topics:

- a. Operation of the Solidification Basins
- b. Sources of VOC's in Stormwater
- c. Installation of Additional Groundwater Monitoring Wells
- d. Litter Control
- e. Wood Grinding Operation on Site by Bio-fuels, Inc.
- f. Soil Gas Monitoring Locations
- g. Correction to the Short List of VOC Contaminants
- h. ET Cover Work Plan
- i. Design Package for CASP
- i. Management of Leachate Leak, and Notice of Violation
- k. Removal of Hazardous Soils Delivered in Error
- I. Management of Leachate Seep
- m. Removal of Hazardous Liquid Waste Delivered in Error
- n. Background Concentrations at New Monitoring Well MW-11

Committee members asked for follow-up on items a, b, j, and I, to review reports or correspondence that is still expected. Also, Ms. Cabanne asked if the Bio-fuels, Inc. operation could return to the site. Mr. Surdilla noted that the company (Bio-fuels) would need to reapply for a permit if it wished to resume.

6.4 Reports From Community Monitor

Reporting on site visits in the last quarter, Mr. Runyon mentioned that the tamarisk trees first noticed a year ago have resprouted despite having been treated with herbicide a year ago. In addition, he noted that a different invasive plant has also begun to grow at this location: Perennial pepperweed, which (like tamarisk) can move into wetland areas and displace native vegetation.

He also pointed out photos of the ET cover area, which has had the lower portion of the soil cover applied, but is awaiting application of the vegetative layer. That soil is being excavated and blended elsewhere on site.

In discussion of recent tonnages, Ms. Cabanne asked if the soil previously delivered from Newark salt ponds has been profiled (tested). Mr. Nettz replied that it had, and that it might not be delivered to the landfill any longer, because its corrosive nature led to unexpectedly high operating costs. Ms. Cabanne asked if the results of a profile could be made available; Mr. Nettz replied that profiling results are treated as confidential information by Waste Management.

7. Agenda Building

Ms. Erlandson stated that the 2018 meeting calendar will be on the October agenda.

8. Adjournment

The meeting was adjourned at 5:26 p.m.

memorandum

date September 28, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 10/11/17 - Agenda Item 6.1 - Responses to Committee Members' Questions

Examples of Landfills Using Evapotranspiration (ET) Covers

At the July 12, 2017 Community Monitor Committee meeting, in discussion of the China Grade Landfill near Bakersfield, Mr. Tam asked which Regional Water Quality Control Board regulates that landfill. It is the Central Valley Regional Water Quality Control Board, with staff from its Fresno office.

Also, Ms. Cabanne asked how much area at the ALRRF would be covered at a time, if the ET cover approach were used. As noted at the July meeting, the Waste Discharge Requirements (Finding #140) state that if ET cover is approved after testing, ALRRF plans to cover Fill Area 1 in increments of 20 to 30 acres per year for a 10 year period. This is expected to begin in 2023¹. At the expected rate of fill, Fill Area 2 will not require final cover until approximately 2066. The JTD states² that if an ET cover is approved for that area:

It is anticipated ... that 208 acres of FA2 Unit 1 will be closed over 3 years, closing approximately 70 acres per year:

- 2066 70 acres of FA2 to be closed;
- 2068 70 acres of FA2 to be closed; and
- 2070 the remaining 68 acres of FA2 to be closed.

The post-closure monitoring program described in the JTD makes no distinction about the type of cover (ET or "traditional" with impervious membrane). It anticipates the following activities throughout the 30-year post-closure period:

- Final Cover Maintenance;
- Vegetative Cover Maintenance;
- Drainage System Maintenance;
- Liquids Control Systems Maintenance/Monitoring;
- Landfill LFG Extraction and Monitoring System Maintenance/Monitoring;
- Groundwater Monitoring System Maintenance/Monitoring;
- Storm-Water Monitoring;
- Access Road Maintenance;

¹ Joint Technical Document including 30 Sep 2016 revisions, section 10.19.1.

² Joint Technical Document including 30 Sep 2016 revisions, section 10.19.2.

- Site Security Inspection and Maintenance; and
- Landfill Settlement Monitoring and Monument Maintenance

Most of these activities will be necessary regardless of the type of cover, though the costs and methods of repair may differ. For the purpose of estimating post-closure maintenance costs, the traditional cover design has been assumed for the Preliminary Post-Closure Maintenance Plan.

Map of Conservation Plan Area

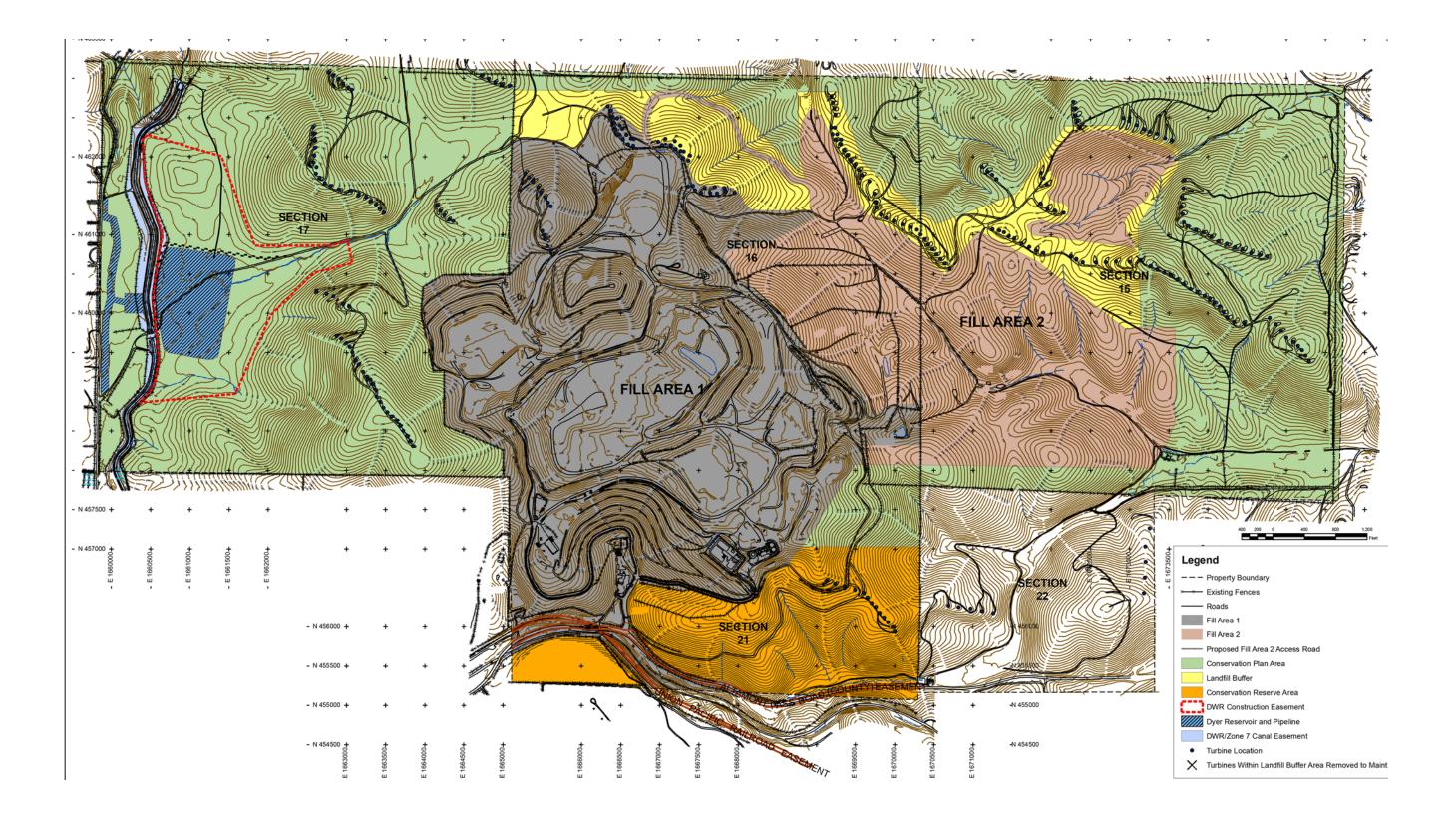
Ms. Cabanne asked for clarification of the boundaries of the Conservation Plan Area. Please see the map of the Conservation Plan Area, and other land management designations at the ALRRF, on the following page.

Follow-up on Minor Reports

In the July Community Monitor Committee meeting, members asked for follow-up on four specific issues:

- Operation of the Solidification Basins
- Sources of VOC's in Stormwater
- Management of Leachate Leak / Notice of Violation
- Management of Leachate Seep

Agenda item 6.4, "Review of Documents on GeoTracker Web Site" provides updated information on these topics and others.



memorandum

date September 28, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 10/11/17 - Agenda Item 6.2 - Five-Year Permit Review

Five-Year Review of Solid Waste Facilities Permit

The LEA is continuing to process the Joint Technical Document and related material applicable to the reissuance of the ALRRF Solid Waste Facility Permit. CalRecycle's approval of the Preliminary Closure and Post-Closure Maintenance Plan, including the funding of that plan, was issued on September 7, 2017.

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memorandum

date September 28, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon, Michael Burns

subject CMC Meeting of 10/11/17 - Agenda Item 6.3 - Review of Reports Provided by ALRRF

Conservation Management Area Monitoring

In an effort to offset the natural resource impacts of developing and using Fill Area 2, State, Federal and local regulatory agencies stipulated a large number of permit conditions requiring mitigation measures as well as ongoing monitoring to document the performance of those measures.

Most of those conditions did not include requirements for annual reporting, and some requirements will not take effect until refuse is placed for disposal in Fill Area 2. Consequently, this year the documentation consist of a simple four-page memo, providing a status report from the lead environmental consulting team (Dudek) to ALRRF staff, dated August 9, 2017.

Several highlights are listed below. The key finding: based on lessons learned from the attempt to establish a mitigation pond and riparian channel beginning in 2012, "...there [is] not a suitable location within the Conservation Management Area (CMA) that would support successful establishment" of the required mitigation. Highly alkaline soils, extremes of annual rainfall (too little alternating with too much), and high volumes of sediment have severely impacted the initial attempt, and no suitable alternative site has been found within the CMA. From the memo: "As a result, Dudek and ALRRF are currently consulting with the U.S. Army Corps of Engineers (ACOE), CDFW and USFWS to discuss an alternative strategy that would meet the pond and riparian channel mitigation requirements set forth in the WMP. This strategy will likely involve purchasing mitigation credits at an approved mitigation bank to satisfy these requirements."

In other activities:

<u>Wetlands</u>: Dudek staff monitored wetland mitigation sites in March and May of 2017. Not all areas could be accessed, due to wet conditions, but in general, Dudek reports that wetland areas are dominated by appropriate vegetation. Wildlife surveys documented 14 species, including California red-legged frog (CRLF) and burrowing owl. An annual monitoring report will be submitted by Dudek in January 2018.

Within Fill Areas 1 and 2: In 2016, monitoring took place before, during and after construction activities. No special-status species were seen in or adjacent to construction areas, prior to construction work. During dewatering of sedimentation basin SB-1 in June 2016, 14 dead juvenile California Tiger Salamanders (CTSs) were found in the settling basin below SB-1. They had apparently been injured in passing through the dewatering pump. After consulting with USFWS staff, unharmed CTS larvae in SB-1 were relocated to stock pond SP-6. Also, in December 2016, an adult CTS was reported by a construction worker, found in a work area, and relocated to SP-6.

North of Fill Area 2: In June of 2017, prior to construction work related to CASP site preparation and soil stockpile management, Sedimentation Basin SB-2, Soil Stockpile 5 and the vicinity were surveyed for local wildlife species. Dudek reports that "No CTS, CRLF, American badger, burrowing owl or San Joaquin kit fox (or sign of these species), were observed during the survey."

Evaluation of the Dudek memorandum for compliance with permit conditions is not yet complete. Our conclusions will be reported at the January 2018 meeting of the Community Monitor Committee. Although the CTS fatalities are very unfortunate, we are encouraged that Dudek is communicating actively with regulatory staff, and construction workers have been trained to recognize sensitive species and report sightings. Looking ahead, when ALRRF arranges for off-site mitigation, this will include negotiating with land managers regarding the cost to protect or restore those off-site lands. This will take time, and costs will need to be negotiated confidentially. Consequently, there may not be any interim status reports for the public or the Committee until arrangements have concluded.

Air Emissions Report

The most recent Semi-Annual Report to the Bay Area Air Quality Management District (BAAQMD) covers the period from December 1, 2016 through May 31, 2017. The key points from this document are:

- New gas wells brought on line —Twenty-two new gas wells, #712 #733, had been installed in the fall of 2016. They were all on line and producing gas by December 30, 2016. As those wells were initially adjusted, the overall gas production rate increased during the month of January, reaching 8 million standard cubic feet per day by the end of January, a 10 percent increase from the end of December. Gas production remained high through mid May, when it began to taper off slightly.
- <u>High Temperature wells</u> Eight of the newly installed wells, plus three slightly older wells, were found to be operating at atypically high temperatures in this reporting period. All eight of these wells are in close proximity to one another, suggesting that something unusual is going on below the surface. There are no direct indications of subsurface combustion, such as inordinately high carbon monoxide levels (above 1000 ppm), rapid subsidence, or high ground-surface temperatures; but this high-temperature cluster is an unusual occurrence. See the maps in Figures 6.3-1 and 6.3-2; they compare the most recent temperature data with that from over a year before, when the hot area had been the site of several landfill gas condensate¹ injection wells. It is possible that the fluid from those wells is degrading exothermically and raising temperatures of the extracted gas. The high temperature wells have been reported to the BAAQMD, and they are being classified as High Operating Value (HOV) wells because their gas temperature exceeds 131F (55C) at the wellhead. We will continue to track reports on these wells.
- Recent gas well decommissions During the reporting period, a total of eight gas wells were decommissioned, i.e., shut down and disconnected from the gas extraction system. This is normal; wells lose productivity over time for a variety of reasons.
- <u>Surface emissions monitoring</u> for the fourth quarter of 2016 was conducted in December; for the first quarter of 2017, monitoring took place in February. There were 19 surface emission points detected in December, and 31 in February. These are unusually large numbers of emission points for this time of year; typically, during the rainy season, the ALRRF has few or none. However, their repair was straightforward.

¹ Landfill gas condensate is formed when landfill gas is conveyed by pipelines that are cooler than the gas itself. Water vapor and other volatile substances condense as the gas cools in transit. These liquids are collected in sumps to prevent blockage of the gas pipe, and are typically injected into a flare, where the volatiles are destroyed, or back into the landfill.

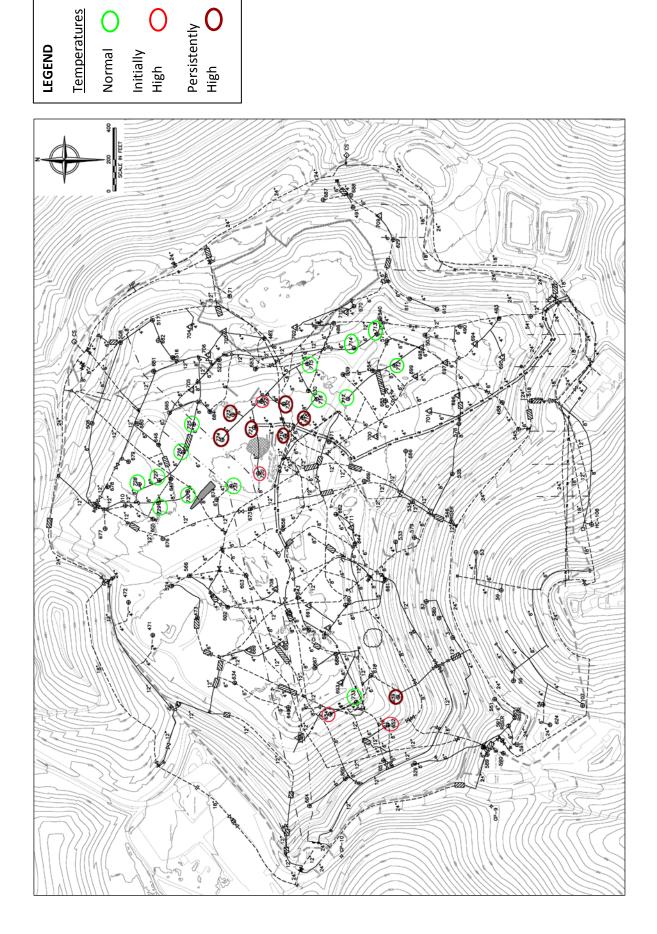
All of the leaks were promptly repaired, and in all cases, the repairs were still intact when checked 10 days and 30 days later.

- <u>Emission Control Devices Pass Source Tests</u> During this reporting period, all of the gas combustion devices (two internal-combustion engines, two turbines, and two flares) were source-tested in February, March and May for compliance with emission limits; all passed.
- <u>Gas Extraction near Well E-20B</u> Throughout this monitoring period, the two small, shallow landfill gas wells near groundwater monitoring well E-20B were operated at a fairly high vacuum level, recovering low concentrations of methane but apparently not pulling in air from above the ground surface.

Figure 6.3-3 shows the amounts of landfill gas consumed by each of the combustion systems at the ALRRF. This bar chart illustrates the increase in gas production that occurred in late January as the new wells were brought on line; it also shows two interruptions, in mid December and late March. The first of these was due to a temporary shutdown of the gas extraction system to connect the new gas wells to the existing system. The second was due to an outage at a nearby substation that affected the electronic controls for all of the gas-consuming equipment, shutting down energy recovery for more than 24 hours until PG&E resolved the problem.

In summary, the air emissions report indicates continued sound operation of the landfill gas control systems, presenting no serious new environmental risks. However, the high temperatures at a cluster of newer wells, described above, should continue to be monitored closely due to the increased possibility of subsurface fire. Figure 6.3-1

Figure 6.3-1 – Gas Well System and High-Temperature Wells, December 2016 – May 2017



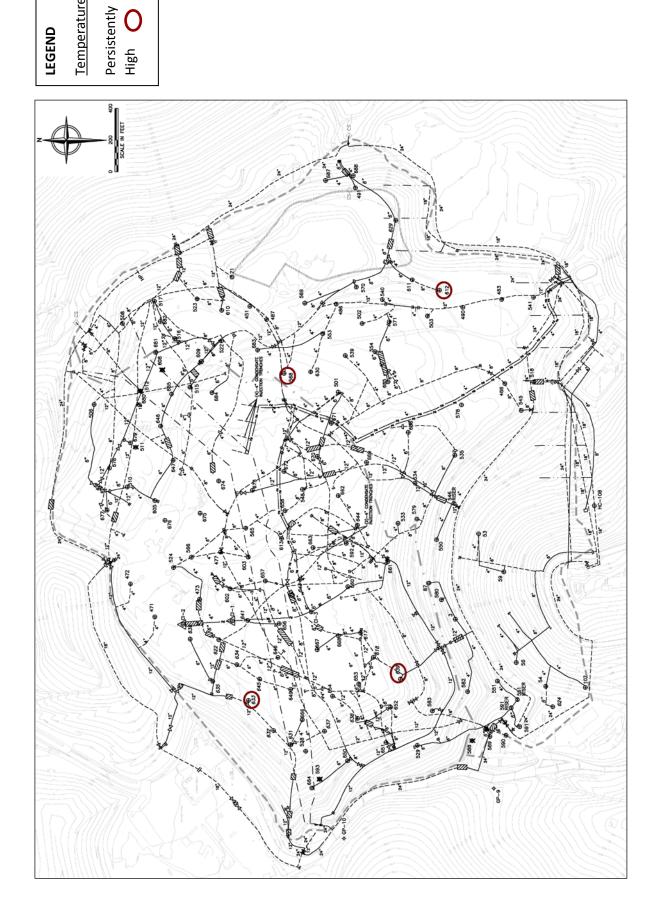
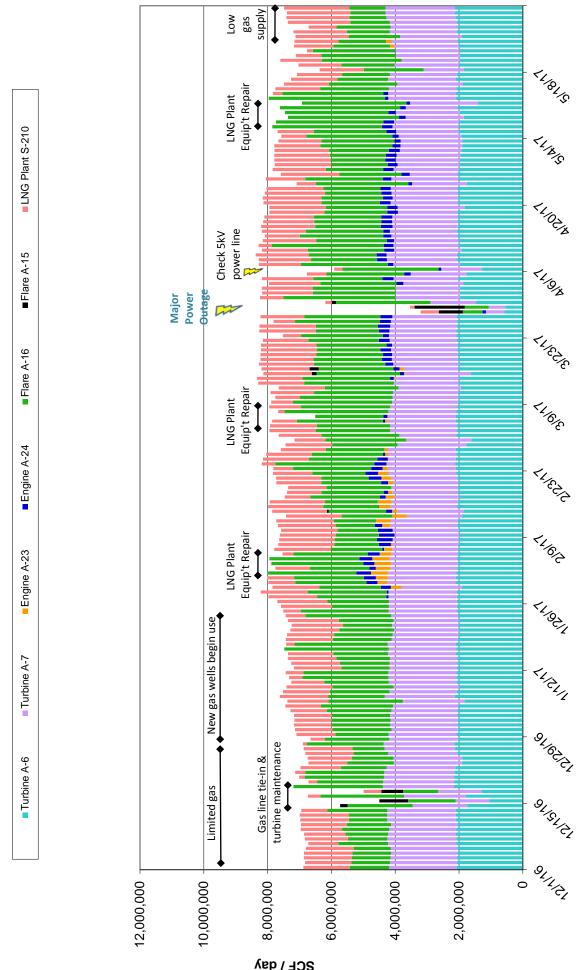


Figure 6.3-3 - ALRRF Daily LFG Flow (values derived from Title V Report)



CMC Agenda Packet Page 22 of 50

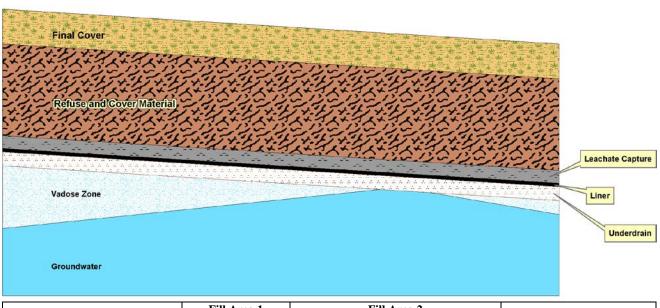
First Semi-Annual 2017 Groundwater Monitoring Report

This Report covers January through June of 2017. It does not identify any new or increasing environmental risks, but continued review of monitoring data is recommended because low levels of pollutants continue to be detected at certain groundwater wells and stormwater basins. There are no increasing trends in these detections.

A technical review by Community Monitor team member Langan is attached. It compares this Semi-Annual Report to prior reports and to the 2016 Waste Discharge Requirements for the site, to make note of any new developments or significant changes. The only noteworthy changes have been the installation, and background monitoring, of several required groundwater wells in and around Fill Area 2. In one of those wells (MW-19), very low levels of non-laboratory-related VOCs (chloroform and naphthalene) were detected in the initial sampling but were not detected in a June 2017 resampling. Hence they are attributed to materials used during well installation, or possibly (in the case of chloroform) from the use of tap water to pre-rinse sampling equipment or lab glassware. This is not standard practice but might have occurred out of necessity.

The Langan memo notes a Violation issued by the Regional Water Board concerning improper disposal of liquid cleaned up from a leachate release. The Committee was informed of this in its previous meeting, but to recap, the liquid was disposed in one of the solidification basins, and this is not permitted under the most recent (2016) Waste Discharge Requirements.

The Langan memo also summarizes sampling from a variety of monitoring points that are distinct from monitoring wells; they monitor the unsaturated zone (also known as the vadose zone) and the leachate collection system. To aid in understanding, the diagram and table below show how the monitoring points are associated with the landfill liner and drainage systems that are installed when a landfill is developed.



	Fill Area 1	Fill Area		
Layer	Landfill	Landfill	Pond SI-1	Note
Leachate Capture (LCRS) sumps	LS, LS-2	LS-4	LS-3	Semiannual if liquid found
Underdrain	VD, VD2	UD-1, LD-1, LD-2	n/a	No underdrain at pond SI-1
Vadose Zone	VZM-A		VZM-B	



Memorandum

555 Montgomery Street, Suite 1300 San Francisco, CA 94111 T: 415.955.5200 F: 415.955.5201

TO: Kelly Runyon

Michael Burns, ESA

FROM: Mukta Patil, PE, Project Engineer

Dorinda Shipman, PG, CHG, Principal

DATE: 18 September 2017

PROJECT: Altamont Landfill (ALRRF)

Livermore, California

Langan Project: 750477407

SUBJECT: Groundwater and Storm Water Analysis for Community Monitor Progress Report #20

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 was conducted by SCS Engineers, and presented in the following report:

 SCS Engineers, First Semiannual 2017 Groundwater Monitoring Report, Altamont Landfill and Resource Recovery Facility (WDR Order Nos. R5-2016-0042 and R5-2016-0042-1), Long Beach, California dated 1 August 2017.

The report addresses the monitoring and reporting requirements of the Central Valley Regional Water Quality Control Board (Water Board) Waste Discharge Requirements (WDR) Order No. R5-2016-0042 and Monitoring and Reporting Program (MRP), adopted on 27 October 2016 issued for the ALRRF, which is owned and operated by Waste Management of Alameda County, Inc. This memorandum describes the results of the above effort 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 and for potential trends in groundwater analytical data over recent years.

No waste has been placed in Fill Area 2 and ALRRF anticipates Phase I of Fill Area 2 may begin receiving wastes by First Quarter 2019. The first semiannual 2017 groundwater sampling activities for Fill Area 1 and Fill Area 2 were conducted May 2017. Wells associated with future Fill Area 2 are monitored on a semiannual basis to establish baseline conditions. Wells and monitoring points were generally found to be in compliance during the First Semiannual 2017 sampling event.

First Semiannual 2017 Groundwater Sampling Results

<u>Detection and Corrective Action Well Inorganic and Volatile Organic Compound Concentrations</u>

The 2016 MRP identifies two sets of corrective action wells: 1) well E-20B along the east side of Fill Area 1 and downgradient (detection) well MW-12, and 2) wells E-05 and E-07 in the main canyon south of Fill Area 1 and their downgradient (detection) well E-03A. Based on the analytical results of the May 2017 monitoring event, detected concentrations of inorganic compounds remain stable in the detection and corrective action wells sampled. Volatile organic compounds (VOCs) not attributable to laboratory cross contamination were detected in four wells, as indicated in the table below. At these well locations, the VOCs detected and the respective concentrations were similar to historical data.

Groundwater and Storm Water Analysis for Community Monitor Progress Report #20 Altamont Landfill (ALRRF)

Livermore, California Langan Project: 750477406 18 September 2017

Page 2

	Acetone	Chlorobenzene	1,4-Dichlorobenzene	Cis-1,2-dichloroethene	1,1,-Dichloroethane	1,1,-Dichloroethene	1,2,-Dichloropropane	Dichlorodi-fluoromethane	Dichloro-flouromethane	Diethyl ether	Methylene Chloride	Methyl tert-butyl ether (MTBE)	Tert-Butyl Alcohol	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl chloride	Comments
E-03A																		No VOCs detected
E-05	Χ		Χ							Χ		Χ	Χ		Χ			Matches historical data
E-07			Χ	Χ	Χ							Χ		Χ		Χ		Matches historical data
E-17																		No VOCs detected
E-20B			Χ	Χ	Χ				Χ	Χ					Χ			Matches historical data
E-23																		No VOCs detected
MW-2A																		No VOCs detected
MW-5A																		No VOCs detected
MW-6																		No VOCs detected
MW-7																		No VOCs detected
MW-11																		No VOCs detected
MW-12	Χ			Χ	Χ													Matches historical data
PC-1B																		No VOCs detected
PC-1C																		No VOCs detected

In monitoring well E-20B, dichlorofluoromethane, 1,1-dichloroethane (1,1-DCA), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride have been detected since 1999. Several other VOCs have also been detected at lower concentrations. The Updated Engineering Feasibility Study (EFS), completed by SCS Engineers (November 2004, Revised March 2005), and the Revised E-20B Corrective Action Plan (CAP), dated 13 August 2014, prepared by Waste Management of Alameda County, Inc. (WMAC) concluded that the VOC detections at E-20B do not appear to be indicative of leachate impacts. Furthermore, the source of vinyl chloride has been attributed to landfill gas. However, in a letter dated 23 May 2014, the Central Valley Regional Water Quality Control Board (Water Board) remarked about its reservations regarding this conclusion. As discussed below, the area surrounding E-20B is currently undergoing corrective action, including landfill gas control; and E-20B is also sampled for natural attenuation parameters to monitor conditions favorable for VOC degradation.

Corrective action well E-07 had detections of six VOCs at concentrations below their reporting limits. The corrective action well E-05 had above reporting limit concentrations of tetrahydrofuran, tert-butyl alcohol and below reporting limit concentrations of three additional VOCs as well as acetone. With the exception of tert-butyl alcohol detected in E-05, which was detected at a slightly higher level than in the past, all other VOC concentrations in these two wells were within the historical range.

Well E-20B CAP Revision

Upon review of the First Semiannual 2013 Groundwater Monitoring Report, the Water Board identified issues related to the monitoring and corrective action program. One of the requests from the Water Board was for the re-evaluation of the monitoring program for monitoring well E-20B and preparation of a plan to address the continuing detections of VOCs in E-20B. The Revised CAP, prepared by WMAC, discussed the installation of a new monitoring well and two to three new landfill gas (LFG) extraction wells, to improve monitoring effectiveness and to address the source of the impacts detected in E-20B. In a letter dated 10 October 2014, the Water Board approved the installation of the new groundwater monitoring well.

Well installation activities were performed by ALRRF's consultant, Geosyntec, in September 2014. The well installation report, dated 16 December 2014, documented the installation and sampling of monitoring well MW-12, located 650



Groundwater and Storm Water Analysis for Community Monitor Progress Report #20 Altamont Landfill (ALRRF)

> Livermore, California Langan Project: 750477406 18 September 2017

Page 3

feet downgradient of E-20B. Monitoring well MW-12 was sampled monthly from September 2014 to March 2015 and quarterly from May 2015 to November 2015. Based on a Water Board letter dated 22 January 2016, MW-12 is now being monitored on a semiannual basis to track the effectiveness of enhancements made to the LFG collection system in January 2015.

Starting in December 2014, VOCs such as diethyl ether, cis-1,2-DCE, and 1,1-DCA have been detected in samples from MW-12. SCS Engineers have previously stated that the low concentrations of VOCs detected in MW-12 establish the downgradient extent of groundwater impacts noted in E-20B. In January 2015, two new LFG extraction wells, designated as 687 and 688, were installed in the vicinity of E-20B. Over the next few months, WMAC planned to evaluate the wells in context of overall LFG collection and control system. Langan evaluated the potential effect of gas extraction wells 687 and 688 on the VOC concentrations at Well E-20B and documented our assessment in a separate memorandum titled *Effect of Gas Extraction Wells 687 and 688 on Well E-20B* dated 17 March 2016. Our assessment concluded that if VOCs are partitioning from vapor at gas extraction wells 687 and 688 into groundwater that is migrating downgradient to E-20B, it would take a year or longer to see a reduction in VOC concentrations at E-20B as a result of landfill gas extraction at wells 687 and 688. To-date, a decrease in VOC concentrations has not been noted in MW-12. During May 2017, a below detection limit of cis,1-2, DCE and 1,1-DCA were detected in this well in addition to acetone, a common lab contaminant.

As a consequence of VOCs in MW-12 groundwater and at the request of the Water Board, another well is proposed to be installed downgradient of E-20B. Waste Management anticipates the well will be installed during fourth quarter 2017.

Detection wells PC-1B and PC-1C were also used to monitor for potential migration of VOCs further downgradient of E-20B. Wells PC-1B and PC-1C, located approximately 2,000 feet from E-20B and approximately 1,500 feet downgradient of MW-12 have not had any VOC detections since the start of monitoring in 2006 until May 2016, with the exception of those attributable to laboratory cross contamination (acetone and methylene chloride). According to the 2016 MRP, PC-1B and PC-1C do not require semi-annual sampling until Fill Area 2 receives waste. VOCs that are consistently detected in E-20B also have not been detected in the deeper groundwater zone monitoring wells MW-3B and MW-3C during the Second Semiannual 2016 or First Semiannual 2017 monitoring events. Those wells had high concentrations of total dissolved solids, but this can be interpreted as high mineral content due to the age and depth of the groundwater at this location.

Fill Area 2

Waste placement in Fill Area 2 is currently due to begin in First Quarter 2019. According to the 2016 MRP, Fill Area 2 wells MW-8A, MW-8B, MW-9, MW-10, MW-13B, MW-14, PC-1B, PC-1C, PC-2A, and WM-2 will be assessed when filling begins. However, for background water quality data, most of these and several other Fill Area 2 wells have been sampled since 2014. During the First Semiannual 2017 period, no VOCs were detected in samples from monitoring wells MW-8A, MW-13B, MW-14, MW-14R, MW-15B, MW-16, MW-18, MW-19, MW-21, and PC-6B[R] with the exception of below reporting limit detection of methylene chloride in MW-14R, chloroform and naphthalene in MW-19, and acetone in all wells except MW-14, and MW-14R. Acetone and methylene chloride, which are common laboratory contaminants, were also detected in one or more trip, field, equipment or method blanks. Chloroform and naphthalene detected in MW-19 were attributed to carryover from well installation and development activities because resampling performed in June 2017, did not detect these contaminants in the well.

Violations

During the First Semiannual 2017 monitoring period, one violation was noted. On 7 April 2017, Waste Management notified the Water Board of a leachate line leak and the measures that were taken to contain the leak. The leaked leachate was contained in a bermed area. The leachate cleanup began on 10 April 2017 and included extracting the liquid using vacuum truck and discharging that liquid into the landfill solidification basins. Upon review of the Leachate Line Leak



Groundwater and Storm Water Analysis for Community Monitor Progress Report #20 Altamont Landfill (ALRRF)

Livermore, California Langan Project: 750477406

18 September 2017

Page 4

report dated 14 April 2017, the Water Board issued a Notice of Violation (NOV) on 26 April 2017 for the improper discharge of designated waste/leachate into the landfill's solidification basins. WDR Discharge Specification B1 explicitly prohibits the discharge of leachate to the solidification basins. The semiannual report indicates that in the future, ALRRF will apply such liquid/leachate to the active face, directly into the landfill per the Leachate and Condensate Recirculation Plan or discharged into the surface impoundments. This is consistent with WDR Discharge Specification B1.

Unsaturated Zone Inorganic and VOC Concentrations

The 2016 WDR/MRP specifies VZM-A¹, VD², and VD2³ in Fill Area 1 and UD-1⁴, LD-1⁵, Sl-1⁶, and VZM-B⁷ in Fill Area 2 be monitored monthly for presence of liquid. If liquid is present in any monitoring point, samples are to be collected on a semi-annual basis.

In May 2017, samples were collected from VZM-A, VD, VD2, and VZM-B. Except in February 2017, UD-1 was dry during all other monthly visits. LD-1 was also dry during the monthly visits. Other than acetone, no VOC was detected in VZM-B. Several VOCs were detected above reporting limit concentrations in VZM-A, VD or VD2. The 2016 MRP requires sampling of VD for acetophenone on a semiannual basis and VD, VD2, and VZM-A for dinoseb on an annual basis. Acetophenone was not detected in the May 2017 sampling event from VD. Samples for dinoseb analysis will be collected during the second semiannual 2017 period.

During First Semiannual 2017, detected concentrations of inorganics and VOCs at VZM-A, VD, and VD2 were consistent with historical concentrations and appeared to be stable, i.e. concentrations have not shown an increasing trend. The VOC detections at VZM-A, VD, and VD2, have been attributed to landfill gas. Detected concentrations of VOCs and inorganics in unsaturated zone monitoring points will be evaluated in subsequent monitoring reports for potential increasing trends.

Leachate Inorganic and VOC Concentrations

The leachate monitoring network in the 2016 MRP includes Fill Area 1 Unit 1 Leachate Sump (LS), Fill Area 1 Unit 2 Leachate Sump (LS-2), and Fill Area 2 Surface Impoundment SI-1 Leachate Sump (LS-3). The 2016 MRP requires semi-annual sampling of the leachate sumps. Thirteen VOCs were detected above the reporting limit concentrations in the leachate monitoring points. The 2016 MRP requires sampling of LS for acetophenone on a semiannual basis and LS, LS-2 sampling for dinoseb on an annual basis. Acetophenone was not detected in LS during the May 2017 sampling event.

Inorganic, VOC and acetophenone concentrations at leachate monitoring point LS, LS2 and LS3 during May 2017 were similar to historical values.



VZM-A is a monitoring location in the vadose zone (unsaturated zone below the landfill liner, and above the groundwater table).

VD is the monitoring location for the valley drain system beneath the clay liner at Fill Area 1 Unit 1. This drain system is designed to collect and drain groundwater that accumulates beneath the liner, or any liquids that seep below the liner at Unit 1.

VD2 is the monitoring location for the subdrain beneath the engineered liner at Fill Area 1 Unit 2. This drain system is designed to collect and drain groundwater that accumulates beneath the liner, or any liquids that seep below the liner at Unit 2.

⁴ Phase I Unsaturated zone Underdrain

⁵ Leak Detection

⁶ Surface Impoundment

⁷ Vadose zone monitoring sump

Groundwater and Storm Water Analysis for Community Monitor Progress Report #20 Altamont Landfill (ALRRF) Livermore, California

Langan Project: 750477406 18 September 2017

Page 5

Stormwater Sedimentation Basins

In accordance with the 2016 MRP/WDR, water inside sedimentation basins is to be sampled on a semiannual basis. During the first semiannual period of each year, samples are to be collected between January and May and for the second semiannual period, the samples are to be collected in October and December. For the First Semiannual 2017 period, samples were collected from water inside Basins A, B, and C on 2 May 2017. Due to sporadic detections of VOCs, described below, a second sample was collected from water inside Basins B and C.

Inorganics in Stormwater

Reported concentrations of inorganic compounds in stormwater during May 2017 were similar to historical values.

Volatile Organic Compounds in Stormwater

VOCs were not detected in the sample collected in Basin A. Below reporting limit concentration of acetone was detected in the first sample collected from Basin B. Acetone was detected again in the second sample collected from Basin B. Carbon disulfide, 2-butanone (MEK), and acetone were detected above reporting limits in the first sample collected from Basin C. Below reporting limit concentrations of 1,1-DCA and toluene were also detected in Basin C. Resampling of Basin C detected below reporting limit concentrations of 4-methyl-2-pentanone (MIBK), which was within the historical range for Basin C. It should be noted that acetone was detected in the associated equipment blank samples, attributing acetone to field cross contamination. Acetone is also a common laboratory contaminant. Although the detected concentrations are low and are potentially related to cross contamination either in the field or laboratory, the sporadic detections of several VOCs will need close observation to ascertain if the detections are associated with the landfill or otherwise. Langan will monitor for future detections of VOCs to ascertain the conclusion presented in the semiannual report. In the coming rainy season, storm water monitoring will include sampling from six monitoring points upstream of the Fill Area 1 sedimentation basins, in an effort to detect the sources of these VOCs. Langan will review those reports when they are made available.

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.

750477406.03 MP_Final Memo_1st Semiannual 2016 GW.docx



memorandum

date September 28, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 10/11/17 - Agenda Item 6.4- Review of Documents on GeoTracker Web Site

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

Ongoing Topics

The September 29, 2016 S.O.P. for Solidification describes the ALRRF's approach to blending liquid and solid wastes to prepare a mixture that prevents free liquid from being placed in the landfill. The mixing pits, mixing methods, loadout, and inspection of the blend for proper dryness are described. In a review letter dated January 24, 2017, Water Board staff express concern that (a) blended liquids might react chemically in the mixing pits, (b) the construction of the pits does not assure that leakage will not occur, (c) visual monitoring of blended material may not prevent the presence of free liquid in the mix, and (d) visual monitoring of the mixing pits may not detect leakage from them into the waste below. The letter requires submittal of a technical report to address these and other issues by April 1, 2017. A March 31, 2017 letter from Waste Management to Water Board staff transmitted a TECHNICAL REPORT FOR THE SOLIDIFICATION BASIN OPERATIONS prepared by Golder Associates Inc. *No further documents or correspondence on this subject have been made available as yet. The solidification basins are currently operating.*

A December 1, 2016 letter from SCS Engineers (on behalf of ALRRF) to Central Valley Regional Water Board staff addresses that Water Board's requirement for a Work Plan to identify and evaluate potential sources of VOCs that may have impacted stormwater at the facility. It identifies six sampling locations in drainage features (e.g. ditches) that are downstream of specific industrial activities such as the maintenance shop and the LNG plant. It proposes to sample them during storm events, twice in the current rainy season and twice in the next rainy season. A technical report would be submitted by June 30, 2018. A review letter from Water Board staff, dated April 26 2017, contains reminders of certain relevant regulatory requirements as well as certain specific requirements, including: "The Discharger shall submit a technical report, by 30 June 2017, with the results of the winter/spring 2017 wet season sampling of SW-1 through SW-6 ... along with a revised sampling proposal for the 2017-2018 wet season, as discussed in the Work Plan." On June 30, SCS Engineers submitted a Progress Letter to the Water Board on behalf of the ALRRF. It notes that no samples were taken in 2017, because the wet season came to an end after April 26 with no additional rainfall. Thus no technical report has been prepared as yet. It describes the sampling

requirements of the Waste Discharge Requirements (WDRs) and the Industrial General Permit, which is a separate system focusing on stormwater quality exclusively. In addition, the Progress Letter states that relevant stormwater data will be included in the First Semi-Annual Report to the Regional Water Board, covering January – June 2018. A table summarizing analyses of stormwater samples taken in January and February 2017, from Basins A, B, and C, is attached to the Progress Letter. A September 13, 2017 letter from Water Board staff requires that "a report documenting the results of the investigation … be submitted by 30 June 2018."

A December 15, 2016 report by Geosyntec addresses requirements in the 2016 WDRs to evaluate the adequacy of the current groundwater monitoring system and propose additional wells to adequately monitor Fill Area 2 throughout its development. Subsequently, a May 23, 2017 Monitoring Well Installation Report by GeoSyntec has been submitted to the Water Board. It documents the installation of one upgradient well (MW-19) and two downgradient wells (MW-14R, MW-21) adjacent to the Phase 1 portion of Fill Area 2. It also proposed locations for additional wells MW-20 and MW-22 to monitor the Phase 2 and Phase 3 areas, respectively. *No further documents or correspondence on this subject have been made available as yet*.

A February 1, 2017 letter from ALRRF to Water Board staff describes the ALRRF's position regarding the violation requiring that the size and location of the wood grinding operation be reduced. The letter points out that the size and location are consistent with current permit documents, and it describes efforts by WMAC to (a) ensure that stockpile location and size requirements are met, and (b) storm water runoff monitoring is properly established. Subsequent letters on February 1, March 1, March 31 and May 1 provide updates and address specific questions raised by Water Board staff. The May 1 letter notes that the LEA's March 30 inspection report contained an order requiring Bio-Fuels, Inc. to immediately cease and desist operations. *The wood grinding operation has terminated operations and left the site*.

A February 28, 2017 report by GeoSyntec on behalf of the ALRRF proposes soil gas monitoring locations to satisfy the soil gas monitoring conditions in the current Waste Discharge Requirements. In an April 25 letter, Water Board staff call for a "detailed rationale for the spatial distribution selected for the unsaturated zone monitoring devices proposed around the entire outside perimeter of each waste management unit" by May 31. An Addendum dated May 30, 2017, prepared by Geosyntec Consultants, responds to the Water Board by describing the existing soil gas probe system, noting where shallow groundwater constrains the installation of additional probes; the Addendum also describes the groundwater protection and leak detection systems designed for Fill Area 2 in detail. Since these largely describe liquid detection devices rather than gas probes, it is not clear if this response will satisfy Water Board staff.

An April 14 letter from Waste Management to the Water Board transmits an Evapotranspirative Cover Work Plan prepared by GeoSyntec. This is in response to an October 19, 2016 letter from Water Board staff which outlined the needed content for the Work Plan. The Work Plan shows 3 feet of vegetative cover to be placed in the test area over 1 foot of existing intermediate cover, with the top 2 feet lightly compacted to 90 percent relative compaction prior to planting. The report also indicates that a full design package with construction drawings, specifications and a Construction Quality Assurance Plan will be prepared. *To date, no further information from ALRRF or the Water Board has been made available on GeoTracker*.

An April 14 letter from Waste Management to Water Board staff reported a <u>leak from a leachate pipe</u> on ALRRF property immediately adjacent to Fill Area 1. The leachate plus rainwater, approximately 500 gallons in all, was captured using a vacuum truck and deposited in the solidification basin. Subsequently, the Water Board issued a

Notice of Violation for having put the leachate in the solidification basin. This is expressly prohibited in Discharge Specification B1 of the current Waste Discharge Requirements. The NOV requires by 30 May 2017, a report prepared as an operation manual, outlining how accumulated liquid from any and all future leachate and/or condensate leaks will be contained, extracted, transported, and properly disposed. *To date, no further information from ALRRF or the Water Board has been made available on GeoTracker*.

In 2016, the cleanup of a Manufactured Gas Plant (MGP) site in San Rafael, by PGandE, led to the delivery of 965 tons of hazardous soil containing benzene to the Altamont Landfill under erroneous profile documents. In November 2016, the Water Board issued a Notice of Violation to the ALRRF for receiving this material. PGandE prepared an initial Soil Removal Work Plan and revised it on March 23, 2017 in response to Water Board staff comments. These events and plans are summarized in an <a href="https://example.com/march-new-march-

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

A May 23, 2017 report to the Water Board provided, as required, concentration limits for the monitoring well MW-11, which is downgradient of well E-20B and will be monitori9ng the two Fill Area 1 leachate ponds. These include general chemistry parameters such as alkalinity, minerals such as potassium and magnesium, and constituents of concern including copper and zinc. These do not include VOC's or other man-made substances that have regulatory limits regardless of background concentrations. In a staff letter dated August 8, Water Board staff concurred with the proposed concentration limits, on the condition that certain requirements are met to prevent existing contamination, if any, from masking a future release from the ponds.

New Topics

On June 30, the ALRRF submitted a Work Plan for Fill Area 1, Leachate and Non-Leachate Liquids Management to the Water Board, as required by the 2016 Waste Discharge Requirements. This report, prepared by Golder Associates, describes existing liquids handling systems handling liquids that, in the future, will be delivered to the two newly-constructed ponds serving Fill Area 1. One of those ponds is intended for leachate, the other for non-leachate liquids such as groundwater seepage collected by the landfill underdrain system. The report also describes several modifications to the existing system, to better isolate leachate from non-leachate liquids and, potentially, make good-quality non-leachate available for uses such as maintaining moisture levels in organics that are being composted. Water Board staff have responded with a letter, dated August 13, that makes several explicit requirements to better assure protection of water quality. For example, they prohibit the use of non-leachate water for compost moisture conditioning, because VOC's have been detected in samples of underdrain water. They also explicitly require an acknowledgement of these requirements (by 15 Oct 2017) and a copy of the final plans and specifications for the liquids management system improvements (by April 27, 2018) prior to implementing the work plan, as required, by 1 July 2018.

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memorandum

date September 28, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 10/11/17 - Agenda Item 6.5 - Reports From Community Monitor

Attached are inspection reports for July through September of 2017.

The July inspection was unannounced and took place on July 7, with the LEA.

The August inspection was announced and took place on August 15, off-hours (4 PM).

The September inspection was unannounced and took place on September 13, with the LEA.

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

With the decline in wet weather, two developments received ongoing attention during this quarter:

- Construction of the 10-acre test area for evapotranspirative (ET) final cover.
- Invasive plants, with the potential to impact native vegetation in the Conservation Plan Area, increased their presence, specifically in the truck wash overflow pond near the scale house.

Additional details about these and other operations-related matters are provided in the attached reports. Issues that cause special concern are marked with yellow rectangles in the monthly inspection reports.

Also attached are graphs showing monthly tonnages by type of material for the most recent 12-month period. Figure 6.5-1 shows the breakdown of materials that make up Revenue-Generating Cover. Figure 6.5-2 shows these same quantities, plus the Municipal Solid Waste (MSW) and Special Waste tonnage for each month. Tonnage specifically from the City of Newark appears as an orange line on this graph.

ALRRF Community Monitor Monthly Report

	Tonnage S	ge Report for June 2017, received July 15, 2017 Summary: posed, By Source Location	<u>t</u> -	<u>ons</u>	
	1.1	Tons Disposed from Within Alameda County	71.	,558.64	
	1.2	Other Out of County Disposal Tons		,088.94	
		· · ·		,647.58	
	Disp	posed, By Source Type			
	2.1	C&D		806.61	
	2.2	MSW		,866.70	
	2.3	Special Wastes		,956.44	
		subto	otal Disposed 73,	,629.75	
	Diff	ference involved incorrect classification of 1 load. Correct	ctions have	-17.83	-0.02%
		been made to the tonnage database.			
	Oth	er Major Categories			
	2.4	Re-Directed Wastes (Shipped Off Site or Beneficially U	Jsed)	88.03	
	2.5	Revenue Generating Cover	51,	,378.60	
		Te	otal, 2.1 - 2.5 125,	,096.38	
	Mat	erials of Interest			
,	2.3.1	Friable Asbestos		605.30	
,	2.3.2	Class 2 Cover Soils	27,	,910.68	
,	2.5.1	Auto Shredder Fluff	14,	,025.80	
,	2.5.2	Processed Green Waste/MRF fines, Beneficial Use (GS	SET)	61.23	
	2.5.3	MRF Fines for ADC	2,	,300.62	

Site Inspection July 7, 2017, 11:15 - 1:30 PM.

- □ Attended by K. Runyon and LEA (A. Surdilla). Escorted by David Kaase, Interim Operations Manager. Unannounced.
- ☐ The Biofuels area remains vacant.
- □ At the working face, one dozer and one compactor were spreading and compacting refuse. No transfer trucks were waiting; both tippers were available.
- □ A large amount of cover material was staged near the working face for application at the end of the week.
- □ During our tour, Mr. Kaase advised the driver of an end-dump truck (delivering material) to wear personal protective equipment (hard hat and vest) when out of his vehicle.
- ☐ The plant debris and C&D material bunkers were about 3/4 full. Scrap metal was stockpiled nearby.
- □ Both solidification pits were available. In the spare pit, concrete was being stockpiled for use as liner material in the solidification pits.
- ☐ Friable and non-friable asbestos loads were observed unloading. There were no issues.
- ☐ The only ponding seen in Fill Area 1 was next to the perimeter road, where water trucks are filled. A small amount of water was present in the roadside ditch.
- □ Bird numbers and activity were much lower than usual, for no apparent reason. The bird cannon did not operate during these observations.
- ☐ The 10-acre test area for evapotranspiration (ET) cover was being covered with its compacted-soil layer (to reach a depth of 2 feet). The source of the soil is in Fill Area 2, south of the excavation for Phase 3.
- ☐ For fire prevention and weed control, goats were grazing on the hillside south of the turbine plant.
- The haul road for trucks bringing soil to the ET area was very dry and dusty. Trucks hauling soil were raising a considerable amount of dust. More water was needed.



Stormwater Controls and Best Management Practices

□ Basin A water level was about 2-3 feet below its discharge elevation. The discharge riser was fully exposed. No litter was seen.

Truck Wash Water Basin

□ A small amount of water (a few inches) was present. The tamarisk and pepperweed, noted last month, were continuing to grow.

Fill Area 1 Leachate Ponds

☐ The ponds appeared fully lined but were not yet in use. A small amount of rain water was present in each pond.

CASP area

☐ Fine grading was continuing on the east side of the Fill Area 2 access road. On the west side, rock and soil processing was continuing as seen in June.

Fill Area 2

- ☐ The area generally appeared undisturbed and in good condition.
- □ Windblown litter was largely absent from the floor of Fill Area 2, but there was a substantial amount of litter on the west side slope. D. Kaase mentioned that only one litter picker was currently on staff, but more are planned to be hired.
- ☐ The small landslide area above the west side of FA2 appeared unchanged.
- ☐ The leachate pond contained a small amount of residual rain water. It was not in use.

Special Occurrences Log

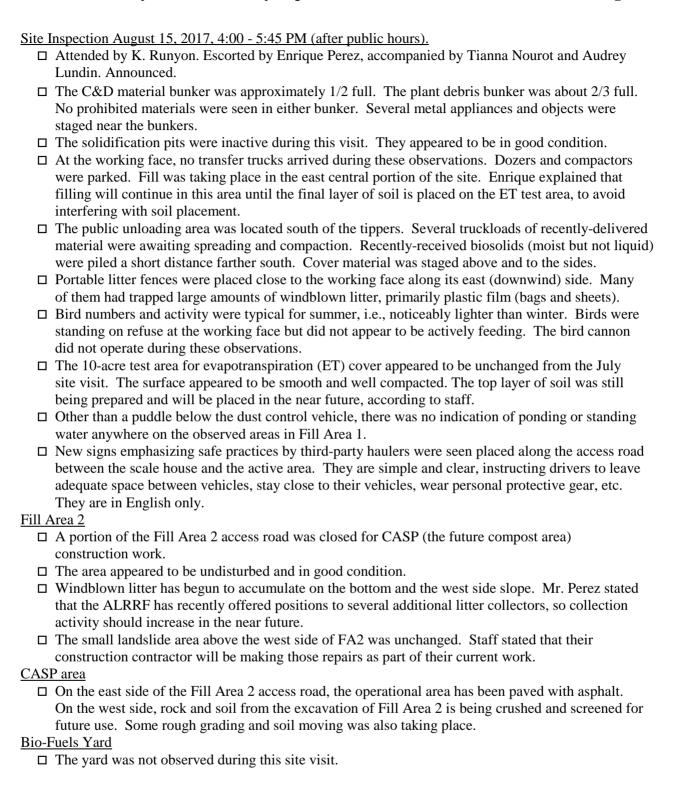
- ☐ April 7: Two leaks in above-ground leachate pipe: both leaks were contained with soil berms.
- ☐ May 26: Fire in dozer engine compartment, due to fine wood chip material in compartment. Fire was quickly extinguished.
- ☐ June 2: Smoldering in dozer engine compartment. Water applied from on-site water truck.
- □ June 6: Landfill condensate line damaged during excavation. Condensate pumps were shut down and liquid (approximately 50 gallons) was contained. Line was repaired by SCS and reburied.
- □ June 28: Customer truck trailer fell on another vehicle while unloading. No injuries reported.
- ☐ July 6: Customer end-dump truck overturned while unloading, due to unbalanced load.

ALRRF Community Monitor Monthly Report

Monthly Toni	nage Report for July 2017, received August 15, 2017					
Tonnage Summary:						
Di	sposed, By Source Location					
1.1	Tons Disposed from Within Alameda County	78,720.07				
1.2	Other Out of County Disposal Tons	2,569.82				
	subtotal Disposed	81,289.89				
D						
	sposed, By Source Type	266 72				
2.1	C&D	366.73				
2.2	MSW	68,508.31				
2.3	Special Wastes	12,414.85				
	subtotal Disposed	81,289.89				
		0.00	0.00%			
Other Major Categories						
2.4	Re-Directed Wastes (Shipped Off Site or Beneficially Used)	63.14				
2.5	Revenue Generating Cover	12,414.85				
	Total, 2.1 - 2.5	93,767.88				
M	aterials of Interest					
2.3.1	Friable Asbestos	619.77				
2.3.2	Class 2 Cover Soils	20,596.89				
2.5.1	Auto Shredder Fluff	13,416.94				
2.5.2						
2.5.3	MRF Fines for ADC	45.14 1,875.65				
		•				

Newark Salt Pond Soil

□ In July the site received 12,414.85 tons of special waste for Class 2 disposal, about 4x the usual; and the disposal deliveries from Newark totaled 6,955.99 tons (typically it is 20 - 40 tons/mo.). Thus it appears that most of the 6,955.99 tons of Newark disposal was Class 2 special waste.



Stormwater Controls and Best Management Practices

□ Basin A water level was about 2-3 feet below its discharge elevation. The discharge riser was fully exposed. No litter was seen. Water was slightly turbid but unlike last summer, no mats of algae were seen. Basins B and C were not observed. Tianna mentioned that in Fill Area 2, the construction stormwater permit is still in effect.

Truck Wash Water Basin

□ No water was visible. The tamarisk trees that were treated with herbicide last year were still growing, and some blossoms were seen at the top of one tree. In addition, small perennial pepperweed was still present in the bottom of the basin. The pepperweed plants seen previously on the sides of the basin were not visible this time. All vegetation on the sides of the basin (primarily grass) was completely dry and appeared to be dead.

Stock Ponds and Wetlands in Conservation Plan Area

- □ The Southern Alkali Wetland areas along Altamont Pass Road, and the Eastern Alkali Wetland and stock ponds along Dyer Road, did not appear to have been heavily impacted by the heavy rains last winter. Plant communities appeared the same, except that some plants (primarily mustard) had grown taller. Cattail and bulrush stands occupied the same areas as in 2016. These areas were inspected from 3 to 4 PM, prior to the site visit, from the public right-of way.
- □ At the Northern Alkali Wetland, soil was firm and dry, and grazing had been occurring. Along the northwest edge, a small stand of spikeweed appeared to be developing. These plants were also present in 2016.
- □ At the "Seep" area, most vegetation had been grazed and remaining grasses were dry. The shrubs at the seep itself appeared to be in good condition. The roadside ditch near the seep appeared to be dry.
- □ Stock Ponds 6 and 7 in the NE corner of the property were essentially the same as in 2016. The bottom of Stock Pond 7 was fully exposed and the soil appeared to be damp, with evidence of trampling by cattle. Stock Pond 6 held water in an amount similar to 2016, with a small amount of vegetative growth (probably cattail) in the center.
- □ At Stock Pond 11 in the NW corner of the property, more water was present than in 2016, covering a wider area. It appeared to have overtopped the pond and flowed west and north in the Brushy Creek drainage. No erosional damage could be seen from the access road, but there was some evidence of possible efforts to contain or control this flow.





Stock Pond 11, June 2016

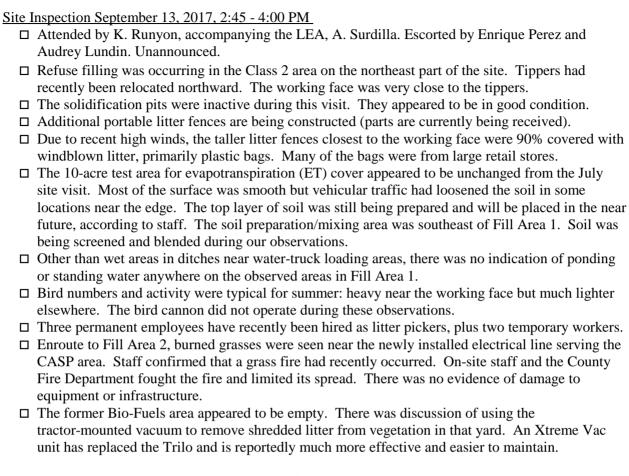
Stock Pond 11, August 2017

Monthly Tonn	age Report for August 2017, received September 1	<u>8, 2017</u>					
Tonnage Summary:			<u>tons</u>				
Di	sposed, By Source Location						
1.1	Tons Disposed from Within Alameda County		106,396.99				
1.2	Other Out of County Disposal Tons		1,481.56				
		subtotal Disposed	107,878.55				
Di	sposed, By Source Type						
2.1	C&D		521.24				
2.2	MSW		73,390.83				
2.3	Special Wastes		34,012.50				
		subtotal Disposed	107,924.57				
			46.02	0.04%			
Of	her Major Categories						
2.4 Re-Directed Wastes (Shipped Off Site or Beneficially Used)			117.34				
2.5	Revenue Generating Cover	icially Osca)	55,599.40				
	200 Control Co	Total, 2.1 - 2.5	,				
Ma	aterials of Interest						
2.3.1	Friable Asbestos		571.19				
2.3.2	Class 2 Cover Soils		32,562.67				
2.5.1	Auto Shredder Fluff		13,098.82				
2.5.2	Processed Green Waste/MRF fines, Beneficial	Use (GSET)	20.02				
2.5.3	MRF Fines for ADC		2,400.17				
	s from Newark						
☐ In August the site received 31,832.16 tons of special waste for Class 2 disposal, about 10x							
the usual; and the disposal deliveries from Newark totaled 30,267.59 tons (typically it is 20							
	/mo.). It appears that most of the 30,267.59 tons o	*					
special waste. ALRRF staff report that this material was high-VOC soils from an excavation							

- special waste. ALRRF staff report that this material was high-VOC soils from an excavation in the City of Newark, not salt pond material.
- ☐ To estimate the additional traffic impact between 6:45 and 8:45 AM:

Round trip distance by truck (mi):	84	mi
Estimated avg round trip time, including load / unload (hours):	2.5	hr
Working hours / shift for truck drivers:	10	hr
Loads / truck / day:	4	loads
Average Payload, based on #tons / #loads:	23.1	tons
2 x Average tons / day (to be conservative):	2632	tons
Average truck loads/ hour from Newark project:	12	lds/hr
Typical peak refuse loads / hour during AM commute:	25	lds/hr
Refuse loads / hour + Newark soil loads:	37	lds/hr
CUP C-5512 Condition 66 limit:	50	lds/hr

ALRRF Community Monitor Monthly Report



Stormwater Controls and Best Management Practices

- ☐ Basin A water level was about 2-3 feet below its discharge elevation. The discharge riser was fully exposed. No litter was seen. This basin apparently has not been excavated as previously planned.
- ☐ Basin B held a small amount of water, well below the base of the discharge riser. A small amount of windblown litter could be seen on dry land near the water line.

Fill Area 2

- ☐ A portion of the Fill Area 2 access road remained closed for CASP construction work.
- ☐ The area appeared to be undisturbed and in good condition, with some windblown litter on the west slopes and in the Phase 1 area.
- □ The small landslide area above the west side of FA2 had the tarp removed for inspection and repair planning. ALRRF staff mentioned that the slide may have been caused by incomplete compaction of soil fill when the side slopes were constructed.

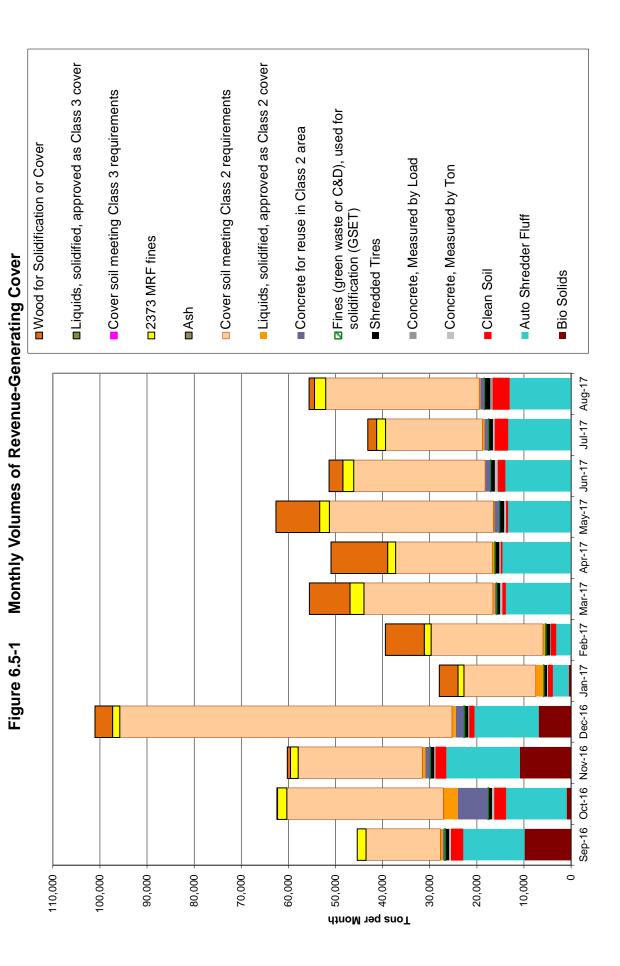


Stock Ponds and Wetlands in Conservation Plan Area

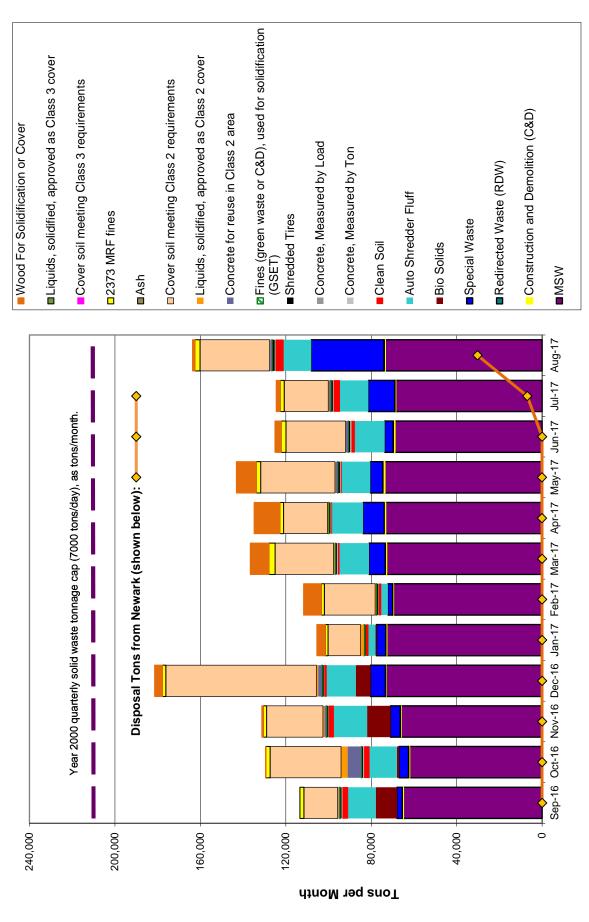
□ At Stock Pond 10 near the northern boundary of the property, water was present, and two types of shrub were growing on the northeast-facing slopes (with lowest sun exposure) near the pond. Heavy algal growth was visible within the pond.



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Monthly Volumes of Landfilled Materials Figure 6.5-2



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memorandum

date September 28, 2017

to ALRRF Community Monitor Committee

from Kelly Runyon

subject CMC Meeting of 10/11/17 - Agenda Item 6.6 - Topics for 2017 Annual Report

A draft of the Annual Report for 2017 will be provided at the January 2018 Community Monitor Committee meeting. As with prior reports, several topics that have been of special interest during the reporting year will be addressed. The list below shows the special topics for 2017 that we have identified. Input from Committee members regarding these or other topics to be discussed in the Annual Report is welcome at this time.

Status of Evapotranspiration (ET) cover test

Mitigation pond status

Conservation Plan Area and wetlands

Stormwater-related monitoring procedures

South Bay Salt Pond Restoration Project soils

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COMMUNITY MONITOR COMMITTEE STAFF REPORT

TO: Honorable Chairperson and Community Monitor Committee Members

FROM: Judy Erlandson, Public Works Manager

SUBJECT: Scheduling Community Monitor Committee Meetings for 2018

RECOMMENDED ACTION

Staff recommends the Community Monitor Committee establish and approve the Community Monitor Committee Meeting Calendar for 2018.

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 2018 are as follows:

- January 10
- April 11
- July 11
- October 10

The Maintenance Services Center lunchroom (where the meetings are currently held) is available for the dates listed above. If an alternative schedule of regular meeting dates is chosen, these can be established pending venue availability.

MEETING DATE:

AGENDA ITEM: 10-11-2017

6.7

ATTACHMENTS

1. None

Approved by:

Judy Erlandson

Public Works Manager

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