

**RESPONSE TO WASTE MANAGEMENT OF ALAMEDA COUNTY (WMAC)  
COMMENTS OF THE TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR  
ALTAMONT LANDFILL**

Comments submitted in the 28 March 2016 WMAC letter.

WMAC COMMENT 1:

ET Cover Provisions: *Although pointed out in previous WMAC communications, the TWDR [Tentative WDRs] still contains language that is inconsistent with Title 27 performance-based standards. This language, along with new flux criteria ( $6.83 \times 10^{-6}$  mm/yr) essentially derails the ET cover previously approved by the CVRWQCB in the 2009 WDRs. This has very significant cost implications for WMAC. In addition, WMAC believes that the previously approved ET cover system provides superior long-term sustainability over prescriptive cover designs, and we believe that prior CVRWQB staff strongly supported the technology. ET covers have been approved at multiple landfills in the Central Valley Region including Fink Road and North County.*

Response: The WDRs have been revised to reduce specific flux criteria requirements.

WMAC COMMENT 2:

Capping Schedule: *The capping schedule does not account for achievement of final grades in Fill Area 1 Unit 1, which means that the closure cap would be installed before WMAC is finished placing waste in the unit. In addition, the capping schedule requires installation of the entire Fill Area 1 Unit 1 cover prior to completion of the 4-year performance monitoring period (evaluation period) over the 10-acre initial cover, required in the Tentative WDRs. It is not reasonable to require that WMAC commit to very large expenditures for this capping effort prior to completion of performance monitoring.*

Response: The WDRs have been revised to require the Discharger to construct the 10-acre ET Demonstration Project by December 2017, monitor the effectiveness of the ET cover from 2018 to 2022, submit an updated plan to address closure of Fill Area 1 over the next ten years in 2023, and to initiate closure operations in 2023.

WMAC COMMENT 3:

Deliverables: *The accelerated due date schedule and sheer volume of work efforts required is not feasible. Even if the Board hearing date is moved to June, the first report is due a week after the Board hearing and 11 reports are due between the two-month period of June 30, 2016 and September 1, 2016. WMAC also questions the CVRWQCB's ability to maintain the prescribed schedule given their own man-power issues and the length of time it has taken to receive responses on past WMAC deliverables. Any delay in Board staff review would likely put WMAC out of compliance with the WDRs and subject to enforcement. Lastly, WMAC questions the need for several deliverables based upon previous submittals that WMAC has provided (more below)*

Response: Through multiple meetings with WMAC and their consultants, the WDRs have been revised to condense the number of deliverables, and to extend the due dates out to where they are workable for Waste Management and staff.

WMAC COMMENT 4:

*Hydrogeologic Conceptual Model: The TWDR largely disregards the history of the conceptual model development dating back to the 2002 WDR. In 2002, CVRWQB required additional detailed investigations to support the model. WMAC understands that the work was completed to the satisfaction of the CVRWQCB as documented in the 2009 WDR. The results of CVRWQB and WMAC efforts over a 10-year period are largely disregarded in the TWDRs, with the removal of important Findings contained in the prior WDR and additional work required due to that omission. Although we continue to work with CVRWQCB staff to promote better understanding of the conceptual model, it is unclear to WMAC why permitting staff have not been a part of those discussions.*

Response: The revised WDRs generally agree with WMAC's hydrogeologic conceptual model that groundwater generally follows surface topography and areas of higher conductivity such as fault zones that intersect the waste management units. Certain findings and portions of findings were removed from the draft WDRs because these findings were already established in the 2002 and 2009 WDRs.

WMAC COMMENT 5:

*Change of Status for Overall Groundwater Monitoring Program: The TWDR essentially concludes that WMAC's Groundwater Monitoring Program is not in compliance with Title 27 in nearly every regard. This is very curious given that it is essentially the same program CVRWQCB incorporated into the 2009 WDR, with the exception of 7 additional monitoring wells added to the Fill Area 2 network. WMAC opposes the position taken in the TWDRs with regard to this issue. This is obviously very troubling to WMAC, and CVRWQCB should be concerned as well given past incorporation of this program into the 2009 WDR. It appears that previous CVRWQCB decisions are being disregarded in the TWDR.*

Response: During a comprehensive review of the Discharger's monitoring and reporting program, Title 27 Permitting staff identified several deficiencies to the Discharger's groundwater monitoring program besides those that the Title 27 Compliance and Enforcement staff have been discussing with WMAC. This independent review by Permitting staff focused on whether or not the Discharger's groundwater monitoring program complies with current regulations. In regards to these findings, the revised WDRs require WMAC to evaluate the effectiveness of the groundwater DMP and determine if additional monitoring wells are necessary to adequately monitor water quality at this landfill.

WMAC COMMENT 6:

*Change of Status Fill Area 2 Detection Monitoring Network: The TWDR questions the adequacy of the first series of detection monitoring wells for the Fill Area 2 Phase 1 cell. It is important to note that a work plan submitted in May 2014 described the detection monitoring wells to be installed, and the CVRWQCB subsequently agreed*

*with the well locations in July 2014. WMAC is very concerned about this new position taken by CVRWQCB in March 2016 given the timing needed to install additional wells and develop WQPSs in advance of waste placement.*

Response: The Discharger installed the first series of wells in response to 2009 WDRs Provisions G.23.a requiring groundwater monitoring wells to be placed at the downgradient edge of each module of Fill Area 2 in order to establish background water quality. Staff approved the location of the monitoring wells but at no time was it understood that the installation of those limited number of wells would comprise the detection monitoring network for each phase of construction. The initial wells were to establish background water quality. The Discharger installed one (1) well for Fill Area 2 Phase 1 cell; however, the well was not placed at edge of waste due to concerns of damage due to construction of the cell.

**Specific WDR comments submitted after the official comment period.**

WDR Finding #44: Solidification Basins – The Discharger proposed the following revised language:

*These WDRs require the Discharger... “to provide a technical report demonstrating that the solidification operation does not result in the introduction of liquids in excess of the moisture holding capacity of the landfill. In addition, these WDRs require that the Discharger provide Standard Operating Procedures for the solidification process.”*

Response: Revision accepted.

WDR Finding #85: Hydrogeologic model - *“Hydraulic testing conducted during the 2002 hydrogeologic investigation (LFR, 2002) concluded from three pumping and recovery tests that no measurable hydraulic communication exists between shallow and deeper groundwater zones. The contribution of local groundwater flow to Livermore-Amador Valley’s main groundwater basin is considered negligible due to the very low permeability of the geologic materials (Alameda County Water District Zone 7, 2001). Rather, local groundwater flow that does occur, discharges as surface water into valley bottoms (Alameda County Water District Zone 7, 2001).”*

Response: Revision accepted.

WDR Finding #95: Table of VOC detections in groundwater - *This and other analytical tables that follow should be removed; if not, they should be corrected and qualified such that inappropriate negative bias is removed, in particular, false positives and laboratory contaminated data should be removed. As an example, based on these uncorrected data, more wells should be in corrective action status.*

Response: Table deleted.

WDR Finding #: 97: *Request replacement of this entire Finding as shown to simplify and add flexibility so that Board Staff and WMAC can efficiently work together on these issues.*

Response: Finding summarized to read, "The Dischargers existing detection monitoring program for groundwater at both Fill Area 1 and 2 needs to be further evaluated to ensure compliance with Title 27 section 20415(b)(1)(B). Specifically, there are areas in Fill Area 2 where insufficient data are available to effectively generate groundwater elevation contour maps due to fact that some well have gone dry. In addition, the spacing of wells in both the main canyons of Fill Area 1 and 2 may not be sufficient to provide effective detection monitoring. The Discharger also needs to further evaluate the need for monitoring wells along a canyon oriented southeast around groundwater monitoring well E-20B. Lastly, the Discharger needs to evaluate the potential effects that storm water basins may have on the ability to collect representative groundwater samples from wells located in close proximity to the basins. These WDRs in Provision H.8 require the Discharger to submit a workplan to address these items in order to ensure compliance with Title 27 section 20415."

WDR Finding #104 & 120: *Gas is only being pulled from VD2 and LS2.*

Response: Revise to eliminate VZM-A.

WDR Finding #111: *What is the purpose of multiple tables with COCs and general inorganic chemistry of leachate? This is information is irrelevant as it provided in our routine reports and not appropriate for a WDR. Recommend removal.*

Response: Leachate monitoring tables for LS and LS-2 replaced with 2001-2015 data from Annual Reports.

WDR Finding #170: Closure of Fill Area 1. See comment #2 above

WDR Finding #182: *These WDRs need to allow us to put leachate from any Fill Area in any of the leachate ponds.*

Response: Revision accepted, providing the Discharger updates their water balance for the leachate pond.

WDR Discharge Specifications #B.11: Management of Treated Wood Waste (TWW) - *Second sentence in this provision is not in Kiefer WDR and we request that it be removed. If RWQCB is not willing to remove the sentence in its entirety, we request that it be reworded as follows.*

Response: No change. Arsenic, copper, chromium, and pentachlorophenol have been identified as common COCs associated with TWW and must be analyzed.

WDR Facility Specifications #C.12: Meteorological station - *This provision is not in Kiefer or other WDRs we have seen and we request that it be removed. If RWQCB is not willing to remove in its entirety, we request that the second sentence be removed at a minimum. This is overly burdensome.*

Response: Requirement to operate a meteorological station removed from the WDRs.

WDR Construction Specifications #D.6: *Liquid waste solidification structure construction specifications – Request removal of this section.*

Response: Solidification specifications deleted, and as identified in Finding #44 above, these WDRs require the Discharger to provide a technical report demonstrating that the solidification operation does not result in the introduction of liquids in excess of the moisture holding capacity of the landfill. In addition, these WDRs require that the Discharger provide Standard Operating Procedures for the solidification process.

WDR Monitoring Specifications #G.10: 5-year COC monitoring - *It is not this simple. It should either be eliminated or greater clarity and context provided.*

Response: Specification revised to read The Discharger shall add any confirmed COCs detected during its 5-year monitoring schedule using Table VI of MRP R5-2016-XXXX to Table V of MRP R5-2016-XXXX for detection monitoring purposes, as appropriate based upon consideration of laboratory false-positives, the repeatability of detections and the effectiveness of a particular COC in providing early indication of a potential release.

WDR Provisions #H.8: *General WMAC request to revise tasks and compliance due dates.*

Response: Through multiple meetings with WMAC and their consultants, the WDRs have been revised to extend the due dates out to where they are workable for Waste Management and staff.

WDR Provisions #H.8.h: *Water Quality Protection Standards and Concentration Limits Technical Report - RWQCB needs to explain what this means. I think what this means is that the entire site-specific MRP prepared by Geosyntec in July 2015 should be revised, and that revisions would include addition of new wells, any changes in parameters, frequency, SAP, etc. This is a ways off given new wells going in – suggest due date of December 31, 2017.*

Response: Revise due date to “30 days prior to discharge”.

### **Specific MRP comments submitted after the official comment period.**

MRP A.2.: Unsaturated Zone Monitoring – *All gas probes GP-1 thru GP-26 are monitored routinely per an approved plan with CalRecycle, LEA and RWQCB. If there are methane exceedances, prescribed regulatory follow up actions are already in place to address. It is not clear why these are listed here (unless for informational purposes, in which case associated regulations should be identified). It is also not clear why there is an abbreviated list, and why GP-8 is listed as “corrective action”. There were prior methane exceedances in this probe which were attributed to naturally occurring methane, and for which CalRecycle concurred with this finding.*

Response: Revise GP-8 to Detection. CalRecycle requirements do not address VOCs. These probes are required to be analyzed for VOCs if methane reading is greater than 1PPM.

MRP A.2.a.: Unsaturated Zone Monitoring - *Again, these probes are already monitored for LFG. In addition to being tested for methane routinely, Table II indicates that they need to be tested for VOCs with a PID on a routine basis. Both methane and CO2 are established parameters for assessing potential LFG migration, and analysis for VOCs on a routine basis using a PID is unnecessary and overly burdensome. This requirement should be removed.*

Response: OVM or PID screening of eight probes is a minor request to determine if a TO-15 analysis should be run. No change.

MRP A.3.b.: Seep Monitoring -*The initial condition may not be applicable to future conditions, and this will create interpretation issues and enforcement/compliance concerns. This should be removed since the discharger does not have a clear path needed to show compliance. This condition appears to be new compared to other MRPs in the region.*

Response: No change.

MRP A.3.e.: Surface Impoundment Monitoring, Daily Monitoring Frequency- *This requirement is overly burdensome. Discharger has necessary experience operating impoundments and can/should devise this monitoring program. Monthly Monitoring Frequency for Freeboard- These requirements are over burdensome. Discharger has necessary experience operating impoundments and can/should determine monitoring program.*

Response: No change.

MRP 5. Corrective Action Monitoring: -Wastewater Treatment Plant Monitoring -*It is recommended that this entire section be removed for reason discussed below. Pertinent information regarding status of wells, reporting requirements, etc. are covered in other portions of the MRP.*

Response: MRP revised to require quarterly monitoring at corrective action monitoring wells until background water quality is established.

MRP 5. Corrective Action Monitoring: Groundwater Interceptor Barrier -*As discussed at the meeting, and in WDR Finding #122, the GWIB is no longer a part of the CAP.*

Response: GWIB language deleted from MRP.

MRP 5. Corrective Action Monitoring: Landfill Gas Monitoring – *This entire section is an enormous undertaking for low VOC concentrations in groundwater that continue to show declining trends, and where the nature and extent is defined and decreasing. This requirement does not appear to exist in recent WDRs for site's with much more significant groundwater impacts. The effectiveness of the CAP is reported semi-annually based upon actual VOC data for groundwater, where the proof is in the pudding. There are also new requirements to report gas concentrations in select locations, and this will further aid the evaluation of CAP effectiveness....and...This is an enormous task that is hugely dynamic. There are 130 active gas wells that are continually adjusted to achieve various performance metrics. This will create enforcement/compliance confusion.*

Response: The Discharger has identified landfill gas as a source of groundwater impacts and

landfill gas extraction as a corrective action to remediate the groundwater impacts. Additional monitoring parameters are required for corrective action activities to verify the corrective action activities are being implemented appropriately and assess the effectiveness of the corrective action. The Water Board understands that the additional parameters required for landfill gas are typically collected for other agencies (i.e. CalRecycle and the Air Board); therefore, providing copies of this data to the Water Board shouldn't be unnecessarily burdensome.