

**California Regional Water Quality Control Board
Central Valley Region
Board Meeting – 23 and 24 June 2016**

**Response To Written Comments For
Tentative Waste Discharge Requirements For
Recology Hay Road
Recology Hay Road, DBA Jepson Prairie Organics
Recology Hay Road Landfill
Class II, III Landfills, Class II Waste Pile,
Class II Land Treatment Unit And Composting Facility
Construction, Operation, Closure, Post-Closure
Maintenance, And Corrective Action
Solano County**

At a public hearing scheduled for 23 and 24 June 2016, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of Waste Discharge Requirements (WDRs) for discharges from the Recology Hay Road and Recology Hay Road, DBA Jepson Prairie Organics (Discharger), Hay Road Landfill (facility).

This document contains responses to written comments received from interested parties regarding the tentative WDRs. Written comments from interested parties were required by public notice to be received by the Central Valley Water Board by 4 April 2016 to receive consideration. The Discharger was the only interested party to submit comments.

Written comments from the Discharger are summarized below, followed by the responses of Central Valley Water Board staff. Based on the comments, Central Valley Water Board staff revised the tentative WDRs and made minor changes to correct typographical errors. Central Valley Water Board staff also incorporated some additional changes for clarity, which are detailed below the comment section below.

RECOLOGY HAY ROAD (DISCHARGER) COMMENTS

On 31 March 2016, the Discharger provided comments regarding the tentative WDRs and Monitoring and Reporting Program. These comments are provided below, along with Central Valley Water Board staff's responses.

COMMENTS ON WDR FINDINGS

Comment #1: General Comment A: Certain deadlines have proposed revisions marked in the Tentative WDR, but in the essence of streamlining, are not listed in this document. In general, the requested extension in due dates are either to provide sufficient time to complete the task after adoption of the Tentative WDRs, or are corrected to be consistent with the final and interim closure dates for LF-1 and LF-2 discussed at our March 3, 2016 meeting.

Response: Staff incorporated the requested changes.

Comment #2: General Comment B: For installation and completion reports, the Discharger requests due dates to be 90 days after approval of the work plans so that the Discharger is not in a position of having to perform work without approval to meet installation and completion deadlines in the WDRs.

Response: Staff incorporated the requested change.

Comment #3: **General Comment C:** In general, the method used to calculate average historical constituent concentrations does not appear to include non-detections and has not taken the context of the data into consideration. The Discharger can provide more representative tables upon request and, in certain circumstances, has done so here. The Discharger provided three supporting examples that are not reiterated here.

Response: Staff incorporated the requested change and updated the historical leachate concentration table with min, max, and median values.

Comment #4: **WDR Finding 7.A:** As reflected in the previous WDRs, the Discharger has been allowed to dispose of inert wastes and hazardous asbestos in both DM-1A and DM-1B; thus the term “monofill” is incorrect.

Response: Staff incorporated the requested change.

Comment #5: **WDR Finding 8:** Consistent with our discussion during our March 23, 2016 meeting, DM-7.2 should be classified as active since DM-7.1 has already been constructed. Also, DM-10 is deleted from LF-4 (is also found in LF-3). Lastly, Footnote 5 is missing.

Response: DM-7.2 is classified as future because it is not construction and the Engineered Alternative Design for 2.5 feet of groundwater separation is approved to facilitate leachate to drain from DM-7.1 to DM-7.2.

Comment #6: **WDR Finding 18:** Please see comments to Finding 7. Please note the corrected date of October 1992.

Response: Staff incorporated the requested change.

Comment #7: **WDR Finding 21:** As reflected in Finding 7, LF-1B accepted waste until 1992.

Response: Staff incorporated the requested change.

Comment #8: **WDR Finding 25:** The conclusion that LF-2 is out of compliance with Subtitle D regulations is inconsistent with SWRCB Resolution 93-62, which implements Subtitle D, and makes clear that composite lined landfills constructed prior to October 9, 1993 and which do not meet Subtitle D criteria, are specifically allowed to accept new waste discharge (Article III.A.2). On that basis, the Discharger requests that this finding be eliminated.

Response: Staff incorporated the requested change.

Comment #9: **WDR Finding 30:** As stated in the JTD, 593,000 CY have been stockpiled on LF-3, not 190,000 tons. Additionally, the Discharger requests revisions to clarify that existing C-soil stockpiled on DM-2.1A and DM-2.1B can remain until needed for future site use; that is, only future stockpiling of C-soil on DM-2.1A and DM-2.1B is prohibited. The previously approved closure plan allowed for stockpiling of C-Soils on DM-2.1A and DM-2.1B. Note also that the January 2013 date is erroneous.

Response: Staff incorporated the requested change. The Discharger received approval from the Central Valley Water Board for certain C-soils to be stockpiled on the Class III LF-2 in 1993 and 1994. Additionally, the Department of Toxic Substances Control (DTSC) classified the

C-soil as non-hazardous. Copies of the Central Valley Water Board approvals and DTSC classifications are provided in the Discharger's ROWD Appendix H.

Comment #10: WDR Finding 31: Discharger requests that the WDRs reflect that leachate currently flows from LF-3 to LF-2 because DM-2.1A and DM-2.1B share a leachate sump at DM-2.1B.

Response: Staff reclassified DM-2.1B as part of LF-2. Consequently, the discussion relating to leachate flowing from LF-3 to LF-2 was removed.

Comment #11: Finding 52: LF-1 was designed to handle a 24-hour, 100 year storm event. LFs-2 through 4 were designed to handle a 24-hour, 1,000 year storm event. At final closure of LFs-1 through 4, all landfill units and drainage facilities will be designed to handle a 24-hour, 1,000 year storm event. The Discharger requests that this distinction be reflected in these WDRs. Additionally, the drainage designs for the landfill and compost facilities differ. The drainage requirements for the composting facility should be added to avoid confusion.

Response: Staff incorporated the requested change.

Comment #12: Finding 55: To be meaningful, the table summarizing average leachate constituent concentrations must take into account relevant sampling data and control for anomalies. The table presented in the Tentative WDRs did not account for non-detect values. In particular, the table skewed sample results for hexavalent chromium as described in General Comment C. To more accurately portray leachate quality, average concentrations from December 2015 were added to the table. Discharger requests that the revised constituent concentrations be incorporated into the WDRs.

Response: Staff updated the leachate table with min, max, and median values and removed averages.

Comment #13: Finding 58: After initial installation of seven gas monitoring probes in 2003, methane at well GP-8 was detected at relatively high concentrations. However, the probe was found to be installed into landfill materials and was replaced with GP-9, which has not had methane detected since it was installed in 2005. The Discharger requests that the following clarifications be added to more clearly describe historic landfill gas monitoring probe measurements, or recommends deletion of the discussion regarding GP-8.

Response: Staff incorporated the requested change.

Comment #14: Finding 60: Monitoring of soil gas probes installed along the perimeter of the facility has been conducted on a quarterly, not semi-annual basis. The Discharger requests correction of this factual error.

Response: Staff incorporated the requested change.

Comment #15: Finding 62: The suction lysimeter that underlies the LCRS sump at LF-2 was non-operational; however, this monitoring device was replaced in 2015. Soil pore liquid is now being monitored using this device. The Discharger requests that Finding 62 be updated to reflect this fact.

Response: Staff incorporated the requested change.

Comment #16: Finding 63: Please see comments to Finding 62. Also, the LTU is no longer in service; therefore item (f.) would be deleted.

Response: Staff incorporated the requested change.

Comment #17: **Finding 67:** The Discharger requests that the WDRs be revised such that no new multi-level piezometers are required. As described below, the degree of lateral and vertical communication between permeable layers has been verified during several past investigations and continues to be monitored quarterly at nine nearby sets of piezometers/wells that measure vertical hydraulic gradients. Based on the historic results summarized below and the long history of water level measurements at Hay Road, the work plan for additional multi-level piezometers is not necessary. Additional historical summary information is provided and not duplicated here.

Response: Staff incorporated the requested change. Piezometers will be installed adjacent to each sump outside of the liner system.

Comment #18: **Finding 68:** As we discussed at our March 3, 2016 meeting, the presence of a confirmed leachate leak shall be addressed with corrective action measures in accordance with Title 27, it does not impact the calculation of separation between the base of waste and groundwater. Also, both DM-7.1 (the existing phase) and DM-7.2 (a planned phase) together comprise DM-7 which is designed and has been partially constructed under an approved EAD/S. Therefore, the WDRs should specify that DM-7.2 is permitted to operate consistent with the EAD/S. This designation was discussed at our March 3, 2016 meeting. Additional supporting information is provided and not duplicated here.

Response: Staff incorporated the requested change.

Comment #19: **Finding 70:** The Discharger's Engineering Feasibility Study for Groundwater Separation at Disposal Modules DM-1 and DM-3.3 (Golder Associates, November 2015) concludes that in DM-3.3, which is on the eastern half of the site, the separation between the lowest elevation of waste and the highest anticipated elevation of groundwater has never been less than 2.5 feet, the required EAD/s. On this basis, the Discharger requests the last sentence of Finding 70 be eliminated.

Response: Staff incorporated the requested change.

Comment #20: **Finding 72:** Background groundwater quality data indicates that the natural groundwater exceeds secondary drinking water MCLs for chloride, TDS, and sulfate. The Discharger requests that the finding be supplemented with this fact.

Response: Staff incorporated the requested change.

Comment #21: **Finding 74:** The information presented is not accurate because all of the listed wells are not in corrective action. The only corrective action wells are G-21, G-22, G-23, G-8 and G-9. Discharger requests edits to the text to be factually accurate.

Response: Staff incorporated the requested change.

Comment #22: **Finding 76:** Please see General Comment C and Finding 55.

Response: Staff incorporated the requested change.

Comment #23: **Finding 77:** Landfill gas impacts to groundwater have not been confirmed at Recology Hay Road. Sporadic detections of VOCs have not been in the vicinity of any groundwater pumping wells or borrow area dewatering activities. On that basis, the Discharger requests the sentence asserting

landfill gas has impacted groundwater be eliminated and the table title to be modified. The method used to calculate historic groundwater impacts on the eastern half of the site do not appear to include non-detections and therefore, the values may not be representative. As a result, the Discharger proposes additional footnotes to clarify the methodology for the calculations presented.

Response: This finding was removed.

Comment #24: **Finding 78:** See Finding 77.

Response: This finding was removed.

Comment #25: **Finding 79:** Please see comments to Table A.1.c and General Comment C. Additionally, the Discharger proposes to remove mercury from the table, because, in particular, mercury concentrations are skewed.

Response: This finding was removed.

Comment #26: **Finding 80:** Barium is a naturally occurring inorganic constituent in groundwater at the facility. Concentration limits are established for barium at well G-8 (0.48 mg/l), G-9 (0.61 mg/l), and for the eastern area wells (0.35 mg/l). The statements in this Finding that barium is non-naturally occurring and the concentration limit is non-detect are not accurate. The Discharger requests these statements be removed.

Response: Staff incorporated the requested change.

Comment #27: **Finding 86:** Because the intrawell method is specifically listed in Title 27 Section 20400(b)(2) - (b) Adoption of Concentration Limits, an engineered alternative is not required. Additional supporting information provided by the Discharger is not duplicated here.

Response: Staff incorporated the requested change.

Comment #28: **Finding 87:** Please see comments to Table A.1.c. Additionally, the Discharger proposes to prepare the WQPS in accordance with the requirements of this Order and Title 27, including an evaluation of the current monitoring approach.

Response: Staff incorporated the requested change.

Comment #29: **Finding 88:** During the meeting on March 3, 2016 with Regional Board permitting staff, the length of the proof period was discussed. Consistent with Code of Federal Regulations Section 258.58(e)(2) and the parties discussion, the proof period will be satisfied upon demonstration that the constituents of the release have been reduced to concentration limits for at least eight consecutive monitoring events. The monitoring events may occur as frequently as once per month.

Response: Staff incorporated the requested change further clarifying that the proof period shall consist of a minimum of eight consecutive monitoring events over one year as specified in Title 27, Section 20430.

Comment #30: **Finding 91:** As described in Finding 30, these WDRs authorize the discharge of special wastes such as C-Soil to Class II units LF-3 and LF-4. On that basis, the Discharger should be

permitted to stockpile C-Soil on Class II units LF-3 and LF-4 for use in closure and construction purposes.

Response: Staff incorporated the requested change.

Comment #31: **Finding 92:** As described in the JTD, and discussed at our meeting on March 23, 2016, wastes/materials used for Alternative Daily Cover (ADC) at the Recology Hay Road landfill are wastes/materials that have either been designated acceptable in Title 27 or wastes/materials for which the Discharger has prepared a site-specific demonstration project and obtained approval consistent with Title 27, Section 20690. On that basis, the preparation and approval of an Interim Cover O&M Plan is unnecessary.

Response: Staff incorporated the requested change. The use of ADC specified in the JTD.

Comment #32: **Finding 100:** Consistent with Finding 32, these WDRs allow the Discharger to continue discharging sludge to LF-3 and LF-4 provided that the discharge complies with the applicable co-disposal provisions of this order and Title 27 and Subtitle D regulations. Additionally, the Discharger will discontinue stockpiling of dewatered sludge on LF-2. See also Finding 92 regarding deletion of Interim Cover O&M Plan.

Response: Staff incorporated the requested change.

Comment #33: **Finding 107:** The Discharger did not discontinue operation of the dewatering trench. Rather, operation of the dewatering trench became obsolete as the water table was lowered below the base of the dewatering trench due to borrow pit pumping.

Response: Staff incorporated the requested change.

Comment #34: **Finding 108:** Finding 108 is inconsistent with Finding 109. Finding 108 does not acknowledge approved EAD/Ss for existing disposal modules; however, as reflected in Finding 109 and as discussed in our meeting with Regional Board permitting staff on March 3, 2016, Finding 109 acknowledges and allows the previously approved EAD/Ss for existing disposal modules. On that basis, those portions of Finding 108 are unnecessary. Please see Finding 68 regarding the location of piezometers, the definition of continuous, and the need for a Contingency Plan for Dewatering.

Response: Staff incorporated the requested change.

Comment #35: **Finding 111:** The amended 13301 Order adopted on February 19, 2016 imposed certain requirements on the Discharger in the event that the separation of waste to groundwater at LF-1 and LF-4, DM.3.3 did not meet the EAD/Ss approved under previous WDRs. The amended 13301 Order specified that if, at any time, separation of waste to groundwater in the northeastern corner of LF-1 is less than required, the Discharger shall immediately notify Board staff and shall immediately undertake the corrective actions specified in the Groundwater Separation Implementation Report. The Discharger requests that this requirement be added to this Finding to be consistent with the amended 13301 Order.

Response: Staff incorporated the requested change.

Comment #36: **Finding 120:** The finding describes the excavation and historical development of LF-1A including excavation below the water table. The historic information regarding the excavation and

purpose for it is speculative. Finding 120 also states that a soil boring investigation is being conducted to confirm the estimated depth of the unit, however, this investigation was completed in 2015. On these bases, the Discharger requests the inaccurate statements be eliminated and replaced with information about the base of waste elevation from the soil boring investigation.

Response: Staff incorporated the requested change.

Comment #37: **Finding 121:** In 1984, a perimeter slurry wall was constructed around DM-1 and LF-1 around the western portion of the landfill site in an attempt to create an inward-gradient. Finding 121 states that the slurry wall was constructed in an attempt to de-water. The Discharger requests this statement be revised with the accurate information.

Response: Staff incorporated the requested change.

Comment #38: **Finding 123:** The table inaccurately indicates that there is an additional 6 inches of gravel on the compositely lined portion of DM-1B. Please also see comments to Finding 7.

Response: Staff incorporated the requested change.

Comment #39: **Finding 124:** Please see comments to Finding 7.

Response: Staff incorporated the requested change.

Comment #40: **Finding 127:** Finding 127 states that DM-2.1A has a perimeter levee side slope with various containment system components. This is inaccurate - DM-2.1A does not have a perimeter levee side slope. On that basis, the Discharger requests that this information be removed.

Response: Staff incorporated the requested change.

Comment #41: **Finding 129:** Finding 129 contains a table summarizing the containment system components of LF-3, DM-2.1B (or as named during its construction in 1993/1994, DM-2.1 Phase 2 and 3). Based on a review of the CQA reports uploaded to the GeoTracker website, certain information in the table is incomplete or incorrect. The Discharger requests that the table be updated consistent with the proposed revisions.

Response: Staff incorporated the requested change.

Comment #42: **Finding 131:** Similar to Findings 127 and 129, the proposed revisions reflect as-built specifications.

Response: Staff updated the liner components with the correct information.

Comment #43: **Finding 133:** See Finding 131.

Response: Staff incorporated the requested change.

Comment #44: **Finding 134:** The Discharger requests clarification that the capillary break layer in future LF-3 Modules will be required only in those areas where the base elevation of the liner will be below the calculated capillary rise plus the required five feet of separation from groundwater. For example, in those areas of modules having a great amount of fill resulting in the liner being well above

the capillary rise, no capillary break would be installed. Additionally, the distinction between “less than significant changes” and “substantive changes” is unclear and should be eliminated.

Response: Staff incorporated the requested change.

Comment #45: **Finding 138:** See Finding 131.

Response: Staff incorporated the requested change.

Comment #46: **Finding 158:** The Discharger has historically conducted active LTU operations over a combined area of about 13 acres, but typically not more than 10-acres at any point in time. In 2011, the 4-acre area in the DM 6.1 footprint was closed, leaving the 3.2 acre area south of WP-9.1. The Discharger has clean closed all but 3.2 acres of the LTU.

Response: Staff incorporated the requested change.

Comment #47: **Finding 159:** The ROWD that was prepared for the compost facility estimated based on compaction data and soil types that the subgrade was compacted to a maximum hydraulic conductivity of approximately 1×10^{-5} cm/sec.

Response: Staff incorporated the requested change.

Comment #48: **Finding 162:** On December 1, 2014, the Discharger submitted the Compost Pond Interim Overflow Management Technical Report. Given that the report has already been submitted and the improvements identified therein have been installed, submission of a Compost Facility Leachate Collection/Pond System Improvement Plan is unnecessary.

Response: Staff incorporated the requested change.

Comment #49: **Finding 165:** This Finding contains a statement about the sizing of Pond B. As reflected in the updated water balance prepared by Golder Associates, Pond B is designed to store storm water runoff from a 25-year wet year. The Discharger requests that the Finding be revised accordingly. Additionally, the reference to Finding 36 should be eliminated, because that Finding does not relate to the compost pond system design.

Response: Staff incorporated the requested change.

Comment #50: **Finding 166:** As described in the Compost Pond Interim Overflow Management Plan, the compost Pond survey datum should be NGVD29, not MSL. On that basis, the Discharger requests that references to MSL be changed to NGVD29.

Response: Staff incorporated the requested change.

Comment #51: **Finding 167:** Finding 167 includes a statement characterizing previous pumping of leachate from Pond A to Pond B as unauthorized. This characterization is not included in the Water Code Section 13301 Order. On that basis, the Discharger requests this statement be eliminated.

Response: Staff incorporated the requested change.

Comment #52: **Finding 168:** Please see Finding 166.

Response: Staff incorporated the requested change.

Comment #53: **Finding 170:** Prior to the NOV, the Discharger was working with Regional Board staff to determine if a permeable reactive barrier trench would be a feasible technology to install for the bioremediation of nitrate in the vicinity of well G-14. This Finding does not acknowledge the Discharger's evaluation of this technology, and therefore the Discharger requests that a clarification sentence be added to reflect that.

Response: Staff did not incorporate the requested change.

Comment #54: **Finding 173:** The Discharger is permitted to demonstrate the proof period either: (1) while corrective action measures are continuing or, (2) while the corrective action measures have been suspended or modified upon approval by the Executive Officer. This proposed revision provides flexibility with respect to future modifications to the corrective action program to allow for future landfill development as we discussed in our meeting on March 23, 2016.

Response: Staff clarified corrective action shall be complete as required by the General Order and that the proof period shall be consistent with Title 27, Section 20430.

Comment #55: **Finding 176:** The Discharger proposes a supplement to Footnote 1 which explains that there has been insufficient liquid in PL-9.1B since 2008 to obtain any samples.

Response: Staff incorporated the requested change.

Comment #56: **Finding 179:** Finding 179 summarizes the average Nitrate-N concentrations in various wells at the site. However, the data appears outdated. The Discharger has prepared revisions that more accurately reflect current groundwater quality.

Response: Staff incorporated the requested change.

Comment #57: **Finding 181:** Please see comments to Finding 173.

Response: This finding was deleted.

Comment #58: **Finding 184:** Borrow pit pumping to maintain groundwater separation is a corrective action measure for LF-1 area. The CAP was submitted in May 2005 and approved in August 2005. Discussion of the length of remedial measures is not necessary in this finding; it is addressed in Findings 179 and 181, Corrective Action Specification D.8, and Monitoring Specification H.10.

Response: Staff incorporated the requested change.

Comment #59: **Finding 201:** The Discharger requests the ability to combine the PC/PCMPs for LF-3 and LF-4 into a single closure plan and LF-1A and LF-1B into a single closure plan.

Response: Staff incorporated the requested change.

Comment #60: **Finding 204:** Please see comments to Finding 7. Additionally, please see comments to Closure and Postclosure Maintenance Specifications F.1 and F.2.

Response: Staff incorporated the requested change.

Comment #61: **Finding 206:** Please see comments to Finding 25. Additionally, clarification is provided that the Interim Cover plan for LF-2 will be designed to meet Title 27 standards for final cover in accordance with Finding 97. Lastly, please see comments to Closure and Postclosure Maintenance Specification F.4.

Response: This finding was removed. By reclassifying DM-2.1B as part of LF-2 consistent with previous WDRs, the discharge of Class II leachate to a Class III unit does not occur. Interim Cover for the LF-2 shall be consistent with the requirements listed in the SPRRs and Title 27.

Comment #62: **Finding 207:** Finding 207 provided a limited description of the construction and approvals for the sideslope liners at LF-3. The Discharger's proposed revisions include statements summarizing additional relevant background information.

Response: Staff incorporated the requested change.

Comment #63: **Finding 209:** Please see comments to Finding 201.

Response: Staff incorporated the requested change.

Comment #64: **Finding 211:** The Discharger ceased sludge discharges to the east half of WP-9.1 (WP-9.1B) in 2015 in preparation for clean closure activities. As discussed with Regional Board staff, no clean closure activities were completed absent approval.

Response: Staff incorporated the requested change.

COMMENTS ON WDR PROHIBITIONS, SPECIFICATIONS & TASKS

Comment #64: **Discharge Prohibition A.1:** Please see comments to Finding 7.

Response: Staff incorporated the requested change.

Comment #65: **Discharge Prohibition A.4.b:** Please see comments to Finding 30.

Response: Staff incorporated the requested change.

Comment #66: **Discharge Prohibition A.5:** Title 27 Section 20375 (d) allows discharge of liquid from a surface impoundment if authorized by WDRs. On that basis, the Discharger requests these WDRs permit the use of liquid from Pond B as dust control on landfill units underlain by a Title 27 composite base liner only between April 15 and October 15. See also Discharge Specification B.27.

Response: Staff incorporated the requested change. This beneficial use of Pond B liquid as dust control may be utilized when the 13301 Order is either revised or rescinded to not conflict with the WDRs.

Comment #67: **Discharge Prohibition A.6:** Please see comments to Discharge Prohibition A.5.

Response: Staff incorporated the requested change.

Comment #68: **Discharge Prohibition A.16:** Please see comments to Discharge Prohibition A.5.

Response: Staff incorporated the requested change. This beneficial use of Pond B liquid as dust control may be utilized when the 13301 Order is either revised or rescinded to not conflict with the WDRs.

Comment #69: Discharge Prohibition A.18: Both Pond A and Pond B are lined surface impoundments. From an operational perspective, the ability to transfer liquids between the Ponds may be advantageous and useful. On those bases, the Discharger requests that these WDRs permit the movement of liquids between the Ponds.

Response: Staff incorporated the requested change.

Comment #70: Discharge Specification B.8: As described in the JTD, wastes/materials used for ADC at the Recology Hay Road landfill are wastes/materials that have either been designated acceptable in Title 27 or wastes/materials for which the Discharger has prepared a site-specific demonstration project and obtained approval consistent with Title 27, Section 20690. On that basis, the preparation and approval of an Interim Cover O&M Plan is unnecessary.

Response: Staff incorporated the requested change.

Comment #71: Discharge Specifications B.27: Please see comments to Discharge Prohibition A.5.

Response: Staff incorporated the requested change. This beneficial use of Pond B liquid as dust control may be utilized when the 13301 Order is either revised or rescinded to not conflict with the WDRs.

Comment #72: Facility Specification C.1.d: Please see comments to Finding 68.

Response: Staff incorporated the requested change with the exception of monitoring on a monthly basis. Daily, weekly, and quarterly monitoring of the groundwater elevation is detailed in the MRP.

Comment #73: Facility Specification C.1.e: A leak or release does not affect the calculation of the distance between waste and groundwater. This separation is fixed and is equal to the distance from the base of the Primary LCRS to the groundwater table. This principle was discussed at our meeting with Regional Board staff on March 3, 2016. On this basis, the Discharger requests that the statement to the contrary in this Finding be eliminated.

Response: Staff incorporated the requested change.

Comment #74: Facility Specification C.2.b: A comprehensive LCRS sump O&M Plan needs to include information relating to the removal of liquid. The Discharger requests that this specification be supplemented to require a description of removal procedures. Additional supporting information provided by the Discharger is not duplicated here.

Response: Staff did not incorporate the requested change.

Comment #75: Facility Specification C.2.d: Please see Finding 68.

Response: Staff incorporated the requested change.

Comment #76: Facility Specification C.2.e: Please see comments to Discharge Specification B.8.

Response: Staff incorporated the requested change.

Comment #77: **Corrective Action Specification D.1:** Corrective Action Specification D.1 sets forth the structure for establishing the corrective action measures. The Discharger has covered that topic in its proposed revisions to Corrective Action Specification D.7. On that basis, the Discharger requests this specification be eliminated.

Response: Staff incorporated the requested change.

Comment #78: **Corrective Action Specifications D.3:** Under the previous WDRs, the Discharger established corrective action plans for various units with confirmed releases of LFG, LFG-impacted liquid, or LFG condensate-impacted liquid. Since those corrective action measures are ongoing, the Discharger requests that this specification be modified to acknowledge that they may continue and may be appropriate for new releases of similar nature. Additionally, the Discharger requests that this specification acknowledge the opportunity to prepare a work plan for implementation of measures in response to a non-leachate LFG-related fluid. Lastly, there is no LFG extraction piping within the capillary break layer of existing disposal modules. On that basis, there is no need for specification for corrective action measures for LFG extraction piping in the capillary break layer.

Response: Staff incorporated the requested change.

Comment #79: **Corrective Action Specification D.5:** Unsaturated zone monitoring devices are specifically designed and located to monitor the unsaturated zone. Groundwater separation is calculated from depth to water measured from the designated piezometers and wells. Unsaturated zone monitoring devices should not be used to determine compliance with groundwater separation requirements. For example, if liquid is detected in landfill gas devices, which are used to monitor the unsaturated zone, the presence of that liquid should not trigger groundwater pumping. On this basis, the Discharger requests that this specification be eliminated.

Response: Staff incorporated the requested change.

Comment #80: **Corrective Action Specification D.6:** MRP Item A.4.c.i relates to “liquid” in a “leak detection monitoring device.” The Discharger proposes revising the wording here for consistency.

Response: Staff incorporated the requested change.

Comment #81: **Corrective Action Specification D.7.a-d:** This Corrective Action Specification sets forth the structure for establishing the corrective action measures. The Discharger proposes that the first step is the determination of whether the liquid is confirmed to constitute measurably significant evidence of landfill leachate release or the presence of a non-leachate fluid. Distinct response actions for the presence of landfill leachate and non-leachate fluids are proposed. The Discharger’s response to a confirmed leachate release shall not be prescribed in these WDRs but rather shall follow the protocol set forth in Title 27 and the SPRRs.

Response: Staff incorporated the requested change.

Comment #82: **Corrective Action Specification D.10:** To allow the future development of landfill cells, the Discharger shall install a sidegradient detection well rather than a downgradient one.

Response: Staff incorporated the requested change.

Comment #83: Construction Specifications E.1 through E.6: As discussed in the meeting on March 23, 2016, there are a number of factual errors in the description and tables associated with EAD/L options for future construction of landfill modules. These errors are corrected to be consistent with standard, well accepted, engineering practice and to reflect previously approved liner system design.

Response: Staff incorporated the requested changes.

Comment #84: Construction Specification E.10: The installation of LFG extraction piping within the capillary break layer is inconsistent with prudent engineering design because the performance is unreliable. On that basis, the Discharger requests that a requirement to construct the modules with LFG recovery piping within the capillary break layer be eliminated. This modification provides the Discharger the flexibility to make engineering design decisions regarding the placement of LFG extraction piping.

Response: Staff incorporated the requested change.

Comment #85: Construction Specification E.11: The language in this Construction Specification could lead to confusion, as the division becomes blurred as the units becoming conjoined.

Response: Staff incorporated the requested change.

Comment #86: Construction Specification E.12: The expansion of LF-3 or LF-4 may physically overlap with areas where corrective actions are being performed. Rather than identifying the specific measures that are necessary to accommodate landfill operations and/or to install facilities required to comply with these WDRs, the Discharger has eliminated the specificity and requests that expansion be allowed upon submission and approval of corrective action plans.

Response: Staff incorporated the requested change.

Comment #87: Construction Specification E.13: Title 27, Section 21750(f)(5)(D) permits an alternate, more rigorous method of demonstrating interim landfill slope stability. On this basis, the Discharger also requests that these WDRs recognize the availability of this method.

Response: Staff incorporated the requested change.

Comment #88: Construction Specification E.16: The specification of the hydraulic conductivity of 1.0×10^{-5} cm/s or less should apply to compacted soils, not other materials such as concrete or cement. On that basis and to avoid ambiguity, the Discharger requests that the requirement be moved to subpart a.

Response: Staff incorporated the requested change.

Comment #89: Construction Specification E.18: The requirement to maintain a two-foot minimum freeboard is applicable for storage ponds, but not for other features, for example ditches, sumps or pumps. For example, existing ditches were not required to be design to this standard and would immediately become non-compliant with the specification as written. On that basis, the Discharger requests that this specification be modified to reflect that two-foot minimum freeboard is only applicable to Pond A and Pond B.

Response: Staff incorporated the requested change with modifications for the Pond A freeboard.

The freeboard in Pond A shall be 0.9 feet coinciding with the level of the outlet pipe in Pond A.

Comment #90: **Construction Specification E.20:** Please see comments to Construction Specification E.16.

Response: Staff incorporated the requested change.

Comment #91: **Construction Specification E.21:** Please see comments to Finding 162.

Response: Staff incorporated the requested change.

Comment #92: **Construction Specification E.22:** A discharger must be able to implement winterization improvements at a landfill, such as drains or ditches without obtaining Water Board design plan review and approval. On that basis, the Discharger requests clarification that this construction specification only refers to the compost facility and does not apply to the landfill units.

Response: Staff incorporated the requested change.

Comment #93: **Construction Specification E.23:** Please see comments to Construction Specification E.22.

Response: Staff incorporated the requested change.

Comment #94: **Closure and Post-Closure Maintenance Specification F.3:** The Discharger should be permitted to remove and replace portions of the DM-2.1A interim cover in the future to access and remove stockpiled C-Soil. Therefore, the specification was revised to reflect that the interim cover would be designed to meet Title 27 final closure standards.

Response: This finding was removed. LF-2 Interim Cover shall meet the requirements in the SPRRs and Title 27.

Comment #95: **Closure and Post-Closure Maintenance Specification F.4:** Additionally, as discussed in our meeting with Regional Board permitting staff on March 3, 2016, the closure date for LF-2 is October 15, 2020 and an interim cover work plan will be prepared similar to LF-3, DM-2.1B (designed to meet Title 27 Final Cover requirements).

Response: This finding was removed. LF-2 Interim Cover shall meet the requirements in the SPRRs and Title 27.

Comment #96: **Closure and Post-Closure Maintenance Specification F.5:** Please see comments to Discharge Specification B.8.

Response: Staff incorporated the requested change.

Comment #97: **Closure and Post-Closure Maintenance Specification F.7:** Please see comments to Finding 201.

Response: Staff incorporated the requested change.

Comment #98: **Closure and Post-Closure Maintenance Specification F.8:** This specification is duplicative of Title 27, Section 21120(a). On that basis, the Discharger requests this specification be

eliminated.

Response: Staff did not incorporate the requested change.

Comment #99: **Closure and Post-Closure Maintenance Specification F.11:** Title 27, Section 21140 (b) requires obtaining revised WDRs prior to closure of a unit with any other final cover design than the designs specifically authorized. Duplication of Title 27 in these WDRs is unnecessary and therefore the Discharger requests this specification be deleted.

Response: Staff incorporated the requested change.

Comment #100: **Closure and Post-Closure Maintenance Specification F.12:** The Discharger should be permitted to construct temporary interim slopes steeper than 2.5H:1V provided they are supported by a slope stability analysis.

Response: Staff incorporated the requested change.

Comment #101: **Closure and Post-Closure Maintenance Specification F.16:** The Discharger shall install necessary erosion and sediment controls during the period the vegetation on final slopes is being established. However, it is not necessary for the Discharger to completely prevent sediment in runoff from the closed landfill. The Discharger requests revisions to clarify this distinction.

Response: Staff incorporated the requested change.

Comment #102: **Closure and Post-Closure Maintenance Specification F.26:** Recognizing that the intent of the specification is to clean-close composting areas before allowing landfill expansion in those areas, the existing wording could lead to unintended constraints. For example, the Discharger may wish to shrink the composting area and reestablish new ponds, while clean-closing only those composting areas needed for a planned landfill expansion. The tentative language could be interpreted to require termination of all composting operations once landfill expansion begins, even if only in only a portion of the compost area. The proposed revisions address these concerns.

Response: Staff incorporated the requested change.

Comment #103: **Monitoring Specification H.6:** Please see comments to Finding 86.

Response: Staff incorporated the requested change.

Comment #104: **F Monitoring Specification H.10:**

During the meeting on March 3, 2016 with Regional Board permitting staff, the length of the proof period was discussed. Consistent with Code of Federal Regulations Section 258.58(e)(2) the proposed revisions reflect that, the proof period will be satisfied upon demonstration that the constituents of the release have been reduced to concentration limits for at least eight consecutive monitoring events. The monitoring events may occur as frequently as once per month. Additionally, the Discharger is permitted to demonstrate the proof period either: (1) while corrective action measures are continuing or, (2) while the corrective action measures have been suspended or modified upon approval by the Executive Officer.

Response: Staff clarified that the proof period shall consist of a minimum of eight consecutive monitoring events over one year as specified in Title 27, Section 20430.

Comment #105: **Provision I.7:** Please see comments to Finding 86.

Response: Staff incorporated the requested change.

Comment #106: **Provision I.9.b:** Please see comments for Finding 68 and Facility Specification C.1.d.

Response: Staff incorporated the requested change.

Comment #107: **Provision I.9.c:** Please see comment in General Comment B.

Response: Staff incorporated the requested change.

Comment #108: **Provision I.9.f:** See Finding 68 and Finding 92. Discharger respectfully requests deletion of unneeded plans and modifications of dates to allow sufficient time for development.

Response: Staff incorporated the requested change.

Comment #109: **Provision I.10:** Title 27, Section 21780 (c)(3) states that final closure and postclosure maintenance plans for solid waste landfills shall be submitted two years prior to the anticipated date of closure. The Discharger requests that the due dates for the Interim Cover Installation Work Plan and the Certification Report account for this two year period considering LF-2 must be covered by 15 October 2020.

Response: Staff incorporated the requested change.

Comment #110: **Provision I.12:** Please see comments to Finding 201.

Response: Staff incorporated the requested change.

Comment #111: **Provision I.13.d:** Please see comments to Discharge Specification B.8.

Response: Staff incorporated the requested change.

Comment #112: **Provision I.14.b:** Please see comments to Finding 162.

Response: Staff incorporated the requested change.

MONITORING & REPORTING PROGRAM

Comment #113: **Item A.1:** Please see comments to Finding 86. Additionally, historical monitoring at the site has never detected verified dissolved volatile organic compounds in groundwater. The current monitoring program should be incorporated into the well table lists and any changes should be the result of the required WQPS report required in the MRP (1. Groundwater Monitoring). Some of the proposed background monitoring wells are downgradient of existing disposal units or are within nitrate remediation areas and have elevated nitrate concentrations. A more thorough evaluation of the monitoring system is warranted and will be included in the required WQPS.

Response: Staff incorporated the requested change.

Comment #114: **Table A.1.c:** The following parameters identified as “general minerals” - TDS,

chloride, sulfate, calcium, magnesium, sodium, potassium, and bicarbonate alkalinity - occur at the site naturally and should not be identified in the list of monitoring parameters as a reliable indicator of a release. This lack of reliability was acknowledged in the current WDR/MRP, where the following footnote was added to the monitoring parameter tables: "These parameters have been excluded from detection monitoring in order to reduce the risk of false positive indications and to therefore increase the reliability of detecting a leachate release. They are included as supplemental parameters for water quality trend analysis." The discharger requests that an identical footnote be added to Table A.1.c as footnote 6.

The addition of hexavalent chromium to the monitoring parameter list appears to be the result of the appearance of hexavalent chromium detections with relatively high average concentrations in the WDR leachate table in Finding 55. The hexavalent chromium concentrations in leachate cited in the table under Finding 55 are overstated: (1) the calculated averages do not include non-detect values; (2) the high concentrations for DM-1B and LF-2 are the result of single detections in 1994 which were followed by results with much lower concentrations and non-detections, plus the 1994 hexavalent chromium results were higher than the total chromium results indicating that the hexavalent chromium results were wrong. On this basis, the Discharger requests that hexavalent chromium be eliminated as a monitoring parameter.

The addition of mercury to the monitoring parameter list appears to be the result of the appearance of mercury detections in the WDR leachate table in Finding 55. Mercury is not an appropriate monitoring parameter because groundwater concentrations of mercury are substantially similar to leachate concentrations of mercury. On this basis, the Discharger requests that mercury be eliminated as a monitoring parameter.

Response: The Discharger conducted an extensive groundwater investigation summarized in the Special Variability of Inorganic Constituents in Groundwater, dated 29 November 1995. The results of the investigation, which included the use of stable and radiogenic isotopes, show that high TDS groundwater naturally occurs in the area of the Landfill, and is generally coincident with the occurrence of Younger alluvium at the ground surface. The requested change to Table A.1.c was accepted into previous WDRs based on the results of this investigation. Staff incorporated the requested changes consistent with previous WDRs.

Hexavalent Chromium was removed from the groundwater monitoring program because Chromium fluctuates between Hexavalent Chromium and Chromium III based on the oxidation/reduction potential and pH of the surroundings. Changes in Total Chromium are used to evaluate potential Chromium impacts from the landfill.

Mercury was removed from the detection monitoring program and remains part of the 5-year COC monitoring program.

Comment #115: Item A.1.c.i: Please see comments to Finding 68.

Response: Groundwater elevation monitoring was updated to reflect daily, weekly, and quarterly monitoring.

Comment #116: Item A.2.a.ii: The Constituents of Concern are to be monitored every five years, not semiannually.

Response: Staff incorporated the requested change.

Comment #117: **Table A.2:** Please see comments to MRP Table A.1.c.

Response: Staff removed hexavalent chromium and mercury from the annual monitoring list. Staff did not remove total dissolved solids, bicarbonate alkalinity, chloride, sulfate, calcium, carbonate, magnesium, potassium and sodium from the detection monitoring program.

Comment #118: **Table A.2.b.ii:** Consistent with Finding 61 and the previous WDRs, this Monitoring and Reporting program requires that the Discharger conduct field monitoring for total organic vapors and sample for VOCs if such vapors exceed a given trigger level (i.e., >1% methane and/or >1 ppmv total organic vapors). Field instruments capable of detecting organic vapors at 50 ppbv are not industry standard.

Response: Staff incorporated the requested change.

Comment #119: **Table A.3.b:** Semiannual monitoring is not needed to adequately characterize the constituents in leachate. On that basis, the Discharger requests that the frequency of leachate monitoring for electrical conductivity, pH, and the other monitoring parameters be changed to annual. Additionally, please see comments to Item A.2.a.ii.

Response: Staff incorporated the requested change.

Comment #120: **Item A.3.d:** LCRS testing can be conducted only if the LCRS is equipped with a test port. Some of the Discharger's existing LCRSs are not equipped with a test port (DM-1, DM-2.1, and DM2.2), and therefore LCRS testing cannot be performed. The Discharger requests this Item be revised to clarify that testing must occur on all LCRSs, except those not equipped with a test port.

Response: Staff incorporated the requested change.

Comment #121: **Item A.4.b:** Please see comments to Finding 68.

Response: No changes were incorporated to MRP Item A.4.b.

Comment #122: **MRP Item A.4.c.i:** It is the Discharger's understanding that profiling that liquids detected in a leak detection monitoring device is required for all new detections in the device regardless of whether the device was previously dry. On that basis, the Discharger requests that the reference to "previously dry" be eliminated.

Additionally, the profiling required by this item is described in greater detail in Corrective Action Specification D.6. The Discharger has proposed revisions to cross-reference that specification.

Further, in light of the bifurcation of response measures proposed by the Discharger in Corrective Action Specification D.7, the reference to short term and long term measures is no longer applicable. On that basis, the Discharger requests these references be eliminated.

Lastly, please see comments to Facility Specification C.1.e relating to the relationship between liquid in a leak detection monitoring device and groundwater separation.

The Discharger shall be provided an opportunity to confirm each release that is identified and to determine whether it constitutes measurably significant evidence of a release of leachate.

Response: Staff incorporated the requested change.

Comment #123: **Item A.5:** The facility is regulated under the NPDES General Permit for Storm Water Dischargers Associated with Industrial Activities (Water Quality Order No. 2014-005-DWQ, NPDES No. CAS000001). Separate and additional requirements for storm water monitoring in these Tentative WDRs are duplicative and unnecessary. Consistent with the previous WDRs, the Discharger must monitor storm water in accordance with the General Permit.

Response: Staff incorporated the requested change.

Comment #124: **Table A.5.a.i:** Surface water monitoring points have long been established at the facility. These Tentative WDRs propose renaming the established monitoring points. To avoid confusion, the monitoring points should not be renamed and should retain their original names. All new surface water monitoring points will be named sequentially. Additionally, existing surface water monitoring point SW-5 is sufficient to monitor the Bird Sanctuary Pond. New surface water monitoring point S-4 is not warranted because it is monitoring the same surface water as SW-5 and there is no basis in these Tentative WDRs for the need for additional monitoring.

Response: Some changes in groundwater have been reported to be associated with surface water changes. The background point S-4 (now designated as SW-8) and SW-9 evaluate the water quality associated with the southern surface water channel that drains into the bird sanctuary pond, where there are on-going investigations to evaluate surface water influences on groundwater.

Comment #125: **Table A.5.a.ii, et. Seq.:** Please see Item A.5. Also, leachate seep monitoring is required in MRP A.3.c and MRP A.5.c.

Response: Staff incorporated the requested change.

Comment #126: **Item A.5.b:** Please see Item A.5.

Response: Storm water is regulated under NPDES General Permit for Storm Water Dischargers Associated with Industrial Activities (Water Quality Order No. 2014-005-DWQ, NPDES No. CAS000001). References to separate storm water monitoring were removed.

Comment #127: **Item A.7.c.ii:** Please see comment to Closure and Postclosure Maintenance Specification F.4.

Response: Staff incorporated the requested change.

Comment #128: **Item A.8.b.ii:** These WDRs require conducting LFG condensate monitoring on the same schedule as that for leachate monitoring. However, sampling LFG condensate sumps for leachate parameters is unnecessary because the condensate is merely moisture from the landfill gas extraction. Moreover, landfill gas condensate is known to have low pH values, be low in dissolved solids, and contains VOCs, usually at higher concentrations than in leachate. On that basis, the Discharger requests that the monitoring requirement be eliminated.

Response: Staff incorporated the requested change.

Comment #129: **Table A.9.a.ii – Compost Pond Monitoring:** The Total Coliform Organism monitoring parameter for the compost ponds should be eliminated from the list of monitoring parameters as its presence is highly variable spatially and temporally in addition to being difficult to reproduce.

Response: Staff did not incorporate the requested change. The Total Coliform Organism monitoring parameter is a requirement of the Composting General Order.

Comment #130: **Item A.9.b.ii:** The monitoring parameter Total Coliform Organisms should be eliminated from the monitoring schedule for groundwater monitoring points because it is difficult to obtain a reliable sample from a groundwater monitoring well.

Response: Staff did not incorporate the requested change. Total Coliform Organism is required in the General Composting Order.

Comment #131: **Item B.7:** Please see comments to Closure and Postclosure Maintenance Specification F.4.

Response: Staff incorporated the requested change.

Comment #132: **Item C.4.a.ii:** Please see comments to Finding 86.

Response: Staff incorporated the requested change.

INFORMATION SHEET

Comment #133: **Revised WDRs:** Please see comments to Finding 86, Finding 68 and Finding 92.

Response: Staff incorporated the requested changes.

WDR ATTACHMENTS

Comment #134: **Table 1:** Table 1 describes waste acceptance by waste type and landfill unit. The information in the table related to asbestos containing waste was inaccurate. The Discharger has proposed revisions to correct these inaccuracies. Please see comments to Finding 7.a. Additionally, stockpiled C-Soil is present on LF-2 (DM-2.1A) and LF-3 (DM-2.1B). The Discharger plans to use this C-Soil in the future in the LF-3 and LF-4 units. The table did not acknowledge this future use. The Discharger has proposed an additional footnote to clarify this.

Response: Staff incorporated the requested change.

Comment #135: **Table 3:** Facility Specification C.1.b. states that the lowest elevation of waste in lined units shall be the lowest elevation of leachate in the unit's Primary LCRS sump. Table 3 and Table 4 identifies the maximum allowable groundwater elevation for the western half of the site. They include waste and groundwater elevations measured at the leak detection sump (Secondary LCRS) and pan lysimeter. This information is unnecessary because groundwater separation compliance is only measured from the unit's primary LCRS sump. On that basis, the Discharger requests the two columns for leak detection sump and pan lysimeter waste and groundwater elevations be eliminated. Additionally, errors identified in the elevations for DM-2.1A, DM-2.1B, and DM-2.2B, DM-4 and DM-7 have been corrected in the Discharger's proposed revisions.

Response: Staff incorporated the requested change.

Comment #136: **Table 4:** Please see comment for Table 3.

Response: Staff incorporated the requested change.

CENTRAL VALLEY WATER BOARD MODIFICATIONS

1. Typographical errors and inconsistent information were updated with the correct information.
2. DM-2.1B was reclassified as part of Class III LF-2 consistent with previous WDRs. This change was updated throughout the WDR and MRP. Consequently, associated requirements resulting from splitting DM-2.1A and DM-2.1B into two different landfill units were removed, such as placing a geomembrane cover on LF-2.
3. Various extraneous references to Subtitle D regulations were removed throughout the WDR and the MRP.
4. Requirements to submit an updated Preliminary Closure Post-closure Maintenance Plan (PCPCMP) were removed based on the rationale that a separate PCPCMP is required for each landfill unit. This landfill will be closed as one contiguous landfill and submitting one PCPCMP for the entire site is acceptable.
5. Tables 1 and 2 were incorporated into Discharge Specification B.1 and Facility Specification C.1, respectively. Subsequently, these two tables were removed as separate attachments.
6. Additional clarification of when DM-9.1 construction activities may begin were incorporated in the WDR.
7. Additional monitoring requirements for the LFG extraction system and borrow pit dewatering activities were added to the MRP.