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MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Central Valley Regional Water Quality Control Board

13 July 2015

Michael Leggins  
General Manager  
Recology Yuba-Sutter  
3001 North Levee Road  
Marysville, CA 95901-3600

Phil Graham  
General Manager  
Feather River Organics  
5900 Ostrom Road  
Wheatland, CA 95692

### **RESPONSE TO COMMENTS ON TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR RECOLOGY YUBA-SUTTER LANDFILL AND FEATHER RIVER ORGANICS COMPOSTING OPERATION, RECOLOGY YUBA-SUTTER AND FEATHER RIVER ORGANICS, YUBA COUNTY**

On 19 June 2015, Central Valley Water Board staff received Recology Yuba-Sutter's comments on the tentative Waste Discharge Requirements (WDRs) and Monitoring and Reporting Program (MRP). Your comments are appreciated and upon careful consideration we have prepared responses to your comments (see Attachment). Additional corrections/clarifications have been made to correct minor errors and/or to provide further clarification.

Please contact me at (916) 464-4630 or [Marty.Hartzell@waterboards.ca.gov](mailto:Marty.Hartzell@waterboards.ca.gov) with any questions.

A handwritten signature in black ink that reads "Marty Hartzell".

Marty Hartzell, PG, CHG  
Senior Engineering Geologist  
Title 27 Permitting and Mining Unit

Attachments -Response to Comments

cc: William A. Davis, Yuba County Environmental Health Department, Marysville

**Regional Water Quality Control Board  
Central Valley Region  
Board Meeting – 30-31 July 2015**

**Response to Written Comments for  
Tentative Waste Discharge Requirements  
Recology Yuba-Sutter and Feather River Organics  
Recology Yuba-Sutter Landfill  
Class III Landfill and Composting Facility  
Operation, Post-Closure Maintenance, and Corrective Action  
Yuba County**

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At a public hearing scheduled for 30 and 31 July 2015, 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 Yuba-Sutter and Feather River Organics (Discharger), Recology Yuba-Sutter Class III Landfill and Composting Facility (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 19 June 2015 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 also made minor changes to correct typographical errors and to improve clarity.

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**RECOLOGY YUBA-SUTTER (DISCHARGER) COMMENTS**

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On 19 June 2015, 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 on Finding #1:** We suggest that Recology Yuba-Sutter should be the only discharger named in the WDRs and that Recology, Inc. should not be named as a discharger. RYS [Recology Yuba Sutter] is the landowner, it manages the closed landfill units at the site, it operates the Feather River Organics composting facility, it maintains and operates the site's monitoring systems, and it is responsible for compliance with the applicable rules and regulations. Recology, Inc. is not the landowner and does not conduct day-to-day operations at the site.

**Response:** Per the certified Form 200 signed on 24 June 2015 by Mr. Michael Leggins, general manager of RYS, the WDRs will remove Recology, Inc. as the landowner and replace it with RYS.

**Comment on Finding #3:** Recology Yuba-Sutter is the landowner, not Recology, Inc.

**Response:** Per the certified Form 200 signed on 24 June 2015 by Mr. Michael Leggins, general manager of RYS, the WDRs will remove Recology, Inc. as the landowner and replace it with RYS.

**Comment on Finding #5:** The second sentence refers to "Title 27 Section 13260." It appears that this reference should be changed to California Water Code Section 13260(a)(1).

**Response:** The finding has been corrected to read "*Water Code Section 13263 provides the Central Valley Water Board with regulatory authority....*" since section 13260(a)(1) requires the Discharger to file a report of waste discharge whereas section 13263 requires the Regional Board to prescribe waste discharge requirements (WDRs).

**Comments on Findings #7, 8 & 10:** These findings state that the Feather River Organics composting facility is “unregulated” and has operated since 2003 “without Central Valley Water Board regulatory oversight.” We respectfully maintain that this characterization is not entirely accurate. In August 2001, Regional Board staff reviewed a Report of Waste Discharge and authorized composting operations at the site pursuant to the Board’s Resolution No. 96-31 (Conditional Waiver of Waste Discharge Requirements for Composting Operations). Shortly after the expiration of the Regional Board’s Conditional Waiver in January 2003, the Board issued individual WDRs for the site (Order R5-2003-0093, issued June 6, 2003). Even though the 2003 WDRs do not directly regulate the composting operations, Regional Board staff have indicated that they regularly include these operations as part of their site inspections. In 2012, Regional Board staff requested information about the composting operations in order to include those operations within a revised set of WDRs for the site. In response, RYS submitted a Report of Waste Discharge on June 29, 2012 and it submitted additional information about the composting operations on February 15, 2013. Ultimately, instead of issuing revised WDRs, in August 2013, Regional Board staff issued a Cleanup & Abatement Order that covers both the composting operations and the closed landfill. (Order R5-2013-0704, issued Aug. 29, 2013, as amended on Jan. 13, 2015.) Board staff have indicated that one of the reasons for issuing the CAO was to obtain the technical information needed to prepare comprehensive updated WDRs that would cover both the landfill and the composting operations. In light of this history, RYS suggests changing the language in the tentative WDRs to state that the composting operations have not been covered by WDRs since the expiration of the Conditional Waiver, rather than stating that the operations are “unregulated” or “without Central Valley Water Board regulatory oversight.”

**Response:** From January 2003 to 29 August 2013, there were no waste discharge requirements issued by the Central Valley Water Board regulating the discharge of waste from the composting facility. The State Water Board was working on a General Order related to composting facility; however, this General Order has not been adopted to date. CAO Order R5-2013-0704 was issued on 29 August 2013 and provided requirements to regulate composting facilities. In light of this historical record, Findings# 7, 8 and 10 will be changed to read “composting facility under the expired waiver.”

**Comment on Finding # 9(d):** This finding states that the site’s groundwater detection monitoring system does not comply with Title 27. RYS recognizes Regional Board staff’s position on this issue; as you know, RYS and its consultants have disputed this position in the past, based on the site’s hydrogeology and a technical evaluation of the site’s monitoring system. (See, e.g., Golder Associates, *Monitoring System Evaluation and Corrective Action Effectiveness*, July 29, 2011.) In an effort to resolve this issue cooperatively with Regional Board staff, RYS proposes to conduct a further technical evaluation to assess whether any upgrades or modifications to the site’s groundwater detection monitoring network are necessary. RYS would work closely with Board staff in establishing the parameters and methodology for conducting this evaluation. RYS believes that this is an appropriate, step-wise way to work towards a mutual resolution of this important issue. We would like to meet with Regional Board staff to discuss the matter as soon as possible. With respect to the text of the tentative WDRs, we request that Comment on Finding #9(d) be revised to read: “The Discharger will conduct a technical evaluation of the site’s groundwater detection monitoring system to determine whether upgrades or modifications to the system are necessary to achieve compliance with Title 27 regulations.” See also the comments below on Findings#55, #56, #93 and #94 and Provision H.7—Task C.

**Response:** Finding# 9(d) remains unchanged. Please see Findings# 93 and #94 for explanation why Regional Board staff finds that the Detection Monitoring System does not comply with Title 27 requirements for providing “*best assurance of the earliest possible detection of a release from the Unit*” and yields “*groundwater samples from the uppermost aquifer that represent the quality of water passing the Point of Compliance*”.

**Comment on Finding #14:** The “Yuba-Sutter Enforcement Agency” should be changed to the “Yuba County Local Enforcement Agency.”

**Response:** The finding has been corrected to read “Yuba County Local Enforcement Agency”.

**Comment on Finding #21:** This finding states that the Section 13267 Order issued by Regional Board staff on December 16, 2014 required “a discharge plan that accounts for ***consecutive days*** of a 25-year, 24-hour design storm event.” (Emphasis added.) Please note, however, that the August 2013 Cleanup & Abatement Order, on which the Section 13267 Order was based, established a different standard to govern the compost water management system. Provision #9(b) of the CAO, as amended, states that the site’s “compost area leachate collection system shall collect and contain all contact storm water (leachate) generated during rainfall events ***up to and including*** the 25-year, 24-hour design storm event of 3.16 inches.” (Emphasis added.)

**Response:** Finding #21 briefly describes the contents of the 13267 Order requesting submittal of technical reports which included how the Discharger would account for consecutive days of rainfall that typically precedes or follows a 25-year, 24-hour precipitation event. The Discharger is not permitted to discharge waste to land that is not authorized to accept such waste or to discharge to ground or surface waters for storm events on days that precede or follow a 25-year, 24 hour precipitation event where the 24-hour rainfall on such days is less than the 25-year, 24-hour precipitation event of 3.16 inches. In a generally accepted water balance analysis, accounting for these consecutive days would be classified as operational storage. A footnote has been added to clarify that “*consecutive days*” as “*up to and including*”.

**Comment on Finding #22:** Please note that the updated compost area water balance submitted by RYS on January 15, 2015 was based on a firm oral agreement with the City of Marysville for disposal of 200,000 gallons of compost water per day to the City’s sewer treatment plant with a maximum disposal of 750,000 gallons per week. The written permit issued by the City of Marysville on January 27, 2015 memorialized the firm oral arrangement that already had been established.

**Response:** Language has been added to note the verbal agreement and the quantity of compost wastewater that the Discharger was permitted to discharge to the City’s sewer treatment plant on a daily and weekly basis.

**Comment on Finding # 28:** This finding states that RYS “completed installation of five LFG wells around GP-14 ....” Please note that extraction wells were not placed “around GP-14,” but were all placed on the western side of GP-14 within the limits LF-1. Accordingly, RYS suggests that the text of this finding be revised to read that RYS “completed installation of five landfill gas extraction wells on the western side of GP-14 along the south side of LF-1 ....” In addition, RYS requests that the following sentence be added at the end of this finding to reflect the improvements resulting from the corrective actions that have been implemented at the site: “The methane that was detected in GP-14 was effectively removed and methane has not been detected in GP-14 since November 2013.”

**Response:** The finding has been changed to incorporate the Discharger’s comments.

**Comment on Finding #33:** RYS requests that the following sentence be added at the end of this finding to reflect the improvements resulting from the corrective actions that have been implemented at the site: “Landfill gas is no longer detected in the perimeter landfill gas monitoring probes on the northern side of LF-1.”

**Response:** The proposed sentence has been added for clarification purposes.

**Comment on Finding #35:** RYS requests that the following sentence be added at the end of this finding to reflect the improvements resulting from the corrective actions that have been implemented at the site: “There have been no confirmed detections of VOCs in LF-3 monitoring wells since 2007.”

**Response:** The sentence cannot be added since acetone was detected (estimated at 7.4 ug/L) on

30 March 2009 in MW-12 and methyl t-butyl ether (MTBE) was quantified at 0.65 ug/L on 15 December 2011 in MW-12.

**Comment on Finding #36:** This finding focuses on VOC impacts observed in groundwater monitoring wells associated with LF-1. However, the finding references corrective actions for LF-3, which are unrelated to the groundwater impacts in the area of LF-1. Accordingly, RYS suggests that the references in the second sentence to LF-3 be deleted. In addition, RYS requests that following sentence be added to the end of this finding to reflect the improvements resulting from the corrective actions that have been implemented at the site: “Note that the current number and concentrations of VOCs detected have decreased to the point where most of the VOC detections are at estimated trace concentrations that are below the laboratory reporting limit.”

**Response:** The finding has been changed to acknowledge that the Discharger’s corrective action measures have reduced the concentrations of VOCs in many constituents of concern below the reporting limit. However, a qualifier to the added language has been inserted to indicate that the performance measure for VOCs is “non-detect” and therefore there is still additional corrective action measures that must be implemented to reduce VOCs to non-detect levels.

**Comment on Finding #45:** For the sake of clarity, RYS suggests that the fifth sentence of this finding be revised as follows: “As part of the EFS, the Discharger voluntarily installed nine shallow temporary probes into LF-1 waste to further delineate the extent of LFG within LF-1.”

**Response:** Comment not accepted. The EFS states “*The vapor probes were driven to depths of 2 to 5 feet below ground surface (depending on the density of the soil).*” There is no indication from the EFS or other information provided that the vapor probes were actually driven into the waste in some locations where the soil cover may be thick and dense to a point where the installed probes were unable to penetrate the soil cover.

**Comment on Finding #46:** RYS requests that the following text be added at the end of this finding to reflect the improvements resulting from the corrective actions that have been implemented at the site: “These conditions eventually prompted the installation of five landfill gas extraction wells in the southern portion of LF-1 in September 2013. As a result of this corrective action, methane has not been detected in GP-14 since November 2013.”

**Response:** The findings provide a chronological record of the activity at the site. Finding 46 is focused on describing the LEA inspection related to non-functional GP-14 and the methane concentrations measured once it was repaired. The suggested language insertion is more appropriate to be added to Finding 50. Language from Finding 28 added to Finding 50 to indicate effectiveness of the five landfill gas extraction wells targeting GP-14.

**Comment on Finding #48:** RYS requests that the following sentence be inserted between the fifth and sixth sentences of the existing text to provide additional information on the referenced report and the corrective actions that were recommended: “Based on these findings, the 15 November 2012 report included several recommendations, including completing the pipeline video survey, repairing damaged pipes, periodically inspecting the pipelines, filling low area where ponding can occur, repaving damaged pavement, constructing drainage swales, and inspecting the landfill surface and making repairs.”

**Response:** Sentence inserted for clarification.

**Comment on Finding #53:** RYS does not dispute the key conclusion in this finding that the data continue to show that VOCs and bicarbonate alkalinity concentrations exceed the concentration limits. However, RYS requests that the finding be revised to address the following two issues: The second sentence of the finding states that due to the presence of VOCs and elevated bicarbonate alkalinity concentrations as compared to background (i.e., concentration limits), gas and leachate related groundwater impacts “**continue**” at the facility. However, this statement does not appear to

recognize the possibility that the impacts being observed are pre-existing impacts based on historical conditions. The corrective actions implemented to date are primarily intended to provide source control to mitigate potential future impacts, while degradation of the existing impacts will rely mostly on natural attenuation processes (i.e., biodegradation, dilution, etc.). The mere presence of VOCs or elevated bicarbonate alkalinity concentrations does not necessarily mean that discharges are still occurring as implied by the current language of the finding. Further, monitoring results show a decreasing trend in VOC concentrations. Accordingly, RYS requests that the second sentence of this finding be revised as follows: "Although the report clearly showed that the five extraction wells were effective in reducing LFG concentrations below the 5% limit required by CalRecycle at the perimeter of a landfill property boundary, the data continues to show that VOCs and bicarbonate alkalinity concentrations exceed the concentration limits set forth by the Discharger's Water Quality Protection Standard ~~and that gas and leachate related groundwater impacts continue at the facility.~~" The conclusion in the last sentence of the finding that the LFG extraction system is not effectively removing LFG on the basis of observed oxygen levels is problematic. In general, the observed oxygen levels in the LFG extraction wells are compared to literature values presented in an EPA guidance document. Specifically, it is noted that LFG generated from older waste should not exhibit oxygen levels in excess of 1 percent. The problem with this comparison is that the characteristics outlined in the EPA guidance document pertain to LFG under static pressure conditions (i.e., no active LFG extraction). However, with active LFG extraction, low pressure conditions are created within the refuse mass and atmospheric air is introduced into the refuse mass, thereby increasing oxygen levels. Although the standard of practice is to minimize this influx as much as practical, some atmospheric air will invariably be introduced by the extraction process. Thus, oxygen levels above 1 percent do not indicate inefficient collection operations, and in fact higher oxygen levels are indicative of highly aggressive extraction operations. Accordingly, RYS requests the deletion of the final three sentences of the finding, which state that, based on the oxygen levels, the site's LFG system has not been operating effectively.

**Response:** The language has been modified to state that continued exceedances of concentration limits "indicates" continuing ground water impacts at the facility. The Discharger has indicated that continued impacts to ground water could be associated with historical releases which has not been substantiated to date. Title 27 section 20400(a)(3) allows the Discharger to petition the Central Valley Water Board for establishing concentration limits greater than background (CLGB) if the Discharger believes that concentration limits based on background water quality cannot be achieved. Currently, Central Valley Water Board staff is making its findings regarding whether there is significant evidence of a release based on currently established concentration limits. Therefore, it is Central Valley Water Board staff's professional judgment based on monitoring data and concentration limits provided by the Discharger that "*gas and leachate related groundwater impacts continue at the facility*". Please see Findings 100 and 101 for tables summarizing VOC and other monitoring parameters. Regarding removal of the last three sentences of the Finding related to oxygen levels the Discharger's comments are noted but will not be deleted since the last three sentences merely state that in LF-1, which is the oldest of the three WMUs, there are high levels of oxygen reported in the LFG extraction wells indicating that they are not being operated correctly. This agrees with the Discharger's comment that high oxygen levels indicate "aggressive extraction operations." However, the operation manual (Revision C2) for the Landtec GEM™ 2000 Gas Analyzer used by the Discharger for monitoring LFG gas at the facility states on page 54 that "*If very large quantities of air are introduced into the landfill, either through natural occurrence or overly aggressive operation of the LFG system, a partly unsupported subsurface combustion of the buried refuse may be initiated.*" The operation manual also states on page 54 that "*If oxygen is reintroduced into the landfill, those areas are returned to an aerobic (Oxygen present) state and the Methane-producing bacteria population is destroyed.*" The Landfill Gas Extraction Report indicates that the Discharger has generally kept oxygen levels below 5% at LF-2 and LF-3 but this is not the

case with LF-1. The purpose of the last three sentences in Finding 53 are to indicate excessive oxygen levels which may or may not be through overly aggressive operation may inhibit the effective removal of LFG from LF-1.

**Comment on Finding #54:** The third sentence of this finding states that the installation report for the LF-1 expanded LFG extraction system must provide a determination of the current unsaturated zone monitoring system's ability around LF-1 to "quantify" improvements to groundwater quality. However, please note that it is not practical to translate soil-pore gas data from LFG monitoring probes into quantifiable improvements to groundwater. RYS and its engineers can conduct a qualitative evaluation, but we request that the word "quantitative" be deleted from this finding.

**Response:** Per the Discharger's comments word "quantify" has been replaced with the language in line with Title 27 section 20415(d)(2)(D) requirements.

**Comment on Finding #55:** See the comment above on Comment on Finding #9(d) and the comments below on Findings#56, #93, and #94 and Provision H.7—Task C. RYS requests that the word "Noncompliant" be deleted from the header above this finding. As explained above, RYS proposes to perform additional technical analysis to assess whether the existing groundwater detection monitoring system is compliant and to determine any upgrades or modifications to the system that may be needed. RYS further requests that the first sentence of this finding be revised as follows and that a new second sentence be added: "At the time this Order was adopted, the Discharger and Regional Board staff were not in agreement on whether the Discharger's groundwater detection monitoring system satisfied ~~did not satisfy~~ the requirements contained in Title 27. As part of this Order, the Discharger will perform a technical evaluation to assess the system for compliance with Title 27 and to determine any upgrades or modifications to the system that may be necessary...."

**Response:** The finding remains unchanged. Central Valley Water Board staff after conducting its own evaluation of the detection monitoring system based on monitoring data and well boring logs provided by the Discharger finds that based on available information at the time the revised Order is to be adopted the detection monitoring system does not have sufficient monitoring points at the hydraulically downgradient limit of the WMUs. Furthermore, the screen interval in the wells is below the water table which does not provide a representative sample of the concentrations of constituents of concern since their concentrations are diluted at the sampling point. These two findings elaborated in Findings# 93 and 94 is the basis for determining the DMP is noncompliant with Title 27 requirements.

**Comment on Finding #56:** See the comments above on Findings #9(d) and #55 and the comments below on Findings #93 and #94 and Provision H.7—Task C. RYS requests that the last sentence of this finding be revised as follows: "These WDRs in Provisions H.7 require the Discharger to provide a Workplan that describes how the Discharger will evaluate compliance ~~comply~~ with Title 27 requirements by determining whether establishing a sufficient number of Points of Compliance are present within the DMP based on the groundwater flow characteristics in the area that are ~~hydraulically downgradient~~ of the WMUs."

**Response:** The finding remains unchanged. Please see response to comments on Findings# 93 and 94 for more information as to why the Central Valley Regional Board staff finds that the Discharger's Detection Monitoring System does not comply with Title 27 requirements.

**Comment on Finding #70:** RYS requests that the third and fourth sentences of this finding be revised as follows to provide a more accurate description of the Hog Farm area: "Storm water that drains to the Hog Farm area is discharged through a sluice gate discharge culvert with a manually-operated gate valve to the Yuba River 100-year floodplain. The Hog Farm area is protected from a flood with a 100-year return period by a berm flood control levee permitted by the Central Valley Flood Control Board and closure of the sluice gate valve."

**Response:** Suggested changes accepted.

**Comment on Finding #71:** We suggest revising this finding to make clear that the adjacent landfill to the south/southwest edge of RYS is an abandoned landfill, not an operating facility.

**Response:** Suggested changes accepted.

**Comment on Finding #77:** The facility is protected from flows from a 100-year flood by a perimeter flood control levee. This was previously certified in an engineering report dated January 27, 1995, which Regional Board staff approved in correspondence dated February 9, 1995. Copies of these documents will be sent under separate cover. The efficacy of the flood control levee has not previously come into question and RYS respectfully maintains that the requirement to prepare a new Flood Protection Report is an unnecessary duplication of effort. While Title 27 § 21750(d)(2) refers to maintaining flood protection facilities, the inspection and maintenance of the levee and the associated costs can be incorporated as an addendum to the facility's Post-Closure Maintenance Plan, rather than preparing a separate Flood Protection Report for this purpose. RYS therefore requests that the requirements stated in this finding be deleted. See also the comment below on Provision H.7 Task J.

**Response:** The Finding has been changed to note the information provided. Provision H.7 Task J will require the Discharger to include the inspection and maintenance of the levee and the associated costs can be incorporated as an addendum to the facility's Post-Closure Maintenance Plan.

**Comment on Finding #78:** RYS is in the process of preparing the requisite materials, including the Storm Water Pollution Prevention Plan, for compliance with the new statewide Industrial General Permit, which takes effect on July 1, 2015. The SWPPP will identify the appropriate SIC codes that apply to the site. RYS therefore requests that the last sentence of this finding be revised to indicate that the facility's upcoming SWPPP will indicate the applicable SIC codes, rather than prescribing specific SIC codes as part of these WDRs.

**Response:** CAO R5-2013-0704 Order# 1 required the Discharger to identify SIC code 2875 for composting as part of their SWPPP. The current SIC codes are listed in the Finding. Late revisions to update the SIC codes after 1 July can be made prior to adoption of these WDRs if the Discharger is able to establish what those SIC codes are before 30/31 July 2015. The Finding has been modified to indicate that the SIC codes listed are the current SIC codes that the Discharger has reported.

**Comment on Finding #86:** It appears that this finding may be confusing first encountered groundwater, which corresponds to the depth in which groundwater is first encountered in a borehole at the time of drilling, with the subsequent static groundwater depth following well installation. Thus, RYS suggests that the finding be revised as follows: "The depth to first encountered groundwater measured in groundwater monitoring wells ranges from about 12 to 43 feet below the top of well casings native ground surface. Groundwater elevations have ranged historically (1996 through 2014) range from about 49 feet MSL to 67 feet MSL."

**Response:** Suggested changes accepted

**Comment on Finding #87:** The cited lower range value for total dissolved solids (TDS) of 5 milligrams per liter (mg/L) is incorrect. The correct value is 130 mg/L.

**Response:** Discharger reported nine "non-detects" for TDS which indicates that laboratory errors may have occurred for this naturally occurring constituent. The Discharger's monitoring data submitted to the Geotracker database was used to determine background ground water quality. After removal of the non-detects from the dataset used to determine ground water quality for naturally occurring constituents the lowest TDS reported from 2005 to 2014 was 180 mg/L sampled

on 9 June 2011 in monitoring well MW-6. The finding has been changed to find TDS ranging from 180 and 430 mg/L.

**Comment on Finding #89:** The beneficial use of “industrial process supply” is referenced twice in this finding.

**Response:** One reference to “industrial process supply” should read “industrial service supply”. Finding corrected to include “industrial service supply, and industrial process supply”.

**Comment on Finding # 90:** The reference to MW-1 and MW-2 should be deleted as these monitoring wells have been replaced by MW-1R and MW-2R as mandated by Regional Board staff.

**Response:** Historical reporting results of MW-1 and MW-2 will remain in the findings. However, clarification has been made to the finding to indicate that MW-1 has been replaced by MW-1R and MW-2 has been replaced with MW-2R. Also, language has been added that requires the Discharger to destroy wells MW-1 and MW-2 in accordance with local enforcement agency requirements and California Well Standards published by Department of Water Resources (DWR) in Bulletin 74-81 and supplemented by Bulletin 74-90 Part III.

**Comment on Finding #91:** Consistent with the comment to Comment on Finding #87, the cited lower range value for TDS of 5 mg/L in the table is incorrect. The correct value is 130 mg/L.

**Response:** See response to comment on Finding #87. The Table has been updated to reflect updated summary statistics for TDS in background ground water monitoring wells.

**Findings #93 and #94:** Please see the comments above on Findings #9(d), #55 and #56 and the comment below Provision H—Task C.

**Response:** Central Valley Water Board staff reviewed monitoring data and well borehole logs and has determined that the current detection monitoring system does not comply with Title 27 requirements for 1) providing compliance points downgradient of the WMUs, 2) providing sampling points that give representative samples, and 3) provide the earliest detection of a release.

As stated in Finding#93, the Discharger’s Groundwater Elevation Contour Map depicts the compliance wells as side gradient to the WMUs. In order to show that the groundwater flow and direction is towards compliance wells along the eastern edge of the WMUs, the Discharger will have to install at least two additional upgradient wells along the western edge of LF-1 and LF-2.

Secondly, as stated in Finding#94, the well screens in monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, and MW-13 are completely submerged and do not intersect the water table. The Discharger has stated in the past that it is inappropriate to place well screens that span the water table since the static water elevation is higher due to confined aquifer conditions. However, staff’s review of the well borehole logs for the wells listed above shows that in all the wells the first encountered water level in these wells was always higher than the static water level. This is indication of an unconfined aquifer. Also, the well completion logs show that in all instances, the Discharger screened these wells below the first encountered water level.

Thirdly, the hydrographs for each well indicates that if the Discharger had installed the wells screens above and below the first encountered water level, the Discharger would have spanned the water table including changes in groundwater elevation due to seasonal fluctuations.

Finally, review of Table 4 of the Discharger’s 2014 second semiannual MRP Report indicates that concentrations of VOCs such as chlorobenzene and 1,4-dichlorobenzene is attenuated in MW-1 and MW-2 due to submerged screens. The wells screens in MW-1R and MW-2R were installed to intersect the water table and provide groundwater quality of this first water encountered. In MW-1R and -2R, chlorobenzene and 1,4-dichlorobenzene were reported above the Reporting Limit (RL). In MW-1 and MW-2, these constituents were reported lower or at trace levels (above the method

detection level).

40 CFR Part 258 Subpart E, *Ground-Water Monitoring and Corrective Action* on page 237 states that “*When monitoring an unconfined aquifer, the well screen typically should be positioned so that a portion of the well screen is in the saturated zone and a portion of the well screen is in the unsaturated zone (i.e., the well screen straddles the water table.)*.” Groundwater monitoring wells screened across the water table in an unconfined aquifer are more likely to detect constituents of concern (COCs) whose specific gravity is less than or equal to water (i.e., COCs that tend to float on the surface of the water table).

**Comment on Finding #100:** RYS respectfully maintains that the simple summing of VOC detections does not provide all of the information needed for a complete evaluation of the effectiveness of the corrective actions for VOCs. For instance, the use of mean values does not take into account the following factors: VOC concentration. VOC concentrations provide more useful data than simply noting the detection of an analyte. VOC concentration trend with time. There is a significant downward trend in VOC concentrations with time in all the corrective action monitoring wells within the 2005 through 2014 data set. This indicates that corrective actions are working. Changes in analytical method with time. Some methods analyze for more VOC species than other methods. Additionally, different methods have differing Reporting Limits (RLs), Method Detection Limits (MDLs), and Practical Quantitation Limits (PQLs). These factors should be taken into account before meaningful conclusions can be drawn from the data. Changes in RL/MDL/PQL. As an example, there has been an order of magnitude change in the MDL of some analytes in the last 10 years. Sample frequency. The sample frequency for some monitoring wells is quarterly, whereas semiannual sampling is performed for other monitoring wells. Duplication. In the case of LF-1, the 2014 VOC count includes MW-1, MW-1R, MW-2 and MW-2R. Since these monitoring wells are completed at the same locations and MW-1R and MW-2R were installed to replace MW-1 and MW-2, the second semester 2014 data for MW-1 and MW-2 should be deleted. In light of these issues, RYS requests that the table in this finding be deleted, as it is based only on the summing of detections. RYS also requests that the text of this finding be revised as follows: “Previous findings provide information regarding groundwater degradation and ongoing corrective action activities. ~~The table below summarizes the number of VOC detections that have occurred in detection/corrective action wells since 2005.~~ The groundwater monitoring results show ~~continual~~ water quality impacts to monitoring wells MW-1, MW-2, MW-10, MW-15, MW-1R and MW-2R at WMU LF-1 where the WMU is a closed unlined Unit with an earthen closure cover and post-closure operations such as a MRF, a vehicle maintenance facility, administration offices, and composting are occurring. Groundwater monitoring results also show ~~continual~~ water quality impacts at monitoring well MW-3 associated with WMU LF-2. These WDRs require the Discharger to enhance leachate and landfill gas control systems through corrective action at LF-1 and LF-2 to address VOC impacts ~~about the discharge of VOCs~~ to groundwater.”

**Response:** The Discharger’s 2014 *Second Semi-Annual and Annual Monitoring Report* established the concentration limit for VOCs as non-detect (ND). Any confirmed detection of a VOC above the method detection limit (MDL) regardless of VOC quantifiable concentration or concentration trend over time constitutes an exceedance of the Discharger’s concentration limits. The purpose of the table in Finding#100 is to quantify the number of detections of VOCs by year to depict whether there are intermittent exceedances of the concentration limits or whether there is persistent detections of VOCs in monitoring wells. The table provides a summary of Central Valley Water Board staff findings. Regarding the Discharger’s comments concerning the table not taking into consideration (a) changes in analytical method with time, (b) and changes in RL/MDL/PQL, it is Central Valley Water Board staff’s understanding that monitoring of background wells MW-5,-6, and -7 also experienced the same changes and Finding# 91 shows that VOCs have not been detected in these background wells since 2<sup>nd</sup> quarter 2008. Regarding the Discharger’s comment regarding sampling frequency it is true that for VOCs sampling frequency for corrective action wells

is quarterly versus detection monitoring wells is semiannually. However, all monitoring wells shown in Finding#100 related to LF-1 and LF-2 are in corrective action per Table 1 of the Discharger's *2014 Second Semi-Annual and Annual Monitoring Report* and thus are all monitored at the same frequency. Also, regarding the removal of MW-1 and MW-2 from the Table in Finding# 100 it would be incorrect to remove the monitoring results from the Table since the Table provides a summary of historical monitoring that has occurred leading up to the adoption of the revised WDRs. Finally, regarding suggested changes in the language of the finding it has been modified to remove the word "continual" and the phrase "abate the discharge of VOCs" has been substituted with "address VOC impacts".

**Comment on Finding #101:** The table in this finding presents mean monitoring values and compares them to the concentration limits. However, this approach does not recognize the trends in the data and whether the conditions are getting better or worse. For example, if higher concentrations were present in 2010 but have steadily declined to below the concentration limit in 2014, the mean value may still plot above the concentration limit, even though compliant conditions have been attained. In short, comparing mean values to concentration limits does not constitute an approved or reliable statistical method. RYS requests that the current monitoring values should be used instead, which is the approved statistical evaluation method for the site. Accordingly, RYS requests that the table in this finding either be deleted or modified to use the most recent monitoring results instead of mean values for comparison against the applicable concentrations limits. RYS also requests that the data for MW-1 and MW-2 be replaced with the data from MW-1R and MW-2R.

**Response:** Comparing mean values of two datasets is the basis for data analysis using analysis of variance (ANOVA). Furthermore, if the mean value of the monitoring parameter at a downgradient monitoring point exceeds the tolerance interval and upper limit of a control chart (i.e., concentration limit) it is the responsibility of the data analyst to conclude that there is measurably significant evidence that a release from a WMU has occurred. ANOVA, tolerance intervals, and control charts are approved statistical evaluation methods per Title 27 section 20415(e)(8). Nevertheless, Central Valley Water Board staff has revisited the table per the Discharger's comments and determined that only chloride concentrations in MW-3 during the last five monitoring events from 20 December 2012 to 15 December 2014 depicts a downward trend below the concentration limit. Therefore, the table has been modified per the Discharger's comments for chloride. MW-1R and MW-2R do not have enough data to perform statistical analysis for naturally occurring constituents. Therefore, it would be incorrect to substitute MW-1R and MW-2R for MW-1 and MW-2 at this point in time.

**Comment on Finding #117:** This finding states that the post-closure maintenance costs are estimated at \$4.7 million over 15 years in accordance with the May 2014 Post Closure Maintenance Plan. However, the May 2014 plan contained various errors, including double- and triple-counting of costs that occurred when the cost spreadsheets were separated into three sets, one for each landfill unit. This factor alone accounts for an overestimation of costs in the May 2014 plan of over \$80,000 annually. Accordingly, RYS is preparing an updated Post Closure Maintenance Plan, which will be submitted as soon as it is completed. Accordingly, RYS requests that the financial assurance provisions of the tentative WDRs be revised to provide for Regional Board staff's review and consideration of a modified cost estimate and the possible revision of the required financial assurances based on that review. See also the comments below on the Financial Assurance Specifications of the tentative WDRs.

**Response:** In a letter dated 8 December 2014 CalRecycle's Engineering Support Branch (ESB) notified the Discharger that their *Post-Closure Maintenance Plan Recology Yuba Sutter, Marysville California* dated June 2014 (June 2014 PCMP) was unacceptable since in the June 2014 PCMP transferred postclosure maintenance costs when CalRecycle found that "*postclosure maintenance costs cannot be transferred or deferred to third parties.*" Furthermore, the ESB found that:

*The Central Valley Regional Water Quality Control Board (RWQCB) approved the previously submitted Plan (May 2014) on October 8, 2014, and notified CalRecycle staff via telephone the revised Plan (June 2014) was not accepted. Yuba County Environmental Health Department, acting as the Solid Waste Local Enforcement Agency (LEA), indicated the earlier Plan (May 2014) was technically adequate on December 5, 2014, and the revised Plan (June 2014) was incomplete. ESB did not receive nor review the previously submitted Plan (May 2014).*

The May 2014 Plan that was approved by Central Valley Water Board staff (RWQCB staff) and the LEA estimated postclosure maintenance costs at \$4.7 million in 2014 dollars. However, since the Discharger indicated that the May 2014 Plan includes numerous errors, these WDRs allow the Discharger to provide an updated and approved postclosure financial cost estimate and financial assurances by 1 October 2015.

### **COMMENTS ON WDR PROHIBITIONS, SPECIFICATIONS & TASKS**

**Comment on Prohibition A.2:** RYS requests that this prohibition be clarified to allow for disposal of wastewater to a POTW, either by truck transport or via the on-site POTW connection.

**Response:** Comment accepted.

**Comment on Prohibition A.9:** RYS requests that this prohibition be clarified so that it does not nullify other provisions of the tentative WDRs that allow RYS to conduct operations on top of LF-1. In other words, RYS requests that the prohibition be clarified to allow for such operations that meet the requirements in the WDRs that govern the composting activities and water management and the approved Southern Area Work Plan and Compost Area Work Plan.

**Response:** Comment accepted. The finding will read "*The conductance of operations other than those permitted by these WDRs on closed WMUs that introduce liquids into a closed landfill WMU beyond that which would occur due to natural rainfall conditions on an undisturbed final closure cover is prohibited.*"

**Comment on Prohibition A.12:** Consistent with Title 14 regulations and the draft statewide General Order for composting operations, RYS would like to include other permissible feedstocks, namely, paper products and manure. As discussed at our June 15 meeting, manure constitutes less than 10 percent of the composting feedstocks used at the Feather River Organics facility.

**Response:** The language has been changed to allow feedstock permitted by the LEA but also limits the amount of manure to 10% by weight.

**Comment on General Specification B.4:** RYS suggests that this specification be clarified to reflect the fact that there is an approved engineered alternative design that allows for a three-foot separation between waste and groundwater at LF-3. The referenced Standard Provisions and Reporting Requirements (Section E.1) provide for a five-foot separation.

**Response:** Provisions H.5 addresses cases where there may be contradictory language between the WDRs, The MRP, and the SPRRs. Language in the WDRs take precedence over language in the SPRRs since language in the WDRs pertains to site specific requirements. Finding 105 of the WDRs approved to allow for three-foot separation between waste and groundwater at LF-3 which would take precedence over the general five-foot separation requirements in the SPRRs.

**Comment on General Specification B.5:** RYS requests that this specification be clarified to

allow for notification of the Regional Board within 24 hours.

**Response:** Title 27 routinely uses the term “immediately” with no qualifier when describing when action shall be taken by a reasonable, responsible person. For example, Title 27 section 20365(d) when describing how the Discharger shall maintain capacity in its precipitation and drainage collection and holding facilities states that such collection and holding facilities “*shall be emptied immediately following each storm or otherwise managed to maintain the design capacity of the system.*” Therefore, no qualifier is added to B.5 to elaborate on what is meant by “immediately” except as generally accepted as what a reasonable, responsible person would do under such circumstances.

**Comment on Composting Specification C.6:** RYS requests that this specification be clarified to allow for on- site storage of finished compost product until it can be sold or donated.

**Response:** The specification is changed to allow the product to remain onsite so long as it meets the C.2 specification of not exceeding the 40,000 ton capacity of materials on-site at any one time. The specification has also been changed to remove what the Discharger may do with the finished product.

**Comment on Composting Specification C.10:** RYS requests modification of the 30-day repair period, since we believe this timeframe is not practicable or warranted. First, issues related to wet weather conditions and contractor availability could make this timeframe very difficult, if not impossible, to meet under circumstances that are beyond the site’s control. In addition, the compost pad is designed to minimize physical erosion from heavy equipment operations, so any rapid depletion of the thickness following the initial discovery of an issue with the compost pad is unlikely. Further, the pad has a permeability of  $1 \times 10^{-6}$  cm/sec, which equates to an annual infiltration rate of less than one inch, or less than a tenth-of-an-inch over a 30-day period. In light of these factors, it does not seem necessary to require a 30-day repair period. Accordingly, RYS requests that the repair requirement be changed to an annual requirement during the dry season, with the stipulation that all repairs must be completed prior to the onset of the next rainy season (October 15). Alternatively, if this time frame for repair is considered too long, then RYS requests at least a 60-day repair period so that repairs can reasonably be achieved by the compliance deadline.

**Response:** The Discharger’s Compost Pad Operations and Maintenance Manual dated 28 October on page 2 states that the top of the compost thickness marker shall correspond to a compost pad thickness of 7-inches. Based on the Discharger’s comment above that “*rapid depletion of the thickness following the initial discovery of an issue with the compost pad is unlikely*”, the Discharger has one-inch of compost pad thickness as a margin before the compost pad thickness reaches the 6-inch action level in which to plan initiation of the repair of the compost pad. Therefore, the 30-day repair period is warranted. It would benefit the Discharger to initiate repair procedures when the compost pad thickness marker is initially exposed (7-inches of compost material remaining) rather than wait until the compost pad is worn down to 6-inches.

**Comment on Composting Specification C.15:** Consistent with WDR provisions at other composting facilities, Recology requests that this specification include a provision to address high-intensity, short-duration storms that do not exceed the 25-year, 24-hour standard. We propose the maximum peak flow from a 25-year, 10-minute storm, which was used in the WDRs for the Forward Landfill in San Joaquin County (Order R5-2014-0006). In addition, it appears that the 25-year annual return period standard in this specification is based on the previous version of the draft statewide General Order for composting operations. But the recent revision of the draft General Order published on May 29, 2015 replaced the 25-year annual return standard with the 25-year, 24-hour storm event. RYS therefor requests a corresponding change to incorporate the 25-year, 24-hour storm event standard in the tentative WDRs, in order to be consistent with the revised draft General Order.

**Response:** It is the Discharger's responsibility to determine based on site conditions what storm duration from 1-minute up to 24-hour will create worst case conditions for the wastewater collection, conveyance, and containment system. The Discharger indicates that the 10-minute storm duration is the worst case scenario for their site specific conditions. The Specification C.15 has been modified to indicate that the Discharger has determined that the design standard of a 25-year 10-minute duration storm event produces peak compost wastewater flows into its compost wastewater management system.

Regarding replacing the 25-year annual return standard with the 25-year, 24-hour storm event (design storm), the 25-year annual return period standard is to ensure that the Discharger has adequate operational storage (design storage volume) to accommodate consecutive storms of less than the design storm prior to or after the 25-year, 24-hour storm event. Operational storage in a water balance analysis for events of lesser duration or magnitude than the design storm that may occur before and after the design storm is an essential component of an adequate water balance analysis. Title 27 section 20375(a) alludes to operational storage when it uses the phrase "*accommodate seasonal precipitation*" as well as in 20375(b) when it requires the Discharger to provide an "*operation plan*." Language has been changed in Finding 82, Specifications C.15, C.25.a.ii and Provisions H.7.B to require the Discharger to submit and implement a Compost Wastewater Management Plan that contains provisions for operational storage (design storm volume) as described in Title 27 section 20375(a) and 20375(b).

**Comment on Closure & Post-Closure Specifications C.23 & C.24:** These two specifications indicate that they are based on the approved Southern Area Work Plan and the approved Compost Area Work Plan. However, it appears that several provisions of the specifications differ from the standards set forth in these approved work plans. The provisions at issue are as follows:

Under Specifications C.23(f) and (g), cracks must be repaired if they are deemed to "provide a preferential pathway of liquids to migrate towards the underlying final closure cover." This requirement is not contained in the previously approved Southern Area Work Plan, which provides a clear, objective and easily administrable standard that cracks must be repaired if they are greater than 3/8-inch wide. The added standard is subjective and indeterminate and RYS requests that it be deleted.

Similarly, Specification C.23(b) refers to cracks that provide a preferential pathway of liquids to migrate towards the underlying final closure cover, but no dimensions are provided to define what qualifies as a potential preferential pathway. Again, we request that the objective standard of 3/8-inch be used.

In Specifications C.23(k)(1) and (2), the requirement that the compacted fill soil and aggregate base materials have a hydraulic conductivity not exceeding  $1 \times 10^{-6}$  cm/sec is another added requirement that is not in the previously approved Southern Area Work Plan. This plan states that the purpose of the repairs is to achieve a permeability "similar" to the existing cover materials, but no permeability or hydraulic conductivity value is specified. The new requirement in the tentative WDRs would require the collection of undisturbed samples for laboratory testing or in-place field testing to verify compliance. Because of the large grain size of aggregate materials, it is impractical to collect representative, relatively undisturbed samples of these in-place coarse stone materials for permeability testing per ASTM D5084. This is particularly the case in small repair areas. Field in-situ permeability testing of repaired areas is also impractical due the length of time required using the generally accepted sealed double ring infiltrometer method. Testing soils with a hydraulic conductivity of  $1 \times 10^{-6}$  cm/sec can typically take 8-12 weeks to complete using this method. In addition, the specification in the tentative WDRs mandates the use of soil/aggregate base with fines content that is equal to or greater than the existing cover soil/aggregate base and requires that the material be compacted to a density equal to or greater than the existing cover soil/aggregate base.

Therefore, it is reasonable to conclude that the resulting permeability should be similar or greater than the existing cover soil. RYS accordingly requests that the  $1 \times 10^{-6}$  cm/sec requirement be deleted from both specifications.

Specification C.24(a)(3)(i) adds the requirement, which is not in the approved Compost Area Work Plan, that the 15 percent fines component must be based on weight passing through a No. 200 (0.075 mm) sieve wherein the fines have a significant clay content classified as "SC", or "CL", or "CH" under ASTM Designation A2487-11. Since the compost pad is already required to meet a performance standard, RYS believes that adding a prescriptive standard is not warranted. Further, this added requirement may not be practicable to implement from a cost or timing perspective, since it cannot be guaranteed that the requisite materials can be acquired from a standard quarry operation. While the 15 percent fine component from a standard quarry operation may meet this requirement, it is not standard practice to verify the classification of the fines components, nor are most quarries set up to discretely segregate their fines materials based on soil classification. Since the compost pad achieves the desired hydraulic conductivity using the specification set forth in the approved Compost Area Work Plan, there appears to be no reason to add another requirement as proposed in the tentative WDRs.

Specification C.24(a)(3)(viii) adds the requirement, which is not in the approved Compost Area Work Plan, to install lysimeters at a depth of 4 feet underneath the compost pad. Since the compost pad is six inches thick and the final cover is two feet thick, the required completion depth of 4 feet below the ground surface would place the lysimeter monitoring points within the refuse. This is problematic, since it will be very difficult to distinguish water quality characteristics that may be attributed to the composting operations versus the refuse. Thus, if lysimeters are required, RYS requests that the monitoring points be completed one foot below the base of the compost pad, which would position the lysimeters near the midpoint of the final cover.

**Response:**

Specifications C.23(f) and (g) and Specification C.23(b): The qualification that cracks cannot provide preferential pathways has been removed.

Specifications C.23(k)(1) and (2): Title 27 section 21090(a)(2) specifies that a low-hydraulic conductivity layer  $1 \times 10^{-6}$  cm/sec or less shall be placed as a final cover. The CAO Order R5-2013-0704, Order# 5(a)(1) specified that the compost pad be constructed of a low permeability (i.e.,  $1 \times 10^{-6}$  cm/sec) barrier. The Discharger in its Compost Area Work Plan dated October 2013 used the design standard of maximum hydraulic conductivity of  $1 \times 10^{-6}$  cm/sec as its performance criteria. Therefore, the requirement remains to require the Discharger to repair unpaved areas with material that when compacted has a hydraulic conductivity of less than  $1 \times 10^{-6}$  cm/sec. The Discharger has stated that the material used for construction of the compost pad has a hydraulic conductivity of less than  $1 \times 10^{-6}$  cm/sec when compacted. The Discharger can use the compost pad material as compacted fill soil. (See response to comment on C.24(a)(3)(i) for more information on material specifications for compost pad material.)

Specification C.24(a)(3)(i): The requirement that the fines in the low-permeability compost pad have a significant clay content classified as "SC", or "CL", or "CH" is consistent with the Discharger's actions as noted on page 2 of its Compost Area Improvement Report dated 1 December 2014 where the Discharger stated that, "*During the summer and fall of 2014, Recology processed recycled concrete to an approximate 1-inch minus particle size material at their nearby Ostrom Road Landfill facility. This material was mixed with silty-clay soil to create a low-permeability aggregate mixture for use in the compost pad at the RYS facility.*" The Discharger recognized that without the addition of clay fines to the crushed aggregate it would not be able to manufacture a low-permeability material. Title 27 section 20320(d)(2) states that soils used in containment structures require fine grained material to have significant clay content to meet low permeability requirements. The requirement for the Discharger to ensure that the fines have

significant clay content remains unchanged.

Specification C.24(a)(3)(viii): The specification has been changed to require the Discharger monitor the unsaturated zone 0.5-feet above the waste.

**Comment on Closure & Post-Closure Specification C.25(a)(xi)**: The tentative WDRs require that the compost water management system be designed to meet the 25-year, 24-hour storm event for 2015-2016 and the 25-year annual return period thereafter.<sup>1</sup> RYS does not believe a contingency plan should be required for “unforeseen weather events” that exceed the applicable standard. Indeed, if the system meets the requisite standard, what is the different standard that the contingency plan must meet? The requirement to have a contingency plan for “unforeseen weather events” may subject RYS to enforcement, based on conditions that are completely beyond its control, even where its system is fully compliant with the requisite standard. We therefore request that the requirement for a contingency plan above and beyond the applicable standard for the compost water management system be deleted.

**Response**: In addition to other items, Title 27 section 21760(b)(2) requires that the Discharger, as part of their operations plan, include “*contingency plans for the failure or breakdown of waste handling facilities or containment systems, including notice of any such failure, or any detection of waste or leachate in monitoring facilities, to the RWQCB, local governments, and water users downgradient of Units.*” In a letter dated 18 December 2014 the Discharger described several emergency measures that were taken to minimize the discharge of waste and/or impacts of the discharge of waste to the Hog Farm area due to storms that occurred on 3 December 2014 and 11-12 December 2014. These measures would typically be described in a contingency plan for unforeseen weather conditions. The Discharge as a protective measure constructed a temporary geomembrane-lined basin “*to capture and contain any overflows during subsequent rain events.*” Without a description of such contingencies that the Discharger implemented to contain waste, any discharge to such temporary containment system would be considered in violation of the WDRs. The specification has been modified to include language found in Title 27 section 21760(b)(2) for failure or breakdown of waste handling facilities or containment systems. Language is also included to allow the Discharger to provide contingency plans for temporary containment of waste due to unforeseen weather conditions.

**Comment on Financial Assurance Specification F.1**: As indicated in the comment above on Comment on Finding #117, the May 2014 Post Closure Maintenance Plan contained various errors. The most major of these errors is the double- and triple-counting of costs that occurred when the cost spreadsheets were separated into three sets, one for each landfill unit. This factor alone accounts for an overestimation of costs in the May 2014 plan of over \$80,000 annually. Accordingly, RYS is preparing an updated Post Closure Maintenance Plan, which will be submitted as soon as it is completed. Accordingly, RYS requests that the financial assurance provisions of the tentative WDRs be revised to provide for Regional Board staff’s review and consideration of a modified cost estimate and the possible revision of the required financial assurances based on that review, instead of prescribing a minimum value of \$4.7 million. In addition, RYS requests that the June 1 annual submittal date be changed to provide for delivery to the Regional Board within 7 days after the report is submitted to CalRecycle. The reason for this requested change is that CalRecycle may change the due date for the report, which could result in inconsistent due dates between the two agencies. Finally, it bears noting that while the tentative WDRs would require an annual submission, for closed landfills the requirement is to make a submission every five years.

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<sup>1</sup> Please see the comment above on Compost Specification C.15. That comment requests a short-term “intensity” standard and the elimination of the 25-year annual return standard based on the latest revisions to the draft statewide General Order

**Response:** The specification has been modified to allow the Discharger to correct errors in its previously submitted May 2014 Post Closure Maintenance Plan. Title 27 requires annual submittal of financial assurances to ensure that the Discharger is maintaining financial assurances. The submitted report **may** be the same report submitted to CalRecycle. Therefore, the Discharger has the ability and control to meet the 1 June deadline.

**Comment on Financial Assurance Specification F.2:** The second to the last sentence of this specification states that post-closure maintenance costs shall be based on carrying out the first 30 years of post-closure maintenance. However, the remaining post-closure period for the facility was determined to be 15 years in an approval letter issued by CalRecycle dated March 28, 2013. While the facility has only 13 years of post-closure maintenance remaining, Title 27 requires that a minimum of 15 years must be assumed for post-closure maintenance financial assurance purposes. Accordingly, this specification should be revised to require that any updates to the post-closure maintenance plan be based on carrying out 15 years of post-closure maintenance.

**Response:** Title 27 section 21769(b)(1) states that “*the preliminary closure and post-closure maintenance plan for a Unit shall provide a reasonable estimate of the maximum expected cost that would be incurred at any time during the Unit’s projected life for a third party both to close the Unit and to carry out the first thirty years of post-closure maintenance, pursuant to all applicable SWRCB-promulgated requirements of this subdivision, including but not limited to the closure and post-closure requirements under Subchapter 5 of Chapter 3 (§20950 et seq.)*.” However, based on the information provided, the financial assurance specification will be qualified to include that CalRecycle has limited the post-closure maintenance period to fifteen years which continues to be extended so long as a threat to water quality exists at the site per Title 27 section 20950(a)(1).

**Comment on Financial Assurance Specification F.3:** See the comment above on Financial Assurance Specification F.1 with regard to the annual June 1 submittal requirement.

**Response:** Title 27 requires the annual submittal of a financial assurance update to ensure that the Discharger is maintaining financial assurances for corrective action. The submitted report **may** be the same report submitted to CalRecycle. Therefore, the Discharger has the ability and control to meet the 1 June deadline.

**Comment on Provision H.7—Task C:** Please see the comments above on Findings #9(d), #55, #56, #93 and #94. As explained above, RYS requests that the requirement in the tentative WDRs be revised to provide for a further technical evaluation to assess whether the groundwater detection monitoring program is compliant and to determine any upgrades or modifications that may be needed. With respect to the due dates in this provision, RYS is concerned that the September 1, 2015 deadline for preparing a work plan does not provide enough time to adequately complete the plan. RYS therefore requests an extension of this date to December 1, 2015. RYS also requests that the date for completing the work be extended from May 1, 2016 to August 1, 2016, both to allow for sufficient time for preparation, submittal and approval of the work plan, and to avoid possible delays due to adverse weather conditions during the rainy season.

**Response:** See comments on Findings 93 and 94. No further technical evaluation regarding whether the groundwater detection monitoring program is compliant with Title 27 requirements. Provision H.7 has modified to allow more time to meet the due dates specified in the provision.

**Comment on Provision H.7—Tasks E.1, E.2 & E.3:** This comment concerns the deadlines for the corrective action program. With regard to Task E.1, RYS is concerned that the October 1, 2015 deadline for submittal of a revised Corrective Action Plan (CAP) does not provide sufficient time to prepare the plan. Completion of the CAP will require a comprehensive evaluation to assess the existing corrective actions, whether additional corrective actions are practical, whether additional corrective actions would achieve the desired objective, which alternative corrective action approaches should be evaluated, and which corrective action approach should be selected. Accordingly, RYS

requests a completion date of December 1, 2015 for the CAP so that there is sufficient time to complete the necessary engineering work.

With regard to Task E.2, RYS proposes changing the May 1, 2016 deadline for implementing and documenting the CAP improvements, both to provide sufficient time after the initial CAP submittal on December 1, 2015 and to avoid the need to conduct field work during the rainy season, which may not be practical. RYS proposes a revised date of August 1, 2016 or 180 days following Regional Board staff approval of the CAP.

With respect to Task E.3, RYS requests a corresponding change to the due date for the Effectiveness Evaluation Report, from May 1, 2017 to August 1, 2017 or one year following Regional Board staff approval of the CAP. In support of these requested modifications, it is important to note that whereas selected water quality parameters exceed site-specific concentration limits, no organic or inorganic parameters exceed Primary or Secondary Maximum Contaminant Levels. As such, the current site conditions do not represent a potential health risk and we believe that the modest deadline modifications provide a reasonable schedule for the CAP.

**Response:** The suggested dates have been accepted and Provision H.7.E updated.

**Comment on Provision H.7—Task F:** RYS believes that the requirement to submit a revised Water Quality Protection Standard by September 1, 2015 is premature. As explained above, RYS proposes to conduct a further technical evaluation to assess the groundwater detection monitoring network and to determine whether any upgrades or modifications are needed. RYS believes that any revision of the WQPS should await the outcome of this evaluation. Further, assuming that an upgrade to the monitoring program is necessary, the upgrade would have to be proposed and approved by staff before it could be implemented. But the numerous variables that are part of this process may well impact the determination about what revisions to make to the WQPS. RYS therefore proposes modifying the deadline for revising the WQPS to at least 180 days after Regional Board staff approval of the work plan for the detection monitoring program. This would provide sufficient time to accommodate, as applicable, any new monitoring well installations and data that might need to be incorporated into the WQPS analysis.

**Response:** The request to stagger the submission date has been accepted and Provision H.7.F updated to allow for any new monitoring well installations and allow for collection of a sufficient number of groundwater quality samples necessary to perform meaningful statistical analysis.

**Comment on Provision H.7—Task G:** RYS requests that the due date for the Consolidated Post Closure Operations and Maintenance Plan be changed from September 1, 2015 to December 1, 2015. This plan is a comprehensive document for a facility with a variety of operations and monitoring systems and will require considerable effort to compile. RYS recognizes that certain operations and maintenance actions are important to complete prior to the onset of the wet season and will accordingly implement these actions before October 15, 2015. As a result, the requested extension will not adversely affect RYS's ability to properly maintain the facility.

**Response:** The suggested date has been accepted and Provision H.7.G updated accordingly.

**Comment on Provision H.7—Task J:** As previously outlined in the comment to Comment on Finding #77, RYS requests that this task be deleted, as it does not appear that a new Flood Protection Report is warranted.

**Response:** This provision has been changed to delete the requirement that the Discharger provide a new Flood Protection Report but rather requires the Discharger provide an inspection and maintenance plan, an annual cost estimate, and financial assurances that the flood protection structures will be adequately inspected and maintained.

**Comment on Provision H.7:** In the existing text, this provision follows the Compliance Schedule Table. The provision should be moved to before the table.

**Response:** Comment accepted. Thank you.

### **MONITORING & REPORTING PROGRAM**

**Comment on Sections A.1 & A.7(a):** As outlined above in the comments on Findings #9(d), #55 and #56, RYS requests that the requirements in the tentative WDRs be revised to provide for a further technical evaluation to assess the groundwater detection monitoring system for compliance with Title 27 and to determine any upgrades or modifications that may be needed.

As a separate point of clarification, monitoring wells MW-1 and MW-2 have been replaced by monitoring wells MW-1R and MW-2R. Therefore, MW-1 and MW-2 should be removed from the groundwater monitoring network listing.

**Response:** Regional Board staff upon review of the Discharger's monitoring reports has independently found that the current groundwater detection monitoring system does not meet the applicable requirements of Title 27 section 20405(a), 20415(b)(1)(B), and 20415(b)(4)(B). Therefore, Regional Board staff will not recommend to the Regional Board that a further technical evaluation is warranted. As a separate point, MW-1 and MW-2 have been removed from the groundwater monitoring system since they have been replaced by MW-1R and MW-2R.

**Comment on Sections A.2 & A.7(b) and Table II:** The requirement to analyze perimeter LFG monitoring probes for VOCs on an annual basis is not considered necessary in the absence of appreciable LFG. It is more appropriate to link the TO-15 testing requirement to cases where LFG is determined to be present based on the detection of methane and/or VOCs by field monitoring. This methodology is a reasonable approach that is reflected in the Monitoring and Reporting Programs for the Recology Ostrom Road landfill and for the Recology Hay Road landfill. For Recology Ostrom Road (MRP Order R5-2009-0020), TO-15 testing is required if methane is detected at a concentration greater than 1 percent by volume and organic vapors are detected with a photoionization detector (PID) at a concentration greater than 1 part per million (ppm). For Recology Hay Road (MRP Order R5-2008-0188), TO-15 testing is required if methane is detected at a concentration greater than 1 percent by volume or organic vapors are detected with a PID at a concentration greater than 1 ppm. RYS is receptive to either of these two approaches.

**Response:** Literature suggests that PIDs are typically used to detect aromatic hydrocarbons (VOCs with a carbon atom range of 6 to 10 per molecule). Furthermore, literature suggests that concentrations of methane in the gas sample above 1% by volume attenuates the PID readings significantly (at 2.5% methane by volume the PID reading is reduced by 50%). Furthermore, RAE Systems Technical Note TN-106 indicates that a typical PID instrument using a krypton lamp (10.6 eV) has difficulty detecting chloroethane, cis-1,2-dichloroethane, 1,2-dichloropropane, 1,4-dioxane, 1,1,1-trichloroethane, and methylene chloride. These VOCs have been detected at numerous times in the leachate sumps in LF-3. Therefore, before the MRP can be changed to use the proposed screening process for determining when a gas sample requires TO-15 testing the Discharger would have to perform testing and demonstrate in a report to Central Valley Water Board staff that shows a correlation between results of PID in detecting VOCs found in the leachate sumps with TO-15 laboratory results. Therefore MRP Sections A.2 & A.7(b) and Table II remains unchanged.

**Comment on Section A.5(e)(4)(C):** The current wording states that catch basins shall be inspected "on" July 31; it appears that the text should be changed to "by" July 31.

**Response:** Comment accepted.

**Comment on Section A.6(a):** The preparation of isopach maps of the 6-inch thick compost pad provides limited information, particularly as the thickness control monuments provide a more accurate method of monitoring compost pad thickness. RYS therefore requests that the frequency of isopach map preparation be changed from monthly to annually.

**Response:** Tables VII and XI have been changed to indicate that an isopach map needs to be prepared only when the Discharger has made repairs to the compost pad due to not meeting minimum compost pad thickness requirements.

**Comment on Section A.6(b):** The term “adequate freeboard” is used in many sections of the MRP, but the 2-foot freeboard requirement applies only to open-top containment systems. As stated in WMU LF-1 Specification C.15 of the tentative WDRs: “A 2-foot minimum freeboard shall be maintained at all times for open-ended containment systems to prevent overtopping from wave action. Open-ended containment systems shall provide additional operational storage capacity for precipitation which falls into the open-ended containment system...” We suggest adding the text “open-ended containment system” where the MRP refers to “adequate freeboard.”

**Response:** The qualifier was added stating that freeboard only needs to be monitored in open end containment systems.

**Comment on Section A.6(d)(3):** RYS suggests renaming this section to “Annual Compost Facility Inspection” so as to differentiate the required inspection from an engineering level survey.

**Response:** Suggestion accepted and section renamed.

**Comment on Section A.6(e):** RYS requests that this section be clarified so that the required compost water sample can be collected at the single outflow point at the site’s POTW connection, such that there is no need to collect a sample at each of the system components that are listed. Also, RYS requests the monthly sampling frequency be changed to quarterly, consistent with the sampling frequency presented in Table X.

**Response:** The location of the compost wastewater characterization sample has been added. The monthly requirement pertains to checking the leak detection monitoring device (lysimeters) for presence of liquids. The monthly requirement does not apply to compost wastewater characterization.

**Comment on Section A.7:** RYS requests further clarification on distinguishing between Corrective Action Monitoring for the composting operations and for the landfill. RYS also requests that the MRP define the triggers that would activate the Compost Corrective Action Monitoring and the conditions that would need to be met to terminate the Compost Corrective Action Monitoring and revert back to routine monitoring. RYS proposes that the trigger for initiating Compost Corrective Action Monitoring correspond to the issuance of a Notice of Violation coupled with the failure to resolve the identified deficiency within the timeframe specified in the NOV. Conversely, discontinuation of Compost Corrective Action Monitoring would correspond to the completion and demonstration that any repairs or modifications were successful in resolving the identified deficiency, coupled with a written request by the Discharger and subsequent approval by Regional Board staff to discontinue Compost Corrective Action Monitoring.

**Response:** Per Title 27 section 20430(f) and (g), the Discharger remains in corrective action until “the discharger demonstrates to the satisfaction of the RWQCB that the concentration of all COCs are reduced to levels below their respective concentration limits throughout the entire zone affected by the release.” The first sentence of Section A.7 of the MRP restates this demonstration criteria required for exiting a corrective action program.

**Comment on Section A.7(b):** RYS requests the parameter “Temperature into the Flare” be deleted, as this parameter is extraneous and therefore not monitored. In addition, RYS believes that weekly

monitoring of LFG Monitoring Points is unnecessary, and requests the frequency be changed to quarterly. Further, as discussed above in the comment to MRP Section A.2, RYS requests utilizing field monitoring protocols to trigger the need for TO-15 VOC analyses, consistent with the current procedures used at Recology Hay Road and Recology Ostrom Road. Moreover, the requirement to measure and report VOC mass removed can be accomplished in the aggregate, but the system is not designed to accommodate such measurements for each WMU separately. Therefore, RYS requests changing the requirement to measuring and reporting the VOC mass removed in total from all three WMUs.

**Response:** The parameter “Temperature into the Flare” has been deleted. Only LFG Monitoring Points that are in corrective action (See section A.2 for monitoring points in corrective action) need to be monitored at least monthly to determine effectiveness of gas extraction system. Requirement to monitor weekly has been changed to monthly. Please see comment on Sections A.2 & A.7(b) and Table II regarding using results of PID as a trigger to whether TO-15 analysis must be performed. The table regarding requirement to measure and report VOC mass removed has been changed to only require monitoring and reporting of WMUs that are in corrective action in order to assess the effectiveness of the corrective action.

**Comment on Section C.4:** RYS requests that the reference to outliers and upward trends be deleted in the text and in the footnotes in the associated table. Outliers are removed from the statistical analyses. Further, because the site uses background wells, any upward trends in background wells must be accounted for in the statistical analyses, as these trends represent background groundwater quality moving toward the site.

**Response:** Text associated with upward trends has been removed since the Discharger’s WPQS uses Interwell comparison for determining release from a WMU. Text associated with outliers remains since Discharger is reminded that outliers shall not be considered part of the dataset when determining upgradient background water quality.

**Comment on Table I:** RYS requests nitrate as N and nitrite as N be replaced with the current parameter nitrate plus nitrite as N; this removes the need to run the samples with a short holding time. Consistent with the 2003 MRP, calcium, magnesium, potassium, and sodium are used only to construct major ionic parameter evaluations using Piper and Stiff-type diagrams. RYS requests the requirement to calculate concentration limits for Ca, Mg, Na, K be removed and the following language from the 2003 MRP be added: “Concentration limits are not required for calcium, magnesium, potassium, and sodium...” Furthermore, RYS does not believe that it is necessary to indicate the actual month within the quarter that groundwater elevations must be measured. RYS requests that these measurements remain at quarterly, as is current practice.

**Response:** Under reducing conditions nitrite is more prevalent than nitrate. The Discharger is required to monitor both nitrate and nitrite to determine oxidizing or reducing conditions. Furthermore, the primary MCL for nitrites as N is 1 mg/L and the primary MCL for nitrates plus nitrites as N is 10 mg/L. Nitrites may pose a greater threat to water quality at the facility than nitrates depending on the site specific conditions. Table 1 does not require the Discharger to calculate concentration limits for calcium, magnesium, sodium or potassium. The constituents of concern for which the Discharger is currently calculating concentration limits is shown in Section C.4 of the MRP. In order to determine that the Discharger is meeting separation requirements between the highest anticipated elevation of underlying groundwater and bottom of waste the specification to monitor groundwater elevation has been changed to require the Discharger to determine and monitor seasonally to adequately determine seasonal groundwater maximum and minimum elevations.

**Comment on Table II:** As discussed above in the comments to MRP Sections A.2 and A.7(b), RYS requests utilizing field monitoring protocols to trigger the need for TO-15 VOC analyses, consistent with the current procedures used at Recology Hay Road and Recology Ostrom Road.

RYS also recommends that EPA Method TO-14 be changed to TO-15.

Finally, RYS would like to clarify if semiannual monitoring frequencies require semiannual reporting or annual reporting.

**Response:** Please see comment on Sections A.2 & A.7(b) and Table II regarding using results of PID as a trigger to whether TO-15 analysis must be performed. Reference to TO-14 has been changed to TO-15. For unsaturated zone monitoring points not in corrective action the reporting frequency has been changed to Annual.

**Comment on Tables III & IV:** As with Table II, RYS would like to clarify if semiannual monitoring frequencies require semiannual reporting or annual reporting.

**Response:** In Tables III & IV the Reporting Frequency is shown in the last column. The Sampling Frequency column in the tables indicates how often the field and monitoring parameters are sampled. The Reporting Frequency column is how often the sampling results have to be reported. The Reporting Schedule at the beginning of Section B of the MRP indicates when the reports are due. For example, reports with a semiannual reporting frequency the due dates are due 1 August and 1 February.

**Comment on Table VII:** There appears to be little change in the topography of the compost pad on a month- to-month basis. RYS therefore requests the frequency of the Compost Pad Topographic Survey be revised from monthly to quarterly.

**Response:** The monitoring frequency has been changed from monthly to quarterly.

**Comment on Tables VIII & IX:** RYS requests that the reporting frequency be changed from semiannual to annually for the compost operations storage tank and sump monitoring. The monthly/daily monitoring data could then be included in the annual compost report due April 1 of each year.

**Response:** Central Valley Regional Board staff requires semiannual reporting of Tables VIII and IX in order to ensure Discharger compliance with the Discharger's Compost Wastewater Management Plan.

**Comment on Table X:** RYS proposes to add the text "adequate freeboard of open-ended containment system" to the first parameter on the list. Please see comment above on Section A.6(b) of the MRP.

**Response:** The requirement to monitor freeboard in Table X has been deleted since the purpose of Table X is to characterize the compost wastewater. Freeboard requirements are found in table XIII and language has been added to Table XIII to qualify that freeboard requirements are only required for open ended containment systems.

**Comment on Table XI:** There is an inconsistency between the monthly survey reporting frequency and footnote #2, which directs reporting annually in the Annual Monitoring Report.

**Response:** Footnote#2 has been corrected. During corrective action, the Discharger shall report results of compost pad topographic survey monthly.

**Comment on Attachment D (Storm water Flow Direction):** Storm water does not flow out of the Hog Farm. RYS requests that this figure be modified by adding a "closed valve" symbol at the Hog Farm discharge location and the Legend revised to include "Culvert with Gate Valve".

**Response:** Attachment D has been updated to incorporate the Discharger's comments.