
Central Valley Regional Water Quality Control Board

6 May 2014

Mike Azevedo
Colusa County Department of Public Works
1215 Market Street
Colusa, CA 95932

RESPONSE TO COMMENTS, TENTATIVE REVISED WASTE DISCHARGE REQUIREMENTS, STONYFORD LANDFILL, COLUSA COUNTY

Central Valley Water Board permitting staff reviewed your 17 April 2014 comments on the tentative revised Waste Discharge Requirements (WDRs) for the Stonyford Landfill. The tentative WDRs were issued on 17 March 2014 and are scheduled for consideration at the Water Board's 5 and 6 June 2014 meeting. This letter provides Water Board staff's response to your comments. A summary of your comments and staff's response to each are provided below.

1. Gas Vent Monitoring

Comment -- As the groundwater data clearly shows that no VOCs have been detected since the installation of the passive soil gas vents, there does not appear to be just cause or rationale for the increase monitoring or sampling of the vents for field gases and VOCs. Monitoring for the effectiveness of the corrective action (soil gas vents) should continue to be limited to groundwater sampling and analysis. Therefore we request that all items related to soil gas vent monitoring be deleted from the WDRs and MRP.

Staff Response – Gas sampling of the vents is needed to assess the threat to groundwater from constituents in landfill gas (LFG) and the effectiveness of venting as a corrective action measure to mitigate this threat. For example, knowledge of the VOC composition of the landfill gas helps determine the level of threat to groundwater from VOCs and how robust the groundwater monitoring system needs to be. Also, significant disparities in LFG concentrations between vents could potentially indicate that a vent is not operating properly and needs adjustment or repair. It should also be noted that the vents were constructed with sampling ports to allow for sampling and that the County agreed to conduct quarterly methane monitoring of the vents under the approved work plan for installation of the vents.

Given that no VOCs have been confirmed in groundwater at the site for several years, as noted in your comments, staff supports a reduction, but not elimination, of gas vent monitoring requirements under the tentative WDRs. The monitoring frequency for field gases has therefore been reduced from quarterly to semiannually and the sampling frequency for VOCs in landfill gas has been reduced from semiannually to annually. One field parameter, organic vapors, has been added to the program, however, to provide a more reliable field indicator of VOCs in landfill gas. The trigger for VOC

sampling of vent gas has been correspondingly revised to include organic vapors and raise the level of methane triggering sampling. The revised trigger for VOC sampling is now "> 40% methane and/or > 50 ppbv total organic vapors" rather than "> 30 % methane", as in the original tentative MRP. See MRP, Table A.7.

2. Background Monitoring

Comment -- As the uppermost aquifer is typically limited in thickness and as the well screen interval is typically 20 feet, it does not seem reasonable that two wells can be installed where there will be substantial distance (separation) between the upper and lower zones of the uppermost aquifer that would result in obtaining any real meaningful data. As such, it is requested that only one (1) new well be installed. References to two wells and associated sampling in the MRP also need to be deleted.

Staff Response – The tentative WDRs have been revised to require installation of a lower zone background monitoring well only if the initial well boring indicates that there are two saturated zones (i.e., upper and lower) within the uppermost aquifer and that they need to be separately monitored. The decision whether or not to install the lower zone well would be required to be made based on field data and approved by Water Board staff. See WDR Finding 38, Provision J.6.b, and MRP Table A.1.

3. Revised Preliminary Closure and Postclosure Maintenance Plan

Comment – Whereas Colusa County has spent considerable funds and just completed an Updated Preliminary Closure and Postclosure Maintenance Plan in 2012; and Whereas the PCPCMP provides reasonable design analysis for future closure and maintenance of the landfill in 2036 (22 years in the future) and Whereas the PCPCMP contains a 20% contingency for cost estimating and whereas Colusa County maintains financial assurances well above the 21% minimum required by CalRecycle, Colusa County takes exception to WDR requirement for a new revised PCPCMP. This document is costly to prepare and at this time requires little if any updates to the usefulness and overall management of the landfill and protection of groundwater. Please delete this requirement.

Staff Response – In a 29 February 2012 letter providing comments on the proposed PCPCMP (copy enclosed), staff noted that the PCPCMP would likely need to be further revised to reflect requirements in the revised WDRs, once issued. The tentative WDRs identify areas of concern in the PCPCMP that need to be revisited for accuracy and Title 27 compliance, including, but not limited to, the size of the landfill footprint, landfill capacity calculations, and slope stability. Cost estimates and financial assurances provided for the landfill also need to be consistent with the revised WDRs. No change has been made in response to comments, except for the inclusion of language requiring that the revised PCPCMP be consistent with the postclosure maintenance/monitoring schedules under the revised MRP. See WDR Findings 63 through 66 and Closure and Postclosure Specification E.1.

4. Storm Water Sampling

Comment -- The proposed new sampling point is incorrectly shown on Attachment B. There is not a basin beyond the landfill perimeter fence. A schematic layout of the correct basin location and sampling points S-1 and S-2 are shown in the attached aerial overview. As the basin contains surface water runoff which in many times accumulates and does not flow out of the outfall culvert, collecting an additional sample S-3 will not provide meaningful data. This data will likely be biased as concentrations of chlorides, TDS etc. will be higher due to evaporation

and point source accumulation. Conversely, concentrations such as VOCs will be biased low due to surface evaporation and volatilization. As such sample point S-3 adds no meaningful data and will unnecessarily increase the costs of the monitoring program. Please delete this sampling point from the MRP.

Staff Response – Attachment B of the tentative WDRs has been revised to show the correct location of the sedimentation basin based on the aerial map provided with your comments. Storm water monitoring of the sedimentation basin is warranted because the basin collects storm water runoff. Language has been added to MRP, Section 4 requiring that storm water sampling for a given monitoring period be conducted during the same monitoring event when there is flow in the perimeter swales. Evaporation and/or volatilization should be less of an issue during such periods.

5. Other

Comment – It is unclear from a review of the WDRs and MRP what data would be required from offsite well owners.

Staff Response – Language on Page 11 of the MRP referring to data from offsite well owners was a typo and has been deleted.

Pages showing the red-line edits for the above changes are enclosed with this letter for your reference. Staff hopes that the above responses adequately address your comments regarding the tentative WDRs for the Stonyford Landfill. Please note that the agenda package for the June 2014 Board meeting, including your comments on the tentative WDRs and Water Board staff's response, will be posted on the Water Board's website at the following link:

http://www.waterboards.ca.gov/centralvalley/board_info/meetings/#2013

If you have any questions, please feel free to contact me at (916) 464-4641 or by email at john.moody@waterboards.ca.gov.

JOHN MOODY
Water Resources Control Engineer
Title 27 Permitting and Mines

Enclosures

cc w/o enclosures:

JoAnne Byrne, Financial Assurances Division, CalRecycle, Sacramento
Beatrice Poroli, Permitting & LEA Support, CalRecycle, Sacramento
Michael Wochnick, CalRecycle, Closure & Technical Support, Sacramento
Patrick Pulupa, Office of Chief Counsel, SWRCB, Sacramento
Craig Erickson, Colusa County Department of Health & Human Services, Environmental Health Division, Colusa County
Greg Haling, Haling & Associates, Chico



California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

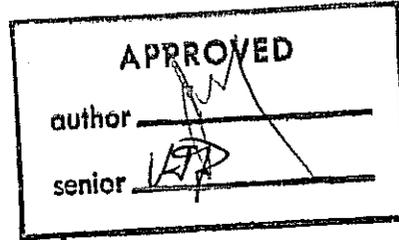


11020 Sun Center Drive, #200, Rancho Cordova, California 95670-6114
(916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

Matthew Rodriguez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

29 February 2012



Mike Azevedo
Colusa County Department of Public Works
1215 Market Street
Colusa, CA 95932

PRELIMINARY CLOSURE AND POSTCLOSURE MAINTENANCE PLAN, WDR ORDER NO. 99-080, STONYFORD LANDFILL, COLUSA COUNTY

Central Valley Regional Water Board permitting staff has reviewed the December 2011 *Revised Preliminary Closure and Postclosure Maintenance Plan (PC/PCMP)* prepared and submitted by your consultant Haling & Associates for the Stonyford Landfill. The plan proposes a conceptual design, work scope, and financial assurance cost estimates for landfill closure and postclosure maintenance under Title 27 regulations. Our comments follow the site summary below.

The 6.3 acre landfill facility is about one mile south of the community of Stonyford. The facility has been in operation since 1974 accepting primarily household wastes. The waste disposal area is about 3.3 acres. The landfill accepts an average of about 0.45 tons per day (TPD) of waste and has about 40,802 in place cubic yards (4,080 tons) of remaining waste capacity. About 61,836 in place cubic yards (6,184 tons) of waste have been discharged to the landfill to date. The landfill will reach capacity in the year 2036 at its maximum authorized waste elevation of 1,320 feet MSL. The PC/PCMP anticipates a final cover design consisting of two feet of foundation soil (or other acceptable materials) overlain by a low hydraulic conductivity layer consisting of 60 mil LDPE liner ($k \leq 1 \times 10^{-6}$ cm/sec) and one foot of vegetative cover soil. The estimated closure and annual postclosure maintenance costs are \$712,377 and \$39,724, respectively.

Our comments on the PC/PCMP are as follows:

1. Background Information (e.g., Section 1.2) -- Explain why the landfill was developed without a base liner and leachate collection and recovery system (LCRS), as are generally required under Title 27 regulations (see Title 27, Sections 20330 and 20340). Include identification of any liner exemptions that may be applicable to the facility (e.g., pre-regulation, adequacy of geologic materials, small community landfill under Subtitle D regulations).
2. Former Septage Ponds
 - a. Clarify whether clean-closed or closed-in-place

- b. Address whether a soil investigation of the former pond area was ever conducted and whether there are or may be waste constituents remaining in the soil at the site from the ponds that could potentially impact groundwater.
 - c. The S'-S cross section Closure Cover Drainage and Erosion Control Plan drawing (Sheet 7) indicates no waste in the area where the septage ponds were located. Revisit/revise drawing, as necessary,
3. Gas Controls -- Include conceptual as built drawing showing gas controls through final cover. Include icons for vents and representative cross sections of significant design elements. (e.g., gas vents through the landfill cover).
4. Final Cover
 - a. Because the low hydraulic conductivity component of proposed final cover system does not consist of a prescriptive compacted clay liner, refer to (and ultimately propose) as an engineered alternative design (per Title 27, Section 20080(b)). See Title 27, Section 21090(a)(2).
 - b. Provide information to demonstrate that proposed cover will not produce "bathtub effect" (i.e., permeability of proposed cover less than or equal to permeability of natural geologic materials immediately underlying landfill). See Title 27, Section
 - c. Show clean final grading plan including cover. In addition to limits of final cover, show current and maximum limits of landfill waste in drawing. See Title 27, Section 21769(b)(2).
5. Cost Estimates -- To the extent that the above comments do not result in the need to revise the financial assurance cost estimates in the PC/PCMP, the estimates proposed in the PC/PCMP are hereby approved.

By **30 March 2012**, please submit an addendum to the PC/PCMP that addresses the above comments. Also, please note that waste discharge requirements (WDRs) for this facility are out of date and in need of revision. Staff anticipates that the WDRs will be updated/revise sometime during in the next fiscal year and will contact the Discharger at the appropriate time with a request for the necessary information (e.g., Joint Technical Document, completed application form). Once the WDRs are revised, it is also likely that the PC/PCMP will need to be further revised to reflect revised requirements in the WDRs.

If you have any questions, please call me at (916) 464-4641.

Sincerely

John Moody
Water Resource Control Engineer
Title 27 Permitting and Mines
Lower Sacramento River Watershed

Mike Azevedo
Colusa County Department of Public Works
Colusa County

-3-

29 February 2012

cc: JoAnne Byrne, Financial Assurances Division, CalRecycle, Sacramento
Beatrice Poroli, Permitting & LEA Support, CalRecycle, Sacramento
Craig Erickson, Colusa County Department of Health & Human Services –
Environmental Health Division, Colusa County
Greg Haling, Haling & Associates, Chico

