

Project No. 4142-01  
December 3, 2013

California Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670-6114

Attention: Mr. John Moody

**Reference:** *Tentative Revised Waste Discharge Requirements*  
McCourtney Road Landfill  
Nevada County, California

**Subject:** *Comments on Tentative Order*

Dear Mr. Moody:

On behalf of the Nevada County Department of Public Works, Holdrege & Kull (H&K) is providing comments on the tentative revised Waste Discharge Requirements (WDR) for McCourtney Road Landfill in Nevada County, California. The comments pertain specifically to the following documents:

- *Waste Discharge Requirements for Corrective Action, Postclosure Maintenance, and Surface Impoundment Operations* (Tentative WDR); and
- *Monitoring and Reporting Program for Corrective Action, Postclosure Maintenance, and Surface Impoundment Operations* (Tentative MRP).

### **Comments on Tentative WDR**

#### **Finding 55, Concentration Limits**

H&K's "Amendment to Sample Collection and Monitoring Plan, McCourtney Road Landfill" was issued on June 29, 2010, in accordance with a work plan previously submitted for review by the Regional Water Board, and pursuant to a directive from the Regional Water Board. Since that time, concentration limits have been updated semi-annually pursuant to the methodologies set forth in the June 2010 document. Interwell prediction limits are employed for analysis of detection monitoring data to address the significant spatial variability identified at the site.

As directed in the Tentative WDR, the County will prepare a WQPS Report to formalize the June 2010 improvements to the monitoring program. The County requests that Finding 55 be modified as shown below to more accurately reflect the site history.

55. The Discharger submitted an updated statistical evaluation procedure in 2010 for groundwater detection monitoring, and since that time has updated the groundwater concentration limits on a semi-annual basis pursuant to this procedure. ~~does not currently have an approved list of concentration limits for detection monitoring.~~ Previous WDRs Order No. R5-2004-0022 required that the Discharger use an interwell data analysis approach for calculation of concentration limits for statistical (i.e., naturally occurring) constituents of concern in groundwater. Concentration limits for nonstatistical constituents of concern (e.g., VOCs) were specified as non-detect. In 2010, the Discharger proposed the use of an intrawell procedure (intrawell Prediction Limits) for analysis of detection monitoring data (See 29 June 2010 report Amendment to Sample Collection and Monitoring Plan, prepared by Holdrege and Kull) and since then has been using this method for computing groundwater concentration limits for general minerals at the site. A review of the files indicates that the proposal was never formally approved and that a revised Water Quality Protection Standard Report was not submitted (or required) under previous WDRs. These WDRs therefore require that the Discharger submit a revised Water Quality Protection Standard Report consistent with the requirements of this Order. The monitoring and reporting program, for example, requires that concentration limits for statistical constituents be based on an interwell approach absent a satisfactory demonstration that an intrawell approach is justified at the site (e.g., existence of significant spatial variability not attributable to a release from the unit). For evaluation of corrective action progress (i.e., trends), the monitoring program specifies an intrawell statistical procedure (e.g., Sens Slope Method) currently used by the Discharger as under previous WDRs. See Section C.4., MRP.

#### Finding 58, Typographical Correction

Subheading designations in Finding 58 should be typographically corrected.

#### Finding 65, Surface Impoundment Construction

Finding 65 indicates that Surface Impoundment 1 (SI-1) is to serve as a backup for the leachate tank farm. As stated in H&K's comments on the draft WDR (September 19, 2013), SI-1 will not serve as a backup, and will store only inert liquids. A preliminary closure and postclosure maintenance plan (PC/PCMP) is currently being prepared for both surface impoundments. The County requests that Finding 65 be modified as shown below to more accurately reflect the site status.

65. Surface Impoundment 1 (SI-1) was constructed in the southern part of the OSPA (north of the Old Landfill Mass) in 1987. With a capacity of 5.2 million gallons (MG) and a 1.4-acre footprint, SI-1 is the larger of the two Class II surface impoundments at the site. ... In June 1989, three surface aerators were installed in SI-1 for odor control and evaporation enhancement. As discussed in Findings 75 and 76, ~~SI-1 is now only used to store inert water. the Discharger plans is to use SI-1 as a backup for the tank farm leachate storage system.~~

#### Finding 75, Surface Impoundment 1

As discussed above for Finding 65, SI-1 is to store only inert liquids, and is not to be used as a backup for the leachate tank farm. Accordingly, the County requests that Finding 75 be modified as shown below to more accurately reflect the site status.

75. Freeboard restrictions and impoundment maintenance requirements in previous WDRs imposed indirect limits on how much and how long waste and any associated solids/sludges could be stored in SI-1 prior to disposal. Liquids were pumped from the impoundments as necessary to maintain freeboard, prepare the impoundment for cleaning or repair, and to winterize the impoundment. The 1.4 acre, open-air impoundment also collected a significant amount of direct precipitation during the wet season, which increased the volume of wastewater in the impoundment that had to be trucked offsite for disposal. The costs of handling and disposing of increased wastewater volumes from rainwater led to the installation of the above above-ground tank farm described in Finding 78. Consistent with previous WDRs, Discharge Specification B.2.c requires that the Discharger maintain a freeboard of at least 2.9 feet in both Class II surface impoundments corresponding to two feet plus the calculated rise in liquid level associated with a 1,000 year, 24 hour storm event. Facility Specification C.4 of these WDRs requires that the Discharger manage the liquid levels in the impoundment in accordance with the Discharger's operation plan, which was approved by Board staff and is required under Title 27. Liquids discharged to the impoundment include direct rainfall and uncontaminated groundwater from dewatering activities at Landfill Unit 2. This Order limits the discharge of wastes to this impoundment to such inert liquids. See Discharge Specification B.2.a.i. However, SI-1 remains a class II surface impoundment until closure is completed in accordance with Title 27 section 21400. The WDRs also include other discharge prohibitions and specifications appropriate for a Class II surface impoundment given the Discharger's plan to use SI-1 as a backup storage facility for the leachate tank farm in the event of an emergency.

### Finding 76, Surface Impoundment 1

As discussed above for Finding 65, SI-1 is to store only inert liquids, and is not to be used as a backup for the leachate tank farm. Accordingly, the County requests that Finding 76 be modified as shown below to more accurately reflect the site status.

*76. SI-1 has been drained and repaired several times during its operational period to repair leaks in the primary liner. During the past several years, about 2,500 gallons per month of leachate has been collected in the LCRS and returned to the impoundment using a portable pump. In June 2013, concurrent with leachate tank farm start-up, SI-1 was taken out of service for cleaning, leak-testing, and repair. After partially draining the impoundment, it was discovered that leachate stopped collecting in the LCRS. Inspection of the primary liner revealed a leak about 6 to 8 feet below the rim and seam separations in a few areas. The Discharger has since repaired the leak and returned the impoundment to service as an operations water pond for dust control and fire suppression purposes. The impoundment is still plumbed to the waste management units; however, the valves are to remain closed, and plumbing is to be disconnected pursuant to a forthcoming preliminary closure plan for the surface impoundment. Liquids discharged to the impoundment include direct rainfall and uncontaminated groundwater from de-watering activities at Landfill Unit 2. This Order limits the discharge of wastes to this impoundment to such inert liquids. See Discharge Specification B.2.a.i. However, SI-1 remains a class II surface impoundment until closure is completed in accordance with Title 27 section 21400, and is considered a backup storage facility for the leachate tank farm in the event of an emergency or other contingency and therefore has the potential to take designated waste.*

### Finding 79, Pump Stations

The County requests that Finding 92 be modified as shown below to more accurately reflect the site status.

*79. Four onsite pump stations exist that pump liquid wastes from various sources to the storage facilities at the site, as follows:*

*a. Pump Station 1 (PS-1) is plumbed to collect leachate from Landfill Unit 1, including the leachate collection piping under the final cover (see Finding 91), interceptor piping beneath the landfill toe embankment and buttress areas (commingled leachate and groundwater), ~~the leachate extraction wells in the OLM (historically dry)~~, and LCRS piping of the former 89-90 Cell.*

b. PS-2 pumps leachate from Closure Landfill Unit 2's LCRS sump. An adjacent riser for the subdrain was previously disconnected from ~~has not yet been connected to~~ the pump station, given that the subdrain has been historically dry. (In the event pumping from the subdrain becomes necessary, that riser would also be connected to PS-2).

c. PS-3 pumps leachate collected from the leachate interceptor piping in Closure Landfill Unit 2's final cover, as well as LFG condensate collected by gravity drainage from the LFG collection system to a holding tank near the flare station. Both flows are pumped northeast ~~north~~ into PS-2's discharge line.

d. PS-4 pumps wash water and contact storm water from a holding tank in the MRF/transfer station area to the central collection manhole.

#### Finding 92, Surface Impoundments

As discussed above for Finding 65, and as stated in H&K's comments on the draft WDR (September 19, 2013), SI-1 is to store only inert liquids, and is not to be used as a backup for the leachate tank farm. Accordingly, the County requests that Finding 92 be modified as shown below to more accurately reflect the site status.

92. Section 21769 of Title 27 requires submission of closure plans for all classified waste management units, including surface impoundments. The Discharger has indicated that surface impoundments SI-1 and SI-2 will remain active as an operations water impoundments ~~and that SI-1 will also be considered a backup impoundment for the leachate tank farm~~. A preliminary closure and postclosure maintenance plan (PC/PCMP) is therefore required for the units under Section 21769(b). A review of the RWD indicates that the Discharger has not previously prepared and submitted these plans for review and approval, as is required under Section 21769(d). WDR Provision J.5.b therefore requires that the Discharger prepare and submit a PC/PCMP (or PC/PCMPs) for the surface impoundments at the site to the Central Valley Water Board for review and approval.

#### **Comments on Tentative MRP**

##### Table A.1.a.iii, Surface Impoundment Monitoring Wells

Pursuant to H&K's comments on the draft MRP (August 29, 2013), and based on a review of the well completion report, the zone designation for background groundwater monitoring well DW-2 may be changed from "Upper" to "Lower" to reconcile its designation on the previous Table A.1.a.ii.

#### Table A.3.b.i, Storm Water Monitoring Points

Pursuant to H&K's comments on the draft MRP (August 29, 2013), the status designation for storm water monitoring point SW-104 may be changed from "Background" to "Detection" to more accurately represent the site conditions.

#### Table A.3.b.ii, Storm Water Monitoring Schedule

Monitoring parameters for storm water include the full list of Title 22 metals and Volatile Organic Compounds (VOCs). The County requests that storm water be monitored only for constituents that could be reasonably encountered in storm water, i.e., total lead and petroleum hydrocarbons (gasoline, diesel, motor oil and grease).

#### Table A.6, Liquids Discharge Monitoring Points

Please update Table A.6 to better represent the current monitoring program by changing the "Destination" column for the Central Manhole monitoring point from "SI-1" to "Tank Farm". The Central Manhole flows to the tank farm, and thus flow monitoring is typically performed at the tank farm.

The County requests that the "90-91 Cell Subdrain Sump" be removed from Table A.6, as no liquid has historically been produced at this location.

The County requests that flow monitoring for septage and chemical toilet waste at facility buildings be removed from Table A.6, as the flows are insignificant.

#### Section 8.a, Soil-Pore Gas Monitoring

The County requests that the VOC sampling criteria following Table A.8.a.ii be modified as follows to reflect the current requirements for soil-pore gas monitoring:

*VOC sampling shall be required in all probes in which ~~one or more of~~ the following criterion is ~~are~~ satisfied:*

- ~~• Meter results show methane above 0.5% by volume and/or;~~
- Meter results show total organic vapors above 50 ppbv during the current monitoring event; ~~and/or~~
- ~~• EPA Method TO-15 VOCs exceeded 50 ppbv during the preceding monitoring period.~~

These proposed criterion would dramatically increase the County's costs for TO-15 testing. For example, second semester 2011 TO-15 analysis requirements would

have doubled, from 15 to 29 samples, and first semester 2011 TO-15 analysis requirements would have more than quadrupled to 22 samples. Considering the sample collection, quality control, laboratory analysis and reporting costs, this additional TO-15 testing would cost more than \$10,000 per year.

The quantity of soil-pore gas monitoring at the site is already unusually high based on the historical LFG release, which is now well controlled by the LFG extraction system and current monitoring program. The proposed additional TO-15 testing is not needed to identify the source, to characterize the release or to assess progress towards remediation, nor is it needed to assess whether the system is functioning properly. Therefore, the County requests that the proposed additional monitoring criterion be deleted as noted above.

Units listed in Table A.8.a.ii for VOCs may be changed from " $\mu\text{g}/\text{cm}^2$ " to "ppbv" or " $\mu\text{g}/\text{m}^3$ ".

#### Section C.6, Point of Compliance

As suggested in H&K's review of the draft MRP (August 29, 2013), the table in Section C.6 should list the existing compliance wells for the landfill units and surface impoundments. New wells are to be installed in 2014 pursuant to the Regional Water Board directives; however, the existing wells should be added to the table to more accurately reflect the site status and good compliance record.

H&K appreciates the opportunity to comment on the tentative order. Please contact the undersigned if you need additional information.

Sincerely,

**HOLDREGE & KULL**



Jason W. Muir, PE, GE  
Principal Engineer

copies: Nevada County Department of Public Works /Attn: Mr. Bob Elder  
Electronic copy in PDF format to all recipients

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