

**STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**STAFF REPORT FOR REGULAR MEETING OF DECEMBER 5 - 6 2013  
Prepared on October 17, 2013**

**ITEM NUMBER: 8**

**SUBJECT: Revised Waste Discharge Requirements for the John Smith Road Class I Landfill (Closed) and Class III Landfill, San Benito County - Order No. R3-2013-0047**

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**KEY INFORMATION:**

Location: Five miles southeast of the City of Hollister on John Smith Road.  
Owner/Operator: City of Hollister (closed Class I Landfill), San Benito County Integrated Waste Management Department (active Class III Landfill), Waste Connections, Inc. (operator)  
Type of Waste: Non-hazardous municipal solid wastes.  
Capacity Used: 3,906,000 cubic yards (3,344,000 tons) as of March, 2013.  
Remaining Capacity: 5,448,000 cubic yards; estimated closure date is 2041 (at current disposal rate).  
Disposal: Area/canyon fill method.  
Liner System: Active waste management units are lined and unlined; composite liner with a leachate collection and removal system are required for new waste management units.  
Existing Orders: Waste Discharge Requirements Order No. R3-2010-0021  
Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities (General Storm Water Permit for Industrial Activities)  
**This Action: Adopt Waste Discharge Requirements Order No. R3-2013-0047**

**SUMMARY**

Proposed Waste Discharge Requirements Order No. R3-2013-0047 ("Order" or "Order No. R3-2013-0047") and proposed Monitoring and Reporting Program Order No. R3-2013-0047 ("MRP") for the John Smith Road Class I Landfill (Closed) and Class III Landfill (Active) (collectively "Landfill") revise the Landfill's sequencing plans, MRP, and update the regulatory and operational status of the Landfill. This Order revision is required to reflect changes in current and future Landfill activities. The primary need for the proposed Order is to expand the Landfill permitted waste footprint prior to approval of waste placement in future lined modules. Recent changes and proposed changes at the Landfill and within Order include:

- a. Description of expanded Landfill property boundary.
- b. Proposed 14-acre expansion of the Landfill permitted waste disposal footprint.
- c. Updated description of Landfill operations including construction of new lined modules.
- d. Updated Landfill characterization information.
- e. Updated Landfill monitoring and reporting requirements.

## DISCUSSION

Proposed Order R3-2013-0047 updates and replaces Waste Discharge Requirements Order No. R3-2010-0021, adopted by the California Regional Water Quality Control Board, Central Coast Region (hereafter "Water Board") on May 13, 2010. The proposed Order covers the current Landfill operations and provides guidance and requirements for proposed changes at the Landfill. For the lined portion of the Landfill, the design and construction specifications within the proposed Order meet or exceed requirements in California Code of Regulations Title 27 (CCR Title 27), and Code of Federal Regulations Title 40 Parts 257 and 258 (CFR Title 40 Parts 257 and 258), both of which pertain to siting, design, construction, and operation of solid waste management facilities.

**Facility Description:** The Landfill is located in San Benito County five miles southeast of Hollister, as shown on "Location Map" Figure 1 of the Order, and the physical address is 2650 John Smith Road, Hollister, California, 95023.

The Landfill property boundary ("waste management facility," as defined in CCR Title 27) encompasses 95.16 acres. The Landfill's total permitted operational area is 90.05 acres, including lot line adjustments that expanded the Landfill property boundary from 64.71 acres to the present total of 95.16 acres. The Landfill presently consists of a closed 5.11-acre Class I Landfill and the active 90.05-acre Class III Landfill. The closed Class I Landfill facility boundary was formerly 8.16 acres, but is now 5.11 acres due to recent lot line adjustments. The closed Class I Landfill is unlined and received wastes from 1977 to 1983. San Benito County and the City of Hollister (Discharger) formally closed the Class I Landfill in 1992. The Discharger is also in the process of obtaining a Class 3 permit modification from DTSC to utilize the Class I Landfill area for staging and stockpiling soil to accommodate current and future construction activities for the Class III Landfill. The Discharger is concurrently in the process of a permit renewal for the Class I Landfill Post-Closure permit issued by DTSC. On June 4, 2013, DTSC issued a 'Temporary Authorization' letter for staging and stockpiling soil in the Class I Landfill area while they process the Discharger's permit renewal. Thirty years of monitoring show no groundwater impacts from the closed Class I Landfill.

The active 90.05-acre Class III Landfill has been in operation since 1968 and has a 44-acre permitted waste disposal footprint that includes unlined (pre-Subtitle D) and lined waste disposal areas, or "modules." As part of revised Order No. R3-2013-0047, the Discharger proposes expanding the 44-acre permitted waste disposal footprint by 14 acres by adding Modules 7 through 11 for a new total 58-acre permitted waste disposal footprint. The "Permitted Waste Disposal Footprint" in Figure 2 of the Order shows the current waste disposal footprint in green and the proposed expanded waste disposal footprint in blue. This expansion is also consistent with the Discharger's Solid Waste Facility Permit (SWFP) issued by the California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle renewed the Discharger's SWFP on March 22, 2013. To protect water quality, the Discharger is required to construct all new Landfill modules with composite liners and leachate collection and removal systems in accordance with CCR Title 27 through issuance of this Order.

The active Class III Landfill receives waste from the cities of Hollister and San Juan Bautista, and unincorporated areas of the County. Waste is also accepted from surrounding counties. The active Class III Landfill receives approximately 90,250 tons of waste annually. An average of 250 tons of waste are disposed daily. Under the Discharger's renewed SWFP, CalRecycle permitted the Discharger to accept up to 1,000 tons per day, an increase from the previously permitted 500 tons of waste per day.

**Waste Placement and Capacity:** As of March 2013, the Landfill holds an estimated 2,344,000 tons (3,906,000 cubic yards at 0.6 tons per cubic yard) of waste. The permitted remaining Landfill gross

disposal capacity is estimated at 3,267,000 tons or 5,448,000 cubic yards. Based on current waste disposal rates, the Landfill would reach permitted capacity by approximately 2041.

**Surrounding Land Use:** Land within a one mile radius of the Landfill is predominantly zoned for agricultural/rangeland and agricultural/productive. Land to the west of Best Road is zoned as rural land. There are no residences or other structures located within 1,000 feet of the Landfill's permitted waste disposal areas.

**Geology:** The Discharger identified three principal geologic units underlying the Landfill, which include the: Cretaceous Panoche Formation, Pleistocene older terrace deposits, and Quaternary surficial deposits. The Panoche Formation consists of marine-deposited sandstone and shale, which crops out mostly on the south side of the canyon. The older terrace deposits are composed of sandy claystone, clayey sandstone, and conglomerate. The surficial deposits, which occur at the mouth of the canyon, consist primarily of clayey silts and silty clays with some silty sands. The Panoche Formation underlies the entire Landfill, lined and unlined, and the northern portions of the Landfill lie directly on the older terrace deposits.

**Surface Water:** The Landfill is located well above the 100-year flood plain and there are no designated wetlands within the Landfill boundary. Surface water flows are ephemeral and consist of natural drainage courses outside the Landfill boundary. Surface water drainage from the Landfill enters an unnamed tributary to Santa Ana Creek located in the San Benito County hydrologic unit.

The Discharger maintains facilities necessary for collecting and diverting stormwater run-off from the Landfill. The Discharger does not need stormwater run-on controls because of the Landfill's location near the top of a surface water drainage divide. Run-off facilities include drainage diversion berms, various drainage ditches, corrugated steel pipe or high density polyethylene (HDPE) over-side drains and inlets, and energy dissipaters. The Discharger also uses rock-lined channels for over-side drains. The Discharger designed the drainage network to carry stormwater at velocities that minimize ditch erosion. Side slope benches and access roads are equipped with drainage ditches for erosion control and drainage needs. The Discharger also maintains run-off controls in and around the permitted waste disposal footprint to minimize contact between surface water and waste. The Discharger has designed storm water conveyance features to direct run-off after rain events to natural drainage courses located to the southwest and outside of the Landfill property boundary.

The Discharger captures stormwater run-off from interior portions of the Landfill's disposal areas and directs the run-off to sedimentation basins. There currently are three sedimentation basins (western, southern, and eastern) at the Landfill. The western sedimentation basin collects most of the stormwater run-off from the Landfill. The southern sedimentation basin collects water from a bench along the edge of John Smith Road that collects water from the borrow area and undisturbed slopes south of the landfill. After Landfill build-out, the southern sedimentation basin will only collect water from undisturbed slopes. The eastern basin receives water from the construction staging area and soil stockpiles. The Discharger meters the bulk of the stormwater run-off to a drainage/culvert along John Smith Road, while using the balance, when available, for subsequent on-site dust control during the dry season. The Discharger used hydraulic calculations and flow rates for a 100-year, 24-hour storm event to design the final drainage control features for the Landfill.

### **Groundwater**

The Landfill is located along the southeast margin of the Gilroy-Hollister groundwater basin in rural San Benito County. The Landfill is underlain by marine sandstones, siltstones, claystones, and shales of the Panoche Formation and older terrace deposits, as described previously. Neither geologic unit is a significant producer of groundwater and available groundwater is mineralized. Chloride, sulfate, manganese, total dissolved solids, and electric conductivity in groundwater from these units routinely exceed secondary drinking water standards. There are no municipal water

supply wells within 5,000 feet that are hydraulically downgradient from the landfill. The nearest water supply well, Yates 1, is located hydraulically upgradient of the Landfill, approximately 900 feet southeast of the Landfill entrance. San Benito County owns Yates-1 and uses the water for livestock supply, and has plans to use the water for the future Resource Recovery Park. Water quality testing on August 22, 2013 indicated no water quality impacts related to Landfill operations.

**Groundwater Quality:** The Discharger has monitored groundwater at the Landfill since 1985. Volatile organic compounds (VOCs) impact an area of groundwater beneath and downgradient of Module 1, which is the unlined portion of the Landfill. VOCs were first recognized during the Solid Waste Assessment Test program in 1987. The source was leachate from the older unlined portion of the Landfill. The Discharger characterized the nature and extent of the pollutants and installed a groundwater extraction system on-site and off-site to capture groundwater impacted by the VOCs. The Discharger's operation of their groundwater extraction system has resulted in reduced concentrations of VOCs in groundwater and it achieved hydraulic capture of the VOCs plume. The overall declining concentrations of VOCs indicate that the on-site groundwater extraction system has been effective at capturing impacted groundwater. Improvements in Landfill operations have also reduced leachate production, thus reducing the source for the historic impact identified as originating from unlined Module 1. VOCs have also impacted groundwater in a limited area north of Module 1. The Discharger identified migration of Landfill gas as the source of these VOCs and there are no other constituents of concern in this area related to the release. Recent improvements to the Landfill gas extraction system has resulted in control and continued reduction in concentrations of VOCs in this area.

**Landfill Waste Management Unit Design:** CCR Title 27 requires the Discharger to construct all new disposal modules with composite liners and leachate collection and removal systems. The Discharger has constructed new lined Modules 2 through 4 using an engineered alternative design, as allowed by CCR Title 27. The Discharger is proposing to continue using the same engineered alternative design for future construction of Modules 5 through 11. Any engineered alternatives must meet or exceed the performance standards of CCR Title 27 prescriptive standards and be approved by the Water Board Executive Officer. The Discharger received Executive Officer approval of their proposed engineered alternative after showing it exceeded performance standards and incorporated the design starting with construction of lined Module 2, which is the first in a series of Landfill expansions of lined areas to continue waste disposal operations.

Another key water quality protection measure required by this Order is the Discharger's continued construction and use of their "preferential leachate pathway" (PLP) liner system. The Discharger must place the PLP liner in any area of the Landfill where new waste disposal will result in an overlap with existing waste in unlined Module 1. The purpose of the PLP liner is to direct leachate draining from new waste to the leachate collection and removal system, rather than allowing the leachate to drain into and through unlined Module 1 to groundwater. Landfill leachate has pollutants, such as VOCs, that have leaked to groundwater from Module 1 in the past. Therefore leachate in this area must be managed correctly, as with the PLP liner system, to prevent releases to groundwater and surface water.

## **COMPLIANCE HISTORY**

The Discharger and the Landfill are in compliance with the existing Order. The Discharger is responsive to Water Board staff's information requests and readily addresses compliance issues by expeditiously implementing corrective actions when required. Water Board Staff has not issued any violations to the Discharger since 2002, and the Discharger has met all reporting deadlines.

## MONITORING AND REPORTING PROGRAM

The Landfill MRP includes:

**Part I – Monitoring and Observation Schedule:** This section requires periodic routine inspections of the Landfill and the leachate collection system, and detailed analytical monitoring of groundwater, leachate, and Landfill gas.

**Part II – Sample Collection and Analysis:** This section establishes criteria for sample collection and analysis, methods to determine concentration limits, and specifies how the Discharger must maintain these records.

**Part III – Statistical and Non-Statistical Analysis of Data:** This section establishes methods for the Discharger to determine Landfill compliance with water quality protection standards based on laboratory analytical information.

**Part IV – Reporting:** This section establishes formats and requirements that the Discharger must follow when submitting analytical data, annual reports, and summaries to the Water Board.

**Part V – Definition of Terms:** This section defines specific terms used in the MRP.

**MRP Changes:** Water Board staff revised the existing MRP for the Landfill to coincide with revised Order No. R3-2013-0047. Water Board staff's revisions reflect updated monitoring location information in relation to Landfill expansion construction activities and include additional stormwater monitoring requirements in the event stormwater comes into contact with leachate. Stormwater discharges from the Landfill have been and will continue to be regulated under "Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities (General Storm Water Permit for Industrial Activities)," under State Water Resources Control Board (State Water Board) Water Quality Order No. 97-03-DWQ and National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS00001. The State Water Board is in the process of revising the General Storm Water Permit for Industrial Activities and Water Board staff will ensure continued monitoring and management of stormwater at the Landfill under either the revised General Storm Water Permit for Industrial Activities, or individualized requirements included in the Order.

## ENVIRONMENTAL SUMMARY

This Order contains prohibitions, discharge specifications, water quality protection standards, and provisions intended to protect the environment by mitigating or avoiding impacts of Landfill operations on water quality. The Order addresses an existing closed Landfill (Class I) and operating Landfill (Class III).

## CALIFORNIA ENVIRONMENTAL QUALITY ACT

The Discharger prepared a Mitigated Negative Declaration (MND) dated November 2, 2001 for continued operation and expansion of the Landfill in accordance with the California Environmental Quality Act (CEQA) (State Clearinghouse No. 1991083121). The San Benito County Division of Environmental Health (County) certified the MND in November 2001. Subsequently, the County filed a Notice of Determination (NOD) in December 2001. In November 2003, the Department of Toxic Substance Control (DTSC) filed a Notice of Exemption (State Clearinghouse No. 2003118286) for the Class I Landfill in accordance with the State Clearinghouse, citing 14 CCR, §15301, for a Class 1 Categorical Exemption for a Post-Closure Permit renewal. The Discharger prepared another MND, dated September 6, 2012 for continued operation and expansion of the Landfill in accordance with CEQA (State Clearinghouse No. 2012061081). The San Benito County Building and Planning

Department Director certified the MND on September 6, 2012 and subsequently filed a NOD on September 7, 2012.

### **PUBLIC NOTICE AND COMMENTS ON ORDER NO. R3-2013-0047**

Water Board staff distributed the draft Order No. R3-2013-0047 and MRP No. R3-2013-0047 on August 30, 2013 to a list of interested parties and agencies that have been historically involved with the Landfill. After a 30-day public comment period, Water Board staff received no comments to the proposed Order and MRP.

### **CONCLUSION**

The proposed Order allows for an expanded permitted waste disposal footprint and updates operational and monitoring requirements for the John Smith Road Landfill to protect groundwater and surface water through required engineering controls, corrective actions, preventative inspections, and monitoring. The Discharger's proposed expansion is consistent with all applicable requirements and the Landfill does not pose a significant risk to groundwater and surface water with the controls and requirements in the proposed Order.

### **RECOMMENDATION**

Adopt Waste Discharge Requirements Order No. R3-2013-0047 and revised Monitoring and Reporting Program No. R3-2013-0047.

### **ATTACHMENT**

Proposed Waste Discharge Requirements Order No. R3-2013-0047, including Monitoring and Reporting Program No. R3-2013-0047

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