STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 4, 2010
Prepared on January 5, 2010

ITEM: **12**

SUBJECT: **Revised Waste Discharge Requirements for the Tajiguas Class III Landfill, Santa Barbara County - Order No. R3-2010-0006**

KEY INFORMATION:

Location:	Twenty-five miles west of City of Santa Barbara along State Highway 101.
Owner/Operator:	The County of Santa Barbara Public Works Department Resource Recovery & Waste Management Division owns and operates the Landfill
Type of Waste:	Non-hazardous municipal solid wastes.
Current Capacity:	16,640,000-cubic yards as of April 30, 2009.
Proposed Capacity:	23,300,000-cubic yards; estimated closure date is 2023.
Disposal:	Area/canyon fill method.
Liner System:	Active areas are lined and unlined; Composite liner proposed for all future phases.
Existing Orders:	Waste Discharge Requirements Order No. R3-2003-0011

THIS ACTION: **Adopt Waste Discharge Requirements Order No. R3-2010-0006**

SUMMARY

Proposed Waste Discharge Requirements Order No. R3-2010-0006 ("Order" or "Order No. R3-2010-0006"; Attachment 1) and proposed Monitoring and Reporting Program Order No. R3-2010-0006 ("MRP"; Attachment 2) for the Tajiguas Class III Landfill (Landfill) revise the Landfill's approved waste disposal footprint, update the monitoring network, and update the regulatory and operational status of the Landfill. This Order revision is required due to a change in the waste disposal footprint. The proposed changes at the Landfill and within the Order include:

a. Update to reflect the proposed physical changes to a portion of the approved location of the waste footprint (reconfiguration).
b. Description of Landfill operations including proposed waste management unit construction.
c. Compliance review for the Landfill facility.
d. Update environmental monitoring information.
e. Specifications for disposal of treated wood waste.

The proposed reconfiguration of the permitted footprint will result in a more stable interim and final design of the waste mass and will allow the Discharger to maximize the use of existing air space. Additionally, the reconfiguration will reduce the need to excavate significant volumes of soil, providing a more energy-sustainable choice, consistent with Assembly Bill No. 32 (California Global Warming Solutions Act of 2006) and the Governor's mandate for the Air Resources Board to identify and implement ways to reduce greenhouse gas emissions. The reconfiguration will result in disturbances of vegetation and habitat in the canyon, which the County will mitigate through implementation of their plan for native plant restoration at ratios ranging from 3:1 to 5:1 and a

comprehensive relocation and habitat enhancement plan for the California red-legged frog on Baron Ranch (adjacent canyon).

DISCUSSION

Proposed Order R3-2010-0006 updates and replaces Waste Discharge Requirements Order No. R3-2003-0011, adopted by the California Regional Water Quality Control Board, Central Coast Region (hereafter Water Board) on March 21, 2003. The proposed Order covers the current Landfill operations and provides guidance and requirements for planned changes at the Landfill. For the lined portion of the facility, the design and construction specifications within the proposed Order meet or exceed requirements in both the California Code of Regulations, Title 27 (CCR Title 27), and 40 Code of Federal Regulations, Parts 257 and 258 (40 CFR 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 Santa Barbara County, at 14470 Calle Real, Goleta, California; approximately 25 miles west of the City of Santa Barbara. The Landfill is located approximately 1,600 feet north of Highway 101, which provides access to the site (Figure 1). The Santa Barbara County Department of Public Works owns and operates the Landfill, which serves the City of Santa Barbara, the City of Goleta, the unincorporated areas of southern Santa Barbara County, and the Santa Ynez and Cuyama Valleys.

The Landfill's property boundary encompasses approximately 502 acres but the Landfill's total permitted operational area is 357 acres, with an approved and permitted waste disposal footprint of 118 acres. Currently, waste is placed on 88 acres of the 118 acre area. The permitted waste disposal footprint is comprised of both lined and unlined areas. Some of the waste disposal footprint is unlined because the Discharger placed waste at this location prior to the 1990s when regulations required liners. The County will place Water Board-approved composite liner[1] on all future disposal expansion areas.

The Discharger proposes to modify the originally approved waste footprint by reconfiguring an approximately 12-acre portion of the 118-acre area, as shown in Figure 2 below. The footprint redesign will not result in an increase in volume, nor a larger footprint. The change involves the redesign of a portion of the approved waste footprint, which will allow the Discharger to more effectively address sediment control requirements, improve long-term site conditions (such as overall stability of the waste fill), and provide cost savings during operations and throughout post-closure maintenance.

The waste footprint reconfiguration will result in the removal of the in-channel sedimentation basins. The reconfiguration of the waste footprint will extend the waste footprint west across Pila Creek instead of in the northern portion of the canyon (See **Figure 2**). The reconfiguration will result in drainage modifications within Pila Creek upstream of and around the reconfigured waste footprint and will result in a loss of sensitive vegetation communities and habitat for the threatened California red-legged frog. The Discharger proposes to restore portions of Arroyo Quemado within the Baron Ranch (adjacent canyon) to compensate for impacts of the proposed Landfill reconfiguration project. Additional information regarding the mitigation measures are discussed in further detail in this staff report.

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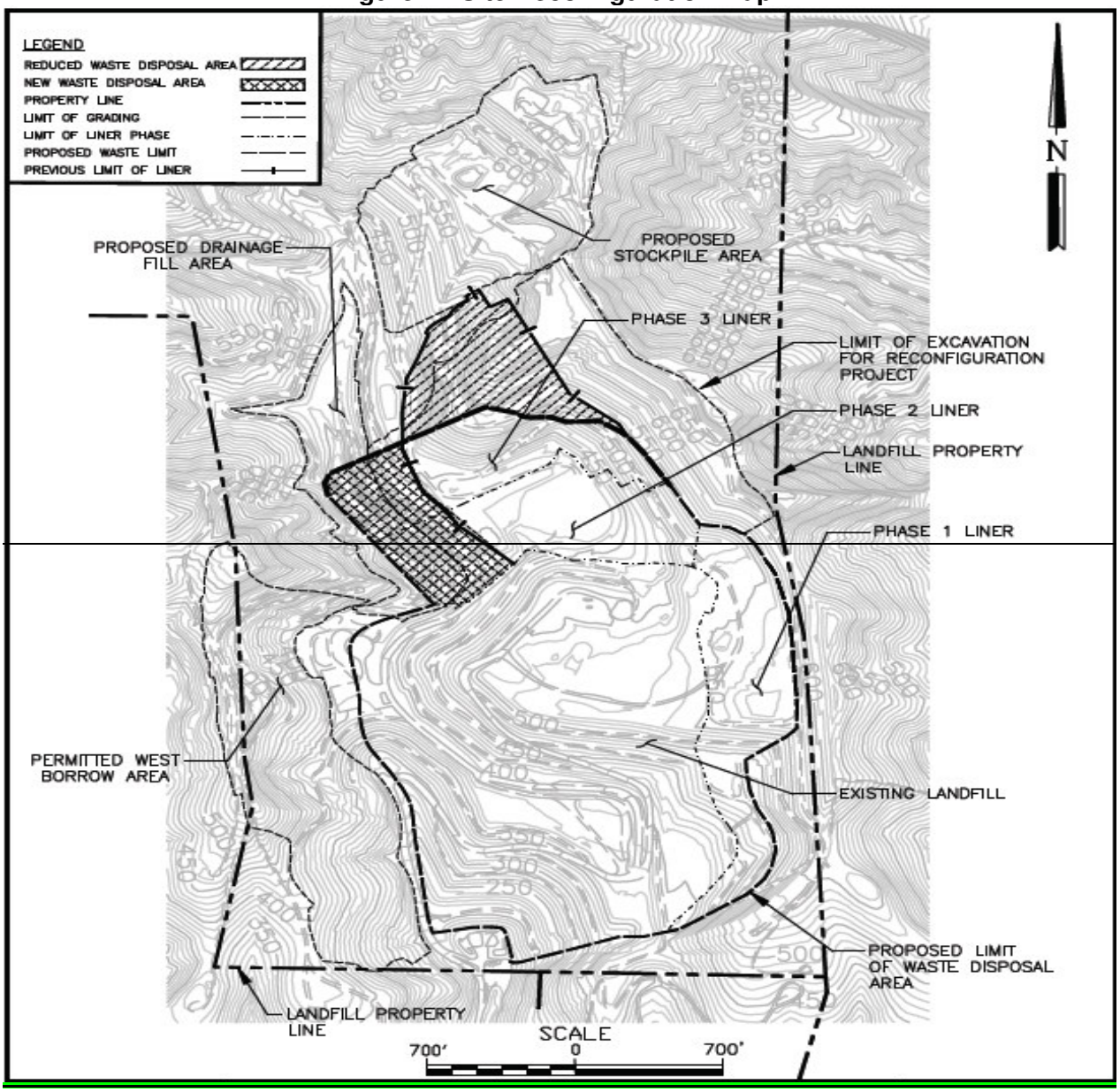
[1] A composite liner consists of a geomembrane (i.e., plastic liner) in combination with a clay liner. Composite-liner systems are more effective at limiting leachate migration into the subsoil than either a clay liner or a single geomembrane layer.

Figure 2: Site Reconfiguration Map



Waste Placement and Capacity: As of April 2009, the Landfill holds an estimated 10 million tons (16.6 million cubic yards, at 0.6 tons per cubic yard) of waste. The currently permitted Landfill disposal capacity is 23.3 million cubic yards of waste. Based on current waste disposal rates, the Landfill would reach permitted capacity in approximately 2023.

Surrounding Land Use: Land use within 1,000 feet of the Landfill is primarily ranching, orchards, and recreation. The Discharger owns the Baron Ranch which is a 1,083-acre avocado and cherimoya ranch located immediately to the east of the Landfill. The Discharger purchased the ranch in 1991 to provide a buffer between the Landfill and private holdings, to prevent future subdivision and residential development adjacent to the Landfill, to allow flexibility for the existing and future solid waste operations, to provide options for mitigation, and to provide possible future public access for community uses. The closest residences are located in the private beach community of Arroyo Quemado. Arroyo Quemado is located approximately 2,000 feet to the

southeast of the Landfill property boundary. The residences of Arroyo Quemado are served by private wells and trucked in water.

The Landfill property is zoned for unlimited agricultural use with the surrounding areas zoned for agriculture, open space, and National Forest. There are approximately 27 supply wells within one mile of the Landfill. The closest water supply well, well #3, is located downgradient of the Landfill and is used for site operations. Typically, wells located in the Monterey and Rincon formation are dry, inactive, or used for non-potable purposes due to poor water quality and limited supply. Groundwater used for potable and irrigation purposes is mainly derived from the Vaqueros and Gaviota formation wells.

Geology: The Landfill and reconfiguration area lie entirely within the Cañada de la Pila, a small coastal canyon watershed on the Santa Ynez Mountains' southern flank. The project area has moderately steep slopes with drainage in a southerly direction. Higher elevations consist of chaparral-covered slopes with lower elevations consisting of grass covered hills.

The Discharger identifies five major geologic/hydrologic units which include the: Gaviota formation, undivided Sespe and Alegria formation, Vaqueros Sandstone, Rincon Shale, and the Monterey Shale. Primarily the Rincon Shale and its derivative soil underlie the existing unlined Landfill. Lined expansion areas are underlain by Rincon, Vaqueros and Sespe/Alegria formations.

Surface and Groundwater: The Landfill is located within the South Coast Hydrologic Unit. The site is not located within the 100-year flood plain, according to the Federal Emergency Management Agency maps for Santa Barbara County. There are no designated wetlands on site.

Surface water exists in upper canyon and Landfill areas only during and shortly after rain events. Surface water runoff in the general vicinity of the Landfill flows predominantly towards the south. Surface drainage from the Landfill enters Pila Creek near the toe of the Landfill. Pila Creek flows south under Highway 101 and discharges to the Pacific Ocean, approximately 2,000 feet from the Landfill.

Landfill stormwater runoff is collected in ditches and runs over side drains which are routed to permanent sedimentation control structures. Stormwater run-on is intercepted by perimeter collection ditches, routed around the Landfill, and discharged to Pila Creek.

Alluvium and colluvium, composed of weathered and eroded formation deposits, are located throughout the property, and are distributed along the narrow (less than 100 feet in width) valley bottom. The alluvium (and underlying shallow, weathered bedrock) accommodates the majority of shallow groundwater flow. According to the Discharger's data, these discrete units are hydraulically connected and behave as a single unit. Groundwater flows from topographically high areas downward to stream channels, where the flow emerges as discharges to streams or as underflow in alluvial fill or fractured bedrock.

Groundwater Quality: The Discharger has monitored site groundwater continuously since 1988. Historically, downgradient wells MW-2, MW-4, and side-gradient well MW-10 detected volatile organic compounds (VOC) at total VOC concentrations up to 2.2, 25.4, and 1.3 micrograms per liter (µg/l), respectively (December 1996 data). The Discharger suspected leachate as the source for the VOC detections. In response, the Discharger implemented corrective action. Initially the Discharger installed a groundwater/leachate collection and removal system (LCRS #1) to capture polluted groundwater. The Discharger has since expanded corrective action to include gas extraction, leachate extraction, and upgradient groundwater extraction. Total VOC concentrations and the number of detected compounds have declined in response to corrective action implementation. No VOCs have been detected above the primary maximum contaminant levels (MCLs) in Well MW-4

since early 1998. The Discharger has either not detected VOCs or detected VOCs below their respective MCLs in wells downgradient from MW-4 for the last 10 to 11 years. These data indicate that the environmental control systems in place and corrective action at the Landfill have effectively minimized impacts from the unlined Landfill on downgradient groundwater.

Landfill Design Changes: The Discharger proposes to reconfigure a portion of the permitted footprint (approximately 12 acres of the 118 acre permitted footprint; Figure 2). The reconfiguration will result in:

a. Extension of the waste footprint west across Pila Creek (within the Canada de la Pila watershed) to the west wall of the canyon;
b. Removal of two man-made in-channel sedimentation basins in Pila Creek that will allow base flows in Pila Creek to continue downstream of the Landfill.
c. Maximizing the use of the existing landfill footprint capacity to the west rather than creating new landfill capacity to the north (back part of canyon), thereby minimizing extensive on-site excavations;
d. A more stable design of the waste mass because the proposed reconfiguration of the waste footprint eliminates the need for the Discharger to construct a geo-grid reinforced soil buttress fill;
e. Reduce the need to excavate and handle approximately 1.3 million cubic yards of soil which significantly reduces potential future stormwater impacts from sediment runoff;
f. Reconfiguration (reduction) of the waste footprint on the east side of Pila Creek in the back canyon area;
g. Drainage modification within Pila Creek upstream of, and around, the reconfigured waste footprint;
h. Implementation of native plant restoration activities and comprehensive relocation and habitat enhancement plan for the California red-legged frog on Baron Ranch to compensate/mitigate for the loss of the existing California red-legged frog habitat that will be lost by filling in the in-channel sediment basins due to the reconfiguration at the Landfill; and
i. Retain and expand the existing out-of-channel basin, if needed. Retention of the out-of-channel basin will allow the Discharger to continue to comply with the Water Board's requirements and the National Pollutant Discharge Elimination System (NPDES) sediment control requirements included in the General Storm Water Permit for Industrial Activities.

The County plans to restore portions of Arroyo Quemado Canyon within the County-owned Baron Ranch to compensate for biological impacts and habitat loss caused by the proposed reconfiguration at the Landfill site. The mitigation efforts in the Baron Ranch will provide a number of environmental, engineering design, and benefits over the currently permitted design, including:

- Increased stability of the reconfigured waste footprint due to a wider base of the waste prism and buttressing of the waste mass against the canyon's western wall;
- Improved downstream water quality, due to the ability to construct and maintain a larger out-of-channel sedimentation basin;
- Reduced grading and grading-related air quality impacts (dust and construction emissions) and noise impacts due to the reduction of soil excavation in the back canyon;
- A more energy-sustainable choice, consistent with Assembly Bill No. 32 and the Governor's mandate for the Air Resources Board to identify and implement ways to reduce greenhouse gas emissions.
- Improved waste disposal operations due to larger deck areas and less slope filling;
- Long term preservation and restoration of the Arroyo Quemado watershed on Baron Ranch containing known breeding populations of the California red-legged frog;
- Replacement of sensitive and native habitats at ratios ranging from 3:1 to 5:1; and

- Estimated cost saving of Landfill construction of about three million dollars due to elimination of the reinforced soil buttress, reduced excavation, reduced earth moving, and reduced closure and post-closure maintenance costs.

This Order requires compliance with Title 27 requirements for the landfilling aspects of the reconfiguration project. The mitigation requirements for the loss of habitat are part of the Environmental Impact Report and are addressed by the Central Coast Water Board's Water Quality Certification No. 34208WQ15, issued on June 16, 2009 (Attachment No. 3).

COMPLIANCE HISTORY

The Landfill is in compliance with the existing Order. Overall, the Discharger is responsive to Water Board staff's information requests and readily addresses compliance issues. No violations have been noted at the Landfill during the last five years and the Discharger has met all reporting deadlines.

MONITORING AND REPORTING PROGRAM

The Landfills proposed monitoring and reporting program 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 - Sampling and Analytical Procedure: 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 - 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 IV - Definition of Terms: This section defines specific terms used in the MRP.

Water Board staff updated the Landfill's MRP; these changes are reflected in the proposed MRP (Attachment 2). The Landfill's updated monitoring system includes:

- Six detection monitoring points (wells MW-12, -14, -15, -29, -30, and future MW-31).
- Four corrective action monitoring wells (wells MW-2, -3, -4, and MW-10).
- Monitoring wells Koch, Hart, Oktay, MW-5, MW-D5, MW-8, MW-11, MW-25, P-4, P-5A, P-5B, PW-16, PW-17, PW-18, P-20, P-22, P-24, P-26, P-27, P-28, and SA-5 are primarily for groundwater flow characterization but are available for analytical monitoring, if necessary.
- Vadose zone monitoring includes the subdrain below the liner and lysimeter LY-1 adjacent to the landfill.
- Surface water monitoring points SW-1, SW-3, SW-4, and SW-5.
- Landfill gas monitoring perimeter soil-gas probes GP-1 through GP-14. (Note: Gas Monitoring is currently under review by the California Integrated Waste Management Board [CIWMB] and changes are likely).
- North Groundwater Management System (NGWMS), which pumps groundwater upgradient of the landfill to minimize groundwater contact with the unlined landfill waste.
- Groundwater Interceptor Trench (GLCRS or LCRS#1), which collects groundwater which has contacted leachate/waste from the unlined area.

- Landfill Leachate Collection and Removal System for Existing Lined Areas (LLCRS or LCRS#2) and Expansion Area Leachate Collection and Removal System (LCRS#5) which collects leachate from the lined areas of the Landfill.
- Horizontal Well Dewatering System (HWDS or LCRS#3) and Dewatering Wells (DW Wells or LCRS#4), which remove leachate and moisture from the unlined areas of the Landfill.

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 both an existing facility and a proposed reconfiguration of the waste footprint.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

On May 5, 2009, the Santa Barbara County Board of Supervisors certified the Final Subsequent Environmental Impact Report (SEIR), 08EIR-00000-00007, for the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project, in accordance with the California Environmental Quality Act (CEQA) [Public Resources Code Section 21000 et. Seq.] and the California Code of Regulations. The County prepared SEIR (08EIR-00000-00007) as a Subsequent Environmental Impact Report to EIR (01-EIR-05), due to the potential for substantial changes to the types and severity of impacts identified in the previously certified EIR.

On June 16, 2009, the Water Board's Executive Officer, issued Water Quality Certification No. 34208WQ15 (Attachment 3) (Clean Water Act Section 401 Water Quality Certification for Discharge of Dredged and/or Fill Materials) to certify that any discharge from the Tajiguas Landfill Reconfiguration and Baron Ranch Project must comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. The Water Quality Certification states "Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicant's project description and the Project Information Sheet, and (b) compliance with all applicable requirements of the Water Board's Water Quality Control Plan (Basin Plan)."

The Water Board has considered the Final SEIR adopted by the County of Santa Barbara, the proposed reconfiguration of the waste footprint, and the proposed mitigation measures identified for Baron Ranch. This Order incorporates requirements that satisfy the mitigation measures identified in the Final SEIR. Water Board staff agrees that the proposed projects adequately mitigate environmental effects (e.g. Baron Ranch Restoration Project provides for replacement of sensitive and native habitats at ratios ranging from 3:1 to 5:1, various species will be relocated to the adjacent Arroyo Quemado Canyon on which the Baron Ranch is situated, etc.).

PUBLIC NOTICE AND COMMENTS ON ORDER NO. R3-2010-0006

Central Coast Water Board staff distributed the draft Order No. R3-2010-0006 and MRP No. R3-2010-0006 to a list of interested parties and agencies that have been historically involved with the Landfill.

Comments received on the proposed Order and MRP No. R3-2010-0006 are included as Attachment 4. Water Board staff considered all submitted comments and made changes to the

Order and MRP as appropriate. The key issues referenced in the comments received are as follows:

Comments from the County of Santa Barbara, Public Works Department, Resource Recovery and Waste Management Division:

Comment 1) Number 19 Page 4 of the draft Waste Discharge Requirements (WDRs) next to last sentence. The site disposed of 702 tons per day. The 852 tons per day in the draft WDRs is the amount of waste received which includes waste material that was not disposed.

Water Board staff's response: Staff corrected this item.

Comment 2) Part D.1.b.iii of the draft Monitoring & Reporting Program (M&RP) says the monitoring parameters are in Table 2. In our review of the Draft M&RP, Table 1 is titled 'Monitoring Parameters'.

Water Board staff's response: Staff corrected this item.

Comment 3) Table 2 of the draft M&RP. We are unclear of the reason why Gas Condensate is being required to be monitored for COCs every 5 years. Currently, gas condensate is being analyzed semiannually for volatile organic compounds (VOCs). The results of the analysis are used in the pollutant mass removed calculation. The requirement to analyze for COCs would increase the County's cost, and the California Regional Water Quality Control Boards (CRWQCB) staff's time to review the results.

Water Board staff's response: Staff concurs with your comment. Prior monitoring of gas condensate for COCs has resulted in no detection of the majority of COCs listed. Therefore, monitoring of gas condensate for COCs every five years is not necessary at this facility. Monitoring for VOCs at an annual frequency is sufficient. Staff revised Table 2 of the draft MRP to reflect this change.

Comment 4) Table 2 of the draft M&RP. We suggest that CRWQCB staff reconsider the site's monitoring program to be more cost-effective by reducing unnecessary tasks, monitoring points, and laboratory analyses. These are items in the M&RP that could be reduced or eliminated with no reduction in the protection of water quality at the site. These changes would results in cost savings to the County and the CRWQCB. These changes would be consistent with the CRWQCB Executive Officer's report presented at the October 23, 2009 Central Coast Regional Water Quality Control's Public Meeting.

We suggest that a site-specific list of Constituents of Concern (COCs) be developed. The draft M&RP would require a complete analysis of the 40 CFR Part 258 Appendix I and Appendix II constituents[2] (complete list of COCs) be sampled once every five years at 19 sample points. Based on many years of past COC sample analyses, a list of selected parameters that may reasonably be expected as a result of a release at the site should be developed. The site-specific COCs should include only those constituents that have been detected in previous samples of groundwater and leachate which are above the Practical Quantification Limit and have been verified by re-testing. For the site, the constituents listed in Table 1 of the draft M&RP would be satisfactory as COCs. It may be prudent to continue a full Appendix I and Appendix II analysis on select samples from the compliance point well (MW4), the GLCRS (LCRS#1), and leachate from the DW wells (LCRS#4)

[2] The COC list includes all constituents listed in Appendices I and II, and includes all waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the landfill unit.

once every five years in order to update the site-specific COC list, if necessary. The CRWQCB Executive Officer has the authority to approve site-specific COCs per 40 CFR Sections 258.54 and 258.55, as referenced in 27 CCR Sections 20395, 20420, and 20425.

It is recommended that water well #3 should not be added to the M&RP as a detection monitoring well. This well's type of construction and operation as a water supply well do not make it suitable for monitoring on a regular basis. In the past M&RP, this well was sampled as a supplemental monitoring point. Well #3 was recently sampled for a full suite of Appendix I and Appendix II constituents, with no detection of landfill contaminants.

Water Board staff's response: Staff agrees that the MRP needs to be robust to ensure water quality protection but that it also needs to be efficient and cost-effective. We have considered your comments and we have revised the MRP where appropriate as follows:

- The County must continue to sample all leachate collection and removal systems (LCRS#1 through LCRS#5) for the full Appendix I and Appendix II COC analysis. Leachate collection and removal systems provide the earliest detection of new COCs that have been generated in the waste mass. The County must use the results of the COC analyses from the leachate collection and removal systems to continuously update the site-specific COC list for future sampling events from all monitoring locations.
- Based on the results from many years of past COC sample analyses data and because any detected COCs in leachate will be added to Table 1, staff agree that all monitoring wells (with the exception of MW-4) do not require a full Appendix I and II analysis every five years. The County will continue to monitor wells MW-2, -3, -4, -10, -12, -14, -15, -29, -30, and future MW-31 in accordance with the Monitoring Parameters listed in Table 1. Staff updated Table 2 of the MRP to reflect this change.
- The County must continue to sample MW-4 for the full Appendix I and II COCs because this well is the closest well to the downgradient edge of the disposed waste. If new COCs are detected in this well in the future, Water Board staff will review Table 2 for additional monitoring requirements in the other monitoring wells with consideration given to full Appendix I and II COCs.
- Water Board staff agrees that water supply well Well #3 is not suitable for detection monitoring due to its construction. Additionally, there are monitoring wells upgradient from Well #3 and downgradient from the Landfill that will provide early detection of groundwater pollution migration toward Well #3. Therefore, Well #3 is not included in the MRP as a detection monitoring well. Water Board staff has revised Table 2 of the MRP, accordingly.

Comments from Lisa Sloan, Senior Environmental Health Specialist, Santa Barbara County Environmental Health Services

Comment 1) The County has installed new perimeter gas probes. Will you want to include them in the WDR's?

Water Board staff's response: Yes. Staff has included the new gas monitoring probes in the proposed MRP.

Comment 2) Finding 19. Please note that the Tajiguas landfill receives more than 200 tons per day on average residual waste from the MarBorg C&D Recycling and Transfer Facility at 119 N. Quarantina in Santa Barbara.

Water Board staff's response: Comment noted. The Discharger has already commented on the correct tonnage received. Staff revised Finding 19 to indicate the correct tonnage received from all sources.

Comment 3) Prohibition B. 3C. The language is unclear. Is the intent to not prohibit friable asbestos from being discharged to the landfill? Perhaps a cross reference to Specification C14 would clarify.

Water Board staff's response: Comment noted. Staff clarified Prohibition B.3.1, as shown in bold:

> "Wastes that are prohibited include but are not limited to…Hazardous waste, except waste that is hazardous due only to its asbestos content. Asbestos containing greater than one percent (>1%) friable asbestos material is considered hazardous ***but may be discharged as allowed by Specification C. 14***".

Comment 4) Prohibitions B. 6, 7. Question, does the landfill currently comply with these prohibitions? Namely, 5-foot vertical separation from GW or 50-foot lateral setback from property lines or 100-foot lateral setback from surface water? Perhaps a cross reference to Specification C14 would clarify.

Water Board staff's response: The groundwater separation issue is addressed in Findings Nos. 33 and 34. The groundwater separation issue was also extensively addressed during the previous revision of Waste Discharge Requirements in 2003. Groundwater contacts waste in portions of the existing unlined area. California Code of Regulations Title 27, Section 20240(c), requires the Discharger to operate the Landfill to ensure that wastes will be a minimum of five feet above highest anticipated groundwater. This design operation standard is intended to reduce leachate generation and ensure no impairment of beneficial uses. While groundwater currently contacts waste in portions of the existing unlined area, the Discharger has demonstrated that meeting the five-foot separation is impracticable. Therefore, the Discharger has implemented specific engineered alternatives, as allowed by Title 27, Section 20080(b) that are consistent with the performance goal and afford equivalent protection of groundwater quality.

Water Board staff also addressed the property setback requirements during the 2003 WDR revision. During the 2003 WDR revision, staff included a caveat which would allow the Discharger to place waste within 50 feet of the property line, provided a irrevocable easement is obtained, and the County obtains Executive Officer approval prior to liner construction and waste placement.

Staff has revised Prohibitions Nos. 6 and 7, to clarify these items, as shown in bold:

> *"Prohibition No. 6*: Discharge of waste within 50 feet of the property line, 100 feet of surface waters, or 100 feet of domestic water supply wells is prohibited*,* ***unless approved by the Executive Officer"****.*
>
> *"Prohibition No. 7*: Disposal of wastes within five (5) feet of the highest anticipated elevation of underlying groundwater, including the capillary fringe, is prohibited, ***except as allowed under Title 27, §Section 20080 (b) and (c)****".*

Comment 5) Specification C. 6C. Question, is the landfill liner system designed with a 100% secondary containment system?

Water Board staff's response: Specification C.6c refers to the containment capacity of the leachate collection holding tanks, not the liner system. These tanks receive any pump out of leachate from the liner system, require secondary containment, and sit adjacent to the lined landfill. No changes to the proposed Order are necessary.

Comment 6) Specification C. 7. Has the Executive Officer approved the use of tarps or GW ADC during the winter months?

Water Board staff's response: The proposed Order allows for the use of alternative daily cover materials. The County has not submitted a formal request to use tarps or green waste as alternative daily cover during the winter months. Therefore, the Executive Officer has not approved the use of tarps or green waste as alternative daily cover (GW ADC) during the winter months but these materials are approved for usage during the dry months.

Comment 7) Provision E 17. Sewage sludge with over 50% moisture may be accepted in the lined areas. Does the JTD [Joint Technical Document – Report of Waste Discharge] provide for the means by which the parameters for discharge of wet sludge may be monitored?

Water Board staff's response: Provision E. 17 is now Specification C. 18. The County is responsible for ensuring that they handle sludge in accordance with Specification C. 18. Additionally, in accordance with MRP No. R3-2010-0006, the County is required to monitor the leachate collection and removal system beneath the location where the County is allowed to dispose of the sludge and the MRP requires the County to conduct intake monitoring for all sewage sludge loads that require special handling or special characterization. The Discharger is required to keep a log of all sewage sludge volume accepted and appropriate characterization data.

Comment 8) Provision E 27. Noticing the County also involves obtaining a permit prior to well construction, inactivation or destruction. Wells must be properly inactivated if they have been abandoned or have not been used for more than one year.

Water Board staff's response: Comment noted. Staff amended Provision E.27 (which is now Provision E. 26) to specify that the Discharger must also comply with permitting and inactivation of all monitoring wells.

Comment 9) Provision E 32. This provision refers in error to JTD addendums. The JTD updates correctly should be referenced as JTD Amendments as per 27 CCR section 21590(a)(1).

Water Board staff's response: While 27 CCR section 21590(a)(1) addresses amendments to the JTD, 27 CCR Section 21585 et al. also addresses addendum JTD documents. No change to the proposed Order is necessary.

Comment 10) Part I, Section F.3.d. section on landfill gas is unclear. "The Discharger uses landfill gas monitoring includes perimeter soil-gas probes…to assess migration…."

Water Board staff's response: Comment noted. Staff has clarified this section of the MRP, as follows:

~~The Discharger uses~~ Landfill gas monitoring includes ***the use of*** perimeter soil-gas probes GP-1 through GP-14 to assess migration of landfill gas and adequacy of the gas collection system.

Comment 11) This section should be updated to include the new perimeter monitoring probes that were added in November 2009.

Water Board staff's response: Staff updated the section.

CONCLUSION

The proposed Order updates operational and monitoring requirements for the Tajiguas Landfill, including permitting a footprint adjustment, while benefitting and protecting groundwater and surface water through required engineering controls, corrective action, preventative inspections, and monitoring. The reconfiguration results in a more structurally stable interim and final landfill, and reduces grading and associated air emission impacts, at the cost of habitat and vegetation in the new footprint area. The County will provide compensatory mitigation for that lost vegetation and habitat on the Baron Ranch in the adjacent Arroyo Quemado Canyon, as outlined in the attached Water Quality Certification. The environmental outcomes achieved through these actions (the preceding water quality certification for mitigation and adoption of this Order permitting landfill reconfiguration) serve to protect surface and groundwater quality in the Pila Canyon and enhance surface water quality and habitat in the adjacent Arroyo Quemado Canyon.

RECOMMENDATION

Adopt Waste Discharge Requirements Order No. R3-2010-0006.

ATTACHMENTS

1. Proposed Waste Discharge Requirements Order No. R3-2010-0006
2. Proposed Monitoring and Reporting Program No. R3-2010-0006
3. Central Coast Water Board 401 Certification Letter
4. Comments

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