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Central Valley Regional Water Quality Control Board

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APPROVAL OF COMPOST AREA WORK PLAN, RECOLOGY YUBA SUTTER ITEM #5, CLEANUP AND ABATEMENT ORDER R5-2013-0704, RECOLOGY YUBA SUTTER, YUBA COUNTY

Central Valley Water Board staff has reviewed the *Compost Area Work Plan* (Plan) submitted by Recology Yuba Sutter in accordance with Cleanup and Abatement Order (CAO) R5-2013-0704, Order #5. The purpose of the work plan is to provide a defined schedule of operations and maintenance at the compost area in order to protect the underlying landfill cover. The Compost Area covers approximately 16 acres of the 42 acre LF-1 and incorporates a chip and grind operation and a compost operation.

As required by the CAO, the work plan evaluates three low permeability materials including: asphaltic concrete (AC) pavement, reinforced concrete (RC) pavement, and the low-permeability aggregate layer currently in use at the compost facility. All three materials were modeled for infiltration, potential hydraulic conductivities, and analyzed for capital cost of construction and annual maintenance. Although all three materials will require maintenance, it is apparent from the evaluation provided that maintaining the current low permeability aggregate base provides a significantly lower annual maintenance cost. According to the evaluation, the AC and RC materials are more likely to crack with differential settlement compared to the more flexible low permeability aggregate base, thus increasing permeability. Furthermore, the use of the low permeability aggregate base allows for reestablishing positive drainage by easily adding more material to the pad surface where required. The low permeable aggregate base has a modeled hydraulic conductivity of 1×10^{-6} cm/sec and will be maintained at a 3% slope to provide positive drainage.

The evaluation notes that maintaining thickness of the operating surface is critical to maintaining positive drainage and ultimately, separation from the underlying LF-1 cover. The work plan proposes to maintain a compost pad thickness of nine inches using 24 settlement markers that will be installed in rows 200 feet apart as shown in Figure 3 of the work plan. The markers will be set at a depth approximately three inches below the final grade of the compost pad surface. When the upper plate of the marker is exposed, additional material to maintain the desired thickness of nine-inches is required.

Contact storm water (leachate) will be directed by the 3% percent designed slope of the compost pad to a series of six-inch diameter pipes installed at the toe of the compost pad.

KARL E. LONGLEY SCD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCCE, EXECUTIVE OFFICER

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Contact storm water will flow to an interior drainage diversion berm into the six-inch pipes. Contact storm water collected in these drain pipes will be routed to an 18-inch diameter header pipe installed within the clay-lined perimeter ditch.

As discussed in the work plan, the Compost Area of LF-1 will be inspected at the frequency shown in the table below.

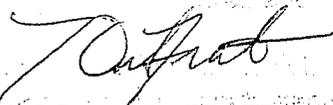
Inspection Type	Proposed Frequency
Operations Containment	Weekly
Compost Pad Surface Thickness Field Verification	Quarterly
Compost Pad Grading	Monthly
Compost Pad Topographic Survey	Every 5 years
Compost Pad Drainage Controls	Weekly between October 15 th and April 15 th and during inclement weather

Although the inspection schedule provides an outline of the minimum frequency the Discharger shall inspect, it is recommended the inspection frequency during the wet season should be increased to ensure the compost area drainage features have positive slope and drain freely.

The work plan provides a procedure to determine whether the compost operation is separated from the closure cover of LF-1 which involves collecting soil samples beneath the low permeability aggregate base. The soil samples will be analyzed for percent moisture and if sufficient moisture is present, the soil pore liquid will be extracted and analyzed for composting parameters summarized in Table 5 of the work plan. The work plan indicates the preference to use soil samples from the cover of LF-1 instead of using instruments such as suction lysimeters due to the potential that the instruments will be destroyed during normal operations. Recology may implement the soil monitoring at this time, however, Water Board staff reserve the right to further evaluate the use of soil samples and may require additional or alternate monitoring techniques in revised WDRs.

Finally, as outlined in the Operations and Maintenance Manual, inspections and repairs will be documented and maintained in the facilities operating record. Also, the observations documented and repairs made will be reported in the Recology Yuba Sutter Annual Report due to the Board on **31 January each year**.

The Compost Area Work Plan is an acceptable document that complies with Order #5 of the CAO and the Discharger shall implement the procedures **immediately**. If you have any questions please call me directly at 916-464-4737.


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 Compliance and Enforcement Unit

cc: Dave Vaughn, Recology
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