Nursery Products
Planting a Better Tomorrow

August 11, 2010

Brianna Bergen
California Regional Water Quality Control Board
14440 Civic Drive, Suite 200
Victorville, CA 92392

Subject: Addendum to MRP & SAP
Nursery Products Hawes Composting Facility
San Bernardino County, California

Dear Ms Bergen:

Nursery Products is pleased to submit this letter addendum to the MRP & SAP (Plan) for the Hawes Composting Facility (Facility) in San Bernardino County, California. This addendum supplements and supersedes the Plan prepared by Nursery Products dated May 5, 2010. This addendum has been prepared for submittal to the Lahontan Regional Water Quality Control Board (RWQCB) and includes the revised pages as attachments.

If you have any questions concerning this addendum, please feel free to call.

Sincerely,

Chris Seney, P.E.

Nursery Products

Enclosures: Revised Plan
Revised Design Drawings

NURSERY PRODUCTS
HAWES COMPOST FACILITY
WDID No. 6B3609903006

Monitoring and Reporting Plan & Sampling and Analysis Plan

Prepared by:
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August 2010

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INTRODUCTION

1.1 Terms of Reference

Nursery Products has prepared this Monitoring and Reporting Plan & Sampling and Analysis Plan (MRPSAP) for the Hawes Composting facility (WDID No. 6B3609903006) for two surface impoundments (retention ponds) and one waste pile (compost pad) at the Nursery Products Hawes Composting Facility.

1.2 Overview and Purpose

This document was prepared for Nursery Products in support of the Report of Waste Discharge (ROWD) for the Nursery Products Hawes Composting Facility. This MRPSAP has been prepared in accordance with California Code of Regulations Title 27 and Board Order No. R6V-2010-0010.

2. FACILITY OVERVIEW

2.1 Project Description

The facility is a biosolids and green material composting facility located on approximately 80 acres of a 160-acre parcel located within an unincorporated area of the County. The facility will compost biosolids and green material to produce agricultural grade compost in compliance with U.S. Environmental Protection Agency (EPA) Code of Federal Regulations (CFR), Title 40, Chapter 1, Part 503 and CCR Title 14.

There are two surface impoundments located on the northern end of the facility that collect storm water. The surface impoundments are designed to collect all storm water from the 100-year, 24-hour storm event over the entire facility and the 1,000-year, 24-hour storm event that falls directly on the surface impoundments.

The waste pile (engineered pad) is located beneath the composting process and consists of prepared subgrade of no less than 12 inches of engineered native material. The engineered pad is sloped to prevent ponding such that all storm water will flow to the surface impoundments. The facility will contain all storm water from the 1,000-year, 24-hour storm event that fall on the site.

3. ENVIRONMENTAL CONTROL AND MONITORING SYSTEMS

This section presents a description of the environmental control and monitoring systems at the Nursery Products Hawes Composting Facility in accordance with CCR Title 27.

3.1 Groundwater Monitoring System

Monitoring well locations were identified so that water quality data can be collected up gradient (MW-1) and down gradient (MW-2 and MW-3) of the two surface impoundments and waste pile. The monitoring wells locations are shown on the figures provided in Appendix A. The specific locations of the wells were selected because the groundwater flow is expected to be in a northerly groundwater flow (see ROWD). Additional groundwater wells may be necessary to characterize the groundwater

beneath the facility. Following installation of the monitoring wells, site-specific groundwater flow direction will be assessed using groundwater elevation data from these wells. The list of parameters can be found in Board Order No. R6V-2010-0010. The samples, with the exception of field parameters, will be analyzed by a California state-certified laboratory. Initially, these wells will also be sampled quarterly for at least eight quarters to characterize background water quality and flow conditions.

3.1.1 Monitoring Well Installation

Prior to drilling, Underground Service Alert (USA) will be contacted at least 48 hours in advance of drilling to notify operators of subsurface utilities of our intention to drill as required by law. The utility companies will conduct a mark-out of their utilities that are in the vicinity of the proposed drilling. In addition, a well permit will be obtained from The San Bernardino County Department of Environmental Health.

The monitoring wells will be installed using either air rotary or sonic drilling by a state-licensed drilling contractor. Installation methods and materials will comply with California State Department of Water Resources Well Standards (DWR Bulletin Nos 74-80 and 74-91) that are described in the sections below. The proposed groundwater monitoring well design is shown in Appendix A.

The field engineer/geologist will inventory the well construction materials prior to the start of well construction. Drill cuttings, drilling fluid, and development water will be collected onsite in containers and properly characterized to determine the proper disposal method. Proposed monitoring wells will be constructed from materials specified herein. Well materials shall be new and clean, and soiled materials will be cleaned prior to use, and decontaminated if there is a potential that well materials have contacted contaminated surfaces. The well casing will consist of threaded, Schedule 80 PVC pipe. The diameter of the casing will be four inches. The well screen will consist of threaded, machine-slotted Schedule 80 PVC pipe (0.020–inch slots) with a threaded PVC end cap. Stainless steel centralizers will be used, at 30-foot intervals. The well will be set so that approximately 20 feet of the 30 feet of screen will lie below the level of groundwater. The annular space will be backfilled with Monterey #3 sand to a level of approximately 5 feet above the top of the well screen. The filter pack will be placed using a tremie pipe. The level of the sand will be periodically sounded to identify its depth and the water in the wells will be surged so that the filter pack will settle.

Bentonite grout will be pumped and placed using a tremie pipe or equivalent to fill the annular space to a minimum of two feet above the choke to seal the screening interval. A high-solids bentonite grout should be used or bentonite chips may be placed in 6-inch lifts. Unless prohibited by well conditions, each lift should be hydrated using approximately 1 gallon of potable water per lift of bentonite chips. The completed bentonite transition seal will be allowed to hydrate for at least 30 minutes prior to placing the grout. The depth to the top of the transition seal will be verified by measuring, using a weighted tape.

Upon completion of the well, the riser pipe will be cut cleanly so that the top of the well is level, and a mark or notch made on the top of the riser pipe identifying a measuring point for water level measurements. A locking cap will be placed at the top of the casing to secure the well from unauthorized entry. A traffic-rated, flush-mount well box will be completed at the ground surface.

After completion of well installation, the drilling contractor will perform well development by airlifting/swabbing, and pumping or other methods to remove residual drilling solids. Water will be pumped from the well until the discharge is relatively free of fine-grained sediment. Water quality parameters such as temperature, pH, and conductivity will be monitored during development. Depth to water will be measured using an electronic water-level indicator. Well water will be considered developed when temperature stabilizes to within ±1 degree Celsius, when pH stabilizes to within ±0.1 pH unit, and when conductivity stabilizes to within ±3 percent.

A boring log showing the well construction/completion for each well will be completed in the field by the field geologist/engineer under the supervision of a Professional Geologist or Engineer. Well installation and construction data will be summarized in the log book. Well development notes and field measurements of water quality parameters will be summarized on corresponding well development and purging forms.

Following the completion of well installation, wells will be surveyed by a professional land surveyor licensed in the state of California, and in accordance with the California State Plane coordinate system and appropriate vertical datum. Groundwater levels will be measured post-installation to evaluate the groundwater flow direction.

3.1.2 Groundwater Monitoring and Sampling

Groundwater monitoring, sampling and analysis will be conducted on a quarterly basis. Prior to purging the water level in each well will be measured using an electronic water-level indicator to the nearest 0.01 foot. Each well will be purged of at least three borehole volumes. Temperature, pH, and conductivity will be monitored during purging to document the stability of these parameters before sampling. Well water will be considered stabilized when temperature stabilizes to within ±1 degree Celsius, when pH stabilizes to within ±0.1 pH unit, and when conductivity stabilizes to within ±3 percent. Water samples will be collected using disposable polyethylene bailers. Therefore, no rinsate blank will be collected for analysis when sampling the wells.

A Nursery Products employee will notify the laboratory that groundwater samples are going to be taken and arrange for the laboratory to be onsite to pick up the samples using proper sample preservation, containers, handling and storage. The samples will be carefully transferred into the pre labeled laboratory supplied containers. The Nursery Products employee will complete a chain of custody and make a copy for internal records. The laboratory will take the samples and chain of custody to the laboratory for analysis. Parameters listed in Board Order No. R6V-2010-0010 will be performed in accordance with recommended holding times, containers and preservatives by a state-certified laboratory.

3.2 Vadose (Unsaturated) Zone Monitoring - Surface Impoundments

The vadose zone monitoring system beneath each surface impoundment will consist of a permanent lysimeter (See Appendix A). The lysimeter will consist of 60-mil HDPE. The dimensions of each lysimeter sump will be 25 feet square, 2 feet deep and be filled with crushed rock. Each lysimeter sump will be located with the top being 5 feet below the bottom of the surface impoundment. Access to the lysimeter is through a 6-inch riser pipe that will have a locking cover.