INFORMATION SHEET

ORDER NO. R5-2007-____

WESTERN PLACER WASTE MANAGEMENT AUTHORITY
WESTERN REGIONAL SANITARY LANDFILL FACILITY
CLASS II AND III LANDFILLS, PLACER COUNTY

The Western Placer Waste Management Authority (WPWMA) operates a landfill facility in the unincorporated area of Placer County between the cities of Roseville and Lincoln. The facility accepts municipal and solid inert wastes, de-watered sludge and designated wastes.

Waste discharge requirements (WDRs) are being revised in response to a request from the WPWMA to change the approved landfill and liner system design. The changes include:

1. Decreasing the thickness of the leachate collection and removal system (LCRS) gravel drainage layer from 12 inches to 9 inches;
2. Increasing the steepness of the interior side-slope of the excavation for the landfill from a ratio of 3H:1V to a ratio of 2H:1V; and,
3. Eliminating the geocomposite drainage layer LCRS on the 2H:1V interior side-slope.

The previous WDRs, Order No R5-2002-0218, allowed for changes to the landfill liner design provided the Discharger supported its request with a site-specific demonstration that another engineered alternative design complied with the Title 27 performance standards. As described below, the Discharger submitted a report to satisfy this requirement.

The previous WDRs were adopted in 2002 in response to a request from WPWMA to change the configuration of the landfill. The Discharger expanded new landfill Units by lowering the permitted depth of excavation grades from a maximum of 42 feet below pre-development grades to a maximum of 60 feet below pre-development grades and increasing the fill height and final cover elevation (finish-grade contours) from elevation 180 feet above mean sea level (MSL) to elevation 295 feet MSL. The existing permitted horizontal limits of the landfill did not change.

The facility consists of two waste management units – a Class II landfill and a Class III landfill. The Class III landfill has six modules (Modules 1, 2, 10, 11, 12 and 13) which currently contain refuse fill. Modules 1, 2, 10 and a portion of 11, are lined with compacted onsite soils with permeabilities of $1(10)^{-4}$ to $1(10)^{-7}$ cm/sec. The remainder of Module 11 and Module 12 are lined with 60-mil high density polyethylene (HDPE) material over a 6-inch compacted clay base as a substitute for the 2 feet of clay. The liners of Modules 10, 11 and 12 are overlain by blanket leachate collection systems. Module 13 was constructed to RCRA Subtitle D specifications. Modules 1, 2, 10 and 11 have been closed in accordance with Title 27.

The Class II landfill has eight modules (Modules 5, 6, 7, 8, 9, 14, 15 and 16). Module 14 consists of a composite liner system and is currently active. The composite liner system on the module's south facing slope (which is underlain by Module 13 class III waste) consists of the following: a one-foot thick operations layer; a 60-mil HDPE liner and a foundation soil layer. Module 15 consists of a double composite base liner system with a leak detection

layer and a single composite side slope liner. All future modules (Modules 5, 6, 7, 8, and 9) will be constructed with a double-composite base liner system and a single composite side-slope liner system unless a site-specific demonstration is conducted and indicates that the prescriptive design or an engineered alternative design complies with the Title 27 performance standards. The current plan is to fill the eastern half of the site first, from north to south, then to fill the western half, from south to north. Waste will not be placed above closed Modules 1, 2, 10 and 11.

The Model 16 engineered alternative demonstration showed that reduction in thickness of the LCRS from 12-inches to 9-inches did not affect the performance of the LCRS and did not significantly increase the head on the liner. The engineered alternative also demonstrated that the proposed steeper side-slopes will increase the gradient and therefore decrease the potential for hydraulic head build upon the side-slopes.

The proposed Module 16 engineered alternative design eliminated the geocomposite drainage layer on the 2:1 H:V side slopes. However, the engineering properties are not substantially reduced, and protection of water quality remains equal to the prescriptive design for the following reason. The operations soils at the site are a mixture of silts and clays. Once this material is placed on the side slope it will act as a barrier layer and little to no leachate will percolate into this layer given that the waste above the operations layer soils is much more permeable and the hydraulic gradient is steep. Therefore, even if a geocomposite were installed on the side slope below the operations layer, very little if any leachate would be expected to actually drain through to the geocomposite.

Surface water at the facility drains north to Orchard Creek, a tributary to Auburn Ravine, and south to Pleasant Grove Creek. Both of these streams eventually flow into the Sacramento River. These surface water bodies consist of intermittent streams that are primarily used for agricultural purposes. Storm water is the only surface water at the facility. Lands within 1,000 feet of the facility are presently used primarily for dry grazing, dry farming, and light industry.

Volatile organic compounds (VOCs) have historically been detected in corrective action monitoring well MW-9 located near the older, unlined and partially lined landfill modules. VOCs have also been detected intermittently in corrective action monitoring wells MW-5, MW-9, MW-10 and MW-11R, MW-13 and MW-23R which are also located near the older modules. The Discharger has been implementing corrective action measures including expansion of the gas extraction system and closure of older unlined and partially lined landfill modules.

JSH: 4/12/07