

## **5.13 WASTEWATER**

This section addresses the potential water quality impacts of the septic system proposed to accommodate two shifts of on-site employees for an asphaltic concrete plant. This section also addresses wastewater impacts associated with the LUO/LUE amendment.

### **5.13.1 Setting**

#### **5.13.1.1 Soil conditions**

Soils of the asphalt plant site have been mapped as Mocho Variant fine sandy loam, a deep, well-drained soil of alluvial fans and plains (Ernstrom, 1984). Ernstrom (1984) considers Mocho Variant fine sandy loam as having severe limitations for use as septic tank leach fields due to poor filtering capacity.

Soils of the LUO/LUE Amendment area have been mapped as Mocho Variant fine sandy loam, Xererts-Xerolls-Urban land complex, Xerothents (escarpment) and Riverwash. Xererts-Xerolls-Urban land complex include both poorly drained clay soils (Cropley and Diablo) and well drained alluvial soils. Xerothents (escarpment) soils are mostly well drained and composed of loam, sandy loam and loamy sand. Riverwash occurs within and along the Santa Maria River and is composed of excessively drained sand, loamy sand and sandy loam. In general, Ernstrom (1984) considers these well-drained soils as poor filters for septic leach fields, and areas of poorly drained Xerolls soils should be avoided due to slow percolation.

#### **5.13.1.2 Water Level Data and Trends**

The current groundwater level of the two on-site wells is unknown, but historic data (1942) for an adjacent well (no. 11N/34W-34A002S) indicates water levels may be as close as 25 feet from the ground surface. Long-term water level data is available from a well near Guadalupe (11N/35W-33G1) adjacent to the Santa Maria River, similar to the asphalt plant site. Water levels in this well fluctuated from about 16 to 78 feet below the ground surface over the period of 1930 through 2003 (SBCWA, 2004). Current water levels (1998 through 2003) at this well vary from 20.9 to 27.3 feet below the ground surface.

#### **5.13.1.3 Regulatory Requirements**

The following agencies and code have requirements for the design and installation of septic systems:

- Central Coast Regional Water Quality Control Board
- County of San Luis Obispo
- Uniform Plumbing Code

Applicable requirements for the asphalt plant site include:

- The minimum distance between the bottom of the leach field trench and groundwater is 8 feet for the expected percolation rate of 5 to 29 minutes per inch (5 feet if percolation rates are slower than 30 minutes per inch). This minimum distance may be greater if percolation rates are very fast;
- The septic tank and leach field must be located at least 200 feet from the Nipomo Community Services District well;
- The septic tank must be located at least 50 feet from Nipomo Creek and the Santa Maria River;
- The septic tank must be located at least 10 feet from any large trees, including proposed tree plantings;
- The leach field must be located at least 100 feet from Nipomo Creek and the Santa Maria River;
- The septic tank and leach field must be located at least 5 feet from the asphalt plant site property line;
- Based on a wastewater generation of 420 gallons per day (12 employees @ 35 gallons per employee [Table K-3 of the Uniform Plumbing Code]), the septic tank capacity should be at least 630 gallons (flow \* 1.5)<sup>1</sup>; and,
- The application rate (gallons wastewater per square feet of leach field per day) and absorption area (square feet of leach field) must match percolation rates, 0.6 gallons per square foot per day for percolation rate of less than 30 minutes per inch.

## 5.13.2 Impacts

### 5.13.2.1 Thresholds of Significance

Any project-related exceedance of the water quality objectives of the Central Coast Water Quality Control Plan would be considered a significant impact. Water quality objectives or “thresholds” for groundwater of the Santa Maria Valley subarea that may be exceeded by the operation of septic systems include:

1. Bacteria (median concentration of less than 2.2 colonies per 100 milliliters over seven days);
2. Nitrate (less than 8.0 mg per liter as nitrogen);
3. Chloride (less than 90 mg per liter); and
4. Total dissolved solids (TDS) (less than 1000 mg per liter).

Surface water quality objectives may also be exceeded for these same constituents.

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<sup>1</sup> Operators of trucks that deliver materials to or haul materials from the site would be restricted from using onsite restrooms.

### 5.13.2.2 Asphalt Plant Impacts

**Impact WW-1:** Wastewater from the proposed septic system may contact groundwater or adversely affect surface waters and result in exceedances of water quality objectives.

**Discussion:** Domestic wastewater generated by employees would be discharged to a leach field and percolate to the alluvial aquifer. Leach fields placed adjacent to the Santa Maria River and/or Nipomo Creek may also contaminate surface water. The septic system has not been sited or designed to date. However, septic system designs that do not comply with regulatory requirements listed above may result in elevated coliform bacteria, nitrate, chloride and TDS concentrations in local groundwater, including the Nipomo Community Services District well. Surface water quality objectives may also be exceeded. This potential impact is considered significant.

**Impact Category:** Significant but Mitigable

**Thresholds of Significance Criteria:** 1, 2, 3, 4

**Mitigation Measure WW-1:** The following measures shall be completed prior to permit issuance to ensure compliance with regulatory requirements and prevent significant water quality impacts:

- A. A Piezometer test to be conducted at the proposed leach field during early spring to identify groundwater levels
- B. A percolation test shall be conducted at the site to determine expected percolation rates; and,
- C. The septic system design shall be submitted to the County for review and approval, demonstrating compliance with County and State septic system requirements regarding location, sizing, installation and maintenance of facilities. The septic system design must be approved by the County prior to permit issuance.

**Residual Impacts:** Implementation of the proposed mitigation measures would reduce the potential for impacts to a less than significant level.

### 5.13.2.3 LUO/LUE Amendment Impacts

**Impact WW-2:** Proposed changes in land use designations may decrease the amount of municipal wastewater generated but may increase the amount of industrial wastewater, which could impact water quality.

**Discussion:** As discussed in Section 5.14, the change in land use designation from RS and CS to IND should result in similar or possibly less water use. If there is a decrease in water use; it would also result in a decrease in municipal wastewater generation. Should the LUO/LUE Amendment area be annexed into the Nipomo

Community Services District, the area may be sewerred. If annexation does not occur, such wastewater would be disposed through septic systems.

Impacts may occur from future industrial development within the LUO/LUE amendment area if wastewater septic systems contact groundwater or adversely affects surface waters and result in exceedances of water quality objectives.

**Impact Category:** Significant but Mitigable

**Thresholds of Significance Criteria:** 1, 2, 3, 4

**Mitigation Measures:** To minimize such impacts, future industrial development within the LUO/LUE amendment area shall implement **Mitigation Measures WW-1 (A through C)**.

#### 5.13.2.4 Cumulative Impacts

The cumulative projects (including the Caldwell Minor Use Permit, Loomis Minor Use Permit and Troesh Land Use Ordinance Amendment) may result in wastewater from onsite septic systems contacting groundwater or adversely affecting surface waters and result in exceedances of water quality objectives through storm run-off if septic systems from these projects are improperly designed. Upon buildout of the LUO/LUE amendment area, there may be significant wastewater impacts depending on the allowable industrial uses that develop within the area. It is possible, given that some parcels may be combined so that large industrial facilities, such as a chemical products or metal machinery manufacturing plant, are constructed. These large facilities, in combination with the cumulative projects, may result in long-term impacts. Such impacts may include discharges of nitrates, chloride, or TDS at levels that exceed the Central Coast Water Quality Control Plan (Basin Plan).

The Basin Plan guides activities of the Central Coast Regional Water Quality Control Board and staff by identifying beneficial uses, requiring implementation plans for the protection of beneficial uses, monitoring to ensure protection of beneficial uses, and setting water quality objectives and criteria. To minimize cumulative impacts and prevent conflicts with the objectives and criteria of the Basin Plan, **Mitigation Measures WW-1 (A through C)** shall be implemented.