5.14 WATER RESOURCES AND FLOODING

This section addresses potential impacts of the proposed asphalt hot-mix plant and associated LUO/LUE amendment to surface water and groundwater supplies, water quality and flooding. The proposed asphalt plant proposes to utilize an on-site well as its water source; the future industrial uses within the LUO/LUE amendment area would rely on wells as well. The proposed water supply sources rely on withdrawals from the Nipomo Mesa hydrologic sub-~~basin~~area of the Santa Maria Groundwater Basin (SMGB), which is currently listed as a Level of Severity II of by the 2003 County Annual Resources Summary Report.

This section references a number of recent groundwater studies conducted in the Nipomo Mesa area by private consultants and by State and/or regional resource agencies, which are referenced where applicable. The reports documented below have been completed and were available for review at the time this EIR section was written. Information contained within each of the reports was used in assessing the potential impacts from the proposed project in this EIR. Water resources reports used in preparation of this EIR analysis include:

- *Water Resources of the Arroyo Grande – Nipomo Mesa Area in 2002*: California Department of Water Resources (DWR), October 25, 2002 (hereinafter referred to as the 2002 DWR report).

  The 2002 DWR report took ten years to complete, reviewed hundreds of previously published technical reports (including the 1996a, 1997, 1998 Cleath reports), and is based on continual revision and input from hydrologists, geologists, engineers, and planning experts. The 2002 DWR report consolidates the myriad of information concerning groundwater resources within the SMGB, and assesses the state of groundwater resources of the study area.

- *Nipomo Mesa Groundwater Resource Capacity Study, San Luis Obispo County, California:* S.S. Papadopulos & Associates, Inc., March 2004 (hereinafter referred to as the 2004 Papadopulos report).

  The 2004 Papadopulos report was prepared under contract to the County of San Luis Obispo as a basis for updating the County's Resource Capacity System (County RCS). This study reviewed information from the 2002 DWR report and other water resource assessments of the Nipomo Mesa and vicinity, and presented an assessment of groundwater resources of the Nipomo Mesa.

- *Final EIR-Summit Station Land Use Ordinance Amendment:* EMC Planning Group Inc., September 2004 (hereinafter referred to as the Summit Station EIR).

  The Summit Station EIR was written to specifically assess the potential impacts on water resources in the Nipomo Mesa sub-~~basin~~area from an increase in residential density that would occur as a result of the LUO Amendment. The Summit Station EIR includes a technical report prepared in 2003 by Cleath & Associates (which is documented below), as well as recognizes the other reports previously referenced.

- *Water and Wastewater Impacts Analysis for the Summit Station Area Land Use Ordinance Amendment:* Cleath & Associates June 2003 (hereinafter referred to as the 2003 Cleath report).

  The 2003 Cleath report utilizes existing information on groundwater resources as a basis for evaluating potential effects from the Summit Station LUO Amendment. The 2003 Cleath report relies most significantly on a comprehensive analysis of the water resources in the Nipomo Mesa area in the 2002 DWR report.

There continue to be differing conclusions among various experts concerning the status of the SMGB. The reader is encouraged to refer to the technical reports, which can be found on the County and DWR websites, for more detailed information (http://www.slocountywater.org, http://www.sloplanning.org/environmental, and http://wwwdpla.water.ca.gov/sd/water_quality).

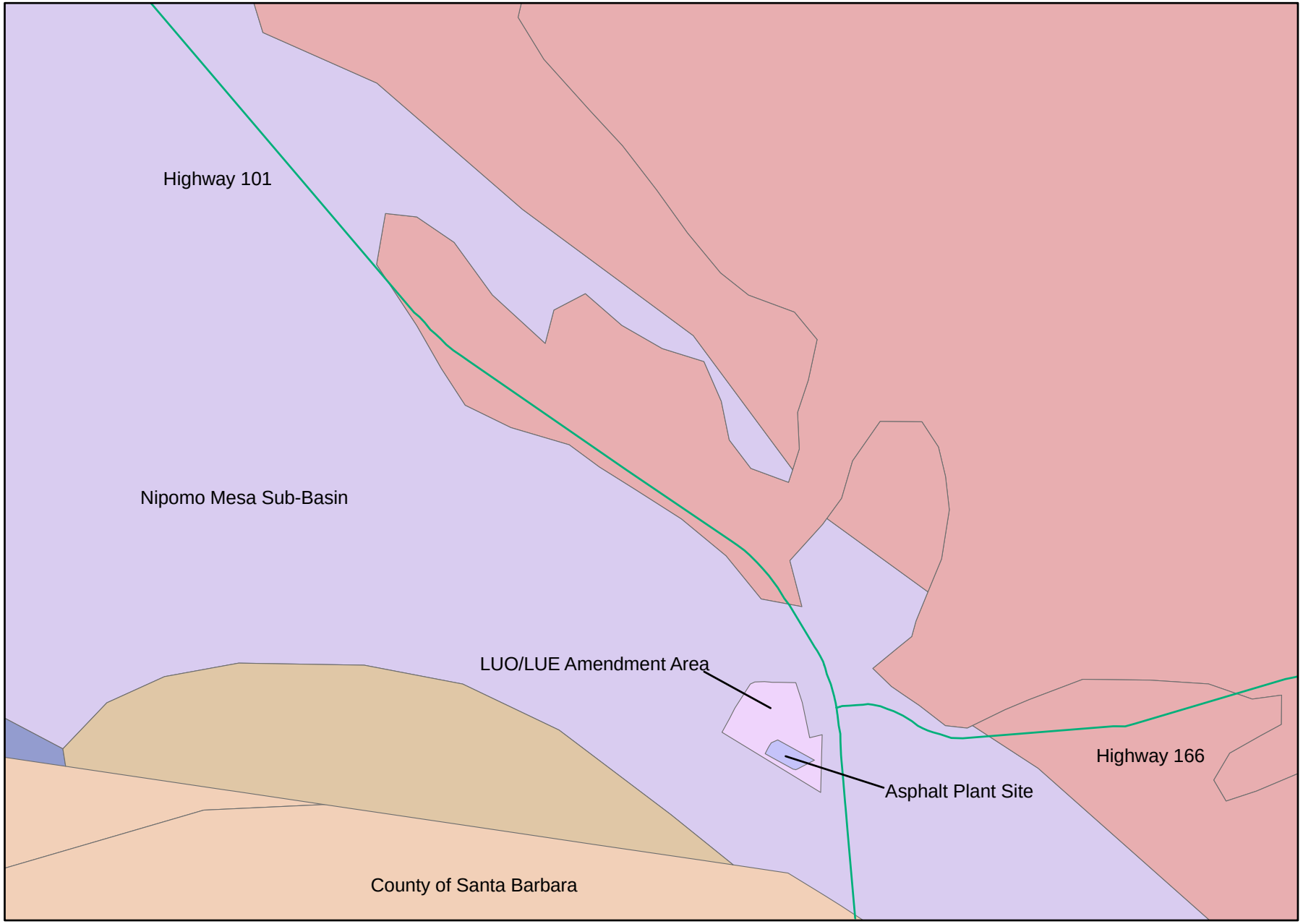
5.14.1 Setting

5.14.1.1 Basin Boundaries and Hydrology

The proposed project is located in the SMGB, which lies in northwestern Santa Barbara and southwestern San Luis Obispo counties. The SMGB is managed by the Santa Maria Valley Water Conservation District, which occupies approximately 36,000 acres, most of which is in Santa Barbara County. The Basin comprises approximately 280 square miles (181,790 acres), including about 61,220 acres within southern San Luis Obispo County. A portion of the district extends north of the Santa Maria River into San Luis Obispo County, west of U.S. highway 101. Twitchell Reservoir on the Cuyama River (a tributary of the Santa Maria River) is a major groundwater recharged facility within the basin and there are other stormwater retention and recharge basins in the Santa Maria area. The Basin is divided into four sub-areas: the main Basin in Santa Maria Valley, the Arroyo Grande, Pismo Creek, and Nipomo valleys.

The SMGB is bounded on the north by the San Luis and Santa Lucia Ranges, on the east by the San Rafael Mountains, on the south by the Solomon Hills and the San Antonio Creek Valley Groundwater Basin, on the southwest by the Casmalia Hills, and on the west by the Pacific Ocean. Several rivers and creeks drain westward to the Pacific Ocean. The Santa Maria Valley is drained by the Sisquoc, Cuyama, and Santa Maria Rivers and Orcutt Creek. The Tri-Cities Mesa and Arroyo Grande Plain are drained by Arroyo Grande and Pismo Creeks. Nipomo Valley is drained by Nipomo Creek into the Santa Maria River. Annual precipitation ranges from 13 to 17 inches, with an average of 15 inches. The project site is located within the Nipomo Mesa Hydrologic Sub-area of the Basin (see Figure 5.14-1).

There have been multiple water resource studies conducted within the SMGB, many with differences in opinion regarding the status of the basin. The 2002 DWR documents several detailed reports that confirms that there are cyclical periods of drawdown and recharge within the basin as a whole, but over the period of time since World War II to the present, the basin is essentially in steady state. Based on modeling performed in previous reports, the 2002 DWR report states that the dependable yield from the groundwater basin is approximately 124,000 acre-feet per year (AFY). This yield estimate applies to the entire SMGB, most of which is in Santa Barbara County.



Source: County of San Luis Obispo

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NIPOMO MESA SUB-BASIN

FIGURE 5.14-1

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The 2002 DWR report suggests that in broad terms, the amount of groundwater within the basin as a whole is in steady state. That is, the rate of withdrawals throughout the basin is approximately equal to the rate of recharge. Since the study period of the 2002 DWR report, deliveries from the State Water Project have started in Santa Maria, and the DWR indicates that the importation of State water has offset much of the theoretical overdraft identified in earlier reports. The 2002 DWR report indicates that overall use and recharge in the SMGB are equal at approximately 120,000 AFY.

Nipomo Mesa Hydrologic Sub-area. As previously mentioned, multiple studies have been undertaken to evaluate the extent of groundwater resources within the SMGB and specifically the Nipomo Mesa hydrologic sub-area. While the "equilibrium conclusion" surrounding the entire SMGB is generally accepted by reference in the 2002 DWR and the 2003 Cleath reports, it does not reflect the localized situation in the San Luis Obispo County portion of the SMGB and particularly in the Nipomo Mesa subarea.

The 2002 DWR report estimates that the safe dependable yield of the SMGB within San Luis Obispo County ranges between 19,800 and 24,600 AFY. For the Nipomo Mesa portion, the range is approximately 6,000 AFY.

In some drier years, groundwater withdrawals in Nipomo Mesa have caused localized depressions in the water table. The localized groundwater depressions have reduced the amount of groundwater flowing towards the Pacific Ocean, but have not adversely affected the overall flow of groundwater through the San Luis Obispo County portion of the SMGB. However, experts generally agree that the current withdrawal rates from the Nipomo Mesa sub-~~basin~~area are at the limit of the groundwater yield that can be safely sustained from the local area.

The 2002 DWR report documents these localized depressions with data from 1975, 1985, and 1995. The figures in the 2002 DWR report show that the depressions enlarged over that time period (1975-1995), and then reduced somewhat by the year 2000. When these localized depressions occur, they require greater pumping energy, and cause the costs for operating nearby wells within the localized depression to go up. The localized groundwater depressions in Nipomo Mesa have not adversely affected the overall flow of groundwater through the SMGB. However, it is clear based on the 2002 DWR and 2004 Papadopulos reports that the current withdrawal rates from the Nipomo Mesa sub-~~basin~~area are approximately at the limit of the groundwater yield that can be safely sustained from the local area.

The 2002 DWR report states that, *"the projected deficiencies in the water budget in water years 2010 and 2020 for the three portions of the main Santa Maria Basin do not necessarily imply overdraft conditions in those years. Projected extractions are within the range of dependable yield estimates, with the exception of the Nipomo Mesa in 2020." For the Nipomo Mesa area, the report states that, "projected groundwater demand exceeds the estimated dependable yield by approximately 50 percent in 2010 and 80 percent in 2020."*

Since the Nipomo Mesa sub-~~basin~~area is connected to the much larger SMGB, this dynamic interconnected groundwater system continually seeks new equilibrium as development increases and more water is extracted to supply domestic demands (Cleath 2003). The 2003

Cleath report states that as more water is extracted from the Nipomo Mesa portion, increased outflow from the Santa Maria portion of the basin into the Nipomo Mesa sub-~~basin~~area occurs to compensate for the amount withdrawn from the Nipomo Mesa sub-~~basin~~area.

The general consensus amongst experts, including the 2003 Cleath and 2002 DWR reports, is that reductions in subsurface outflow (i.e., less groundwater flowing to the ocean) and changes in of groundwater in storage) in the Nipomo Mesa area. However, the 2002 DWR report concludes that because of the potential for adverse effects to the SMGB, increasing amounts of subsurface flow from the Santa Maria Valley portion of the basin into the Nipomo Mesa portion of the basin to compensate for the groundwater deficit within the Nipomo Mesa area should not be used as a long-term solution to water supply needs in the Nipomo Mesa area.

The 2002 DWR report states, *"the long-term solution to water supply needs will result from good basin management, increased monitoring, cooperative agreements, and provisions for supplemental water that either exist or are being pursued by water purveyors. Basin management should address and mitigate deficiencies in water budgets."*

Though the 2002 DWR report concludes that SMGB overdraft is not likely through year 2020, it does indicate that projected water demand significantly exceeds dependable safe yield in the Nipomo Mesa sub-~~basin~~area. This conclusion reflects the need for differentiating between local and regional groundwater conditions. The SMGB may not be in overdraft by 2020, but local inflow/outflow deficiencies on the Nipomo Mesa can significantly impact individual well owners throughout the SMGB.

The 2004 Papadopulos report reviewed all applicable reports and findings as part of a Resource Capacity Study triggered by the County Resource Management System. This report's focus was to address many of the unanswered questions resulting from previous and conflicting water studies. After reviewing the previous reports and analyzing additional information (including pumping records from wells located in the Nipomo Mesa area), the Papadopulos report has concluded that the Nipomo Mesa sub-~~basin~~area is indeed in overdraft, and the greater SMGB is in "steady decline."

The 2004 Papadopulos report also goes on to discuss that the 2002 DWR report contains several inconsistencies regarding their conclusions about the state of overdraft in the Nipomo Mesa sub-~~basin~~area. The 2004 Papadopulos report states *"The DWR's conclusions seem to confuse the assessment of water resource capacity and manifestation of exceeding dependable yield. The DWR analysis, projections and water budget estimates clearly indicate that groundwater pumping in the Nipomo Mesa is in excess of dependable yield and that overdraft conditions have existed and are expected in the future."* The DWR report declines to state that the Nipomo Mesa sub-~~basin~~area is in overdraft, even though by their own definition, it is in overdraft condition.

The 2004 Papadopulos report also states *"…the Cleath reports may provide reasonable assessments of additional future impacts from individual projects, but some of the modeling simulations do not provide realistic estimates of future groundwater conditions because they do not contain provisions for increased demands elsewhere in the basin, nor provide for prolonged periods with less than average rainfall. Modeling assumptions and parameters such as*

transmissivity used appear to be too high, and likely underestimate the water level decline near the coast and the potential for seawater intrusion."

Groundwater Rights. The amount of groundwater that can be used by an overlying groundwater rights holder is not defined by law. An overlying property owner is entitled to all the water the owner can pump and beneficially use on his property until it adversely affects another neighboring property owners ability to adequately produce water for use on their property. Groundwater can be produced by the applicants for use on their properties on the basis of this right (Summit Station, FEIR 2004). This being the case, the applicants of the proposed project can establish production wells and withdraw groundwater for domestic use so long as it does not have a significant affect on neighboring production wells of the NCSD and other private property owners.

Groundwater Pumping Depressions. Drawdown interference occurs when the cone of depression of a pumping well lowers the water level at a nearby or adjacent pumping well. Several factors influence static and dynamic water levels and the intervening drawdown interference. Primarily, pumping rates of the individual wells and the proximity of two competing pumping wells are the main factors. For instance, the closer the wells are to one another, the greater the influence each well would have on the other. If "Well A" pumps twice as much groundwater as "Well B", Well A's influence on Well B is twice as great as Well B's influence on Well A, and vice-versa.

The cone of depression may be a dewatered area in an unconfined aquifer, or an area of lower dynamic head (pressure) in a confined aquifer. In either case, the radius of the cone expands until the amount of water moving toward the well is equal to the amount being pumped out. In some cases, these cones of depression exist only when a well is actively pumping, and then dissipate quickly during recovery (non-pumping) periods. In other cases, these cones of depression are persistent over time and may overlap with the cones of depression from other wells to form extended pumping depressions and potentially longer-term impacts to surrounding wells. The shape of cones of depression from pumping wells under short-term conditions (nonequilibrium) are related to the amount of well production, duration of pumping, and aquifer transmissivity and storativity. The amount of water level drawdown (interference) within the cone is directly proportional to the rate of pumping. If the rate of pumping is increased 10 percent, the drawdown increases 10 percent. Under long-term conditions (equilibrium), only aquifer thickness at a location within the cone and at the pumping well. Not only is the drawdown directly proportional to discharge, the rate of drawdown over time is also proportional. The amount of drawdown in feet (and any increase in drawdown due to increases in production) closest to the edge of the cone will be less than at the center of the cone, but discharge is proportional to drawdown at any particular location (Summit Station FEIR, 2004).

5.14.1.2 Groundwater Quality

Water quality varies from source to source and is influenced by natural and human factors. Natural influences include the layers of rock and soil surrounding an aquifer or surface conveyance, which determine the types and amount of minerals found in surface water or groundwater. Human impacts on water quality result from such activities as urbanization (stormwater runoff and septic tanks), agricultural irrigation (runoff from irrigated land), direct

disposal of wastewater into waterways, and grazing of livestock.

The California Department of Health Services (DHS) has set Maximum Contaminant Levels (MCLs), which are enforceable, regulatory levels under the Safe Drinking Water Act that must be met by all public drinking water systems to which they apply. Primary MCLs are established for a number of chemical and radioactive contaminants, while Secondary MCLs are set for taste, odor, or appearance of drinking water. Action Levels (ALs) are health-based advisory levels established by DHS for chemicals for which primary MCLs have not been adopted. They are not enforceable standards, but exceedances do prompt requirements for local government notification, recommendations for consumer notice and, at higher levels, recommendations for source removal. In addition, there are a number of unregulated chemicals that are or may be required to be monitored, depending on the vulnerability of drinking water sources.

Water quality comparisons typically focus on Total Dissolved Solids (TDS), chloride, and nitrates. Elevated chloride levels associated with seawater intrusion occur when there are no geological barriers (impermeable bedrock or clay layers) between coastal groundwater basins and the basins under the ocean that are saturated with seawater. The likelihood of seawater intrusion is increased when extensive pumping of groundwater basins adjacent to the ocean affects groundwater flow gradients and seawater is drawn inland. Irrigated agriculture also increases chloride levels in groundwater by introducing problems of poor drainage and increasing evaporation.

Nitrates can accumulate in watersheds due to the use of fertilizers or the presence of poorly maintained septic systems. Nitrogen not taken up by plants can leach through the soil to groundwater and then flow to recharge areas or private wells. Nitrates are of particular concern in drinking water sources because nitrates interfere with the absorption of oxygen into the bloodstream.

High levels of total dissolved solids frequently impair the use of groundwater in California. In Santa Barbara County, several groundwater basins show degradation of water quality due to high TDS levels. Total dissolved solids may be increased through natural dissolution of soluble materials, reduction in recharge from surface waters, and constant cycling and evaporation of irrigation water.

Characterization. Groundwater character in this Basin is variable and classified as a mixed–ion type, where there is no dominant cation or anion (DWR 2002). The central part of the Basin in San Luis Obispo County is chiefly calcium-magnesium sulfate; whereas, groundwater in the northwestern part of the Basin is more commonly calcium bicarbonate or calcium sulfate in character (DWR 2002). Total dissolved solids (TDS) concentrations vary throughout the Basin, but tend to increase from east to west (SBCWA 1999; 2001) and increase toward the center of the Basin beneath the cities of Santa Maria and Guadalupe in Santa Barbara County (DWR 1964). TDS concentrations also increase southward, away from the recharge area of the Santa Maria River (SBCWA 1999; 2001). East of Guadalupe, TDS concentrations increased to more than 3,000 mg/L in 1975 (SBCWA 1999; 2001). Water from 78 public supply wells has an average TDS content is 598 mg/L and ranges from 139 to 1,200 mg/L. The water quality objective of the Water Quality Control Plan for the Central Coast Region for TDS is 1,000 milligrams/liter.

The City of Santa Maria holds a 16,200 af per year entitlement to State Water, and has been receiving deliveries since 1997. In 2003, the City obtained 12,317 af from the State Water Project (SBCWA, 2004). Return flows from this higher quality water are expected to improve groundwater quality in the Santa Maria Valley in the long-term.

Impairments. Historically, the Santa Maria Valley Groundwater Basin has been subject to high nitrate concentrations, particularly in the vicinity of the City of Santa Maria and in Guadalupe (SBCWA 1999; 2001; DWR 2002). Nitrate concentrations have been recorded as high as 240 mg/L (DWR 2002). Fifteen of 81 public supply wells sampled during 1994 through 2000 show nitrate concentrations that exceed the maximum contaminant level (MCL, 45 mg/l for nitrate). High TDS, sulfate or chloride content impairs groundwater in some parts of the Basin (DWR 2002).

5.14.1.3 Surface Water Resources

The project site is located adjacent to the north bank of the Santa Maria River near its confluence with Nipomo Creek. The Santa Maria River begins at the confluence of the Sisquoc and Cuyama rivers about 20 miles from the coast. The Santa Maria portion of the watershed, which includes the Sisquoc and Santa Maria Rivers, covers an area of 453,777 acres. The Cuyama portion of the watershed encompasses approximately 732,147 acres. The Santa Maria River is the major surface water feature in the region, and is a major source of recharge to the aquifers beneath the Santa Maria Valley. The Cuyama River portion of the watershed has been controlled by Twitchell Dam since 1959. Floodwaters impounded by the Dam are released to the Santa Maria River for percolation to aquifers. Measurable surface flow occurs in the Santa Maria River only about 10 days per year (S.S. Papadopulos, 2004).

Based on stream flow monitoring between 1941 and 1987 at Guadalupe, peak stream flow in the Santa Maria River has varied from not measurable to 27,200 cubic feet per second (1969). Much of the watershed is controlled by the Twitchell Dam, which limits peak flow rates.

Nipomo Creek has a drainage area of about 20 square miles, and extends about nine miles from its headwaters to its confluence with the Santa Maria River. Stream flow is not measured, but average annual run-off is estimated at 800 to 925 af (DWR, 2002).

5.14.1.4 Surface Water Quality

The Santa Maria River is considered to support the following beneficial uses (Central Coast Regional Water Quality Control Board, 1994): municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, non-water contact recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, migratory habitat, rare species habitat, and freshwater replenishment.

Surface water quality data for the Santa Maria River is scant due to the ephemeral nature of the river. Base flow factors affecting water quality include rising water due to percolation of rainfall and releases from Twitchell Reservoir, discharges of treated water, and runoff from agricultural and urban areas. Total Dissolved Solids (TDS) concentrations have ranged from 250 milligrams per liter (mg/l) for stormwater runoff and 1,600 mg/l for low, late season flows. The chemical

character of the water ranges from a magnesium carbonate character during stormwater flows to a calcium-magnesium-sulfate character during low flow (DWR, 2002).

Both the Santa Maria River and Nipomo Creek are considered impaired under the Clean Water Act Section 303(d) list. The term "impaired" refers to the finding that the subject waterbody does not fully support identified beneficial uses. The Santa Maria River is considered impaired for fecal coliform and nitrate, due to inputs from agriculture, pasture grazing and urban run-off. Nipomo Creek is considered impaired due to elevated fecal coliform concentrations associated with inputs from agriculture, urban run-off and natural sources.

5.14.1.5 Existing Groundwater Wells

A well was completed in 1988 within the boundaries of the proposed asphalt plant site. This well is currently used to supply the process needs of the existing Portland cement batch plant, and dust control needs of the batch plant and adjacent concrete recycling facility. A second well is located approximately 350 feet east of this well, and is used by the Nipomo Community Services District to provide water to the Nipomo area. Other wells of the Santa Maria Valley sub-area in the vicinity of the on-site well are listed in Table 5.14-1.

Two of these groundwater wells are located within the LUO/LUE Amendment area (11N34W34A001S & 11N34W34A002S). Information regarding the depth, diameter, and completed intervals of the wells is not known. Based on hydrographs reviewed on the Department of Water Resources Website, the wells were drilled in the 1940's. Given their location adjacent to the Santa Maria River, they are probably completed in alluvial deposits which reach a maximum thickness of about 250 feet.

Wells completed in the alluvial deposits of the Santa Maria Groundwater Basin average about 281 feet in depth (range 16 to 1220 feet), and produce from 13 to 2,300 gallons per minute (gpm), with an average production of 60 gpm (DWR, 2002).

Table 5.14-1. Nearest Wells in the Santa Maria Valley Sub-area

Well no.	Distance to On-site well (feet)	Recorded Water Level (year)
Nipomo Community Services District	350	Unknown
11N34W34A001S	500	40.6 (1959)
11N34W34A002S	900	25.0 (1942)
11N34W27P001S	3900	125.8 (1980)
11N34W27P002S	2800	135.9 (1975)
11N34W27E001S	5500	180.9 (1980)
11N34W34J001S	2400	88.5 (1955)
11N34W34J002S	2500	73.5 (1968)

5.14.1.6 Water Demand

Asphalt Plant Site. Groundwater production rates of the existing well at the proposed asphalt plant site is unknown.

LUO/LUE Amendment Area. Current water use within the LUO/LUE Amendment area is unknown. However, water demand at buildout conditions under existing land use designations would be approximately 8.8 afy. This value was estimated from a water duty factor developed for the City of Santa Maria for commercial land uses (0.06 afy/ac - CS designation) and a projects-specific duty factor for residential uses. See discussion below for more detail:

Commercial land uses

- 44.7 acres of CS
- City of Santa Maria water duty factor = 0.06 afy/ac
- Total commercial service water use is 2.68

Residential land uses

- 9.3 acres of RS (all on bluff slopes)
- Average slope around 17% = 2 acre minimum parcel size with community water
- Total lots – up to four
- Number of potential residences on each lot – one primary and one secondary on each = 4 primary and 4 secondary residences
- Each primary residence = 1.260 afy; 4 primary residences = 5.04 afy
- Each secondary residence = 0.270 afy; 4 secondary residences = 1.08 afy
- Total residential water usage = 6.12 afy

5.14.1.7 Community Water Purveyors

The LUO/LUE Amendment area is not currently served by a water purveyor and is dependent on local wells. However, the Nipomo Community Services District is currently considering annexation of the LUO/LUE Amendment area as part of a larger sphere of influence study. If annexation occurs, water would likely be supplied by pipeline from the City of Santa Maria (San Luis Obispo Local Agency Formation Commission, 2003).

5.14.1.8 Drainage and Flooding

The asphalt plant site and much of the LUO/LUE amendment area is located within the 100-year floodplain, per the National Flood Insurance Program (NFIP) program managed by the

Federal Emergency Management Agency~~.~~ (FEMA) (see Figure 5.14-2). Drainages that may contribute to flooding at the project site include Nipomo Creek and the Santa Maria River. Flows in the Santa Maria River are mostly regulated by Twitchell Dam, which is located on the Cuyama River upstream of the confluence of the Cuyama and Sisquoc rivers. There are no flood control dams or other structures on the Santa Maria River or Nipomo Creek. Levees in the project area are limited to the south bank of the Santa Maria River, the asphalt plant site is not protected by levees.

The NFIP and County Land Use Ordinance requires that within areas designated as the 100-year floodplain, building floor elevations must be a minimum of 12 inches above the flood water levels. Areas within the designated floodway must be reserved to discharge the 100-year flood while cumulatively increasing the water surface elevation more than one foot. Generally, buildings and structures that would obstruct flood flow or be subject to flood damage ~~are~~area are prohibited within the floodway.

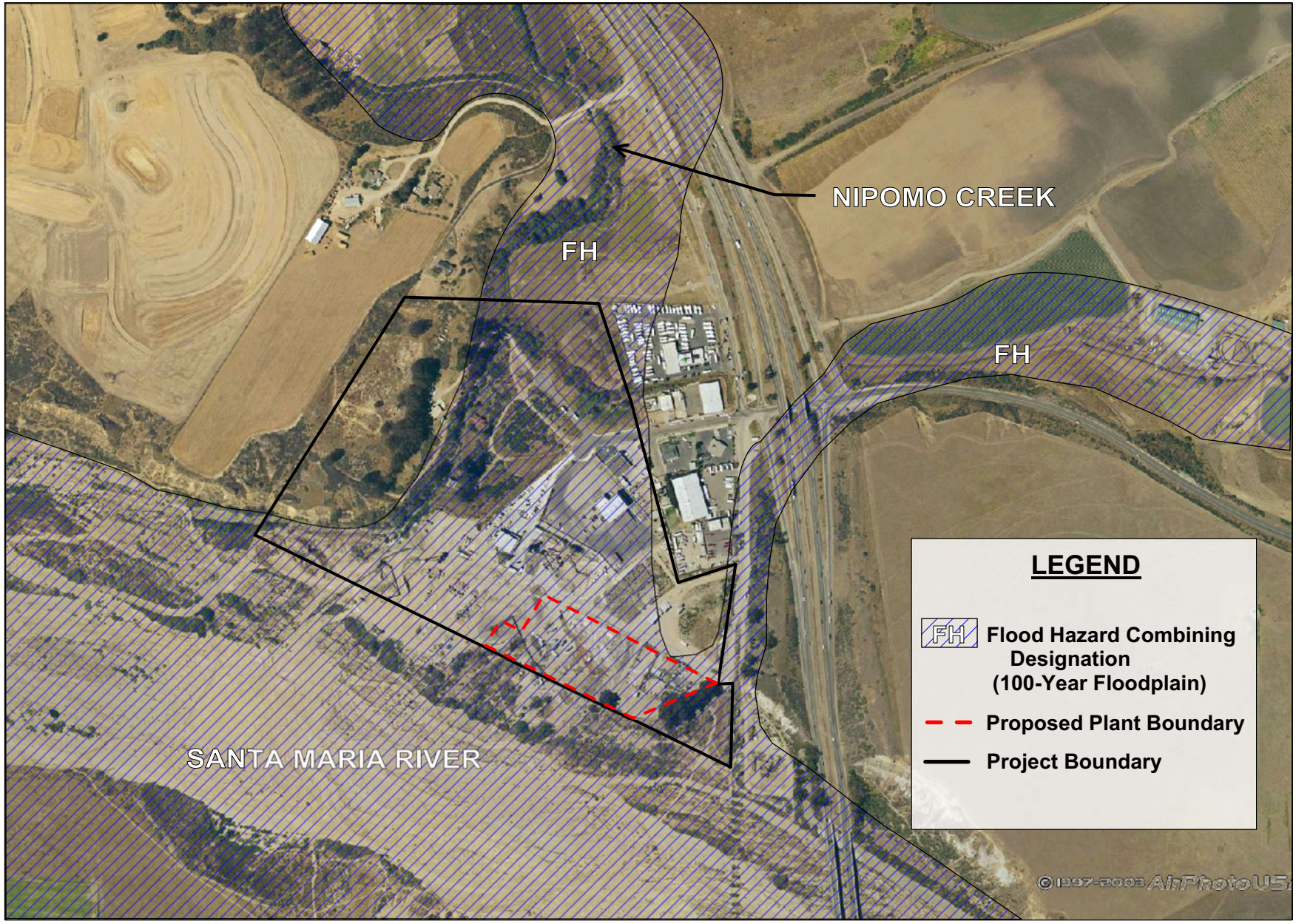
It is important to note that although the area is within the designated 100-year floodplain, actual flood stage elevations for the area are not available (pers. comm. Tim Tomlinson, County Public Works 2005). Mitigated Measures recommended in this Chatper include designing and constructed detention basins and berms at elevations a minimum 1-foot above the 100-year flood profile and designed to withstand a 100-flood event. Because the flood stage elevations for the project area are not available, it is impossible to determine what the actual elevations of the structure will be, nor it is possible to determine what the visual impacts of constructing such structures will be.

5.14.2 Regulatory Setting

5.14.2.1 Federal Policies and Regulations

The Safe Drinking Water Act implemented by the U.S. Environmental Protection Agency (EPA) is the primary federal regulation controlling drinking water quality. It was originally implemented in 1974 with significant revisions in 1986. The Act originally set standards for 83 individual constituents, including pesticides, trihalomethanes, arsenic, selenium, radionuclides, nitrates, toxic metals, bacteria, viruses, and pathogens. The 1996 amendment to the Act made some significant changes, most of which resulted in more stringent application of controls. The amended Act also adopted a more rigorous schedule for amending the Disinfectants/Disinfection By-Products Rule and the Enhanced Surface Water Treatment Rule, both of which took effect in 1998.

Federal permits relating to water utilities or infrastructure would be required only if the proposed project resulted in U.S. Army Corps of Engineers involvement or U.S. Fish and Wildlife Service involvement if issues concerning the project resulted in construction of new infrastructure such as pipelines, utility lines, etc. in sensitive habitat areas.



Basemap Source: County of San Luis Obispo

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FLOODPLAIN

FIGURE 5.14-2

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5.14.2.2 State Policies and Regulations

The establishment and enforcement of water quality standards for the discharge into and maintenance of water throughout California is managed by the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCB). The SWRCB enforces the federal Clean Water Act on behalf of the EPA. Most of the quantitative objectives are based on the California Code of Regulations (CCR), Title 22 - State Drinking Water Standards. Other considerations include the University of California Agricultural Extension Guidelines for Agricultural Irrigation Use, the Porter-Cologne Water Quality Control Act, and the Water Quality Control Board's Non-degradation Policy. The County of San Luis Obispo lies entirely within Region 3 - Central Coast Regional Water Quality Control Board. The RWQCB is the primary State agency ensuring that the quality of potable water supplies is protected from harmful effects by man.

The California Department of Health Services (DHS) is responsible for overseeing the quality of water once it is in storage and distribution systems. DHS oversees the self-monitoring and reporting program implemented by all water purveyors, performs inspections, and assists with financing water system improvements for the purpose of providing safer and more reliable service.

Section 10910 of the State Water Code requires the County of San Luis Obispo to identify the agency or entity (e.g. NCSD) responsible for providing water service to the area and to request that the agency determine whether the project was included within the current Urban Water Management Plan maintained by that water agency. If no such plan exists, or if the proposed project was not considered, then the agency must prepare a water supply assessment for the project. The assessment shall include a discussion as to whether the public agency or entities total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project. In addition, the agency's existing and planned future uses, including agricultural and manufacturing uses need to be taken into account. There are other specifications regarding the water supply assessment in the Water Code and the County must prepare the assessment if it is unable to identify a water supply agency. The implementation of this requirement is triggered by the County's determination that the project is subject to CEQA and is completed separate from but simultaneously to the CEQA process.

5.14.2.3 Local Policies and Regulations

The County, if the designated water purveyor, allocates water at the time of building permit issuance on a first come, first serve basis. At the time of building permit issuance, the County determines a project's water demand and the availability of water for allocation to the project. County staff then evaluates existing water supply to see if it is sufficient to meet the increase in demand, accounting for adjustment of the adopted growth rate. The County influences the use of water for residential and non-residential purposes by considering the availability of water in the approval of development projects and has measures in place to reduce long-term impacts to water supply. Long-term water supply is analyzed annually as part of the County Resource

Management System (RMS).

As part of the RMS, and per the request of the Board of Supervisors a Resource Capacity Study was prepared to assess the long-term water supply of the Nipomo Mesa area. The Resource Capacity Study confirms that for the Nipomo Mesa area, demand presently equals or exceeds the dependable yield. The Resources Capacity Study recommended a Level of Severity III for the water resources of the Nipomo Mesa area.

For other portions of the basin, demand may equal or exceed the dependable yield by 2010 before a supplemental water supply can be reasonably expected to be secured. The Resources Capacity Study recommended a Level of Severity II for the balance of the basin within the San Luis Obispo County.

It should be noted that the Board of Supervisors has not voted on the recommended Level of Severity III for the Nipomo Mesa Area for 2005, and the current Level of Severity is designated at II. The Resource Capacity Study includes three “action requirements” for the Board to consider that would accompany a Level of Severity III determination: According to the staff report that accompanied the Resources Capacity Study, if Level III is found to exist, the board shall make formal findings to that effect, citing the basis for the findings, and shall:

1. Institute appropriate measures (including capital programs) to correct the critical resource deficiency, or at least restore Level II so that severe restrictions will be unnecessary.

2. Adopt growth management or other urgency measures to initiate whatever restrictions are necessary to minimize or halt further resource depletion.

3. Enact a moratorium on land development, or other appropriate measures, in the area that is affected by the resource problem until such time that the project provides additional resource capacity to support such development.

The County can initiate measures that involve the land use and building permitting process. However, since the County is not a water purveyor on the Nipomo Mesa area, some of these measures will need to be undertaken by the NCSD, Cal Cities Water Company, and other community water systems, acting separately or as part of a coordinated effort.

Suggested measures to be undertaken by the water purveyors include:

1. Adopt an array of conservation measures that will achieve an overall reduction of 15% by 2010 and 30% by 2020, compared to 2003 consumption. Such conservation measures may include:

    - Mandatory retrofit of toilets, showerheads and faucets with low-water-use fixtures upon change of use, expansion of use or change of ownership of any residential or non-residential structure in the district service area.

    - Provision of incentives for voluntary retrofit.

- Adoption of an effective ascending block rate pricing structure consistent with Pacific Institute recommendations.
- Adoption of an ordinance prohibiting wasteful outdoor water use.
- Provision of leak detection assistance to customers.
- An on-going leak detection program for the delivery system.
- On-going customer education programs, including provision of water conservation information to applicants for new service, water bills comparing current use to historical use and average use for comparable accounts, advertising using newspapers, television and radio, public school education programs and landscape water-use audits for customers.
- Provision of incentives for installation of low-water-use appliances such as clothes washers and dishwashers and automatic shut-off devices.
- Provision of incentives for conversion to low-water-use landscaping.

2. Increase the use of reclaimed water from wastewater treatment plants and other sources.
3. Secure supplemental water supplies in sufficient quantity, when combined with conservation measures, to meet demand at the 2010, 2020, 2030 and buildout milestones, while limiting non-agricultural groundwater extractions to no more than 3,400 AFY.

5.14.3 Impact Analysis

5.14.3.1 Thresholds of Significance

CEQA Appendix G (Environmental Checklist) states that a significant water resource impact would occur if the project:

1. Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
2. Requires or results in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental issues; or,
3. Did not have sufficient water supplies available to serve the project from existing entitlements and resources.

In addition, the County Resource Management System (RMS) has studied and tracked water

supply and delivery systems throughout the County, and provides a more specific set of criteria in its evaluation process.

The RMS defines the two highest levels of severity for water supply as follows:

- Level of Severity II: When projected water demand over the next seven years equals or exceeds the estimated dependable supply.

- Level of Severity III: When the existing water demand equals or exceeds the dependable supply.

For water delivery systems, the levels of severity are similar:

- Level of Severity II: When the water delivery system is projected to reach design capacity within the next five years.

- Level of Severity III: When the water delivery system reaches its design capacity.

The 2001 Annual Resource Summary Report recommended a Level of Severity II for the Nipomo Mesa sub-~~basin~~area of the SMGB. The 2001 report interprets this level as *"…the crucial point at which some moderation of the rate of resource use must occur to prevent exceeding the resource capacity."* The 2002 Annual Resource Summary Report withheld any recommendation, pending completion of the 2002 DWR report that was underway at the time. After the 2002 DWR report was published, the 2003 Annual Resources Summary Report continued the County's recommendation for a Level of Severity II. The 2004 Annual Resources Summary Report certified the Level of Severity II recommendation based on information contained in the *Nipomo Mesa Groundwater Resource Capacity Study, San Luis Obispo County, California: S.S. Papadopulos & Associates, Inc.* Recently the County evaluated the recommendations suggested in the 2004 Papadopulos report and declared the basin in overdraft (as is found to be the case 2004 Papadopulos report), thus issuing a Level of Severity III (which indicates that existing demand equals or exceeds the dependable supply).

For the purpose of the proposed project, significant water supply and infrastructure impacts would occur if the demands placed on the Nipomo Mesa sub-~~basin~~area from the proposed project would exceed the availability of water supply.

In addition, the following are thresholds of significance adopted for the proposed project. Impacts that would exceed these thresholds are considered significant.

4. Per State CEQA Guidelines, if a project were to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
5. Any project-related exceedance of the water quality objectives of the Central Coast Water Quality Control Plan;
6. Any project-related effect that would substantially reduce groundwater production of

wells in the project area;

7. Substantially alter drainage patterns which would result in substantial erosion or siltation;
8. Substantially increase the rate or amount of surface run-off;
9. Expose people or structures to significant risk of loss, injury or death involving flooding; and,
10. Place structures in a 100-year flood hazard zone that would impede or redirect flood flows.

5.14.3.2 Asphalt Plant Impacts

Short-Term Impacts

Impact WR-1: Concrete dust at the asphalt plant site may increase the pH of water percolating to the alluvial aquifer following storm events.

Discussion: Concrete rubble is currently stored at the asphalt plant site and would be relocated off-site to provide sufficient area for the asphalt plant. Rainfall contacting this material may be increased in pH, and percolate into the alluvial aquifer, potentially affecting pH of groundwater. However, these conditions currently exist and the proposed project would not increase the storage of concrete rubble in the project area.

Impact Category: Insignificant

Thresholds of Significance Criteria: 2

Mitigation Measures: None required

Impact WR-2: Ground disturbance may result in storm water run-off to the Santa Maria River that may exceed water quality objectives.

Discussion: Grading and other project-related earth disturbance may cause localized soil erosion, increasing the turbidity of run-off, potentially violating turbidity and suspended solids water quality objectives of surface waters. Spills of hydrocarbon-containing fluids (oil, fuel, hydraulic fluid) by construction equipment may also enter surface waters and cause potential violations of oil and grease water quality objectives.

Impact Category: Significant but Mitigable

Thresholds of Significance Criteria: 8

Mitigation Measure WR-2: The following measures should be fully implemented at the asphalt plant site, should any construction activity occur between October 15 and April 15:

A. Prior to issuance of a Building Permit, the applicant shall conduct a flood analysis to determine the flood stage elevation of the project area. Results of this analysis will be used to determine the required elevation of berms, detentions basins, etc.

B. Earthen berms shall be constructed around the perimeter of the asphalt plant site to contain storm water within the asphalt plant site. Such berms shall be constructed a minimum 1-foot above the 100-year flood profile and designed to withstand a 100-flood event;

C. Stormwater detention basins shall be constructed and maintained during the construction period to reduce turbidity and suspended solids of stormwater discharged to surface waters. ~~Such detention basis shall be constructed a minimum 1-foot above the 100-year flood profile and designed to withstand a 100-flood event;~~

D. All construction-related equipment and vehicles shall be inspected daily and maintained as needed to ensure fluid leaks are minimized;

E. Sufficient materials (absorbent pads) shall be on-site to facilitate spill clean-up; and,

F. Materials contaminated by fluid leaks shall be removed from the asphalt plant site to a suitable handling/storage facility.

Residual Impacts: Implementation of these mitigation measures would reduce impacts to less than significant levels.

Impact WR-3: Construction-related water production from the on-site well may adversely affect existing users of the Nipomo Mesa subarea of the Santa Maria Groundwater Basin.

Discussion: Groundwater would be pumped from the on-site well during the construction period to provide adequate water for dust-suppression and soil compaction. Currently, the total current demand on the Nipomo Mesa sub-~~basin~~area, which includes the NCSD, Cal Cities, smaller purveyors, and agricultural users, is estimated to be approximately 9,220 afy. Recently the County evaluated the recommendations suggested in the 2004 Papadopulos report and left it at a Level of Severity II (which indicates projected water demand over the next seven years equals or exceeds the estimated dependable supply). Although a Level of Severity II has been issued, the amount of water to be used for dust-suppression and soil compaction during construction is temporary; therefore, this impact is not significant.

Impact Category: Insignificant

Thresholds of Significance Criteria: 1

Mitigation Measures: None required

Long-Term Impacts

Impact WR-4: Water production from the on-site well may adversely affect existing users of the Nipomo Mesa subarea and possibly the Santa Maria Valley subarea of the Santa Maria Groundwater Basin.

Discussion: The proposed project would use water from the on-site well, primarily for dust control and landscape irrigation. Water would be stored in a ~~required~~minimum-sized ~~180,000~~7,500-gallon storage tank for firewater storage (see Section 5.10). A minimum of 5,000 gallons would be dedicated to firewater storage

alone, such that the tank would be set to refill anytime it dips below 5,000 gallons. Projected water use for the proposed stand-alone asphalt operation is estimated at approximately 1,000 gallons per day (gpd) or 0.9 acre feet per year (afy), with an estimated 1,500 gpd (1.4 afy) for landscaping use for a total water demand for landscaping and plant operations of 2.3 afy. However, the amount of water used for landscaping would decline over time as the plants become established.

It is expected that the on-site well would be operated as needed to fill the proposed ~~180,000~~7,500-gallon storage tank. A distance-drawdown analysis was completed to determine the short-term reduction in groundwater levels associated with production of the on-site well. This analysis was based on a 5,000-gallon water storage tank, which is the proposed capacity of the tank as described in the Project Description, as defined in Chapter 3.0.

Substantial reductions in groundwater levels would reduce potential maximum pumping rates and increase pumping costs for adjacent wells. The analysis is based on a specific yield of 12 percent within the previously stated range for the assumed transmissivity[1] value derived using the approximation that transmissivity may be estimated by assuming a value of 2,000 times the well specific capacity, which in this case was assumed to be 2.5 gpm per foot of drawdown. The analysis indicates the groundwater level drawdown would be less than one foot at the closest well, based on a continuous (year-round) 10 gallon per minute pumping rate OR seven days of pumping at a rate of 100 gallons per minute. Overall, the proposed project would have a less than significant impact on groundwater supply.

The draw-down analysis discussed above indicates that surface waters and associated riparian vegetation would not be substantially affected by proposed use of the on-site well.

Impact Category: Insignificant

Thresholds of Significance Criteria: 1, 3, 4

Mitigation Measure WR-4:

A. Although the proposed project would have a less than significant impact on groundwater supply, because the asphalt plant utilize groundwater resources from the Nipomo Mesa sub-~~basin~~area, the following water conservation measures shall be followed:

- Implement a well-monitoring program for the proposed asphalt plant;
- Undertake and implement a comprehensive water conservation program designed specifically to reduce the overall water demand from the asphalt plant; and,
- Preparation of a~~n~~ landscape irrigation plan that specifies a drip irrigation system with automatic controllers and auto rain shut-off devices for achieving

[1] Transmissivity ~~effects~~ affects the shape of the drawdown. If transmissivity is high, then the drawdown is broad and shallow. If transmissivity is low, then the drawdown is narrow and deep.

low volume, high efficiency irrigation.

~~B.Because the distance-drawdown analysis was based on a 5,000-gallon water storage tank, and not an 180,000-gallon tank, as would be required by CDF/County Fire, prior to issuance of a building permit, the applicant shall conduct a distance-drawdown analysis for the 180,000-gallon tank. If the findings of the analysis show potentially significant impacts on groundwater supply, the applicant shall implement the above-mentioned water conservation measures.~~

Impact WR-5: The project-related increase in impervious surfaces may reduce recharge of the alluvial aquifer through reduced percolation of rainfall.

Discussion: The project-related increase in impervious surfaces would be limited to approximately 1.4 acres, associated with paved roads and the proposed maintenance/fueling pad. Although this area is very small in comparison to the Santa Maria Basin (280 square miles), impacts may occur. However, the proposed project includes construction of a detention basin to minimize stormwater runoff. This detention basin would facilitate recharge of the alluvial aquifer; thus, impacts are considered insignificant.

Impact Category: Insignificant

Thresholds of Significance Criteria: 1

Mitigation Measures: None required

Impact WR-6: Overflow of the proposed storm water detention basin would concentrate storm run-off and result in erosion.

Discussion: The project-related increase in impervious surfaces would be limited to approximately 1.4 acres, associated with paved roads and the proposed maintenance/re-fueling pad. The proposed project includes an earthen swale with a drop inlet to collect run-off from the asphalt plant site, which would be piped to a proposed detention basin. The basin would be designed to accommodate run-off generated at the asphalt plant site by a 10-year storm. The purpose of this facility is to control stormwater runoff. Storm flow in excess of the basin capacity would result in overflow discharge through a 12 to 18-inch diameter pipe to a point located at the southern property boundary. Overall, the proposed project would not increase the flow rate of storm run-off. However, discharge of storm water from the detention basin overflow pipe would be concentrated and result in erosion of the adjacent floodplain of the Santa Maria River.

Impact Category: Significant but Mitigable

Thresholds of Significance Criteria: 7, 8

Mitigation Measure WR-6: The detention basin outlet/overflow shall be piped to the bank of the Santa Maria River and provided with an energy dissipation structure to minimize erosion. The detention basin shall be designed to withstand a 100-year flood event. Prior to issuance of a Building permit, the applicant shall submit detailed specifications for review and approval on the design of the detention basin. The

walls of the detention basin shall be designed and constructed a minimum 1-foot above the 100-year flood profile and designed to withstand a 100-flood event.

Residual Impacts: Implementation of this mitigation measure would reduce impacts to less than significant levels.

Impact WR-7: Rainfall would percolate through lime-treated aggregate and potentially increase pH of groundwater and surface waters.

Discussion: Hydrated lime would be used to treat aggregate, which would be stored at the asphalt plant site. Hydrated lime is commercially used to increase the pH of soils and would react similarly when introduced to groundwater and surface water. Rainfall would wash the lime coating from the aggregate, which would accumulate in the detention basin and may percolate into the alluvial aquifer. Discharge from the detention basin may transport high pH storm run-off to the Santa Maria River. The introduction of lime to surface water may result in violation of the 8.5 pH water quality objective of the Central Coast Water Quality Control Plan.

Impact Category: Significant but Mitigable

Thresholds of Significance Criteria: 5

Mitigation Measure WR-7: Lime-treated aggregate shall be stored on elevated concrete pads under shelters to prevent direct contact with rainfall, storm run-off and floodwaters. Such pads shall be constructed a minimum 1-foot above the 100-year flood profile and designed to withstand a 100-flood event.

Residual Impacts: Implementation of this mitigation measure would reduce impacts to less than significant levels.

Impact WR-8: Operation of the proposed asphalt plant may generate contaminated storm water run-off to surface waters and result in exceedances of water quality objectives of the Water Quality Control Plan.

Discussion: The proposed asphalt plant would involve the use of asphaltic oil, fueling of diesel-powered trucks and equipment, and the use and storage of motor oil, hydraulic fluid and RHEOMIX (aqueous emulsion of synthetic oils). These materials, if not properly managed, could result in impacts to Nipomo Creek or the Santa Maria River. Asphalt plants are required to obtain and comply with the Industrial Storm Water General Permit issued by the SWRCB (Permit Order 97-03-DWQ). To comply with the general permit, the applicant will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is required to include the following elements: 1) Identify the potential sources of storm water pollution at the Project Site; 2) Identify, select, and implement BMPs to reduce the potential for storm water pollution; 3) Train employees in storm water pollution prevention BMPs; and 4) Regularly monitor the effectiveness of the selected BMPs through plan evaluation and annual storm water quality testing. Implementation of a comprehensive SWPPP is expected to prevent significant impacts to surface water quality. However, future compliance with the provisions of the General Storm Water Permit is not ensured, such that mitigation is provided to reduce water quality impacts to a level of less than significant.

Impact Category: Significant but Mitigable

Thresholds of Significance: 5, 7, 8

Mitigation Measure WR-8: Prior to operation, the applicant shall prepare an industrial SWPPP for the proposed asphalt plant and submit a notice of intent to the SWRCB to comply with the General Industrial Storm Water Permit. All measures identified in the SWPPP and conditions of the General Permit shall be fully implemented.

Residual Impacts: Implementation of this mitigation measure would reduce impacts to less than significant levels.

Impact WR-9: The proposed asphalt plant and other areas of the larger Project Area are located within the 100-year floodplain for Nipomo Creek and the Santa Maria River.

Discussion: The project site is located within the 100-year floodplain for Nipomo Creek and the Santa Maria River. The proposed asphalt plant would be flooded during a 100-year flood event. No habitable structures would be constructed within the 100-year floodplain, such that risk of injury and death is considered less than significant. However, proposed structures, and ancillary structures (e.g., berms, sound walls) would displace floodwaters resulting in a small increase in flood elevations.

Flooding of the asphalt plant site may transport hazardous materials (including asphaltic oil, diesel fuel, hydrated lime) to surface waters, resulting in violations of water quality objectives. Erosion impacts may also occur from accumulation of floodwaters adjacent to suggested berms and 8-foot sound walls. This impact is considered significant but mitigable.

Impact Category: Significant but Mitigable

Thresholds of Significance: 10

Mitigation Measure WR-9:

A. The project shall comply with the County Land Use Ordinance regulations relating to development within floodplains as stipulated in Section 22.14.060. The requirements include proof that the proposed structures will not limit the capacity of the floodway or increase flooding heights downstream; new structures are required to be built with finish floors either one foot above the 100-year flood elevation or a minimum of two feet above surrounding finish grade.

B. **Mitigation Measures HAZ-3A** and **HAZ-3B** shall be fully implemented to mitigate potential upsets of hazardous materials/waste storage areas during flood events.

Residual Impacts: With implementation of the above-referenced measures, residual impacts would be less than significant.

5.14.3.3 LUO/LUE Amendment Impacts

Short-Term Impacts

Impact WR-10: Ground disturbance associated with future industrial development within the LUO/LUE amendment area may result in storm water run-off to the Santa Maria River that may exceed water quality objectives.

Discussion: Grading and other project-related earth disturbance may cause localized soil erosion, increasing the turbidity of run-off, potentially violating turbidity and suspended solids water quality objectives of surface waters. Spills of hydrocarbon-containing fluids (oil, fuel, hydraulic fluid) by construction equipment may also enter surface waters and cause potential violations of oil and grease water quality objectives.

Impact Category: Significant but Mitigable

Thresholds of Significance Criteria: 5, 8

Mitigation Measure WR-10:

A. Prior to construction, the applicant(s), In compliance with the Land Use Ordinance, will prepare and implement a Sediment and Erosion Control Plan (SECP) for the proposed project. The SECP will include:

- Slope surface stabilization measures, such as temporary mulching, seeding, and other suitable stabilization measures to protect exposed erodible areas during construction, and installation of earthen or paved interceptors and diversion at the top of cut of fill slopes where there is a potential for erosive surface runoff;
- Erosion control devices, such as energy absorbing structures or devices, will be used, as necessary, to reduce the velocity of runoff water and related erosiveness;
- Sedimentation control measures, such as straw dikes, mulches, vegetative sediment filters, dugout ponds, and other measures that reduce overland flow velocity, reduce run-off volume or entrap sediment;
- Regular maintenance of all drainage devices and basins to ensure in good working order;
- Check during 10-year and greater storm events to verify in good working order and appropriate remedial actions, if necessary;
- Installation of mechanical and/or vegetative final erosion control measures within 30 days after completion of grading;
- Confining land clearing and grading operations to the period between April 15 and October 15 to avoid the rainy season;
- Minimizing the land area disturbed and the period of exposure to the shortest feasible time;

- The SECP will be prepared in accordance with the Land Use Ordinance; and,
- Install long-term drainage devices for site drainage, including headwalls, basins, culverts with down-drains and energy dissipating devices (riprap or diffusers).

B. Prior to construction, In compliance with Section 22.52– Grading, the applicant(s) will prepare a grading plan for the project; and,

C. Prior to initiation of construction activities, the applicant(s) will be required to comply with the Construction Storm Water General Permit, which is required for construction projects which will disturb more than one acre. Compliance with the General Permit includes filing a Notice of Intent with the State Water Resources Control Board to comply with the general permit, and preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will be required to include provisions for the installation and maintenance of Best Management Practices (BMPs) to reduce the potential for erosion of disturbed soils at the Project Site. Additionally, construction activities associated with the construction of new facilities allowed under the land use designation changes for the larger Project Area will also be required to comply with the Construction Storm Water General Permit if ground disturbance will exceed one acre.

Residual Impacts:

With implementation of the above-referenced measures, residual impacts would be less than significant.

Long-Term Impacts

Impact WR-11: Water demand of the LUO/LUE Amendment area may affect existing users of the Nipomo Mesa subarea and possibly the Santa Maria Valley subarea of the Santa Maria Groundwater Basin.

Discussion: The project-related change in land use designation from commercial and residential to industrial land uses would reduce potential water demand from 8.8 to 4.3 afy, based on a water duty factor developed for the City of Santa Maria for industrial land uses (0.08 afy/ac) and a project-specific water duty factor for residential uses. The proposed project would reduce water demand of the LUO/LUE amendment area, which is considered a less than significant impact.

Impact Category: Insignificant

Thresholds of Significance Criteria: 1, 3, 4

Mitigation Measure WR-11: Although the proposed LUO/LUE amendment would result in a reduction in water use, future development would utilize groundwater resources from the Nipomo Mesa sub-~~basin~~area, which is currently considered to be in overdraft by several experts and in adjudication. As such, all future industrial development with the LUO/LUE amendment area must adhere to the following water

conservation measures:

- Implement a well-monitoring program for the proposed industrial development;
- Undertake a comprehensive water quality assessment and develop a water quality-monitoring program for the proposed industrial development\;
- Undertake and implement a comprehensive water conservation program designed specifically to reduce the overall water demand from the industrial development; and,
- Require landscape plans that include low water plant landscaping materials and drip irrigation systems with automatic controllers and auto rain shut-off devices. Landscape plans shall include the location and extent of permeable and impervious landscape materials, plant materials selected from the County's approved plant list, and an irrigation plan indicating the method for achieving low volume, high efficiency irrigation.

Impact WR-12. Potential land uses allowed under the proposed industrial land use designation may involve wastewater discharges that may result in exceedances of the water quality objectives of the Central Coast Water Quality Control Plan.

Discussion: Organic or inorganic compounds, or other materials used or produced by industrial processes may be discharged to the Santa Maria River in wastewater. Discharges from industrial facilities are regulated under the National Pollutant Discharge Elimination System (NPDES), which would ensure any discharges do not violate water quality objectives. However, obtaining and complying with the provisions of a future NPDES Permit is not ensured, such that mitigation is provided to reduce water quality impacts to a level of less than significant.

Impact Category: Significant but Mitigable

Thresholds of Significance: 2

Mitigation Measure WR-12: Prior to operation, the applicant shall obtain an NPDES permit from the RWQCB. The requirements of the Permit shall be fully implemented including waste discharge limitations, and monitoring and reporting requirements.

Residual Impacts: Implementation of this mitigation measure would reduce impacts to less than significant levels.

5.14.3.4 Cumulative Impacts

The cumulative projects (including the Caldwell Minor Use Permit, Loomis Minor Use Permit and Troesh Land Use Ordinance Amendment may adversely affect surface water quality through storm run-off. The incremental contribution of the proposed project to these cumulative impacts is considered significant. **Mitigation Measures WR-10** and **WR-12** would reduce the project's contribution to less than significant levels by requiring construction-related measures to control storm-water runoff and by requiring NPDES permits to be obtained by the RWQCB.

Because the cumulative projects and future industrial development would utilize groundwater resources from the Nipomo Mesa sub-~~basin~~area, which is currently considered to be in overdraft by several experts and being considered for adjudication, significant impacts to groundwater resources may occur. **Mitigation Measure WR-11** would reduce the project's contribution to less than significant levels.

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