

Executive Summary

The Department of Water Resources (DWR) analyses, water budget estimates, and projections indicate that groundwater pumping in the Nipomo Mesa area is in excess of the dependable yield. Since current and projected pumping beneath Nipomo Mesa exceeds inflow (natural recharge plus subsurface inflow), the Nipomo Mesa portion of the Santa Maria Groundwater Basin is currently in overdraft and projections of future demand indicate increasing overdraft. Some studies conducted for Nipomo Area Environmental Impact Reports have overestimated the sustainable yield of groundwater and underestimated future groundwater declines and potential for seawater intrusion.

DWR defines overdraft as *“the condition of a groundwater basin or subbasin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years, during which water supply conditions approximate average conditions.”* The statement in the DWR report that the groundwater basin within San Luis Obispo County is currently not in overdraft because of *“consistent subsurface outflow to ocean and no evidence of sea water intrusion”* is inconsistent with DWR’s definition of overdraft.

DWR’s findings for groundwater beneath the Nipomo Mesa Area are consistent with the County’s Resource Management System Water Supply Criterion, Level of Severity III-- existing demand equals or exceeds the dependable supply.

Although existing and projected future water demand at Nipomo Mesa exceeds sustainable groundwater supply based on local water balance analyses, associated potential impact such as seawater intrusion of the aquifer system is not an imminent threat. Hydraulic analyses indicate that a time lag of many decades is likely before heavy groundwater pumping a few miles from the coast results in evidence of seawater intrusion near the coastline.

Declines of 40 to 60 feet in groundwater levels in Santa Maria River Valley occurred between the mid 1940s and late 1960s. Although increased pumping with agricultural development contributed to the drop in groundwater levels, the most important factor appears to be a decrease in recharge due to a prolonged period from 1945 to 1970 with less than average rainfall.

Analysis of historical rainfall data indicate a 30% likelihood that another 10-year period will occur within the next 100 years with annual rainfall nearly 2 inches below average. This would result in major declines in groundwater levels in the Santa Maria River Valley and Nipomo Mesa accompanied by reduced production capability from many wells, increased energy costs for pumping, and increased risk of seawater intrusion of the aquifers near the coastal margin.

Management response to these findings could include increased use of recycled water, increased importation of supplemental water, implementation of additional conservation measures, and appropriate limits on development.