

MEMORANDUM TO THE WATER POLICY TASK FORCE
(Southern California Association of Governments [SCAG])

December 9, 2004

TO: *Members of the Water Policy Task Force*

FROM: *Daniel E. Griset, Sr. Regional Planner, X895, griset@scag.ca.gov*

SUBJECT: *Growth and Water Issues in the Antelope Valley*

RECOMMENDATION:

Receive for future policy consideration, giving special attention to the need for regional cooperation in the development of water supply infrastructure and local water resource management policies.

BACKGROUND:

In recent months water issues have become extraordinarily important in Antelope Valley, a part of the SCAG region slated for significant future growth. This is the result of decisions by the Los Angeles County Water Works District No. 40 (WWD40) to withhold "will serve" letters from developers who are seeking land use approvals in the WWD40 service area in Palmdale, Lancaster and adjoining unincorporated areas. This action is required by new state law (SB 221 and SB 610 authored by Senators Costa and Keuhl was passed in 2001) requiring larger developments to obtain written certification that long-term water supplies are in place that will meet the expected water demand created by these new uses. Additionally, these long-term supply assessments by water supply agencies are required to consider the future water needs of current consumers, as well. Without this certification a land use agency cannot issue the approvals needed to clear the project for construction.

Typically, these certifications depend on water supply plans that each provider documents and updates every five years in its Urban Water Management Plan (UWMP). The Costa/Keuhl bills establish an essential role for UWMPs throughout California, especially in rapidly growing areas like Antelope Valley.

This standstill in new development in Antelope Valley is the first instance in the SCAG region where a water agency has withheld a "will serve" letter because of the Costa/Keuhl water supply certification requirements. This not only creates conflict between developers, local government and a water agency, it raises for further consideration SCAG's long-term forecast for significant growth in the Antelope Valley and of the water resources available to support this growth.

In addition to the "will serve" certification standstill there are a variety of factors that are contributing to conflict and uncertainty over water resources and new development in the Valley:

Water Rights: The great majority of the water used in the Valley is pumped from the Valley groundwater basin. Historically the costs for groundwater have been nominal. Without any management system for controlling groundwater, Valley pumpers have only had the energy costs associated with pumping to pay for this essential resource. Given the absence of basin management and higher pumping rates, the water levels have fallen substantially in recent years. This change in the groundwater hydrology has not only eliminated the artesian wells that often brought water naturally to the surface, it has stranded many of the pumps whose piping

systems are no longer deep enough to reach water. This unfavorable trend has precipitated litigation by Valley farming interests that seek to protect their historical water consumption patterns from new limitations, to be able to transfer or sell their rights and to share in any benefits produced by new basin storage programs. In turn, counter suits have been filed that seek to broaden the issues in dispute. These counter suits seem intended to bring a comprehensive array of Valley interests into a broad groundwater management agreement and to focus attention on the beneficial (i.e., appropriate) uses of the Valley's water.

Groundwater Issues: Between 1915 and 1995 hydrology studies estimate that the groundwater basin has produced more than 8 million acre feet (AF) of water, mainly for agricultural purposes. After World War II (WWII), pumping hit an annual high of 363,000 AF, a time when alfalfa growing consumed 93,000 acres and was in its prime. Annual groundwater pumping is now estimated at between 140,000 and 170,000 AF. WWD40, the largest water supplier in the Valley relies on groundwater for 40% of its deliveries; the balance is provided with imported water.

Groundwater pumping has two main cost elements: the cost of drilling a well and the energy costs to operate the well. In general, the direct cost of pumped water in the Valley is between \$50 and \$70 per AF, substantially lower than the cost of imported water. Against this pumping backdrop the annual replenishment of the basin is about 70,000 AF. This disparity between input and output underscores the need for a groundwater management program that makes the basin a sustainable asset, not a depleting one.

Water Importation: The Antelope Valley-East Kern Water District (AVEK) is a contractor with the State Water Project (SWP) and is the agency responsible for bringing imported water to the Valley. Under its agreement with the SWP AVEK is entitled to more than 140,000 acre feet (AF) annually for which it now pays \$231/AF. (An AF is 326,000 gallons, enough water to support a family in the Valley for a year.) Because of various factors, however, the SWP does not deliver full entitlements to its contractors. AVEK, in a recent announcement by the Department of Water Resources, was informed that it is slated to receive 40% of its entitlement in 2005. (Nevertheless, it is obligated to pay for its full contracted entitlement amount.) Of note in these current circumstances, even if it could get its full entitlement, it would be unable to take full delivery, owing to its limited access to storage and the availability of water treatment facilities. Though AVEK has recently implemented a pilot groundwater recharge project, it has not been able to exploit the groundwater basin for the kind of large-scale storage that future growth in the Valley will require. The opportunities are noteworthy, however, based on estimates that the basin could hold as much as 13 million AF. As water storage and treatment projects take shape the rate payers in the Valley can expect to see rising costs for water and growing pressures to implement water wise conservation efforts.

Farming and Other Economic Activities: Various field crops have been a staple of the Valley's economy. Though crops like alfalfa, barley and wheat were popular farm products in the post-WW II years, current production favors crops like carrots. In 1953 there were 99,000 acres in production; by 1993 this agricultural acreage had declined to less than 13,000 acres. Nevertheless, there has been a resurgence of farming activity during the past 10 years. Since its earliest habitation the Valley has been home to salt, aggregate and borate mining. Though aerospace activities provide other jobs to area residents, most employment opportunities require commuting to southern Los Angeles County.

Water Reclamation and Reuse: Along with the Valley's growth in population wastewater discharges have increased, creating related infrastructure challenges. The Los Angeles County Sanitation Districts has developed two areas that serve the cities of Palmdale and Lancaster and surrounding areas. Over the years the Districts have been permitted to take substantial portions of their effluent (treated to secondary standards) and discharge it to surface spreading areas on federally owned land. As these discharge practices continued, this nitrate-laden effluent has formed a contaminated groundwater plume that now requires remediation, an effort

geared to prevent further threats to groundwater pumping. Along with remediation efforts, the Districts are facing twin issues: implementing tertiary treatment systems and expanding their facility capacities. Implementing the higher level of treatment for Valley wastewater will not only stem the nitrate pollution problem, it will create with these more purified discharges a "new" supply of water for reuse in the Valley. Along with the costs of these new treatment systems the Districts have new capacity costs related to expanding facilities that are needed to accommodate the substantial growth anticipated in the Valley. As a result of these changes, the annual charge for wastewater treatment is expected to increase from \$71 to \$160.

Growth: Over the next 25 years SCAG anticipates a substantial growth in the Valley's population. Looking at the Antelope Valley-East Kern Water District service area, total population is expected to increase from some 200,000 (in Year 2000) to nearly 525,000 in 2030.

Urban Water Management Plans:

No document is more crucial to the connection between Valley growth and water supplies than the UWMP. This document is updated every five years by each water agency that has more than 3000 customers/connections. SB 221 and 610 give the UWMP a distinct role in supporting certifications that water supplies are sufficient to serve a new development, along with all the other demands from existing consumers. AVEK and WWD40 are jointly developing a UWMP in which future water needs and supply plans will be documented for use by land use entitlement agencies in the Valley. (A copy of WWD40's 2000 UWMP is attached to the agenda.) Historically AVEK, as a wholesale agency, has not prepared a UWMP, relying instead on the plans developed by the more than 70 retail water purveyors in the Valley.

The panel of speakers reflects a full mix of interests that are active in Antelope Valley. City and County land use planners are continuously augmenting their General Plans, seeking to balance housing, jobs, community amenities and environmental compatibilities. Water agencies are working to find an appropriate mix of local and imported water resources and management practices that will meet future water demands in their service areas and reduce uncertainty. Farming interests that depend on reliable water supplies for their livelihood are fighting to remove uncertainty by having the courts establish their water rights. Builders who see demand for new housing and commercial/industrial facilities are working with communities and agencies to set in place equitable infrastructure financing. Wastewater agencies are working to anticipate future treatment needs, both from service area growth and from the new water quality regulations that regulate treatment plan discharges.

This Antelope Valley situation gives the Task Force a rare opportunity to get more familiar with these cooperating and competing interests that determine the future of growth and social change. Once issues are resolved, investments will be made and new communities will be built. A continuous thread running through these issues is water. Its availability, its cost and the ways it is managed will greatly influence the future of the Valley within the SCAG region.