

# Appendix I

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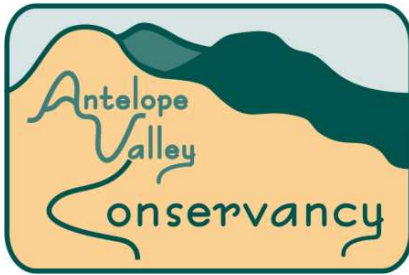
## Comments Received on Draft IRWM Plan

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## Comments Submitted via Letter

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Directors

Wendy Reed    Johnny Munger    Jennifer Matos,  
Ph.D.  
Ruben Gutierrez    Elaine Macdonald    John  
Lasagna

March 7, 2007

Antelope Valley IRWM Group  
Attn: J. Lauren Everett  
Environmental Scientist  
Kennedy/Jenks Consultants  
1000 Hill Road, Suite 200  
Ventura, CA 93003

Re: IRWM Plan Comments, Sections 4 and 5

Dear Ms. Everett and AVIRWM Group:

Thank you for the wonderful facilitation work you are doing to promote this regional planning effort.

The Antelope Valley Conservancy would like to offer the following comments regarding Plan Draft Sections 4 and 5.

Section 4, Table 4-1

Environmental Resource Management, Objectives:

- a. Delete "currently"
- b. "Preserve open space and natural habitats that protect and enhance water resources in the region."

Environmental Resource Management, Planning Targets:

- c. Specify percentage of acres or per capita acreage to be preserved, instead of or in addition to the number of acres.
- d. "...consistent with the Antelope Valley Areawide General Plan, Kern County General Plan, and other management plans approved for the region."
- e. "Promote land conservation projects that enhance flood control, aquifer recharge, and watershed preservation."
- f. "Adopt a memorandum of understanding (MOU) with municipalities in the region to elicit and promote compliance with such Plans."

(continued)

Antelope Valley IRWM Group  
Attn: J. Lauren Everett  
March 7, 2007  
Page Two of Two

Land Use Planning/Management, Objectives:

- a. Combine, for example: “Adopt and implement land use plans to maintain agricultural land uses, conserve natural lands, meet the growing demands for recreational space and housing, and manage water resources in the region.”
- b. Quantify each land use objective in terms of net loss/net gain percentages. Again reference MOU to promote compliance by municipalities.

Section 4, page 4-7, fourth paragraph:

“...Tehachapi Foothills, ***and other*** Significant Ecological Areas (SEAs). Preservation lands in other areas should also be targeted, based on qualities that maintain and enhance the watershed and aquifer.”

Section 5.2.5.2, page 5-40:

Please note the following current and ongoing activity, although it was not submitted during the Call for Projects.

Project Name:	Antelope Valley Regional Conservation Roundtable
Project Sponsor:	Antelope Valley Conservancy
Project Goals Description:	Facilitate consensus for regional approach to natural lands conservation. Participants include City of Lancaster, City of Palmdale, County of Los Angeles, California Department of Fish and Game, Southern California Association of Governments, California State Parks, County of Los Angeles Parks and Recreation, and project sponsor Antelope Valley Conservancy.

Thank you again for your work on this historic consortium and planning effort.

Sincerely,

Wendy Reed  
Executive Director

**A.V. UNITED WATER PURVEYORS, INC.**  
**Incorporated November 5, 1987**

2008 West Avenue M12 Palmdale, California 93551 (661) 272-0015

July 28, 2007

Regional Water Management Group  
c/o LA County Department of Public Works  
ATT: Melinda Barrett  
Waterworks Division  
P.O. Box 1460  
Alhambra, CA 91802-1460

Subject: Comments on Antelope Valley Integrated Regional Water Management Plan  
(AVIRWMP) Public Review Draft Report, July 2007

Dear Sir or Madam:

Thank you for the opportunity to comment on the subject document.

The A.V. United Water Purveyors Inc. has a membership that consists of Fifteen Mutual Water Companies that are located in the area of the proposed Antelope Valley Integrated Regional Water Management (IRWM) Plan.

General Comments and Concerns:

1. The vast majority of the Regional Water Management Group that have signed a memorandum of understanding to form the (RWMG) and have agreed to pay for the IRWM Plan are also known as the Public Water Suppliers.
2. The same Public Waters Suppliers have filed a Lawsuit to have the Antelope Valley Ground Water Basin Adjudicated. This area encompasses the IRWM Plan.
3. The same Public Water Suppliers have sued thousands of Landowners to take away their current rights to pump groundwater.
4. The same Public Water Supplier are trying to deny the landowner of their right for due compensation for groundwater storage. (the usual and customary practice in the State of California is for Landowners, Ownership and Control)
5. The same Public Water Suppliers with the help of their Attorneys have been using stalling tactic in the adjudication that in turn is wasting millions of dollars of the Landowners and tax payer's money.

6. The same public Water Suppliers have done nothing to curtail the nuisance water that runs freely down the Cities streets.
7. Some of the same Public Water Suppliers have not acted responsible in approving new development and are actively promoting more growth.
8. Some landowners have already asked the Court to enjoin the Public Water Suppliers from pumping and storing ground water. The momentum is continuing to grow to ask the court to enjoin the Public Water Suppliers from issuing “will-serve” letters. If this happens there definitely will be a slow down in growth for the years to come.

We feel that once the Adjudication is finalized, and rights are determined, this could be a workable plan.

Thank you,

John Ukkestad  
President  
Antelope Valley United Water Purveyors, Inc.

White Fence Farms Mutual Water Company I and II  
Westside Park Mutual Water Company  
El Dorado Mutual Water Company  
Shadow Acres Mutual Water Company  
Sunnyside Farms Mutual Water Company  
Antelope Park Mutual Water Company  
Averydale Mutual Water Company  
Sundale Mutual Water Company  
Bleichflat Mutual Water Company  
Aqua-J Mutual Water Company  
Evergreen Mutual Water Company  
Colorado Mutual Water Company  
Tierra Bonita Mutual Water Company





# California Regional Water Quality Control Board Lahontan Region



Linda S. Adams  
Secretary for  
Environmental Protection

Victorville Office  
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Arnold Schwarzenegger  
Governor

March 22, 2007

File: Environmental Doc Review  
Los Angeles County

Ms. J. Lauren Everett  
Staff Environmental Scientist  
Kennedy/Jenks Consultants  
1000 Hill Road, Suite 200  
Ventura, CA 93003

## COMMENTS ON DRAFT SECTION 3, ISSUES AND NEEDS – PROPOSED ANTELOPE VALLEY INTEGRATED REGIONAL WATER MANAGEMENT PLAN

California Regional Water Quality Control Board (Water Board) staff has reviewed Section 3 of the draft Integrated Regional Water Management Plan (IRWMP). The IRWMP defines a clear vision and direction for the sustainable management of water resources in the Antelope Valley Region for the next twenty-five years. It identifies key water-related challenges being faced by the residents of the Region and contains a viable action plan to provide a wide range of crucial water-related services necessary to support the well being of people living in this diverse and vibrant region of California.

### Water Quality Management

Our comments are related to the effects of urban development on water quality, and could be included in the plan under Section 3.3.1, Regional Flood Management Issues, Needs, Challenges, and Priorities. The Water Board coordinates efforts with local planning departments and other agencies to manage the water quality effects of urban development, a large part of our nonpoint source, stormwater, and water quality certification work. Most water quality impacts of urban development are best avoided by directing the location, pattern, and design of the development, rather than through traditional regulation of discharges.

Watersheds are complex natural systems in which physical, chemical, and biologic components interact to create the beneficial uses of water on which our economy and well-being depend. Poorly planned urban development upsets these natural interactions and degrades water quality through a web of interrelated effects. Unmanaged, these pollution pathways ultimately destroy the physical, chemical, and biological integrity of the watersheds in which they occur, diminishing or destroying the beneficial uses. The primary impacts of poorly planned development projects on water quality include:

- Direct Impacts – the direct physical impacts of filling and excavation on wetlands, riparian areas, drainages, and other waters;
- Pollutants – the generation of urban pollutants during and after construction;

*California Environmental Protection Agency*

- Hydrologic Modification – the alteration of flow regimes and groundwater recharge by impervious surfaces and stormwater collector systems;
- Watershed-level Effects – the disruption of watershed-level aquatic functions, including pollutant removal, flood water retention, and habitat connectivity.

These impacts typically degrade water quality, increase peak flows and flooding, and destabilize stream channels, resulting in engineered solutions to the disrupted flow patterns and, ultimately, near-total loss of natural functions and values in the affected basins. Impacts must be minimized through municipal stormwater programs. The primary objectives of municipal stormwater programs are to effectively prohibit non-stormwater discharges, and to reduce the discharges from stormwater conveyance systems to the maximum extent practicable. This is accomplished through the use of Best Management Practices (BMPs) and conditions placed on new development proposals.

Where significant potential negative impacts are identified, CEQA regulations require that appropriate mitigation measures be incorporated into the project requirements. Responsibility for implementation of mitigation measures lies with the individual project sponsor(s). Where there are potential impacts to jurisdictional waters, habitats or species, mitigation requirements are determined within permitting processes with the Regional Water Quality Control Board, U.S. Army Corps of Engineers, and California Department of Fish & Game.

Thank you for the opportunity to comment on the IRWMP. We welcome the opportunity to work with the stakeholders in the development of this plan. If you should have any questions regarding our comments, please contact me at (760) 241-7366.

Sincerely,

Judith Keir  
Environmental Scientist

RC:\JMK\AVIRWMP draft plan comments.doc



# NEBEKER RANCH, INC.

LANCASTER, CALIFORNIA

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310-440-8862

July 30, 2007

TRANSMITTED BY U.S. MAIL AND EMAIL TO MS. REBECCA JOHNSON

Regional Water Management Group  
c/o LA County Department of Public Works  
Attention: Melinda Barrett  
Waterworks Division  
P. O. Box 1460  
Alhambra, CA 91802-1460

Subject: Comments on Antelope Valley Integrated Regional Water Management Plan  
(AVIRWMP) Public Review Draft Report, July 2007

Dear Sir or Madam:

Thank you for the opportunity to comment on the subject document. The planning for regional water management is a very important activity. I have noticed the excellent skills Dr. Ken Kirby has demonstrated and appreciate the effort Kennedy/Jenks has shown in assembling this document. However, aside from the above, very significant and fundamental problems exist with the intent and content of this document.

## **General Comments and Concerns**

The primary concern is that the participants in the "Regional Water Management Group (Group)," consist primarily of water districts and cities, and the interests of the landowners in the Antelope Valley (Valley) have been ignored throughout the process.

Because this process is controlled exclusively by members of the Group, the appearance that is created is that the process will be used primarily to assist the members of the Group in advancing their aggressive actions against the landowners of the Valley. Members of the Group are looking toward the groundwater pumped by landowners as a source of water for the Group's use and are targeting the land owned by landowners in order to produce a large revenue stream by storing groundwater for the Group and parties outside the Antelope Valley. In the current groundwater adjudication process, most of the participants in the Group have sued or will sue the owners of approximately 190,000 parcels of land in Antelope Valley to take away their current rights to pump groundwater. They

assert that they have already taken away these rights because they have been pumping unlawfully for so many years that their unlawful pumping has ripened into a prescriptive right. One complaint in the adjudication by a member of the Group (LA County Waterworks District No. 40) asserts that using water for irrigation in the Valley is an unreasonable use and is thereby unlawful. The members of the Group are also asserting an exclusive right to control groundwater storage space in the Valley to the detriment of the rights of landowners. Many attempts have been made by landowners to encourage the members of this Group to share in the ownership and control of a groundwater storage district, but to no avail. Not only are these actions by members of the Group very threatening to the property rights and life savings of the landowners, but these aggressive actions have already cost the landowners and taxpayers millions of dollars in lawyer and consultant fees.

As a result, some landowners have asked the Court to enjoin members of this Group from pumping groundwater, storing groundwater, and to make up the water deficit which their unlawful pumping has caused. Recent statements in the press from AVEK indicate that members of the Group should be prevented from issuing "will-serve" notices.

Of the 190,000 parcel owners, probably less than 0.05% know of the adjudication or the AVIRWMP. Therefore, to allege that the AVIRWMP is a truly collaborative process misrepresents that most of the landowners have no knowledge of the process, and cannot be said to approve of the current process where many members of the Group are trying to take away from the landowners some of their most precious and important property rights.

Because of the contentiousness of these issues, the Court has been asked to prevent many members of the Group from implementing the very activities envisioned in many of the projects that have been discussed in the subject document and will be proposed for grant funding. To promote a document that does not acknowledge these controversies, and especially to submit such a document to funding entities without full acknowledgement of the potential legal impediments to the projects that are sought for funding, risks the long term credibility of the Valley as a whole.

Although the AVIRWMP process can be valuable and if properly conducted can create a useful document, I believe the concerns discussed above should be included and fully addressed in this document. A better and more prudent approach would be to finish the adjudication as soon as possible, especially since a facilitator for the process has been retained and a settlement of the adjudication may be imminent. Once the adjudication is complete, the subject AVIRWMP document can be modified to be consistent with the Court judgment. Otherwise, I fear the AVIRWMP process will be caught up in litigation that the community does not need.

### **Specific Comments**

Water Supplies from Local Precipitation, Page H-6, Paragraph 1, Line 6: As discussed later, the adjudication process and the subsequent studies conducted by a Watermaster will

most likely develop data to indicate the water from precipitation to be much greater than these estimates.

Water Supply Summary, Page H-7, Figure H-3: The low value of natural recharge of 30,300 is unrealistic. Some believe the correct value is greater than 100,000 AF/yr or higher. This will have an impact on the conclusions inferred by this figure. Better estimates of natural recharge are being prepared at this time..

“Adjudication Will Do Nothing to Provide Additional Water Supplies,” Page H-8, Paragraph 3, Line 17: The adjudication will be very important to obtaining additional water supplies because an institutional framework will be set up for those outside Antelope Valley to bank water in the Valley for the benefit of those in the Valley, the Watermaster can assure efficient and wise use of water, and if managed correctly, the yield of the Basin can be increased.

Water Quality, Page H-9, Paragraph 1, Line 5: Total Dissolved Solids (TDS) is also an important and increasing contaminant of concern in Antelope Valley.

Maximize Beneficial Reuse of Wastewater, Page H-10, Last Element in Water Quality Management: The process of 100% reuse of wastewater should start today! Every year the Valley is losing about 25,000 AF/yr of wastewater. For example, by 2015, over 200,000 AF will be squandered. In a basin that many feel is in overdraft, this is foolhardy.

Stakeholder Prioritized Projects, Page H-11, Table H-2: No landowner groups are included (see General Comments and Concerns above).

Stakeholder Prioritized Projects, Page H-11, Table H-2, Water Quality Projects: These projects should focus on the most immediate, most important needs. These include degradation and contamination of the groundwater by nitrate and TDS beneath wastewater ponds and improper wastewater disposal practices currently used in the Valley. These practices are currently degrading and contaminating the groundwater. The Lahontan Regional Board staff in Victorville may be a good source of detailed information.

“..Atmosphere of Mistrust..,” Page 1-1, Paragraph 2, Line 6. I am concerned that the community still cannot work together. The atmosphere of mistrust has spread from among the eleven public agencies in the Group to the landowners, who now have reason to not trust the public agencies (see General Comments and Concerns above). I do not believe this is the way to solve important community issues.

“..The AVSWCA Accepted Responsibility as the Facilitator for Groundwater Banking,” Page 1-6, Paragraph 1, Last Line: Please add to the subject document that the AVSWCA refused to participate with the landowners in spite of being advised that

the efforts of AVSWCA to store groundwater were unlawful.

Mutual Water Companies, Page 1-13, Paragraph 1, Line 2: Palm Ranch Irrigation District is not a mutual water company and should be considered a water district.

AB3030, Page 1-25, Paragraph 2: In the past, some attempts have been made to manage/control the groundwater in the Valley. AB3030 would be politically impossible to implement.

Percolation, Page 2-13, Paragraph 3, Line 4, and Page 2-18, Paragraph 1, Line 4: Percolation from snowmelt and rainfall occur in the mountains by at least six hydrological mechanisms, one of which is flow down the stream beds and percolation into the alluvial fans. For the most part, the literature fails to estimate the effect of this mechanism properly and to recognize the other five mechanisms, which are difficult to quantify. Therefore, the past literature estimates of natural recharge are considered low and more recent work will probably provide improved estimates. Percolation on the floor of the Valley occurs from return flows from municipal and agricultural irrigation.

Aquifers, Page 2-15, Paragraph 4, Line 1: The USGS now believes three aquifers exist.

Groundwater Subunits, Page 2-16: Many question that these subunits exist and current and future investigation may provide data to re-define the existence of subunits.

Groundwater Extraction, Page 2-20, Paragraph 4, Line 1: "According to the USGS (2003), groundwater extractions have exceeded the estimated natural recharge of the basin since the 1920's. This statement is incorrect because the USGS, four years ago, did not estimate the natural recharge correctly and did not know the accurate amount of extractions. They could not check their work properly because they did not have enough static groundwater level data. Many of the values in Paragraph 4 and 5 are suspect. Current efforts will provide more accurate results.

Artificial Recharge (Blended), Page 3-2, Figure 3-1: Artificial recharge with blended wastewater is unnecessary in the appropriate circumstances. In the Santa Ana River watershed, there are over a dozen such projects and the County Sanitation Districts are engaged in this activity in the Santa Clara River. This type of recharge is often referred to as "incidental recharge." Please correct this Figure to show recharge with and without blending.

Percolation, Page 3-8, Paragraph 1: Percolation occurs on the Valley floor by return flows from municipal and agricultural irrigation.

Natural Recharge, Page 3-8, Section 3.1.3.3: As stated above, percolation from snowmelt and rainfall occur in the mountains by at least six hydrological mechanisms, one of

which is flow down the stream beds and percolation into the alluvial fans. For the most part, the literature fails to estimate the effect of this mechanism properly and to recognize the other five mechanisms, which are difficult to quantify. Therefore, the past literature estimates of natural recharge are considered low and more recent work will probably provide improved estimates. Some believe natural recharge could be over 100,000 AF/yr.

Time Delay for Natural Recharge and Return Flows, Page 3-10, Paragraph 2, Line 3: Time delays for both types of recharge probably occur and are extremely difficult to estimate. In addition, times vary by the geographical location.

Urban Return Flows, Page 3-10: In the high desert, the outdoor water use varies between 60 to 75% of total residential demand. Therefore, the estimates by Mr. Petersen are reasonable.

Recycled Water Infrastructure, Page 3-24, Paragraph 1, Line 1: I believe the County Sanitation Districts owns the water distribution system, not the City of Lancaster.

Estimate of Future Recycled Water Supply, Page 3-26, Paragraph 2, Line 1: 65,000 AF/yr is an accurate estimate of recycled water supply if groundwater recharge was used. I and many community members have encouraged the Sanitation Districts to properly treat their wastewater and use it for groundwater recharge. They have refused. The City of Lancaster should be commended for their efforts to recharge treated wastewater.

Future Agricultural Demand, Page 3-29, Table 3-9: Agricultural demand in the future is difficult to estimate. Therefore, assuming increased demand also may be useful in your analysis.

Agricultural Water Demand, Page 3-30: The assumption of the Kern County acreage by the USGS as 18% of the Los Angeles County acreage was reasonable prior to 2000. The reason this percentage was no longer true starting in 2000 was because carrot and potato farming became popular in the Kern County portion of the Valley.

Crop Acreages, Page 3-36: I have historical data on the crops grown with similar crop water use requirements, so the difficulty mentioned under Agricultural Commissioner Crop Reports does not exist. I recommend that you redo this table to group crops with similar water requirements together and suggest that you select other designations for these groups. In this way, this table will be clearer and easier to examine. The AVEK agricultural data is from satellite imagery and therefore, the exact crop grown is difficult to identify and multiple cropping patterns are difficult to ascertain because the imagery is not done frequently enough.

Water Leaving, Section 3.1.7: These numbers are questionable and I would check them with

other literature references or independent analysis.

Water Supply Summary, Figures 3-11, 3-12, and 3-13: As stated earlier, the low value of natural recharge of 30,300 is unrealistic. Some believe the correct value is greater than 100,000 AF/yr higher. This will have an impact on the conclusions inferred by this figure. Better estimates of natural recharge are being prepared at this time.

Pumping Has Exceeded Recharge, Page 3-54, Paragraph 6, Line 3: As stated earlier, the USGS, four years ago, did not estimate the natural recharge correctly and did not know the accurate amount of extractions. They could not check their work properly because they did not have enough static groundwater level data. As mentioned above, current efforts will provide more accurate results.

Local Groundwater Quality, Page 3-62, Section 3.2.1: TDS is also a problem. At every location in the Valley that wastewater has been disposed or held in ponds, a problem exists with nitrates, TDS, or both. Please contact the Lahontan Regional Board for details.

Wastewater and Recycled Water Quality, Section 3.2.3: The end-of pipe water quality has not been specified and it is believed that these treatment plants will not remove sufficient nitrate to allow groundwater recharge and produce treated wastewater that will not degrade the groundwater if handled improperly.

Stabilize Groundwater Levels at Current Conditions, Page 4-5, Line 3: This objective may be risky in the vicinity of the extensive groundwater depressions around Lancaster and Palmdale. A wise approach may be to fill in these groundwater depressions.

“Prevent Unacceptable Degradation of Aquifer..,” Page 4-6, Line 18: My understanding is that the aquifer has been significantly damaged in Palmdale over a 10-square mile area, some of which is beneath the best natural and artificial recharge area in the Valley, Littlerock Creek. Large degradation is ongoing at this time in many areas of the Valley and should be mentioned in this document. The Lahontan Regional Board will be a source of information.

“Maximize Beneficial Reuse of Wastewater,” Page 4-7, Paragraph 3: Activities towards this goal should be begun immediately. Analysis of the amount of wastewater versus the amount of land available for reuse as a function of time shows that not enough land will ever be available unless a massive new consumptive use is planned. The Sanitation Districts are planning to develop 10,000 acres of alfalfa farming which will consume about 70,000 AF/yr of water. The community should direct the Districts to cease such an endeavor and use the water not used for irrigation of established uses for groundwater recharge like they are doing in Valencia, for example. Such a process could be established in a relatively short period of time. I believe that it is a waste and unreasonable use of water, given the contents of the



subject document which shows a need for water, to establish a massive new consumptive use which will waste about 45,000 AF/yr of water.

“Planned Water Quality Management Activities/Actions,” Section 5.2.2.3: The highest priority of projects should be the cessation of groundwater degradation/contamination activities that are occurring in the Valley at the present time. Wastewater treatment activities are currently creating most of the problems. Information can be obtained from the Lahontan Regional Board and should be incorporated into this document.

“Make Further Use of Recycled,” Page 6-11, Paragraph 4: Recycled water should not be limited to landscaping and other non-potable use projects. As stated above, groundwater recharge, like projects in the Santa Ana River Watershed and Santa Clara River, should be number one in priority. These can be done more quickly than surface water projects and less expensively.

“Protect Natural Streams and Recharge Areas From Contamination,” Page 8-15, Last Paragraph: The nitrate and TDS plume from treated wastewater from Sanitation District No. 20 has already passed under Littlerock Creek and will compromise groundwater recharge. What is even worse is that hundreds of tons per year of nitrogen are still being released into the soil at this location.

I appreciate the opportunity to comment on the subject document and hope these suggestions will be helpful. I believe we all should push to complete the adjudication as soon as possible, especially since a facilitator for the process has been retained and a settlement of the adjudication may be imminent. Once the adjudication is complete, the subject AVIRWMP document can be modified to be consistent with the Court judgment.

Yours truly,



Eugene B. Nebeker, Ph.D., P.E.  
President

## Comments Regarding the Draft Section 3

### **General Comments**

#### **Information from the USGS Study (2003) Was Misapplied**

The numerical values of the parameters presented in the USGS Study (2003) referenced in Section 3 were used out of context and misapplied.

The purpose of the USGS report was to describe a **conceptual model** of the Antelope Valley groundwater basin, to describe the development and calibration of a numerical model of groundwater flow, aquifer-system compaction, and land subsidence, and to present results of simulated future pumping scenarios being considered by water managers.

As a result, it is the model that is important in their report, not the values that went into the model to “get it to work.” Over reliance upon the numbers is technically incorrect. The USGS has told me many times that they did not intend to estimate safe yield, etc.

The USGS had a difficult task in preparing this report and I commend them under the circumstances. As I remember, they were not given an adequate scope of work before they began their task, very little follow up was done, and they were not provided adequate resources. As a result, they could not accomplish what the Valley really needed and did not obtain the proper available data.

#### **Much Significant Data in Incorrect**

As discussed below in “Specific Comments” many of the numerical values used in Section 3 are incorrect, some in error by 100%.

#### **Your Clients Knew of the Existence of Better Data But Did not Furnish It**

I am particularly concerned that your clients have been aware of a study I did using a better calculation techniques and data sources for the important parameters of primary concern in the current adjudication and also your Plan and did not provide this information to you. I am referring to the data collection and a material balance calculation procedure that I used in 2004 during the carrot growers/water purveyors lawsuit to estimate basin yield. Dr. Kirby introduced the fundamentals of this approach in slides 17 and 18 of his presentation on January 31<sup>st</sup>. I also believe I obtained the best estimates of agricultural water pumping known to date.

I wonder why you were not given this data. I believe that the General Managers and many Board Members of the water districts and AVEC know of this information.

The mayors of Lancaster and Palmdale, most City Council Members and senior staff also are aware this information exists.

I am updating these calculations through the year 2006 and hope we can all work together to provide the best available product.

I believe that Section 3 should be significantly rewritten.

### **Many Reports Written About the Antelope Valley Basin are Incorrect**

As you know, data should not be taken out of the literature and restated without technical scrutiny to determine if it is reasonably correct. Many of the literature references used in the preparation of Section 3 have significant and substantial errors and omissions.

#### **Specific Comments**

I do not want to “nit pick” or focus on details because, as stated above, Section 3 should be rewritten.

Page 3-2, Line 9 from the bottom. I believe Snyder ignored farming in Kern County and used incorrect crop water requirements for each crop.

Page 3-4, Table 3-3. The “Gross Water Use” for these crops is significantly in error, in most cases off by 100% and should be doubled. It is impossible to produce a crop in Antelope Valley this little water.

Page 3-4, Table 3-3. The Total Agricultural Water Demand is in error and should be increased by about 50%.

Page 3-5, Line 11 from the bottom. Clay only retards the movement of water and contaminants and does not completely stop the flow.

Page 3-11, Table 3-7. The values are significantly in error. As an example, the total pumping during 1995 should be increased by 45%. I have the data for 1996 through 2005 and soon will have the data for 2006 so you will not have to leave these spaces blank.

Page 3-13, Table 3-8. The “Natural Recharge” value of 30,300 AF/yr is extremely low and does not seem reasonable by variety of alternate checking calculations. For instance, I believe that 30,000 AF/yr is about the average yearly flow from the sum of Littlerock, Bigrock and Amargosa Creeks. Does this value of “Natural Recharge” ignore recharge from the rest of the San Gabriel and Tehachapi Mountains and the basin floor? Also, if one calculates the recharge from these mountain regions using the average rainfall and snow data, the natural recharge is well over 150,000 AF/yr. Finally, notice that

consideration of Figure 29 together with the bottom drawing in Figure 30 indicates that the “yield” of the basin is about 81,000 AF/yr.

Page 3-13, Line 2 from the bottom. Page 3-2, Line 6 from the bottom. The irrigation efficiency as defined and used by the University of California Cooperative Extension as

$$\text{Gross Irrigation Requirements} = \text{Net Irrigation Requirements} / \text{Irrigation Efficiency}$$

Therefore, for an efficiency of 70%,

$$\text{Gross Irrigation Requirements} = \text{Net Irrigation requirements} / 0.70 = \text{Net Irrigation Requirements} (1.42)$$

All of the additional 42% is not return flow but is shared by return flow, runoff, and additional evaporation not included in the evapotranspiration requirements of the plant.

Page 3-53, Section 3.2.1 and Page 3-57 should include discussion of the 190,000 AF of degraded groundwater by treated wastewater in Palmdale and the potential for degradation/contamination by wastewater at other sites in Antelope Valley.

Page 3-55, Section 3.2.5 should include a discussion of “incidental recharge” as a groundwater recharge technique.

**PLANNING DEPARTMENT**

**TED JAMES, AICP, Director**

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**RESOURCE MANAGEMENT AGENCY**

**DAVID PRICE III, RMA DIRECTOR**  
Community & Economic Development Department  
Engineering & Survey Services Department  
Environmental Health Services Department  
Planning Department  
Roads Department

August 29, 2007

Regional Water Management Group  
of the Antelope Valley Integrated Regional  
Water Management Plan  
Kennedy/Jenks Consultants  
1000 Hill Road, Suite 200  
Ventura, California 93003

RE: Comments- Public Review Draft – July 2007  
Antelope Valley Integrated Regional Water Management Plan

Dear Stakeholder Group;

The Kern County Planning Department appreciates the opportunity to review the public draft of this important plan for managing our water resources in the Antelope Valley portion of eastern Kern County. Approximately 50% of the planning area is within Kern County including the unincorporated communities of Rosamond, Willow Springs, Mojave, Boron and the incorporated city of California City. Many of these areas are experiencing growth in residential, commercial and industrial uses that will rely on assuring future water resources are allocated equitably across this region. Overall, this plan presents a comprehensive and thoughtful plan for cooperative management to ensure the water will be available for the existing and future residents of the region. The following comments are presented to provide more accurate information reflecting Kern County areas in the plan.

**Population Projections**

The population projections on Pages 2-29 and 2-30 are incorrect. These numbers do not reflect already existing land uses adopted in 1992 in the Rosamond Specific Plan and Willow Springs Specific Plan. The Rosamond Specific Plan area that includes the existing community provides land use designations, including commercial and industrial for a population of 137,000 people. This plan extends out to 60<sup>th</sup> street west and is bounded by Avenue A on the south and Dawn Road on the north. The Willow Springs Specific Plan overlaps the Rosamond Specific Plan at 60<sup>th</sup> street and continues out to 190<sup>th</sup> street west. That plan includes urban designations for an additional projected population of 103,500. Together these plans were established anticipating a population center in eastern Kern of over 240,000 people with supporting commercial, industrial and recreational land uses. The projected populations for the Kern County portion of this plan appear to have been estimated based strictly on population growth

and not on established land use or economic development efforts. Kern County Planning will be beginning an update of the Rosamond and Willow Springs Specific Plan based on the upcoming completion of our Joint Land Use Study for Edwards Air Force Base and the R-2508 Airspace Complex. While certainly the availability of water will be an important issue in determining any changes the plan, artificial limits to growth imposed by the need for the Cities of Lancaster, Palmdale and Los Angeles County for water will not be a deciding factor. Equitable allocation of water for the economic viability of Kern County communities as well as agriculture should be a basic principle of this regional planning process.

### **Environmental Resources**

Section 6.1.4 Environmental Resource WMSA should be revised to delete the reference to the Kern County General Plan in the last paragraph, particularly the use of the word "compliance and updating." The Kern County General Plan was comprehensively updated in 2004. The plan has established policies for growth accommodation in incorporated cities or in established unincorporated communities like Boron, Mojave or Rosamond. Policies addressing the conservation of environmental resources are also included and can be used for implementation of the goal of preserving open space and natural habitat.

### **Regional Land Use Management**

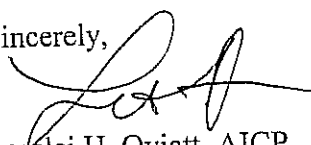
Kern County Planning is supportive of the concepts discussed in Section 6.1.5 Land Use Management WMSA regarding regional land use management. These concepts are narrowly focused on preservation of agricultural land and recreational opportunities as well as flood management. Kern County has a strong and deep relationship with agriculture and supports the right to farm as well as the private property rights of all owners to economic benefits from their property. The concept of equitable allocation of water resources to ensure that all areas of the region can accommodate growth and provide economic benefits to their citizens should also be included in this section.

### **Local Governance**

The organizational structure for implementation of this plan needs to include equitable representation for the Kern County Board of Supervisors. Representation by local and state water agencies, such as the Rosamond Community Services District and AVEK is important, but will not be sufficient to represent the Kern County Board of Supervisors concerns, which extend beyond water resources. The results of the governance subcommittee will be key to the success of this plan in ensuring support and participation by all the local governments in the region.

If you have any questions regarding these comments, please contact me at (661) 862-8866 or [Lorelei@co.kern.ca.us](mailto:Lorelei@co.kern.ca.us).

Sincerely,



Lorelei H. Oviatt, AICP  
Division Chief

cc: Supervisor Maben  
Rosamond Community Services District

**PLANNING DEPARTMENT**

**TED JAMES, AICP, Director**

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BAKERSFIELD, CA 93301-2323  
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FAX: (661) 862-8601 TTY Relay 1-800-735-2929  
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**RESOURCE MANAGEMENT AGENCY**

**DAVID PRICE III, RMA DIRECTOR**  
Community & Economic Development Department  
Engineering & Survey Services Department  
Environmental Health Services Department  
Planning Department  
Roads Department

August 29, 2007

Regional Water Management Group  
of the Antelope Valley Integrated Regional  
Water Management Plan  
Kennedy/Jenks Consultants  
1000 Hill Road, Suite 200  
Ventura, California 93003

RE: Comments- Public Review Draft – July 2007  
Antelope Valley Integrated Regional Water Management Plan

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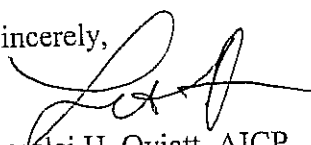
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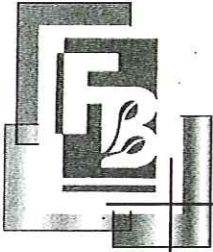
Sincerely,



Lorelei H. Oviatt, AICP  
Division Chief

cc: Supervisor Maben  
Rosamond Community Services District





# Los Angeles County Farm Bureau

41228 12th Street West - Suite A - Palmdale, CA 93551-1400

Telephone (661) 274 - 9709 • Fax (661) 274 - 0637

[www.lacfb.org](http://www.lacfb.org)

February 26, 2007

Stakeholders  
IRWMP  
Antelope Valley, CA

RECEIVED

MAR 05 2007

KENNEDY JENKS CONSULTANTS  
VENTURA, CA

Dear IRWMP Stakeholders:

The Los Angeles County Farm Bureau would like to voice our concern with regard to current figures of agricultural water use in the Antelope Valley region. We would like to present two major discrepancies with the use of existing numbers and data:

- 1) Amount of water used per acre feet for particular crops is erroneous.
- 2) The "safe yield" of water usage for the Antelope Valley region is also inaccurate.

Please refer to the chart below. These preliminary figures are an updated and more realistic estimate that reflects farming usage:

## Agricultural Water Use In the Antelope Valley Region 2005

Crop	Acreage	Gross Water Use (AF/acre)	Total Water Demand (AFY)
Alfalfa	5,521	7.0	38,647
Grain Hay	2,694	2.5	6,735
Vegetable Crops	7,970	4.5	35,865
Orchard	1,568	5.4	8,468
Vine Crops	200	3.0	600
Nursery	500	6.7	3,350
<b>Los Angeles County Total</b>	<b>18,453</b>		<b>93,665</b>
<b>Kern County Total</b>	<b>3,403</b>		<b>15,396</b>
<b>Los Angeles and Kern County Totals</b>	<b>21,856</b>		<b>109,061</b>

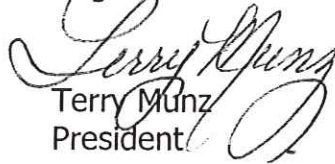
**Safe Yield****116,520**

**Safe Yield** = Maximum amount of water that can be pumped without depleting the aquifer

The Los Angeles County Farm Bureau has issued this letter as a statement concerning the present numbers used when talking, writing, researching, and studying the current water situation. We are submitting these preliminary numbers, for the time being, so that we can all begin to have a more accurate basis from which to make educated decisions that concern us all. LACFB hopes to have the final numbers and calculations from the experts in the field within the next couple of weeks.

We thank you for addressing our concerns and comments.

Regards

  
Terry Munz  
President

CC:

Kennedy/Jenks Consultants  
Antelope Valley East Kern Water Agency  
Antelope Valley State Water Contractors Association  
City of Lancaster  
City of Palmdale  
Los Angeles County Sanitation District  
Littlerock Creek Irrigation District  
Palmdale Water District  
Los Angeles County Waterworks District #40  
Quartz Hill Water District  
Rosamond Community Service District  
City of California City  
City of Boron  
Los Angeles County Department of Regional Planning  
Kern county Planning Department  
Lahontan regional Water Quality control board  
California Department of Health Services  
California State Parks  
California State Department of Fish and Game  
Antelope Valley Resources Conservation District  
Sierra Club

Building Industry Association – Antelope Valley Chapter  
Kern County Farm Bureau  
Los Angeles County Sanitation District No. 14 and 20  
Antelope Park Mutual Water Company  
Edgemont Acres Mutual Water Company  
El Dorado Mutual Water Company  
Evergreen Mutual Water Company  
Golden Valley Mutual Water  
Land Projects Mutual Water  
Little Baldy Water Company  
Palm Ranch Irrigation District  
Westside Park Mutual Water Company  
White Fence Farms Mutual Water Company  
Sundale Mutual Water  
U.S. Borax  
Edwards Air Force Base

**TECHNICAL MEMORANDUM**

1  
 2 **TO:** Robert G. Beeby  
 3 **FROM:** Nivan Bhuta  
 4 **RE:** Antelope Valley Integrated Regional Water Management Plan,  
 5 01-0236-00-9178-308  
 6 **DATE:** June 12, 2007

7 As per your request provided below is a comment matrix for sections of the Antelope  
 8 Valley Integrated Management Plan related to water supply and demand projections as well as  
 9 sections seven and eight.

No.	Pg/Section/Line	Comment
1	p.3-9 Table 3-2	The Applied Ag Water estimate decreases from 123,000 AFY in 2010 to 89,000 AFY in 2035. The agricultural demand should remain constant for the projections. Also, the Ag Return Flow should equal 25% of the Applied Ag Water.
2	p. 3-10 Table 3-3	The Outdoor Urban Applied Water column headings should be changed to Total Urban Applied Water to be consistent with the text.
3	p.3-24 Figure 3-9	The agricultural demand is the same in year 2015 and year 2035. Table 3-2 should show a constant agricultural demand to be consistent with this figure.
4	p.3-25 Figure 3-10	The agricultural demand is the same in year 2015 and year 2035. Table 3-2 should show a constant agricultural demand to be consistent with this figure.
5	p.3-26 Table 3-9	The agricultural demand is constant throughout the table for years 2010 through 2035. Table 3-2 should show a constant agricultural demand to be consistent with this table.

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A  
F  
T

g:\projects\2006\0689067\final irwmp plan\avirwmp\_finaldraftreport\appendices\appendix i comments & responses\letter comments\2007-06-12 antelope valley irwmp comments \_saic.doc

TO: R.G. Beeby  
RE: Antelope Valley IRWMP  
DATE: Jun 12, 2007  
Page 2 of 2

No.	Pg/Section/Line	Comment
6	p.3-36 Figure 3-11	The figure shows the Agriculture Return Flow as 22,200 for year 2035. This should be ~33,000 to be consistent with Table 3-2. This figure should also be updated based on the changes presented below in Comments 7 and 8.
7	p. 3-39 Table 3-17	The Agriculture Return Flow numbers in the table do not match the Agriculture Return Flow numbers in Table 3.2. These numbers should track with the revised Table 3.2 (see Comment 1) and the rest of the table should be updated.
8	p. 3-39 Table 3-17	The Direct Delivery numbers in the table do not match the Direct Delivery numbers in Table 3.6. These numbers should track and the rest of the table should be updated.

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## Comments Submitted via Email

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**From:** Ken Kirby [kkirby@kirbycg.com]

**Sent:** Friday, April 27, 2007 5:23 PM

**To:** tbavekwa@aol.com; Lauren Everett; al@parks.ca.gov; auk9@earthlink.net; asemchuch@avpress.com; ascruz@ladpw.org; andrewwerner@westerndev.com; agordus@dfg.ca.gov; ATENNEBOE@dfg.ca.gov; waynargo@hughes.net; barbaraj@rglobal.net; bhogan@avc.edu; lcid3@skylynx.us; brad@charltonweeks.com; bdietrick@lacs.org; bludicke@cityoflancasterca.org; hailrock@qnet.com; bhamamo@ladpw.org; carolyn.lofreso@ca.usda.gov; creed@qhwd.org; cherylc@co.kern.ca.us; cmitton@waterboards.ca.gov; hervey@lbbslaw.com; cseal@qnet.com; cpaxton@palmdalewater.org; dale.johnson.ctr@edwards.af.mil; pwwdir@ccis.com; dajones@ladpw.org; drydman@ladpw.org; david.charlton.ctr@edwards.af.mil; Cdavid@ladpw.org; dgomez@palmdalewater.org; disaacson@waterwise-consulting.com; dledbetter@cityoflancasterca.org; drizzo@grimmway.com; debby4@earthlink.net; dnoble@ladpw.org; dlamoreaux@palmdalewater.org; dwells@palmdalewater.org; dimples@ccis.com; m.rcnd@mchsi.com; ehailu@ladpw.org; jonese40@aol.com; fkuo@ladpw.org; frank@gnet.com; enebeker@adelphia.net; gerald.boetsch@edwards.af.mil; deloraine@sbcglobal.net; gphair@cityofpalmdale.org; gnewton@dhs.ca.gov; geven@ladpw.org; greg.medeiros@pardeehomes.com; gwood@lacs.org; avbia@earthlink.net; ghand@planning.co.la.ca.us; hbailey@rmcwater.com; hbordas@ladpw.org; hkubler@rmcwater.com; jae.lee@ca.usda.gov; brooks@dslextreme.com; jko@dhs.ca.gov; smilebysmile@msn.com; james.skeen@dailynews.com; wellingj@co.kern.ca.us; admckl1@ccis.com; jtakata@cao.co.la.ca.us; Littlebaldywater@aol.com; avrcd@carcd.org; jmarkman@rwglaw.com; johna@laurendevelopment.com; goj893@aol.com; rjjones@adelphia.net; jmlynar@cityofpalmdale.org; wff@qnet.com; woodling@water.ca.gov; jkeir@waterboards.ca.gov; prkac@aol.com; cmorris@fire.lacounty.gov; LJ8310397@aol.com; exec@lacfb.org; llile@cityofpalmdale.org; jole719@aol.com; lswain@cityofpalmdale.org; lgodin@palmdalewater.org; lhoward@avpress.com; loreleio@co.kern.ca.us; Lynn Takaichi; margie@nellorenvironmental.com; mjacobs@lacs.org; Mary Lou Cotton; mscruggs@waterca.gov; Matt Tebbetts; kcfb@kerncfb.com; mfavekwa@aol.com; michaelgilmore@inlandenergy.com; mmischel@cityofpalmdale.org; dsprunger@adelphia.net; nweisenberger@avc.edu; nivan.bhuta@saic.com; NHickling@lacos.org; pmccarthy@planning.co.la.ca.us; paul.nguyen@ca.usda.gov; pzorba@cityoflancasterca.org; Granpaw@adelphia.net; rwilliams@cityoflancasterca.org; rtremblay@lacs.org; ryoung@ccis.com; richcam@wwdb.org; rcaulkins@lacs.org; rlavin@ph.lacounty.gov; rmorrow@rmcwater.com; beebyr@saic.com; rrhomestead@gnet.com; rneal@cityoflancasterca.org; rneufeld@rosamondcsd.com; robert.wood@edwards.af.mil; robertwood8401@sbcglobal.net; ronferrell@runbox.com; rfavekwa@aol.com; gilesruth3@aol.com; Scajina@dhs.ca.gov; sdassler@cityoflancasterca.org; swilliams@cityofpalmdale.org; susan.keefe@borax.com; sbergqui@dhs.ca.gov; grant@waterexchange.com; thomas.mele.ctr@edwards.af.mil; rrych@cs.com; thughes@cityofpalmdale.org; twest@rmcwater.com; tonypenna@inlandenergy.com; tonya@kernbia.com; tracieb@water.ca.gov; tnish@usgs.gov; punchbowl4@earthlink.net; bvnelson@verizon.net; wcollins@fire.lacounty.gov; avconservancy@yahoo.com; citymgr@ccis.com; cassie@kernbia.com; cdiep@dhs.ca.gov; ccross@water.ca.gov; Cdavid@dpw.lacounty.gov; dlaff@ladpw.org; david.burns@foothill.com; marshall.doug@comcast.net; water@dslextreme.com; jyun@water.ca.gov; jargo@lacs.org; Kelee@dpw.lacounty.gov; tccprez@roadrunner.com; maryjw@rglobal.net; nwest@cityoflancasterca.org; rscott@lacofd.org; tngov@dpw.lacounty.gov; tvsutterfield@msn.com; wsloan@mofa.com

**Cc:** AARIKI@dpw.lacounty.gov; dlbinnie@dpw.lacounty.gov; HGALLARDY@dpw.lacounty.gov; TJKIM@dpw.lacounty.gov; dpedersen@dpw.lacounty.gov; Roxanne Nagle; Tracy Quinn

**Subject:** RE: AVIRWMP Call for Projects List - AVEK Comments/Questions  
Tom,

Thank you for your questions and comments. I offer the following responses:

- I understand your concern that it may be too early to be considering projects for prioritization. However, the IRWMP will not be complete until we collectively prioritize the actions we believe are prudent to take to meet the plan objectives. The State guidelines for preparing Integrated Regional Water Management Plans clearly require that the plan describe priority actions the plan participants will take. It may be helpful to think of this step as a high-level screening exercise to identify the actions to take soonest. The discussion we began last Wednesday (and that we will continue next Wednesday) about prioritizing management actions does not commit anyone to building a project, but rather sets priorities for next steps to implement the plan. Some of these high priority steps will likely include gathering more information or doing more detailed analysis of project concepts or proposals.



- We agree it is not reasonable to prioritize projects just by their name. The draft Section 5 of the AVIRWM Plan (posted at [www.avwaterplan.org](http://www.avwaterplan.org)) contains more details about each potential project and management action. Lauren is also preparing a summary that includes more information about costs for each project where we have that information.
- We recognize it can be challenging to compare projects that may be in competition for one another in some areas (such as available water). Hopefully, the descriptions in Section 5 will help, and we also expect to have a good discussion with the group to identify potential projects that will work well together, and projects that may be in conflict with one another.
- As I mentioned above, Lauren is preparing a document to include cost and benefit information for the projects and actions where we have the cost and benefit information. We will explore the costs and benefits of the high priority actions in more detail in the IRWM Plan.
- As for who will have final word on distributing any grant funds received, we still need to identify a governance structure for implementing the plan. The topic of establishing a governance structure is on our agenda for our meeting on May 16. Also, the grant applications must request specific amounts of money for specific projects and management actions, and will detail what the local cost share contribution will be. We will decide as a group what actions and projects we will include in the applications. We will start talking about how we will decide what to put into the grant application for Proposition 50 money in the meeting on Wednesday, May 2.
- We will prepare a list that arranges projects together according to categories as you suggest. If it helps now, they are grouped by category in Section 5.
- We agree that the IRWM Planning process is meant to be led and implemented by public entities representing the people of Antelope Valley. Any money provided through grant awards must be administered by public entities. I understand that some public entities have been cooperating with the WDS to explore the feasibility of the proposed project listed as "Antelope Valley Water Bank" in Section 5 and Table 7-1. We can discuss this more on Wednesday.
- We agree that how many Plan objectives a proposed project or management action contributes to meeting is one important consideration. Table 7-1 describes the number of objectives that the proposed project or management action contributes toward. However, we also recognize that many actions will be needed to address all of the plan objectives. It may be more useful (and is encouraged strongly in the State guidelines for IRWMP's) to create "packages" of actions that perform well together.

I hope this helps and I look forward to a lively and productive discussion with everyone on Wednesday, May 2. If you would like to discuss before Wednesday, please feel free to call me.

Sincerely,

Ken

Ken Kirby, Ph.D.

Principal

**Kirby Consulting Group, Inc.**

Aligning people, information and action

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Davis, CA 95616

530.750.5337

[kkirby@kirbycg.com](mailto:kkirby@kirbycg.com)

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---

**From:** tbavekwa@aol.com [mailto:tbavekwa@aol.com]

**Sent:** Friday, April 27, 2007 3:35 PM

**To:** laureneverett@KennedyJenks.com; al@parks.ca.gov; auk9@earthlink.net; asemchuch@avpress.com; ascruz@ladpw.org; andrewwerner@westerndev.com; agordus@dfg.ca.gov; ATENNEBOE@dfg.ca.gov; waynargo@hughes.net; barbaraj@rglobal.net; bhogan@avc.edu; lcid3@skylynx.us; brad@charltonweeks.com; bdietrick@lacs.org; bludicke@cityoflancasterca.org; hailrock@qnet.com; bhamamo@ladpw.org;

file:///G:/PROJECTS/2006/0689067/!Final IRWM Plan/AVIRWP\_FinalDraftReport/Appendices/... 10/16/2007

carolyn.lofreso@ca.usda.gov; creed@qhwd.org; cherylc@co.kern.ca.us; cmitton@waterboards.ca.gov; hervey@lbbslaw.com; cseal@qnet.com; cpaxton@palmdalewater.org; dale.johnson.ctr@edwards.af.mil; pwwdir@ccis.com; dajones@ladpw.org; drydman@ladpw.org; david.charlton.ctr@edwards.af.mil; Cdavid@ladpw.org; dgomez@palmdalewater.org; disaacson@waterwise-consulting.com; dledbetter@cityoflancasterca.org; drizzo@grimmway.com; debby4@earthlink.net; dnoble@ladpw.org; dlamoreaux@palmdalewater.org; dwells@palmdalewater.org; dimples@ccis.com; m.rcnd@mchsi.com; ehailu@ladpw.org; jones40@aol.com; fkuo@ladpw.org; frank@gnet.com; enebeker@adelphia.net; gerald.boetsch@edwards.af.mil; deloraine@sbcglobal.net; gphair@cityofpalmdale.org; gnewton@dhs.ca.gov; geven@ladpw.org; greg.medeiros@pardeehomes.com; gwood@lacsds.org; avbia@earthlink.net; ghand@planning.co.la.ca.us; hbailey@rmcwater.com; hbordas@ladpw.org; hkubler@rmcwater.com; jae.lee@ca.usda.gov; brooks@dslextreme.com; jko@dhs.ca.gov; smilebysmile@msn.com; james.skeen@dailynews.com; wellingj@co.kern.ca.us; admclk1@ccis.com; jtakata@cao.co.la.ca.us; Littlebaldywater@aol.com; avrcd@carcd.org; jmarkman@rwglaw.com; johna@laurendevelopment.com; goj893@aol.com; rjjones@adelphia.net; jmlynar@cityofpalmdale.org; wff@qnet.com; woodling@water.ca.gov; jkeir@waterboards.ca.gov; prkac@aol.com; Ken Kirby; cmorris@fire.lacounty.gov; LJa8310397@aol.com; exec@lacfb.org; llile@cityofpalmdale.org; jole719@aol.com; lswain@cityofpalmdale.org; lgodin@palmdalewater.org; lhoward@avpress.com; loreleio@co.kern.ca.us; lynntakaichi@KennedyJenks.com; margie@nellorenvironmental.com; mjacobs@lacsds.org; maryloucotton@KennedyJenks.com; mscruggs@waterca.gov; MattTebbetts@KennedyJenks.com; kcfb@kerncfb.com; mfavekwa@aol.com; michaelgilmore@inlandenergy.com; mmischel@cityofpalmdale.org; dsprunger@adelphia.net; nweisenberger@avc.edu; nivan.bhuta@saic.com; NHickling@lacbos.org; pmccarthy@planning.co.la.ca.us; paul.nguyen@ca.usda.gov; pzorba@cityoflancasterca.org; Granpaw@adelphia.net; rwilliams@cityoflancasterca.org; rtremblay@lacsds.org; ryoung@ccis.com; richcam@wwdb.org; rcaulkins@lacsds.org; rlavin@ph.lacounty.gov; rmorrow@rmcwater.com; beebyr@saic.com; rrhomestead@gnet.com; rneal@cityoflancasterca.org; rneufeld@rosamondcsd.com; robert.wood@edwards.af.mil; robertwood8401@sbcglobal.net; ronferrell@runbox.com; rfavekwa@aol.com; gilesruth3@aol.com; Scajina@dhs.ca.gov; sdassler@cityoflancasterca.org; swilliams@cityofpalmdale.org; susan.keefe@borax.com; sbergqui@dhs.ca.gov; grant@waterexchange.com; thomas.mele.ctr@edwards.af.mil; rrych@cs.com; thughes@cityofpalmdale.org; twest@rmcwater.com; tonypenna@inlandenergy.com; tonya@kernbia.com; tracieb@water.ca.gov; tnish@usgs.gov; punchbowl4@earthlink.net; bvnelson@verizon.net; wcollins@fire.lacounty.gov; avconservancy@yahoo.com; citymgr@ccis.com; cassie@kernbia.com; cdiep@dhs.ca.gov; ccross@water.ca.gov; Cdavid@dpw.lacounty.gov; dlaff@ladpw.org; david.burns@foothill.com; marshall.doug@comcast.net; water@dslextreme.com; jyun@water.ca.gov; jargo@lacsds.org; Kelee@dpw.lacounty.gov; tccprez@roadrunner.com; maryjw@rglobal.net; nwest@cityoflancasterca.org; rscott@lacofd.org; tngov@dpw.lacounty.gov; tvsutterfield@msn.com; wsloan@mofo.com

**Cc:** AARIKI@dpw.lacounty.gov; dlbinnie@dpw.lacounty.gov; HGALLARDY@dpw.lacounty.gov; TJKIM@dpw.lacounty.gov; dpedersen@dpw.lacounty.gov; RoxanneNagle@KennedyJenks.com; TracyQuinn@KennedyJenks.com

**Subject:** AVIRWMP Call for Projects List - AVEK Comments/Questions

Lauren,

In preparation for next week's meeting related to the Call for Projects and their prioritizing, there are a few concerns that AVEK would like to express to everyone for their own consideration.

Comments/questions on the Call for Projects List:

-It appears to be too early to be considering projects for the region before the regional plan has even been finalized. Should this be tabled until the IRWMP is actually completed?

-Prioritizing these projects is difficult without specific details given for each project. It is hard to place a high, medium, or low priority on projects based only there name.

-Given a limited supply of a particular source of water (surface, recycled, etc.), there are still projects listed that are planned around the same water. For example, how can a backbone recycled water project be compared to a recycled water system that is using the same water?

-Is there a form of cost vs. return built into the criteria that will make decisions easier? Are some of these projects being brought to the table with 50% matching funds from there sponsors?

-If funding were to be granted to the region through the IRWMP group, who would have the final word on where those funds are to be distributed?

-Many of the projects appear to be separate projects seeking the same result. To simplify the list of potential projects, the group should consolidate the projects into specific groups. For example, the *AV Water Bank*, the *Water Stabilization* projects, the *Groundwater Banking*, plus others could all be combined into a regional ground water banking project.

-Is not the goal of the IRWMP to create a regional plan lead by public entities representing the people of the Antelope Valley? Any project that is presented will have opportunity to gain Prop 50, Prop 84 type public funding. How can a private entity such as WDS (*Antelope Valley Water Bank*) gain access to public funds? Is there a public entity that has partnered with WDS? If so, who is it?

-It appears that in order to gain priority, a project would need to meet the most Plan Objectives. Rather than basing the list on this, can it be determined which project is the best at achieving each of the objectives independently? That is, if the goal is to increase water supply through groundwater recharge and a particular project achieves that well, yet does not provide for stormwater capture, should it be lower on the list?

Thank you for letting us express our concerns.

Please let me (and all others) know what you think.

Take Care,

Tom Barnes  
AVEK Water Agency  
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Fx: 661-943-3204  
Cell: 661-810-9440  
E-Mail:tbavekwa@aol.com

size=2 width="100%" align=center>

AOL now offers free email to everyone. Find out more about what's free from AOL at [AOL.com](http://AOL.com).

Department of Fish and Game Comments on the Antelope Valley draft IRWMP  
Provided by Scott Harris, Environmental Scientist, California Department of Fish and  
Game, Habitat Conservation Planning Division via email June 18, 2007

#### Section 4.4 Flood Management Objectives and Targets

One goal of the IRWMP should be to promote the establishment of land use ordinances that restrict development within hazardous floodplain areas and establish buffers to allow the natural hydrologic function within remaining natural or restored floodplains to occur. This will assist in reducing the need for flood protection and may be more cost effective than building and maintaining flood control infrastructures in perpetuity.

#### Section 4.5 Environmental Resource Management Objectives and Targets

Define Open Space and Natural Habitats here and in Glossary. Open space can mean natural open space, passive and active recreation which may or may not be compatible with natural habitats or natural open space preservation. As an example, open space can mean soccer fields, playgrounds, etc and should not be considered as natural habitat.

Target: Should be at least 2,000 acres and please explain where this amount of acreage came from and if it is scientifically defensible as an effective target. 2,000 acres of open space and natural habitat is vague and could be misleading to stakeholders if they are expecting 2,000 acres of active recreation open space or strictly natural open space to preserve biological diversity.

West Mojave Plan Reference: While many of the general conservation concepts and species accounts are valid in the West Mohave Plan (WMP) the Plan relies heavily upon habitat protection within BLM lands as mitigation for impacted habitats from development occurring elsewhere, perhaps many miles away. Dedication of mitigation lands within BLM in holdings does not assure protection of said habitat because of the multi use policies within BLM lands (grazing, off road vehicles, etc.) and the plan does not assure that there will be resources (funding and staff) available to manage protected lands. The WMP also does not adequately address special status species protection within much of the Antelope Valley because the Plan focuses heavily of desert tortoise and mohave ground squirrel protection and much of the Antelope Valley is considered marginal or poor tortoise and mohave ground squirrel habitat, especially west of the 14 freeway. The Department of Fish and Game did not endorse the WMP as a habitat protection planning document.

#### Section 4.6

Objective: Maintain Agriculture Land Use Within the Region

Agricultural land uses resulting in habitat conversion of natural habitats to active cultivation, wastewater spreading or other planned or proposed uses to meet IRWMP objectives can be incompatible with natural open space preservation and the associated

persistence of special status species and vegetative communities in this region, especially if the activity is exempt from CEQA and associated biological assessments, avoidance and mitigation considerations. Some areas that support natural habitats in the Antelope Valley such as Joshua tree woodlands and other natural vegetative communities, wind rows of trees, are vulnerable to type conversion for other uses and have been removed with minimal or no environmental impact analysis or compensation for loss of habitat and sensitive species. Caution should be used when evaluating agricultural land use proposals in the IRWMP to assure they are not counter to other Environmental Resource Management goals in the plan.

The Plan proposal of expanding agricultural lands into underutilized areas such as flood prone areas should not be encouraged but discouraged. Flood prone areas within agricultural lands should be placed under conservation easements and managed as natural open space as these areas often offer excellent restoration, enhancement and mitigation opportunities to return these areas to their natural riparian/floodplain function to reduce flooding to downstream and on site properties, improve water quality and water recharge in the region, reduce soil erosion and reclaim much needed riparian wildlife habitat which has been lost in this region. This could be an target item here or in the Environmental Resource Management Section.

**From:** Zorba, Peter [pzorba@cityoflanasterca.org]  
**Sent:** Friday, March 02, 2007 12:02 PM  
**To:** Lauren Everett  
**Cc:** Dassler, Steve  
**Subject:** AV IRWMP Section 5 Comments

**Attachments:** Figure%202-8.pdf

Hi Lauren –

Following are City of Lancaster's comments on Sect. 5:

1. (Not Sect 5) Figure 2-8: Antelope Valley Soil Types – Consider revising title of this figure because it does not illustrate soil types, but instead (as per the legend) various geological materials: Alluvium and bedrock which are not soils. Recognized families and series of soils are classified using USDA and SCS taxonomic classes. Attached a couple links to assist <http://soils.usda.gov/> & [http://www.cei.psu.edu/soiltool/semtool\\_phase2.html](http://www.cei.psu.edu/soiltool/semtool_phase2.html)  
But I think we should include a figure that actually does portray AV soils and is titled such.
2. Sect.5.1 (pg 5) Introduction, paragraph 4, 1<sup>st</sup> sentence: Desalination is mentioned twice in this sentence, in but in examples of different regional mgt strategies prone to difficulties. Suggest we delete second usage of 'desalination' from sentence.

*The following water management strategies are either not currently utilized in the Region because they are either inapplicable or infeasible (i.e., desalination), or their implementation is very limited: desalination, ecosystem restoration, environmental and habitat protection and improvement, recreation and public access, wetlands enhancement and creation, land use planning, and water transfers.*

3. Table 5-1(pg 5-1): What is [MC1]?
4. Sect.5.5.1 (pg 5-2) Water Management Strategy Descriptions, 4<sup>th</sup> paragraph, 4<sup>th</sup> sentence – Lancaster Water Reclamation Plant is abbreviated in text as WRP, consider changing this to LWRP: *Lancaster Water Reclamation Plant (WRP)*.
5. Sect.5.5.1 (pg 5-4) Water Management Strategy Descriptions, 12<sup>th</sup> paragraph, last sentence – Change nuisance 'weather' to nuisance 'water' runoff.
6. Sect.5.2.1 (pg 5-6) Water Supply Management Strategy, 1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence – Consider rewriting to clarify and better convey meaning. Initially mentions 'needs' however doesn't support 'needs', only goes on to elaborate on 'key issues'. As does following sentence, therefore may want to consider deleting 'needs' all together.

*The key issues and needs are: regional reliance on imported water; groundwater use is not managed; existing facilities have limitations; and global warming effects.*

Hope this helps. Thanks for the opportunity to comment. Have a great weekend.  
 - Peter

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EAFB\_IRWMP\_RE Public Comment\_8.8.07

From: Charlton David M Contr 95 ABW/CEV  
[David.Charlton.ctr@edwards.af.mil]  
Sent: Wednesday, August 08, 2007 1:39 PM  
To: Lauren Everett  
Subject: RE: Public Comment

The first comment on the briefing slides regarding environmental resource management acreage target. The plan should work with the county with the SEA. The proposed Antelope Valley SEA is larger than the two existing ones. Any change is due to take place when the new General Plan is finalized in 2008. The idea of both the SEA and the plan is to protect watershed. If land can be purchased in that area it will further reduce the density of development. Proponents presently have to do an extensive biological document and present the proposed lot split to a SEATAC committee for review. It's basically a way of circumventing zoning. I don't know how the plan can actually protect the property but following the SEA boundaries can make location and size scientifically defensible.

**From:** Cruz, Alvin [ASCruz@dpw.lacounty.gov]  
**Sent:** Wednesday, June 20, 2007 5:43 PM  
**To:** Lauren Everett  
**Cc:** Hamamoto, Bruce  
**Subject:** RE: AVIRWMP Comments  
 Hi Lauren,

Here are our comments on Sections 5 and 6 – I will aim to have Section 7 and 8 comments by the end of next week. Thanks.

#### Section 5

- On page 5-31, we recommend the following language for the Antelope Valley Comprehensive Plan of Flood Control and Water Conservation: “This 1987 plan depicts **proposed locations** for flood control and water conservation, **which are intended to provide a regional flood management system consisting of floodplain management and a drainage infrastructure “backbone” system.** The plan was not intended for land use regulation; the plan is meant to be a prerequisite to the collection of fees from future subdividers. The plan proposes floodplain management in the hillside/rural areas, with structural improvements in the urbanizing area, including detention and retention facilities, groundwater recharge basins, storm channels, and storm drain infrastructure.”
- On page 5-34, we recommend the follow language for the Quartz Hill storm drain project: under goals and purposes, “The project consists of the design and construction of a reinforced concrete pipe storm drain to provide stormwater collection and conveyance within the unincorporated Los Angeles area of Quartz Hill. The proposed project would alleviate local flooding and have the potential to provide water conservation and improved water quality.” Under project description, state “As such, the project proposes construction of a storm drain, including several later**al** connections and ...” Under quantifiable benefits, state “Flood protection of 95 acres of County **street** right-of-way, and ...”

#### Section 6

- On page 6-6 under Use alternative sources of water, the fourth sentence in the first paragraph should state “These other sources could include water from the central valley of California (Central Valley Project [CVP] water), transfers from other water rights holders in the Sacramento Valley, water from other water supply systems (Los Angeles Department of Water and Power [LADWP], Article 21 water, **treated stormwater captured and recharged into the ground,** and desalinated water.”
- On page 6-6 under Use alternative sources of water, the third paragraph should describe a stormwater capture and treatment system here.
- On page 6-9 under Use alternative sources of water, the second paragraph should state “Make further use of recycled **and storm** water.” Also, describe the further use of storm water.
- On page 6-11 under Water Quality Objective 2, state “Protect aquifer, **natural streams and recharge areas** from contamination.”
- On page 6-11 under Water Quality Objective 3, state “Maximize beneficial reuse of wastewater **and stormwater.**”
- On page 6-13 under Flood Management WMSA, the first sentence in the first paragraph should state “Flood management issues in the Antelope Valley generally regard management of storm water flows of variable **water** quality, and the management of nuisance water (dry weather runoff).”
- On page 6-13 under Flood Management WMSA, the flood management objectives (second paragraph) should state “Reduce negative impacts of flood water, improve **water** quality of runoff, and limit extent of nuisance water.”
- On page 6-13 under Flood Management WMSA, the third paragraph needs to address sediment transport (i.e., debris basins).
- On page 6-13 under Flood Management WMSA, the second sentence of the fourth paragraph states that flood control basins can also be used to store raw aqueduct water. Are flood control basins qualified to hold drinking water? The last sentence of the first paragraph should state “They can also be designated as open spaces, habitat **and recreational** areas, or act as natural treatment areas for poor quality runoff.”
- On page 6-14 under Future Planning Efforts and Actions to Fill the Identified Flood Management Gaps, the first sentence of the first effort/action should state, “The planning target, which is provided in order to gauge success on meeting the flood management objectives, is to coordinate a regional flood management plan and mechanism by the year 2010.”
- On page 6-15 under Land Use Management WMSA, need to list areas designated as flood zones. Additionally, this section should recommend the implementation of Low Impact Development techniques where feasible at open space and recreational sites.
- On page 6-16 under Land Use Management WMSA, need to move the “Create a Watershed Management Plan” effort/action into the flood management WMSA subsection



Document Name: Section 4: Objectives

Comment No.	Doc. Reference		Comments	Reviewer (optional)
	Page	Parag.		
1	4-1	2	The first sentence should state "... to meet the expected demands for water and other related resources within the entire region ..."	AC/BH
2	4-1	Bullet No. 3	The bullet should state "Opportunities to protect, and enhance, and capture current water resources ..."	AC/BH
3	4-1	4	The second sentence should state "... this document also identifies several open space, recreation, and habitat targets, as the implementation of water supply, flood management, and water quality projects ..."	AC/BH
4	4-2	Table 4-1	The Flood Management Objectives should discuss "Improve quality of runoff" in the Water Quality Management Objectives	AC/BH
5	4-2	Table 4-1	The Flood Management Planning Targets should state "Coordinate Prepare a regional flood management plan and ...."	AC/BH
6	4-2	Table 4-1	The Flood Management Objectives should discuss "Water Conservation" as an objective aimed at capturing and ensuring clean surface water runoff (X amount by the year 20XX) is recharged into spreading grounds and/or aquifers.	AC/BH
7	4-2	Table 4-1	The Flood Management Planning Targets states "curb nuisance water runoff." Be more specific about the methodology or describe in more detail somewhere in the plan (i.e., educate residents, install proper sprinkler heads and timers)	AC/BH
8	4-2	Table 4-1	The Flood Management Objectives should discuss regional coordination for meeting the needs of flood management, water conservation and water quality. Communities will benefit from flood management systems, but with the region having a great water need there is added incentive for the flood management systems to convey waters to rechargeable systems. These waters, however, must first be clean enough to charge into the ground and will require mechanisms to ensure this possibility (i.e., Sun Valley Multipurpose Park and Water Conservation).	AC/BH

Document Name: Section 4: Objectives

Comment No.	Doc. Reference		Comments	Reviewer (optional)
	Page	Parag.		
9	4-4	3	For the Objective: Stabilize groundwater at current conditions, wouldn't capturing and recharging surface waters into the ground help address this objective?	AC/BH
10	4-5	3	For the Objective: Protect aquifer from contamination, if surface waters will recharge aquifer, we need to ensure good surface water quality.	AC/BH
11	4-6	Objective 4.4	The objective should state: Reduce negative impacts of flood storm water and urban runoff, incorporate water conservation where feasible, improve quality of runoff (move this to Water Quality Management), and limit extent of nuisance water.	AC/BH
12	4-6	2	The first sentence should state "As described in Section 3.3, the Antelope Valley is prone to flash flooding, and this situation is aggravated by a the lack of a <del>coordinated and comprehensive system</del> comprehensive drainage infrastructure for managing storm waters and urban runoff."	AC/BH
13	4-6	3	In the second sentence, the section refers to the Valley. Will the Plan refer to the Valley or the Region, or both?	AC/BH
14	4-6	3	The second sentence should state "... the number of homes and businesses needing flood <del>control</del> protection or subjected ..."	AC/BH
15	4-6	3	The third sentence should state "To limit flood <del>control</del> damage in a cost effective manner, flood <del>control</del> management efforts should be coordinated across jurisdictions."	AC/BH
16	4-6	3	The fifth sentence should state "Thus the following planning target has been identified to <del>establish</del> prepare a regional flood <del>protection</del> management plan to reduce flood damage, curb nuisance water runoff, incorporate water conservation where feasible, and manage sediment transport by 2010."	AC/BH
17	4-6	3	The sixth sentence should state "The plan should contain regional design guidelines and best management practices for flood <del>protection</del> management and storm water runoff, contain a comprehensive maintenance plan for flood <del>control</del> management infrastructure, and a public ..."	AC/BH

Document Name: Section 4: Objectives

Comment		Doc. Reference		Comments	
No.	Page	Parag.			Reviewer (optional)
18	4-6	4.4 Target		The target should state "Establish <del>Prepare</del> a regional flood protection- <del>management</del> plan and policy mechanism to reduce flood damage, curb nuisance water runoff and manage sediment transport by the year 2010."	AC/BH
19	4-6	4.4 Target		How are "reduce and curb" measured?	AC/BH
20	4-6	General		Who will pay for the regional flood management plan?	AC/BH
21	4-7	4.5 Target No. 1		The target should state "Preserve X acres of open space consistent with Antelope Valley Areawide General Plan and Kern County General Plan, and incorporate recharge of surface and recycled waters when feasible."	AC/BH
22	4-8	4.6 Target No. 2		The target should state " Increase public parks and recreational amenities by X percent by the year 2015, with use of surface and recycled waters for irrigation and any water display (i.e, ponds, non-drinking fountains) features.	AC/BH

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13	4-6	3	In the second sentence, the section refers to the Valley. Will the Plan refer to the Valley or the Region, or both?	AC/BH
14	4-6	3	The second sentence should state "... the number of homes and businesses needing flood <del>control</del> protection or subjected ..."	AC/BH
15	4-6	3	The third sentence should state "To limit flood <del>control</del> damage in a cost effective manner, flood <del>control</del> management efforts should be coordinated across jurisdictions."	AC/BH
16	4-6	3	The fifth sentence should state "Thus the following planning target has been identified to <del>establish</del> prepare a regional flood <del>protection</del> management plan to reduce flood damage, curb nuisance water runoff, incorporate water conservation where feasible, and manage sediment transport by 2010."	AC/BH
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19	4-6	4.4 Target		How are "reduce and curb" measured?	AC/BH
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21	4-7	4.5 Target No. 1		The target should state "Preserve X acres of open space consistent with Antelope Valley Areawide General Plan and Kern County General Plan, and incorporate recharge of surface and recycled waters when feasible."	AC/BH
22	4-8	4.6 Target No. 2		The target should state " Increase public parks and recreational amenities by X percent by the year 2015, with use of surface and recycled waters for irrigation and any water display (i.e, ponds, non-drinking fountains) features.	AC/BH

Document Name:		Section 5:				
Comment		Doc. Reference		Comments		Author Response
No.	Page	Paragraph/ Location			Reviewer (optional)	
1	5.1	4		For the first sentence should state, "...water management strategies are <del>either</del> not currently utilized in the Region because...or <del>their implementation is very limited underfunded</del> : desalination, ecosystem restoration, ..."	AC/BH	
2	5.2	1		The second sentence should state, "...the implementation of conjunctive use projects utilizing recycled water <del>and storm runoff</del> , and the development..."	AC/BH	
3	5.2	2		The fourth sentence should state, "...creation of recharge areas, <del>and</del> spreading basins <del>and appurtenant water capture and conveyance systems</del> , and management of stormwater flows."	AC/BH	
4	5.2	4		The last sentence states "...recycled water use in the <del>Valley</del> ." Consider replacing "Valley" with the word "Region" or explain that "Valley" and "Region" mean the same thing.	AC/BH	
5	5.3	1, 2 and 5		Consider replacing the word "Valley" with the word "Region" throughout the document (see comment No. 4 if applicable)	AC/BH	
6	5.3	5		The third sentence should state, "...improvement include creation of <del>water capture, conveyance, and</del> recharge basins..."	AC/BH	
7	5.4	1,3 and 7		Consider replacing the word "Valley" with the word "Region" (see comment No. 4 if applicable)	AC/BH	
8	5.4	2		The first sentence should state, "...flood management systems, <del>maintaining</del> <del>preserving</del> or restoring natural flood plain processes..."	AC/BH	

Document Name:		Section 5:			
Comment	Doc. Reference		Comments		Author Response
No.	Page	Paragraph/ Location		Reviewer (optional)	
9	5.4	3	Consider replacing second paragraph with: <b>Storm water and urban runoff capture and management.</b> Storm water capture and management is linked to flood management. Storm water capture involves inlets and conveyances that will deliver flows to detention and/or retention (recharge) basins. Any attempts to recharge flows should not worsen existing drainage conditions. There is an opportunity to address urban runoff and improve water quality utilizing the same stormwater infrastructure. Challenges include short duration/high intensity storm events, sedimentation, contaminants in the stormwater and urban runoff. Opportunities exist for regional coordination of stormwater, urban runoff and flood management activities.	AC/BH	
10	5.4	4	The last sentence should state, "...water quality enhancement, flood <del>control-</del> <b>management</b> , and recreation."	AC/BH	
11	5.5	2	Consider replacing the word "Valley" with the word "Region" (see comment No. 4 if applicable)	AC/BH	
12	5.5	2	The second sentence should state, "...a good example of a geographical watershed. "	AC/BH	
13	5.26	Table 5.2.2	Under <b>Planning Target No. 1:</b> <del>Continue to Meet</del> <b>meet</b> Federal and State standards...	AC/BH	
14	5.26	Table 5.2.2	Under <b>Objective</b> , include a new objective: <b>Improve the quality of stormwater and urban runoff.</b>	AC/BH	
15	5.26	Table 5.2.2	Under <b>Planning Targets</b> , include a new target in the same row as the previous objective: <b>Treat runoff before it enters the natural creeks and subsequently into the aquifers.</b>	AC/BH	
16	5.33	5.2.3	The second sentence should state, "...lack of coordinated flood <del>control-</del> <b>system or planning</b> efforts throughout the Valley..."	AC/BH	
17	5.33	5.2.3	Consider replacing the word "Valley" with the word "Region" (see comment No. 4 if applicable)	AC/BH	
18	5.33	5.2.3	The second sentence should state, "...lacking difficulty providing flood <del>control</del> <b>management</b> without interfering with groundwater recharge; <b>incorporating water conservation where feasible</b> ; and desire of..."	AC/BH	



Document Name:		Section 5:				
Comment		Doc. Reference		Comments		Author Response
No.	Page	Paragraph/ Location		Reviewer (optional)		
19	5.33	Table 5.2.3	Under <b>Objective</b> , Remove "Improve quality of runoff."	AC/BH		
20	5.33	Table 5.2.3	Under <b>Planning Target, consider</b> "Establish a regional flood <del>protection-</del> <del>management</del> plan and policy mechanism ..."	AC/BH		
21	5.33	Table 5.2.3	Under <b>Planning Target</b> , the Plan needs to quantify "reduce flood damage", "curb nuisance water runoff" and "manage sediment transport" (i.e., 20% reduction)	AC/BH		
22	5.33	5.2.3.1	The last sentence should state, "The following are <del>recent</del> <del>previous</del> studies..."	AC/BH		
23	5.33	5.2.3.1	Under section 5.2.3.1, please add the 1987 Antelope Valley Comprehensive Plan of Flood Control and Water Conservation (contact Alvin Cruz or Bruce Hamamoto for more information)	AC/BH		

**From:** Dietrick, Brian [BDietrick@lacs.org]  
**Sent:** Monday, February 12, 2007 3:35 PM  
**To:** Lauren Everett  
**Subject:** Comments on Draft Chapters 3 & 4 of IRWMP  
[Hi Lauren,](#)

[Here they are... finally. I didn't comment on Chapter 4 since we are still working on the plan objectives. Please feel free to give me a call to discuss any of these comments or questions.](#)

[Brian](#)

- 3-1: First paragraph, last sentence. "... and demand requirements **of** the Valley."
- 3-2: The Snyder crop consumptive estimates from 1955 seem a bit outdated. Did you check to see if there is more recent data available?
- 3-2: LA County pumpage data from 1961 and 1987 also seems outdated. Anything more recent?
- 3-4: Does the "Gross Water Use" column from Table 3-3 include Irrigation Efficiency in the values? Just making sure that this is what "gross" means.
- 3-4: Bottom of page. I think you mean to refer to Table 3-6 rather than Table 3-5.
- 3-5: Sixth sentence. It would be more accurate to refer to "effluent management sites" than "evaporation sites".
- 3-5: Re: transfer of 4,650 acres of field crop to the LWRP effluent management site. The operation of our effluent management sites does not take other agricultural land out of service. We need to discuss this more. Also referenced in some later sections and calculations.
- 3-9: Just for my information, you are assuming that conservation measures (2%) is applied to M&I demand only? Not to agricultural demand ?
- 3-12: Figure 3-3, the x-axis should probably be extended to 2004 or 2005.
- 3-12: Bottom of page. Have you considered stating the range for natural recharge rate rather than the lowest estimated value of 30,300 AFY.
- 3-14: For Tables 3-9A and 3-9B, shouldn't the "Total Ag Return Flow" column be 30% of the "Total Applied Ag Demand" column, with the GW Return flows and Imported Return flows summing up to the "Total Ag Return Flow" column?
- 3-15: [Where did you get 60 acres of storage for PWRP? The plant has 149 acres of oxidation ponds but no storage reservoirs. The plant does have storage reservoirs planned, however. Also, the PWRP Facilities Plan lists the annual evaporation rate as 83 inches \(Table 4-5, PWRP Facilities Plan\). Where did you get 114?](#)
- 3-15: [The LWRP has 430 acres of "ponds". 270 for oxidation ponds and 160 for storage reservoirs. 600 acres are planned, but 240 of that acreage is obtained from using the old oxidation ponds as storage \(Table 4-1, LWRP Facilities Plan\).](#)
- 3-15: Sixth sentence, "throughout" does not have a hyphen.
- 3-15: [Fourth sentence. Should refer to "effluent management sites" rather than "evaporation sites".](#)
- 3-15: [Values for Table 3-10 may need to be revised per corrections above.](#)
- 3-15: Do the return flows in Table 3-10 assume a 30% return flow rate? If so, the last column should be 30% of the fifth column. [Actually, we need to discuss return flow rates for effluent management sites. The rate will be less than 30% for both LWRP and PWRP.](#)
- 3-15: The sixth column in the "Lancaster WRP" part of Table 3-10 should probably have a footnote -- "f. Assumes 1180 acres storage."
- 3-20: I suggest that the ASR section include a discussion of how ASR water will be distributed in average, single dry, and multi-dry years. It appears in the subsequent tables (3-17, 3-18, 3-19) but not in the text.
- 3-21: First sentence, think you should be referencing Table 3-14, not Table 3-12.
- 3-22: Item No. 2 under "Palmdale WRP Existing Contracts for RW", tertiary effluent will be available in 2010 , not 2009.
- 3-22: First sentence of next paragraph, " ... estimate of future **recycled** water supply ..."
- 3-23: First paragraph under "Historical, Current, and Projected Supplies", fourth sentence, "Raw water is conveyed to **Lake Palmdale** for treatment ..."
- 3-30 to 3-33: Shouldn't Figures 3-6A through 3-7B include ASR distributions as part of the supply?

- 3-33: First sentence under "Average Water Year", I think it should be Tables 3-20A and 3-20B rather than 3-17A and 3-17B.
- 3-33: First sentence under "Single Dry Year", I think it should be Tables 3-21A and 3-21B rather than 3-18A and 3-18B.
- 3-34: First sentence under "Multi-Dry Year", I think it should be Tables 3-22A and 3-22B rather than 3-19A and 3-19B
- 3-35: In Table 3-20A, it appears you have added conservation to demand rather than subtracting from demand. This error repeats in Tables 3-20B, 3-21A, and 3-21B (Table 3-21B also a formatting error on the right side of page, ninth row).
- 3-39: Table 3-22A, where do the "Demand (w/o conservation)" values come from? Shouldn't they match the values in Table 3-6? Same for the "Conservation" values. And same question for Tables 3-22B, 3-23A, 3-23B, 3-24A, 3-24B, 3-25A, 3-25B, 3-26A, and 3-26B.
- 3-51: Last sentence of first section, "... to deliver recycled water to any potential agricultural users **other than the LACSD effluent management sites or adjacent.**"
- 3-51: Under "Effects of Global Warming", the third bullet point seems to be a repeat of the second one.
- 3-55: [Section 3.2.3 -- Add to end of paragraph: "Revised WDRs for the LWRP are expected in March 2007 and for the PWRP near the end of 2007.](#)
- 3-55: Under "Concern for Meeting Water Qual Regs for GWR", I am confused by the third bullet item. What additional water sources from outside the basin are there?
- 3-56: Under "Closed Basin with No Outfall for Discharge", we should probably mention "percolation" for treated effluent since you mention it in the paragraph immediately following.
- 3-56: [Third paragraph under "Must Provide WW Treatment for Growing Population", I suggest mentioning here that the expected flow rate for PWRP will be 22.4 mgd by 2025, just to be consistent with the previous paragraph about LWRP.](#)
- 3-57: Second sentence. I recommend changing to "The ability to remove these emerging contaminants also has a **positive** economic impact on the agricultural community **since it reduces the damage to crops. It also benefits** the WRPs and WTPs ..."
- 3-57: About 2/3 of the way down the page, "Identification of wellhead protection areas will also be **examined** in this IRWMP."
- 3-58: Second to the last sentence on page, "Storms of a 2-year frequency ...". Is that supposed to be "20-year"?
- 3-59: First sentence. Recommend putting the dates in chronological order.
- 3-61: Middle of page, should say "Little Rock Creek **Reservoir**"
- 3-61: Section 3.4 would be the place to mention invasive non-native species and their detrimental effects on native ecology. For example, the Saltcedar (Tamarisk) growing at Piute Ponds. Maybe we only need a placeholder for this now.
- 3-64: Consider adding one more bullet item, "Removing invasive non-native species from sensitive ecosystems"
- 3-65: Third paragraph under section 3.5, the fourth sentence seems to repeat the third sentence. I think we can delete the fourth sentence.

**From:** Dietrick, Brian [BDietrick@lacs.org]  
**Sent:** Friday, March 09, 2007 11:51 AM  
**To:** Lauren Everett  
**Subject:** Comments on draft IRWMP Ch. 4-5

Hi Lauren,

Not much, but here it is:

**4-1:** Second bullet item under 4.1, "... water supplies at reasonable cost ..."

**4-2:** Table 4-1, under "Water Quality Management", "Increase infrastructure and establish policies to use ..."

**4-5:** Under "Target: Prevent unacceptable degradation of aquifer", We would prefer not to be singled out here as having caused a decline in water quality. Can we mention other entities as well; or better yet, not mention anyone specifically?

**4-6:** Second paragraph under 4.4, "... flood protection and storm water runoff, ~~contain~~ a comprehensive ..."

**4-8:** First paragraph under 4.6, I just want to make sure you remember that the Sanitation Districts, at this time, plans to develop over 10,000 acres of ag for effluent management. This may change as municipal reuse and groundwater recharge projects develop, but I want to make sure this is accounted for when you define the number of acres in the AV devoted to ag.

**5-1:** Fourth paragraph, it's somewhat repetitive to mention desalination twice.

**5-5:** Second paragraph, "... a good example of a geographical watershed ..."

**5-27:** "Palmdale Water Reclamation Concept Study", I don't think we were the project sponsor on this. Do you have a copy of this report?

**5-28:** "North Los Angeles/Kern County Regional Recycled Water System", we are definitely not the project sponsor. The correct sponsor is LACWWD 40.

**5-30:** "Lancaster WRP Existing Effluent Management Sites", LACSD cannot sponsor this project. It lies on property owned by Edwards Air Force Base. So we will either have to get them to sponsor it or drop it from the list of projects.

Brian Dietrick

County Sanitation Districts of Los Angeles County  
1955 Workman Mill Road  
Whittier, CA 90601  
(562) 699-7411 X2703

**From:** Dietrick, Brian [BDietrick@lacs.org]  
**Sent:** Thursday, June 21, 2007 1:50 PM  
**To:** Lauren Everett  
**Subject:** Redmarks to draft IRWMP Scs. 7-8

## SECTION 7

7-2: middle of page, ".. Guidelines requires an evaluation of potential negative or adverse impacts within the Region and in adjacent areas from their implementation."

7-3: 3/4 of the way down, What does "with or without partners" mean? This may be confusing.

7-6: 2nd line from top, "... medium, or and high ..."

7-6: 1/3 of the way down, "... their projects, or those that if their projects do not require a CEQA review, they were given a point."

7-6: middle of page, "This allowed ~~for~~ the Stakeholders to ~~see~~ assess the project's cost/benefit ..."

7-7: 2nd line from top, "... met more than one IRWM Plan objectives."

7-7: 3/4 of the way down, "Encourage cooperation in the short-term to develop ..."

7-11: 7th line from top, "... and needs of the Region will be done evaluated."

7-11: middle of page, "... extend to further reaches of the Valley, and ~~that~~ could take advantage of synergies not previously noticed. The process also ~~enabled~~ ~~afforded~~ the stakeholders ..."

7-21: 3rd line from top, "... appropriate that both quantifiable and nonnot quantifiable ..."

## SECTION 8

8-4: middle of page, "... aspects of the Basin Plan that are is directly addressed ..."

8-7: The first part at the top under "Reduce negative impacts ..." should probably mention Waste Discharge Requirements (WDRs) along with NPDES since the AV is a closed basin.

8-7: middle of page, "... wastewater discharge affects effects streams subject to restoration:, and NPDES permit holders (where storm water discharge affects effects water quality ..."

8-8: middle of page, "... these water management challenges make the m management challenges difficult ..."

8-10: 2/3 of the way down, "Refer to Figure 8-1 for a schematic of this proposed ..."

8-12: 2/3 of the way down, "Refer to the ~~their~~ project template ..."

8-12: 2/3 of the way down, "~~Additionally, t~~The anticipated funding match ..."

8-12: near bottom of page, "... stakeholders in the Region adn that ~~which~~ are well suited ..."

8-13: 6th line from top, " ... the local cost share, the and quantified project benefits ..."

8-15: 4th line from top, " ... and statewide programs."

8-15: middle of page, "... IRWM Plan will then be presented and disseminated edion during quarterly ..."

8-16: 1/3 of the way down, "... in a comprehensive way, and that can ..."

8-16: Under "8.4.3.1 Surface Water", why no mention of Littlerock Dam or Lake Palmdale?

8-18: 3/4 of the way down, "... studies that documents is proven ..."

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8-20: Under "Agricultural Return Flows", what does 33% of required water refer to?

8-24: middle of page, "... about measuring needs is to be identified ..."

8-24: 3/4 of the way down, "... details about measuring needs is to be identified ..."

8-25: 2nd line from top, "... measuring needs is to be ..."

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**Sent:** Thursday, June 21, 2007 1:50 PM  
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**From:** Weinstock, Henry S. [HWeinstock@Nossaman.com]  
**Sent:** Thursday, July 26, 2007 1:21 PM  
**To:** Lauren Everett  
**Subject:** IRWMP -- revised Description of Tejon Ranch Water Bank -- to Lauren Everett  
 Lauren

As promised, following is our revised description of the Tejon Ranch Water Bank, for inclusion in your revised Antelope Valley IRWMP. The July draft description (copied below) is obsolete in that it describes a "proposed" water bank, rather than the operating water bank. Please let me know this week if you have any questions about it or if you think that any further revision is necessary.

### **TEJON RANCH WATER BANK**

In 2006, Tejon Ranch constructed and is operating a groundwater bank on its property. The bank is located less than 1 mile north of the East branch of the California Aqueduct. The recharge area of the bank currently includes nine basins and covers 120 acres. Thus far, Tejon Ranch has banked over 4,000 acre-feet of water imported into the Antelope Valley from the State Water Project. The approximate storage capacity of this bank in its current configuration is roughly 60,000 acre-feet. Tejon Ranch is willing to negotiate cooperative arrangements with public agencies and private parties who want to store and/or withdraw water from this water bank. Interested parties may contact Dennis Atkinson at Tejon Ranch (661-663-4240).

Also, if you discover any practical benefit to submitting this existing water bank for approval by your group, please let me know.

Thanks. Henry Weinstock  
 Nossaman, Guthner, Knox & Elliott, LLP  
 445 S. Figueroa St. 31st floor  
 LA CA 90071-1602  
 Phone: 213-612-7839

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### **Tejon Ranch Water Bank**

*Project Sponsor:* Tejon Ranch

*Goals and Project Description* The following description for this project is pending update.

Tejon Ranch has proposed a SWP banking project through surface spreading on the property owned by the Tejon Ranch northeast of the

location where the East branch of the California Aqueduct enters Los Angeles County. The exact size and cost of this project is still being

developed. It is likely the bank would include a non-exclusive membership where members share cost proportional to their portion of capacity. Initial

members are expected to be Tejon-Castaic Water District and the water purveyors of the Antelope Valley Region. A Joint Powers Authority (JPA) may need to

be established prior to implementation. The JPA is likely to be similar to the one established for the Kern Water Bank Authority with joint action to develop the

bank and individual autonomy over assigned capacity. Due to the minimal number of required permits and environmental impacts, it is anticipated that utilization of

the water bank could begin once the JPA has been established, once the required permits have been obtained and California Environmental Quality Act (CEQA)

requirements are met. Environmental impacts are anticipated to be minimal as would be the required permits and associated CEQA documentation.