

County of Santa Cruz

701 OCEAN STREET, 4[™] FLOOR, SANTA CRUZ, CA 95060 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123 ALVIN D. JAMES, DIRECTOR

November 29,2001

AGENDA: December 11,2001

Foard of Supervisors County of Santa **Cruz** 701 Ocean Street S anta **Cruz,** CA 95060

INFORMATIONAL REPORT ON PAJARO VALLEY WATER MANAGEMENT AGENCY'S DRAFT REVISED BASIN MANAGEMENT PLAN

Members of the Board:

On October 15, 2001, your Board accepted a Progress Report On Water Resources Management that directed Planning staff to report back on today's agenda with an analysis of the Pajaro Valley Water Management Agency's Draft Revised Basin Management Plan (the Plan). Our report provides some pertinent detail from the Plan and briefly addresses the peripheral issue of a proposed March 2002 ballot measure. An executive summary of the Plan is included as Attachment 1. Staffs comments on the Plan vere submitted directly to the Pajaro Valley Water Management Agency (PVWMA) and are included as Attachment 2. A complete copy of the Plan has been included as Attachment 3, and has been placed on file with the Clerk of the Board.

Draft Revised Basin Management Plan

The PVWMA has released a Draft Revised **Basin** Management Plan (August 2001) which presents strategies for balancing the groundwater basin and eliminating seawater intrusion in the Pajaro Valley groundwater basin. In order to solve the basin overdraft and eliminate seawater intrusion, a combination of management practices and additional water sources are presented and evaluated in the Plan. Water demand is brought 'nto balance with sustainable water supplies using various project elements lumped into basin management strategies.

Four separate basin management strategies are presented in the Draft Revised Basin Management Plan. All four of these strategies have a common basis that includes increased levels of water conservation, development of the Harkins Slough local recharge project, recycled water, supplemental wells, and a coastal distribution system. Each strategy builds upon the common elements and adds additional elements as necessary. One strategy relies entirely on development of local water supplies; another relies heavily on local supplies supplemented with a minimum quantity of imported water. The remaining two strategies include the original preferred importation pipeline alternative presented in the draft Basin Management Plan

2300 and a modified version of that alternative that reduces the size of the import pipeline.

Paraphrasing from the Plan, these four strategies are:

- **BMP 2000 Alternative.** This strategy is similar to the one identified in the draft BMP 2000 document published in May 2000. Major project elements include an importation pipeline, a coastal distribution system, local recharge projects, and conservation. Modifications to this Alternative between the BMP 2000 document and this Draft Revised BMP were limited to updating individual cost estimates.
- **Local-Only Alternative.** This strategy demonstrates the costs and implications associated with developing *only* local water supplies and storage projects within the Pajaro Basin. Major project elements include a coastal distribution system, expanded local recharge projects (includes Murphy's Crossing and Watsonville Slough), and additional conservation via land fallowing. The Local-Only Alternative was developed based on recommendations from local stakeholders.
- **Modified Local Alternative.** This strategy builds upon the projects that comprise the Local-Only Alternative and maximizes potentially feasible local projects. **It** supplements the local projects with a minimum quantity of imported water needed to balance supply with current demand. Major project elements include the addition of recycled water, a College Lake project, and a smaller diameter importation pipeline. The concept behind this alternative was developed based on recommendations from local stakeholders.
- Modified BMP 2000 Alternative. This strategy presents a potential modification of the BMP 2000 alternative that reduces the size of the import pipeline. The size reduction is brought through in-basin storage with groundwater injectiodextraction and elimination of the inland distribution system. Other project components were also modified from the original BMP 2000 alternative to maximize their cost effectiveness.

It is worth noting for your Board that three of the four strategies rely on imported water to balance the basin and eliminate seawater intrusion. A more complete listing of the four basin management strategies and their individual project elements can be viewed on Table ES-2 in the Executive Summary, which is attached.

Five criteria were used in the Plan to assess each basin management strategy. The five criteria used were:

- Can Meet Existing and Future Water Needs
- Limited Dependence on Out-of-Basin Water Supplies
- Minimizes Regulatory Hurdles
- Meets Water Quality Goals
- Economic Impact

The **BMP 2000 Alternative**, when evaluated, shows the highest capital cost and is the second most costly alternative on a cost per acre-foot basis. This alternative includes a local recharge project at Murphy's Crossing that has water rights protest against it. The protested water rights negatively influence the regulatory/environmental criteria.

The **Local-Only Alternative** is the most costly alternative on a cost per acre-foot basis and it does not meet water quality goals or fbture demands. It may also have significant regulatory hurdles with the state and federal resource agencies and the Regional Water Quality Control Board related to anadromous fish and injection of recycled water. County water resource staff shares the concern about the potential impacts of the Local-Only Alternative on stream conditions and anadromous fisheries in Corralitos Creek. This concern will be formally communicated by staff in their comments to the draft EIR for the final Revised Basin Management Plan.

The **Modified Local Alternative** is the second least expensive on a cost per acre foot basis. It relies heavily on local supplies, i.e., Corralitos Creek, College Lake, and recycled water. When evaluated, it does not consistently meet water quality objectives. This is largely due to poor water quality at College Lake and is associated with the direct use of recycled water for groundwater recharge.

The **Modified BMP Alternative** is the least costly on a cost per acre-foot basis, relies on a smaller sized import pipeline, includes cost-effective local projects, meets the water quality goals, and provides flexibility to meet future demands.

A more complete comparison of the Basin Management Strategies can be viewed on Table **ES-3** in the Executive Summary.

The public review of the Draft Revised Basin Management Plan was completed on November 30, 2001. It is anticipated that the PVWMA Board of Directors will select a preferred alternative at their December 5, 2001, meeting. A Final Revised Basin Management Plan is anticipated to be completed on January 15, 2002. Although county water resource staff have not yet reviewed the draft EIR on the Plan, the EIR ranked the **Modified BMP 2000 Alternative** as the environmentally superior alternative.

It seems likely that whatever preferred alternative is selected by the PVWMA Board, it will include an import pipeline. If so, the Agency has to overcome the obstacles of the Central Valley Project Improvement Act (CVPIA) **and** Measure D. **As** you may recall, the passage of the CVPIA in 1992 precludes the PVWMA (and others) from executing a contract for their allocation of water from the federal Central Valley Project until fish and wildlife restoration goals are met. However, the CVPIA may only be an interim obstacle to the execution of the PVWMA's long-standing allocation. Existing Central Valley Project contracts elsewhere are presently available on the water market. PVWMA has already purchased one and is pursuing others. Fish and wildlife restoration goals were anticipated to take approximately 10 years and are presently being addressed in the CALFED Bay-Delta Program. Removing the obstacles of Measure D is the subject of a March 2002 Ballot Referendum.

March 2002 Ballot Referendum

Measure D, as your Board may recall, placed a \$50 ceiling on Augmentation Fees which seriously restricts the Agency's ability to finance capital projects. The Agency is preparing for a March referendum to raise the cap on Augmentation Fees which was restricted by the passage of Measure D. The timely implementation of the anticipated preferred alternative, (and the elimination of seawater intrusion), is predicated upon the successful passage of the March referendum. The PVWMA staff and consultants have developed draft ballot materials which were discussed at their November 21, 2001, Board meeting. To meet election filing deadlines of December 7, 2001 and December 14,2001, the PVWMA Board will need to approve a ballot question, approve an ordinance to be implemented by the ballot question, adopt a resolution formalizing these approvals, and approve an argument in favor of the measure. These matters are scheduled for consideration

by the PVWMA Board at their December 5, 2001 meeting.

The referendum to raise the cap on Augmentation Fees will determine direction in the near-term to a longterm solution for the Pajaro Valley. An unsuccessful referendum will likely lead to adjudication of the basin by the State and potentially significant pro-rata reductions in water rights of the overlying land owners. A successful referendum will authorize an increase in the augmentation charge to implement water supply projects, including local, recycled, or imported water projects.

It is therefore **RECOMMENDED** that your Board:

1) Accept and file this Informational Report On Pajaro Valley Water Management Agency's Basin Management Plan.

RECOMMENDED

SUSAN A . MAURIELLO County Administrative Officer

Sincerely,

ALVIN D. JAMES

Blc/WRM01-11

Attachments:

- 1) Executive Summary of the Draft Revised Basin Management Plan
- 2) Staffs November 28, 2001 comment letter
- 3) Complete copy of the Draft Revised Basin Management Plan, on file with Clerk of the Board
- cc: Environmental Health Services Pajaro Valley Water Management Agency







Draft Revised Basin Management Plan EXECUTIVE SUMMARY

August 2001



Raines, Melton & Carella, Inc. Consulting Engineers/Project Monogers



40

Executive Summary

This Draft Revised Basin Management Plan (BMP) presents strategies for balancing the groundwater basin and eliminating seawater intrusion in the Pajaro Valley.

This task was originally undertaken in the Draft BMP 2000, published in May 2000. However, public review of that draft document indicated the need to investigate a wider range of alternatives for basin management, and in particular, to focus on strategies with a greater reliance upon development of local water supplies. This Revised BMP was prepared in response to these concerns. Four separate basin management strategies are presented in this document, including one that relies entirely on development of local water supplies, and another that relies heavily on local supplies, The remaining two strategies include the original management alternative presented in the Draft BMP 2000 and a modified version of that alternative which reduces the scope and cost of this alternative. These four strategies are:

- **BMP 2000 Alternative.** This strategy is similar to the one identified in the draft BMP 2000 document published in May 2000. Modifications to this Alternative between the BMP 2000 document and this Draft Revised BMP were limited to updating individual cost estimates.
- Local-Only Alternative. This strategy demonstrates the costs and implications associated with developing *only* local water supplies and storage projects within the Pajaro basin. The Local-Only Alternative was developed based on recommendations from local stakeholders, and information about this alternative is extracted from *Local-Only Water Supply Alternative Evaluation* (RMC, *200*1).
- **Modified Local Alternative.** This strategy builds upon the projects that comprise the Local Only Alternative and maximizes potentially feasible local projects. It supplements the local projects with the minimum quantity of imported water needed to balance supply with current demand. The concept behind this alternative was developed based on recommendations from local stakeholders.
- **Modified BMP 2000 Alternative.** This strategy presents a potential modification of the BMP 2000 alternative that reduces the size of the import pipeline. The size reduction is brought through in-basin storage with groundwater injectiodextraction and elimination of the inland distribution system. Other project components were also modified from the original **BMP** 2000 alternative to maximize their cost effectiveness.

All four of these strategies have a common basis that includes increased levels of water conservation and development of Harkins Slough, recycled water, supplemental wells, and the Coastal Distribution System (CDS). Each of the four identified strategies builds upon these common elements and includes project elements necessary to balance the groundwater basin and eliminate seawater intrusion.

The public is encouraged to comment on the proposed projects and strategies so that the PVWMA can finalize a recommended strategy that is responsive to the concerns and needs of its water users. The four strategies presented in this document may change, or be modified, as a result of public input into the planning and environmental review processes. A parallel Environmental Impact Report is also being prepared and will be available for public review and comment.

ł

Following public review and input into this planning process, a final Revised BMP will be prepared. The final Revised BMP will be presented to the PVWMA Board of Directors for approval and adoption of **a** recommended project strategy.

Excessive groundwater pumping in the Pajaro Valley is adversely impacting the fresh groundwater supply.

Numerous studies conducted over the past fifty years have documented that the Pajaro Valley groundwater basin is in an overdraft condition, i.e., the amount of water withdrawn exceeds the amount of water replenishing the basin. Today, groundwater pumping provides approximately 69,000 AFY toward the total PVWMA area water demand of 71,000 AFY. Existing well data maintained by the United States Geological Survey (USGS) and the PVWMA indicate that areas of depressed groundwater levels are expanding in the Pajaro Valley groundwater aquifers and that the groundwater elevations regularly fall below sea level. This trend has caused seawater intrusion in the PVWMA service area because the ocean pushes seawater inland to raise the water table until equilibrium is reached at sea level. Well data collected since 1998 indicate that seawater intrusion (evidenced by chloride levels exceeding 100 mg/L) is more extensive than previously reported, and chloride levels ranging from 200 mg/L to 8,500 mg/L have been observed in a number of deeper wells. The extent of seawater intrusion is illustrated on the following page in Figure ES-1.

Future increases in water demand will make current situation worse.

Overdraft of the groundwater basin and seawater intrusion are problematic at the current level of water demand. Projected increases in urban and agricultural water use will cause further problems if this situation is not rectified. Urban water use has increased by 86% in since 1964, and the current urban water use of 12,200 AFY may increase an additional **32%** (3,900 AFY) to approximately 16,100 AFY by the year 2040. If the current trend in cropping patterns continues towards more water-intensive crops such as strawberries and raspberries, agricultural water use could increase from 59,300 AFY to 64,400 **AFY** by the year 2040.

Solving this situation will require a combination of management practices and additional water sources.

To eliminate the overdraft conditions and seawater intrusion, water demand must be brought into balance with sustainable water supplies. This balancing of demand with sustainable supply will require a combination of water conservation, modified pumping practices and development of new water sources.

To develop and assess a range of scenarios, the magnitude of the problem was defined.

By modeling current 'baseline' conditions, the sustainable yield of the basin (the maximum amount of groundwater that can be extracted from the aquifer system without causing adverse effects) can be estimated. With this estimate in hand, alternative strategies to balance the basin can be developed.



The sustainable yield of the Pajaro Valley groundwater basin was estimated using the Pajaro Valley Integrated Ground and Surface water Model (PVIGSM). This is a complex model that simulates groundwater conditions in the Pajaro Valley groundwater basin using geologic and hydrologic conditions, current pumping conditions, and other basin characteristics. The modeling approach involved incremental reductions of groundwater pumping estimates until stable groundwater levels were observed (i.e., recharge = demand) and seawater intrusion was eliminated.

Model results indicate that, under current pumping practices, a 65% reduction in *basin-wide* groundwater pumping (45,000 AFY) is necessary to eliminate seawater intrusion. Under this scenario, the sustainable yield of the groundwater basin is approximately 24,000 AFY (69,000 AFY – **45,000**AFY), or approximately one third of the current average annual demand on groundwater supplies.

However, the basin sustainable yield could be doubled if pumping in the coastal areas was eliminated. Therefore, every proposed solution considered in this document includes stopping groundwater pumping at the coast and replacing it with water that would originate from other areas. The PVIGSM showed that this modification to current pumping practices would create a hydrostatic barrier that would prevent seawater intrusion. This scenario necessitates a dependable supplemental water supply and construction of a coastal distribution system to provide coastal agricultural users with water. The basin sustainable yield estimated for this scenario is 48,000 AFY. This estimate assumes essentially a 100 percent reliable supplemental water supply increases, the basin yield decreases. Local surface water supplies are highly variable, and imported Central Valley Project (CVP) supplies have a somewhat lesser degree of variability. In addition, the Local Only alternative develops a lesser amount of supplemental supply, and with the reduced levels of irrigation that would occur, there would be a reduction in the amount of percolation into the groundwater aquifers. As a result, the actual basin yield varies between approximately 42,000 AFY for the Local Only alternative up to approximately 47,000 AFY for the other three identified alternatives.

Management measures that do not involve the construction of new projects can deliver significant benefits.

The following management measures have been identified to reduce water demand, increase the yield of the groundwater basin, and maintain optimal water quality:

- Demand management options to reduce water demand;
- Pumping management options to increase the sustainable yield of the groundwater basin;
- Watershed management options to ensure groundwater recharge; and
- Well management options to maintain water quality.

<u>Demand Management</u>. Demand management measures include options such as water conservation, water pricing, and land retirement. The PVWMA developed Water Conservation 2000 (WC 2000) to serve as a guidance document for achieving cost effective increases in water conservation. This plan identified cost-effective opportunities that would result in the conservation of approximately 4,500 AFY in agriculture water use and 500 AFY in urban water use. Water pricing is one of the options considered in WC 2000 for promoting water conservation. The PVWMA could either increase its current flat rate fee of \$50/AF, or implement a tiered water pricing system in which the price of water increases as the amount of water consumed exceeds certain threshold values. A third option available is land fallowing. This option

1

ì

involves the acquisition, or leasing of agricultural land and elimination of irrigated agriculture on that land. It should be noted that the latter two options have extensive socioeconomic impacts and would have to be investigated in greater detail before they could be implemented.

<u>Pumping Management</u>. As stated previously, the PVIGSM simulation of groundwater levels and seawater intrusion in the Pajaro Valley groundwater basin indicates that coastal groundwater pumping reductions would be more effective at preventing seawater intrusion than basin-wide pumping reductions. Provided that a supplemental water supply is available to coastal users, elimination of coastal pumping would nearly double the basin sustainable yield.

<u>Watershed Management</u>. Groundwater stability could be enhanced by implementing watershed management measures that would protect key areas of recharge. These areas include the native vegetation and agricultural lands, particularly those located in the eastern portions of the Pajaro Valley. This is especially important for the Pajaro Valley because clay layers present in the groundwater basin inhibit deep percolation through much of the central and western portions of the Pajaro Valley. **As** a result, deeper aquifers rely upon these undeveloped areas for recharge via surface water infiltration and rainfall. Therefore, if these areas were subject to impervious development, infiltration of precipitation would be reduced, and the basin yield from these deeper aquifers would decrease.

<u>Well Management.</u> Well management is critical to ensure maximum groundwater quality in the Pajaro Valley because wells can serve as conduits for transport of contaminated water from one aquifer to another. For example, some of the older wells constructed in the Pajaro Valley have multiple screen intervals to extract water from more than one aquifer. This type of construction can allow for water to flow from one aquifer to another, which can be especially deleterious if one of the aquifers is intruded with seawater or otherwise contaminated. Therefore, it is important that the **PVWMA** undertake a comprehensive well management program with regard to well decommissioning and well replacement.

Additional water supply, storage and distribution projects will be required in order to balance the basin.

As shown in Table ES-1, water conservation and pumping management alone will not satisfy the water demand within the Pajaro Valley, and development of additional water supplies is essential to balancing the groundwater basin.

The quality of the additional water supplies is also important.

Although Table ES-1 provides a breakdown of the *quantity* of additional water supplies required to balance the basin, it does not address the water *quality* requirements for these supplies. The water supplied to balance the basin must be suitable for its intended uses. Specific water quality parameters of concern for agricultural irrigation include:

- Salinity,
- Sodium hazard,
- Chloride and sodium toxicity, and
- Pathogens (such as *Phytophthoru*).



Ground Water Balance	Current Conditions (AFY)	2040 Conditions (AFY)	
Agricultural Water Use			
Agricultural Demand	59,300	64,400	
Agricultural Conservation	(4,500)	(4,500)	
Other Surface Water Diversions	(1,000)	(1,000)	
Net Agricultural Demand on Ground Water	53,800	58,900	
Urban Water Use			
Urban Demand	12.200	16,100	
Urban Conservation	(500)	(500)	
Corralitos Creek Filter Plant	(1,100)	(1,100)	
Net Urban Demand on Ground Water	10,600	14,500	
Total Demand (with Conservation and Surface Water Diversions)	64,400 (64,000 rounded)	73,400 (73,000 rounded)	
Basin Sustainable Yield	(24,000)	(24,000)	
Remaining Overdraft	40,000	49,000	
Increased Yield due to Pumping Management'	(24,000)	(24,000)	
Required Supplemental Water Supplies	16,000	25,000	

Table ES-1: Required Supplemental Water Supplies

Notes:

1. Estimated increase in sustainable yield. If supplemental supplies are 100% reliable, the 'Increased Yield due to Pumping Management' is 24,000 AFY. The level of increased yield decreases as the variability of the supplemental supplies increases.

The tolerance of crops to various water quality constituents can vary by crop and soil type, and different varieties of the same crop can exhibit markedly different growth responses to waters of similar quality. Crop tolerance to (1) constituents in the irrigation water, (2) soil conditions, and (3) prevailing climate are important factors in assessing the suitability of a particular water for irrigation. In order to minimize on-health impacts and optimize crop yield, the stated water quality objectives are 500 mg/L TDS, 140 mg/L chloride, and an adjusted SAR of 3.0.

This Draft Revised BMP identifies a wide range of additional water supply sources.

These projects, although described separately below, may be combined in various ways to develop alternative basin management strategies to address basin overdraft and water quality concerns. Each such strategy is typically composed of several common elements: water source of suitable quality, conveyance, storage, and distribution. It should be noted that although two given strategies may share a common project component, the cost and yield of this component could vary depending upon the overall project composition. Locations of these project components are shown in Figure ES-2, and brief descriptions of each project are provided below:

Coastal Distribution System (CDS). This project is necessary to eliminate coastal pumping and optimize the basin without affecting current agricultural practices in coastal areas. The CDS will deliver water to those areas where coastal pumping will be eliminated, and will consist of nearly 26 miles of pipeline delivering water to over 200 agricultural parcels. (See Figure 4-1).

Harkins Slough Project w/ Supplemental Wells and Connection. This project involves the diversion of water from Harkins Slough between December and May to the Harkins Slough recharge basin for storage through percolation into the underlying aquifer until the irrigation season, when it will be extracted and delivered to the CDS for distribution. This project also includes the construction of additional water supply wells to supplement the deliveries of extracted Harkins Slough water. The construction of the Harkins Slough diversion structure and recharge basin is scheduled for completion in Fall 2001. The expected yield from Harkins Slough is approximately 1,100 AFY, with additional water being provided by the supplemental wells. (See Figure 4-2).

Murphy Crossing with Recharge Basins. The Murphy Crossing Project involves the diversion of water from the Pajaro River between December and May for direct irrigation use and for storage in the underlying aquifer at four recharge basins. During the summer irrigation season, the stored water would be extracted and used for irrigation purposes. The expected yield for the Murphy Crossing Project is approximately 1,600 AFY, including both direct use and underground storage. However, this project cannot be implemented until environmental concerns brought forth by the Department of Fish and Game (DFG) and the National Marine Fisheries Service (NMFS) are addressed. (See Figure **4-3**).

Watsonvilie Slough with North Dunes Recharge Basin. The Watsonville Slough Project would expand on the Harkins Slough Project by diverting water from Watsonville Slough between December and May for storage in the groundwater aquifer. Diverted water would be filtered and stored in the shallow groundwater aquifer at the proposed North Dunes Recharge Basin. The expected yield for the Watsonville Slough Project is approximately 1,200 AFY. Implementation of this project will require the PVWMA to obtain a water rights permit, and a likely mitigation measure for this permit could be restoration of Watsonville Slough. (See Figure 4-4).

College Lake, Pinto Lake Diversion. The College Lake Project would increase the total storage capacity of the lake from approximately 1,400 **AF** to approximately 2,000 AF via construction of a new headgate/weir structure. Diversion of water to the lake from the Pinto Lake drainage channel would increase total flow into the lake. Water would remain in College Lake until needed to meet irrigation demands. (See Figure **4-5**).

The expected yield for the College Lake Project is approximately 1,800 AFY. Although the PVWMA submitted a water rights application for the College Lake Project to the SWRCB in 1995 and completed CEQA evaluation in May 1999, protests by DFG and NMFS have slowed the permitting



process. This project cannot be implemented until the steelhead concerns raised by these agencies are addressed and a water rights permit for the Pinto Lake diversion is secured.

Expanded College Lake Project w/ Pinto Lake, Corralitos Creek, Harkins Slough, and Watsonville Slough Diversions, and Aquifer Storage and Recovery. This project would build upon the College Lake project discussed above, and would increase the total storage capacity of College Lake to 4,600 AFY via construction of an earthen dam and saddle dam and additional diversions from Corralitos Creek, Harluns Slough and Watsonville Slough. This project would also involve the use of Aquifer Storage and Recovery (ASR), injecting surface water through wells into the groundwater aquifers for later extraction and delivery for irrigation purposes. (See Figure 4-6).

The expected yield for the Expanded College Lake Project is approximately 6,700 AFY. In order to implement this project, the PVWMA would have to (1) coordinate with DFG and NMFS to address environmental concerns, (2) coordinate with the Division of Safety of Dams to secure the necessary permits for dam construction, (3) secure a water rights permit for Corralitos Creek, and (4) coordinate with the Regional Water Quality Control Board (RWQCB) to establish water quality requirements for use of ASR.

Recycled Water (4,000 AFY) with Blending Facility. This project involves the construction of additional treatment processes and a blending facility at the Watsonville Wastewater Treatment Facility (WWTF) for production of recycled water suitable for irrigation purposes. Water quality data indicate that the recycled water salinity concentrations and TDS values exceed irrigation water quality objectives; therefore, a blending facility or additional treatment will be required to reduce these concentrations. The expected yield of the Recycled Water Project is approximately 4,000 AFY. Implementation of this project will require continued coordination efforts between the PVWMA and

the City of Watsonville, as well as additional permits for the WWTF operations. (See Figure 4-8).

Recycled Water Project, Southeast Dunes Recharge Basin (6,000 AFY). This project includes the construction of the recycled water treatment facilities and blending facility described above, along with the Southeast Dunes Recharge Basin for underground storage of recycled water in the shallow groundwater aquifer during low irrigation demand periods. Stored water would then be extracted during the irrigation season. Water quality concerns are as described in the previous project; however, the Regional Water Quality Control Board may impose additional levels of treatment due to concerns over recharge of recycled water. The expected yield of this project is 6,000 AFY. Implementation of this project will require various funding mechanisms and coordination with jurisdictional agencies. (See Figure 4-9).

Recycled Water Project, Harkins Slough Recharge Basin, North Dunes Recharge Basin

(7,700 AFY). This project combines the Recycled Water Project and blending facility with the Harkins Slough and North Dunes Recharge Basins to provide underground storage of recycled water in the shallow groundwater aquifer. Water would then be extracted during the irrigation season via extraction wells constructed at both recharge basins. Water quality concerns are the same as described for the other recycled water projects. The expected yield of this project is approximately 7,700 AFY. Funding and permitting will also he the main implementation issues for construction of this project. (See Figure 4-10).

Inland Distribution System. This project involves construction of the Inland Distribution System (IDS) to provide a supplemental supply of water to agricultural users located east of Highway 1. The purpose of the larger distribution system is to provide a greater reduction in overall groundwater pumping during periods of high availability of supplemental water supplies, providing a greater reduction in total basin pumping, and thus allowing a greater amount of groundwater to remain in

Executive Summary Page ES-10

storage. The increased amount of groundwater left in storage is then pumped during periods of time when the surface supplies are less than adequate to meet the irrigation needs of the IDS, with the pumped groundwater serving to supplement the available surface supplies. The IDS will deliver water to those areas where coastal pumping will be eliminated, and will consist of nearly 20 miles of pipeline. (See Figure 4-12).

Import Water Project. This project involves the construction of a 23-mile import pipeline for transport of CVP water to the proposed Coastal Distribution System (CDS). The PVWMA currently has a CVP entitlement of 19,900 AFY and an existing contract for 6,260 AFY (acquired from Mercy Springs Water District) from the United States Bureau of Reclamation (USBR). Additional CVP water could be purchased as needed from other water contractors (See Figure 4-11).

However, implementation of an import pipeline project may require resolution of issues relating to Title 34 – Central Valley Project Improvement Act (CVPIA) and Measures D and K. The CVPIA restricted the USBR from entering into new long-term water supply contracts until it fulfills various environmental requirements. Since the USBR is not expected to fulfill these requirements for several years, negotiations for a new CVP contract for PVWMA's 19,900AFY entitlementhave been delayed. Alternatively, PVWMA could purchase additional supplies similar to its purchase of the Mercy Springs Water District CVP contract. Measures D and K were local referenda passed in 1998 with provisions relating to water importation into the Pajaro Valley.

The Draft BMP 2000 evaluated three alternatives for construction of the import pipeline: 48", 54" and 60"- diameter pipelines. These projects and an Out of Basin Water Banking program are discussed below:

<u>60-inch Import Water Project w/ Inland Distribution System (IDS) and Supplemental Wells</u>. This project would involve the construction of a 60" import pipeline to support an initial maximum flow rate of 75 cfs, along with an IDS and supplemental wells to provide in-lieu recharge and dry weather supply, respectively. The larger diameter pipeline provides greater flexibility to adapt to potential increases in future water needs. The expected yield for this project is approximately 10,300AFY.

<u>54-inch Imuort Water Pipeline with Aquifer Storage and Recovery.</u> This project would involve the construction of a 54" import pipeline to support a maximum flow rate of 75 cfs, and would use ASR (injectiodextraction wells) to store and recover CVP water from underground aquifers in the basin. Prior to injection, the CVP water would be filtered for compliance with water quality requirements. The expected yield for this project is approximately 11,900 AFY.

<u>42-inch Import Water Pipeline with Aquifer Storage and Recovery.</u> This project is similar to the 54" pipeline project described above except that the smaller pipeline diameter would only support a maximum flow rate of 40 cfs. The expected yield for this project is approximately 6,900 AFY.

<u>Out of Basin Banking Option</u>. An Out of Basin Water Banking program would establish a basis for the PVWMA to partner with another CVP contractor to allow PVWMA CVP water supplies to be delivered to another CVP contractor during wet and normal years, and during dry years, the CVP contractor would provide a portion of their CVP water to the PVWMA. This option increases the reliability of the CVP supply, and minimizes the need for additional local storage facilities and the size of delivery pipelines. Out of Basin Banking is contingent on developing and negotiating an agreement with one or several CVP contractors/agencies. The expected yield L

for an Out of Basin banking option could be equivalent to either the in-basin in-lieu recharge or the in-basin ASR options.

Bolsa de San Cayetano, Pajaro River Diversion. This project would provide surface storage of 5,000 AF for Pajaro River diversions and would capture limited runoff from a 723-acre drainage area. The expected yield of this project is 5,000 AFY; however, there are significant seismic hazards associated with this project and implementation would require considerable effort with regards to permitting and environmental coordination. (See Figure 4-7).

Seawater Desalination. This project would involve the construction of a desalination (reverse osmosis) plant for treatment of Monterey Bay seawater to provide agricultural irrigation water. The quality of water and yield of this plant would be dependent on the design of the treatment system. Although this project would produce a highly reliable water supply, implementation of this project is inhibited by its high cost of operation, particularly the cost of energy, and the difficulty in securing a discharge permit for the brine discharge.

This Draft Revised BMP presents different basin management strategies that use varying amounts of local and imported water sources.

As discussed earlier, four management strategies were developed to effectively address the basin overdraft and water quality concerns. Each strategy was developed as a concept initiated by the public and/or the PVWMA. As previously stated, the strategies are:

- BMP 2000 Alternative;
- Local-Only Alternative;
- Modified Local Alternative; and
- Modified BMP 2000 Alternative.

Table ES-2 identifies which water supply projects were selected for the given strategies and reiterates the issues associated with each project.

Several criteria were used to assess each basin management strategy.

To further differentiate between the four basin management strategies, each alternative was evaluated based on:

• <u>Can Meet Existing and Future Water Needs</u>. This criterion evaluates the ability of the selected alternative to provide the infrastructure and water supply needed to meet existing and future demands. This is a key element for a given strategy because population growth and agricultural crop changes in the Pajaro Valley may result in significant increases in water demand.

. '

ÿ

-

i

Project	BMP 2000	Local- Only	Modified Local	Modified BMP	Issues
5,000 AF Water Conservation	•	·	↓	•	Requires 5,000 AFY of water conservation
Harkins Slough Project	•	•	•	•	Construction of diversion and recharge basin is complete.
Coastal Distribution System	•	•	•	•	Necessary to eliminate coastal pumping to maximize groundwater yield.
Recycled Water Project (4,000 AFY)	•			•	Blending facility required to meet water quality requirements; additional permits reauired.
Recycled Water Project (6,000 AFY)			•		Blending facility required to meet water quality requirements; additional permits required; additional treatment for recharge of recycled water.
Recycled Water Project (7,700 AFY)		•			Blending facility required to meet water quality requirements; additional permits required; additional treatment for recharge of recycled water.
Murphy Crossing Project	. 🔶				Protests from DFG; additional studies requested by NMFS.
Watsonville Slough Project		•	•		Water rights permit; restoration of the slough probably required.
College Lake Project			•		Protests by DFG and NMFS; water rights permit required.
Expanded College Lake Project		•			Same issues as above two projects; plus water rights permit required for Corralitos Ck. Injection may require reverse osmosis treatment.
60" Import Water Project	•				Implementation requires resolution of CVPIA and Measures D and K.
54" Import Water Project				•	Implementation requires resolution of CVPIA and Measures D and K; requires filtration for injection.
42" Import Water Project			•		Implementation requires resolution of CVPIA and Measures D and K; requires filtration for injection.
Additional 5,000 AFY Water Conservation via Land Fallowing		•			Requires the equivalent of 2,200 acres of basin-wide land fallowing, or approximately 800 to 1,000 acres of fallowing near the coast
Bolsa de San Cayetano Project					Significant seismic, environmental and cost issues eliminated this component.
Seawater Desalination					Permitting difficulties for disposal of brine; cost-prohibitive.

Table ES-2: Projects Selected for Each Basin Management Strategy



- <u>Limited Dependence on Out-of-Basin Water Supplies</u>. This criterion evaluates the dependence of the selected alternative on out-of-basin supplies. Strategies that mainly rely on the development of water supplies that will be directly controlled by the PVWMA are considered to be 'locally sustainable,' although the effects of a drought may be greater than for an import alternative.
- <u>Minimizes Regulatory Hurdles.</u> This criterion evaluates the likelihood of being able to implement the selected alternative without having to overcome significant regulatory or permitting hurdles. An example of such a hurdle would be obtaining a permit for percolation of recycled water since it is unclear whether the RWQCB and other regulatory agencies would allow recycled water percolation without advanced treatment (e.g. reverse osmosis) beyond Title 22 levels.
- <u>Meets Water Ouality Goals</u>. This criterion evaluates the ability of the selected alternative to provide a water supply of suitable quality for its intended users. For example, alternative strategies that rely heavily on recycled water are expected to have the lowest water quality while alternative strategies that rely more on CVP water are expected to have the highest water quality.
- <u>Economic Impact</u>. This criterion evaluates the impact to the local economy that would result from the selected alternative. For example, strategies that have higher costs or require fallowing of significant amounts of farmland would have the greatest economic impacts.

Cost was another criterion used to compare the four basin management strategies. In terms of cost per acre-ft to meet current water demands, the Modified BMP 2000 alternative was found to be the most cost-effective with estimated cost of \$198/AF. The Local Only alternative has the highest unit cost at \$259/AF. Furthermore, the Local Only alternative has significantly higher cost risks than the Modified BMP alternative. These costs risks are related to the cost of meeting regulatory requirements for groundwater recharge with recycled effluent and for the surface water diversions that comprise the Local Only alternative. For example, if the Department of Health Services requires higher levels of treatment for groundwater recharge with recycled effluent, the unit cost of the Local Only Alternative could rise by as much as \$30/AF, which would result in a cost of \$289/AF.

The unit costs presented in the previous paragraph relate to the cost of meeting today's water demand in the PVWMA service area. The costs of meeting future demands would inherently be greater since additional supplies would have to be developed. The costs for meeting future demands need further development, but would include additional projects to provide increased supply, as well as a pro rata share of the project costs to balance the groundwater basin at today's conditions. As do existing water users, future water users benefit from the projects that balance the basin at today's conditions.

A summary comparison of each basin management strategy with respect to the criteria identified above is provided in Table ES-3.

3

Comparison Criteria	BMP 2000	Local - Only	Modified Local	Modified BMP
Total Yield (AFY)	64,000	56,000	64,000	64,000
Capita1 Costs (\$ Million)	\$162	\$128	\$148	\$138
Adjusted Total Annualized Costs (\$ Million)'	\$14.5	\$14.6	\$13.7	\$12.6
Cost Recovery Fee ^b (\$/AF)	\$226	\$259	\$215	\$198
Cost Recovery Fee+ PVWMA Delivery Charge to Those Receiving Delivered Water (\$/AF) ^c	\$318	\$351	\$307	\$290
Can Meet Future Water Demands?	\checkmark		\checkmark	√
Limited dependence on out-of-basin supplies?		1	\checkmark	
Minimizes significant regulatory/implementation hurdles?	\checkmark			1
Meets Water Quality Goals?	1		\sqrt{f}	1
Requires Land Fallowing or Other Measures with Significant Economic Impact?		1		

Table ES-3: Summary Comparison of the Basin Management Strategies

a. Annualized costs included annualized capital cost, operations & maintenance costs

b. Fee is applied to all water users based on first quarter, 2001 construction costs

c. Includes delivery charge of \$92/AF for those customers receiving delivered water

d. Includes **pro** rata share of costs to balance basin at today's conditions and costs of additional water supplies

e. The Local-Only Alternative does not have the ability to meet future increases in water demand

f. Water quality goals are met only during certain times of the year

Conclusions

Conclusions that can be drawn from the comparison of Basin Management Strategies presented in Table ES-3 include:

- The Local Only alternative has the lowest capital cost, but high operations costs, does not meet water quality goals, does not provide the ability to meet future water needs, and is the most costly alternative on a cost per acre foot basis
- The BMP 2000 alternative has the highest capital cost and is the second most costly alternative on a cost per acre foot basis
- The Modified Local alternative is the second least expensive on a cost per acre foot basis, relies heavily on local supplies, but cannot consistently meet water quality objectives
- The Modified BMP alternative is the least costly on a cost per acre-foot basis, meets the water quality goals, and provides flexibility to meet future demands.

0258



County of Santa Cruz

PLANNING DEPARTMENT 701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060

701 OCEAN STREET, **4**^{'+} FLOOR, SANTA CRUZ, CA 95060 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123 ALVIN D. JAMES, DIRECTOR

November 28, 2001

Mr. Charles McNiesh, General Manager Pajaro Valley Water Management Agency 35 Brennan Street V/atsonville, CA 95076

Dear Mr. McNiesh:

C ounty water resources staff have reviewed the draft Revised Basin Management Plan. We would like to offer general and specific comments for your Agency's consideration as it moves to finalize the Plan. Our general comments focus on the understanding that the draft Revised Basin Management Plan (the Plan) is to evaluate scrategies to:

- Balance water demand within the PVWMA service area with sustainable water supplies;
- Prevent seawater intrusion in the area served by the PVWMA; and
- Initiate long-range programs to protect water supply and quality within the basin.

There is no doubt amongst our staff that the draft Revised Basin Management Plan presents alternative strategies that address the objectives as stated. The Agency should be commended for its efforts to refine and expand strategies developed in the Basin Management Plan 2000. County staff continues its support for the Agency's planning that addresses the water supply imbalance in the long-term. We are in agreement that basin conditions warrant a project, that the project by necessity will need to be substantial and that the premiere issue is to solve the problem. It is also our opinion, however, that the draft Revised Basin Management Plan should engage in a broader management scheme for the basin's water resources in the near-term and interim period until the long-term preferred alternative is implemented. Our critique of the Plan would suggest that although the water supply imbalance is thoroughly addressed, additional prescriptions for water resource management in the near-term and interim period could be identified in the Plan.

GENERAL COMMENTS

The request to consider additional prescriptions for water resources management was first expressed in comments to the 1993 Basin Management Plan and was reiterated in regards to the draft Basin Management Flan 2000. Our request for additional management prescriptions has now been deemed by the County as "outstanding issues" to be addressed by the PVWMA. These outstanding issues involve characterization and action to address nitrates, the identification and protection of recharge areas, the impacts of groundwater pumping to stream baseflow or dry reaches in Corralitos Creek, and the deepening of wells into deeper aquifers end the CEQA ramifications of whether an environmental determination is necessary or not. The request to address these outstanding issues was most recently transmitted to your Board Chair in a letter dated June **22**, 2001, signed by Tony Campos, Chairman of the Santa Cruz County Board of Supervisors. A copy of the letter is included as an attachment to this letter.





Our staff recognizes that the draft Revised Basin Management Plan addresses well replacement and states, "that the Revised Basin Management Plan EIR will serve as the CEQA document upon which individuals seeking to deepen wells may rely." We appreciate the inclusion of this issue in your draft Plan. We would additionally suggest that the Plan is the appropriate document to identify and direct implementation of actions to address the re naining outstanding issues. It is our staffs firm belief that the remaining outstanding issues relate to the Plan's third stated objective, "initiate long-range programs to protect water supply and quality within the basin".

Upon reviewing the Plan, two new issues are worthy of a general comment. The first is that land fallowing is not considered on equal footing with other elements, alternatives or strategies. The description provided on $p\epsilon$ ge 3-3 does not accomplish this. Voluntary easements that limit groundwater pumping could possibly be had for less than the full purchase price used to estimate the cost of fallowing on page 3-3. Land trust (e.g. A nerican Farmland Trust or Nature Conservancy), Coastal Conservancy, or federal/state money (e.g. federal Farm Bill or Williamson Act) may be available to subsidize voluntary easements/leases/purchases. The concept of fallowing through voluntary easements or temporary set-asides could be more fully developed in the Plan. The concept is generally dismissed in the plan. The adverse consequences of this approach as a long-term sc lution need to be demonstrated or supported by analysis. Fallowing through voluntary easements or temporary set-asides may warrant consideration by the **PVWMA** in the near-term or interim period until a long-term solution is implemented.

The second new additional issue of concern involves management oversight for the potential proliferation of private wells, protecting water quality consumed in these wells, and developing adequate mitigation for new development within the unincorporated area inside the City of Watsonville's water service area. Our staff traintains a concern that the amended water service policy of the City of Watsonville could lead to random development of private wells in an area once served by municipal water. Staff has additional concern that the presence of nitrates at elevated levels may impair water quality in private wells. County staff would request the Agency include this issue in its Plan to help direct and implement an orderly development of private wells, ir dividual and small water systems in this area where municipal supply has been historically provided.

SPECIFIC COMMENTS

<u>Page</u>	Comment
E S-6 7 able ES-1	No growth in conservation is factored into the demand for 2040 Conditions.
2-9, 2.3.4	The Plan should give an accounting of metered groundwater production and other estimated pumpage. The Monterey Peninsula Water Management District does this annually.
Fig.2-8	Why does the figure not show the chloride content at the dedicated coastal monitoring wells. Wouldn't this additional data be extremely important given the reversed groundwater flow gradient. The point could be emphasized by superimposing groundwater contours onto the figure.
2-21 Fig.2-10	Urban Water Use figures are four years old. This production is metered and should be available
	for review in the Plan. An estimate is provided for year 2000 in Table 2-4. It should be further noted that the slope of use for years 92-96 has increased sharply on Figure 2-10.



- 2-29, 2.9.1 Nitrates are a genuine concern for drinking water quality in wells throughout the Pajaro Valley groundwater basin. This degradation of water quality should influence basin management planning to a much greater level than as is addressed in this and previous basin management plans. The lack of focus on this issue is an outstanding issue that the County has with PVWMA's basin management planning. Increased levels of nitrates in groundwater have been documented in numerous Monterey County data reports, in your State of the Basin report and elsewhere. This degradation is especially noted in water table conditions but it should not be considered as a problem only in shallow wells. A figure with groundwater contours, municipal wells, small and individual water system wells and nitrate hot spots would be revealing of who's at risk and should be considered for inclusion.
- 2-35,36 The presence of nitrates at elevated levels should be included in the description of problem to be solved. This section as drafted only pertains to irrigation water quality objectives. It should additionally consider management planning to meet drinking water quality objectives.
- 3.2,3.1.1 Water Conservation planning should consider a residential ultra low flush toilet rebate (or explain that one is in place). The urban water conservation planning target of 500 AFY is approximately 4% of the 12,000 AFY demand. Is it not possible to plan to achieve a higher target of conservation savings? The urban water use factor of 131 gpd per capita (Table 2-4), when compared to elsewhere in the county, would suggest that greater urban conservation savings are achievable.
- 3.3,3.1.2 The Agency should consider water pricing on increments of use per acre and not on crop type. Growers should be free to choose the crops they grow understanding a rate structure based on increased costs for increased increments of use.
- 3.7,3.5.2 Staff thoroughly supports the Agency for its actions considering well replacement. County staffs concern for managing the deeper aquifer is based on considerations for its overall water balance as well as seawater intrusion. The language in this section could better address this concern for the water balance equation (reduction in the inflow component) as it relates to overdraft and change in groundwater storage in the deeper aquifer.
- 5-17 The last sentences in the first and second paragraphs may be unfounded with regards to limited term conservation easements until a basin-wide or coastal solution is implemented. Limited term conservation easements could be considered in the interim period and should be evaluated against the full cost of purchasing additional CVP contracts and delivery infrastructure.
- 5-18 This section should not assume that growers would be averse to voluntary easements that allow any use except groundwater pumping, or that places a limit on groundwater pumping (for which they are reimbursed). The water quality paragraph could be rewritten, stating that it is a concern, but it may be addressed with marginal extra treatment or blending.
- 5-20 (First paragraph) PVWMA should not assume no fbture increases unless they are prepared to enforce that. This is true of page 5-26 also. Increases in demand from the 1993 BMP (assumed no increases in demand) re-iterates this point. Given the basin's current condition, PVWMA should consider some manner to enforce or regulate a per acre allocation with no fbture increases.
- 5-28 No evaluation or analysis of the pumping of supplemental wells is offered in the Plan. Will a new

0261

pumping depression be created in a confined setting or under water table conditions? How will this depression affect groundwater levels, energy costs associated with pumping lifts and water quality in nearby wells. It would seem that the well construction characteristics of the proposed supplemental wells and the associated aquifer characteristics could be more fully developed in the Plan.

- 5.33,5.5.1 It should be noted that the concept of purchasing CVP water on the open market is the same concept as voluntary easements since the CVP water would be available from land fallowed elsewhere.
- 5.34,5.5.3 The policy and regulatory issues associated with land fallowing need greater development in the Plan in order to analyze or discount this alternative as inadequate over the long-term.
 - 5.5.5 The statement that "These adverse impacts give it a low economic score" needs to be demonstrated or supported with analysis.
- 5.35 (first bullet point beneath table 5-14) The statement that "The associated reduction in agricultural production would be costly to implement and would cause significant economic impacts to the local economy.." needs to be demonstrated or supported with analysis.
- 6-2 , (Land Assessments) Using land assessments as a method to pay for water service is difficult to justify. It reduces economic incentives for conservation (i.e., the price of water is dependent on a land assessment rather than the amount of water used). The more directly and completely water price is linked to level of use, the better.

CONCLUDING REMARKS

In closing, although our comments our lengthy, we are pleased to have had the opportunity to review your draft Revised Basin Management Plan. We would like to acknowledge your agency's effort to prepare this draft plan. The Plan identifies several sustainable, long-term strategies for balancing the groundwater basin and eliminating seawater intrusion. Staff is especially gratified that the draft Plan also addresses the outstanding issue of well replacement and that the Agency's consultants have recently begun to meet with County staff to address the nitrate issue. We hope that our comments are constructive as they relate to basin management planning issues. Our staff would be happy to meet with yours to help clarify or expand upon any of the comments we have offered.

As always, we appreciate the interaction of your staff with ours and we offer our support to you and the Agency as you continue to meet and address water resource issues throughout the Pajaro Valley.

Respectfully,

huer La elizze Bruce Laclergue

Bruce Laclergue Water Resources Manager

blc/pvletter01-02

cc: Environmental Health Services



County of Santa Cruz

0262

BOARD OF SUPERVISORS

701 OCEAN STREET, SUITE 500, SANTA CRUZ, CA 95060-4069 (831) 454-2200 FAX: (831) 454-3262 TDD: (831) 454-2123

JANET K. BEAUTZ FIRST DISTRICT ELLEN PIRIE SECOND DISTRICT MARDI WORMHOUDT THIRD DISTRICT TONY CAMPOS FOURTH DISTRICT JEFF ALMQUIST

June 22, 2001

Frank Capurro, Chair Pajaro Valley Water Management Agency · 36 Brennan Street Watsonville, CA 95076

> RE: REQUEST FOR THE PAJARO VALLEY WATER MANAGEMENT AGENCY (PVWMA) TO ADDRESS OUTSTANDING ISSUES IDENTIFIED BY COUNTY WATER RESOURCE STAFF

Dear Mr Kapurro:

On May 22, 2001, the Santa Cruz County Board of Supervisors accepted a progress report entitled "Ongoing Activities to Mitigate Overdraft In The Pajaro Valley." A copy of the report is attached to this letter. In the report, our Water Resources staff states that progress is being made on many fronts. Our Board and staff would like to congratulate your Agency for its notable achievements in basin management planning and water conservation.

At the same time, our staff has informed us of four "outstanding" issues which have not yet been addressed by the PVWMA. These issues are termed "outstanding" because they were first transmitted to the PVWMA in the County's comments to the **1993** BMP and, again, in comments to the draft BMP2000. The outstanding issues involve characterization and action to address nitrates, the identification and protection of recharge areas, the impacts of groundwater pumping to stream baseflow or dry reaches in Corralitos Creek, and the deepening of wells into deeper aquifers, and the CEQA ramifications of whether an environmental determination is necessary or not. A copy of the County's previous comments to the **1993** BMP and draft EIR, and to the BMP 2000, are also included as attachments to this letter.

June 22, 2001 Page 2

The County, at the request of its Water Resource staff, would like to know how and when the PVWMA intends to address these issues. Our Board recognizes that our respective managers will be meeting soon to discuss the development of an impact fee for water supply development and expanded water conservation programs. Perhaps the two managers can also set a mutuallyagreeable timetable to address the outstanding issues as well.

In conclusion, the County would like to again thank the PVWMA for its notable achievements and request that your staff address the outstanding issues as identified previously and reiterated, in this letter.

Please feel free to contact Bruce Laclergue at 454-3112 if you have any additional questions about issues raised in this letter.

Sincerely, TONY CAMPOS, hairman Board of Supervisors

TC:lg Attachments cc: Bruce Laclergue, Planning Clerk of the Board

2481B4