

1 Purpose of the Revised BMP

Pumping of groundwater to meet water demand within the Pajaro Valley Water Management Agency's (PVWMA) service area has caused a significant drop in groundwater elevations, resulting in seawater intrusion. These impacts indicate that current groundwater pumping practices are in excess of the sustainable yield of the groundwater basin, and must be corrected. Continued over pumping of the groundwater basin will lead to continued seawater intrusion, rendering an ever increasing portion of the groundwater basin unusable for agricultural irrigation and potable uses.

The purpose of the Revised Basin Management Plan (BMP) is to present and evaluate basin management strategies and to select a Recommended Alternative that will enable the PVWMA 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.

The management strategies evaluated in this plan include a range of potential projects dealing with development of local surface water supplies, recycling of treated water from Watsonville Wastewater Treatment Facility (WWTF), storage of water in the groundwater aquifers (groundwater banking) for dry years, storage of water for delivery during irrigation demand, and importation of water from the Central Valley Project (CVP). Also included are possible non-structural projects such as demand management measures, modification of pumping practices, and land fallowing.

Each strategy was developed as a concept initiated by the public and/or the PVWMA. A full evaluation of all potential projects was conducted, both inside and outside the PVWMA service area. The resulting strategies are presented in this document, and are considered to be the best scenarios for each concept.

- **BMP 2000 Alternative.** A recommended alternative was previously identified in the original draft BMP 2000 document. This strategy involved the implementation of several projects, including importation of water, storage of water in the groundwater aquifers (banking) via in-lieu recharge, development of local water supplies, and water conservation. However, public review of that document indicated the need to further assess the merits of other management alternatives. This strategy is included in the Revised BMP for comparison purposes.
- **Local-Only Alternative.** This strategy focuses solely on the development of local water supplies and implementation of demand reduction measures to balance the basin. It does not include any projects that involve importation of water from outside sources, but does develop storage of local supplies in both College Lake and in the groundwater aquifers through percolation and aquifer storage and recovery¹ (ASR).
- **Modified Local Alternative.** This strategy consists of a small import water project (42-inch pipeline) with ASR and local water supply projects including the Harkins Slough Project, a Watsonville Slough Project with North Dunes Recharge Basin, a College Lake Project with Pinto Lake Diversion, and a Recycled Water Project with the Southeast Recharge Basin. This alternative is a modification of the Local-Only Alternative eliminating land retirement and incorporating a minimum diameter import pipeline.

¹ Aquifer storage and recovery consists of injection and extraction wells used to bank water during above normal water years and provide supplemental supply during below normal water years.

- **Modified BMP Alternative.** This strategy consists of an import water project with ASR and local water supply projects including the Recycled Water Project and the Harkins Slough Project. This alternative is a modification of the BMP 2000 Alternative eliminating the Murphy Crossing Project and the Inland Distribution System. This alternative evaluates ASR in conjunction with CVP supply and a reduced import pipeline size.

These strategies build upon the 1993 BMP and incorporate several of the local water supply projects that were recommended in that Plan. Since completion of the 1993 BMP, the PVWMA has conducted studies and evaluations of local water supply projects, published a number of studies, including the draft BMP 2000, and is completing construction of the Harkins Slough Project. In addition, the PVWMA has completed extensive groundwater evaluations and modeling that have been used to quantify the extent, magnitude, and character of the overdraft situation. This information was used in the development and assessment of the strategies presented herein.

Following completion of the Draft Revised BMP, the PVMWA proceeded with public workshops and outreach effort to engage the public and stakeholders of the considered strategies. The public was encouraged to comment on the proposed projects and strategies so that the PVWMA could finalize a recommended strategy that is responsive to the concerns and needs of its water users. A companion draft Environmental Impact Report (EIR) was also completed in September 2001 and was available for public review and comment. The Final EIR is scheduled for certification by the PVWMA Board of Directors in February 2002.

The Modified BMP 2000 Alternative was selected as the basis for the Recommended Alternative based on guidance from the PVMWA Board of Directors. The PVWMA Board of Directors identified the Modified BMP 2000 Alternative with minor enhancements as the Recommended Alternative after taking into account the public and stakeholder input, engineering and cost evaluations, environmental impacts, and direction from PVWMA staff. The Recommended Alternative is summarized below and is described in detail in Section 6.

- **Recommended Alternative.** This alternative consists of an import water project with out-of-basin banking, and local water supply projects that include the Recycled Water Project and the Harkins Slough Project. In addition, five supplemental wells are to be constructed along the import pipeline alignment. Flexibility is provided to allow sale of imported water to users along the pipeline alignment, if there is interest by these growers. This alternative also includes recommendations to enhance and develop existing and new watershed management programs.

The Revised BMP includes an implementation section (Section 7) identifying schedules and important tasks, and a water rate section (Section 8) describing the recommended funding plan. Following completion, the Revised BMP will be presented to the PVWMA Board of Directors for approval and adoption of a Recommended Alternative strategy. The Final EIR will also be presented to the Board of Directors for its certification.

1.1 Organization of the Revised BMP

The Revised BMP is organized into eight major sections as follows:

Section 1 – Purpose of the Revised BMP. This section describes the purpose of the Revised BMP and its relationship to the 1993 BMP and the draft BMP 2000. Section 1 also presents the organization of this report.

Section 2 – State of the Basin. This section describes the current state of the groundwater basin that provides nearly all of the water used in the PVWMA service area. It describes the degree of overdraft that has occurred in the basin and how this has caused seawater intrusion. This section also describes the sustainable yield of the groundwater basin under current irrigation, pumping, and water demand conditions.

Section 3 – Management Measures. This section describes the options available to minimize water demand as well as options that can be used to increase the sustainable yield of the groundwater basin. These options include water conservation and land retirement. This section also describes watershed management programs that could be implemented to protect water resources in the Pajaro basin.

Section 4 – New Water Supply Projects. This section describes the new water supply projects that could be used in conjunction with measures from Section 3 to balance the basin. These projects include new surface water supplies, recycled water, importation of water from outside the basin, and water storage options.

Section 5 – Basin Management Strategies. This section combines the projects described in Sections 3 and 4 in different combinations to develop alternative Basin Management Plans. The alternatives presented range from total reliance on local water supplies to major reliance on imported water supplies. A total of four strategies are presented and compared on non-cost and cost bases.

Section 6 – Recommended Alternative. This section details the Recommended Alternative including water conservation, import water project with out-of-basin banking, water recycling project, Harkins Slough Project, and various watershed management programs. The Recommended Alternative was identified based upon guidance from the PVWMA Board of Directors and public input. In addition, this section includes a discussion of the selection process and the outreach efforts completed by the PVMWA during development of the Revised BMP.

Section 7 – Implementation. This section identifies schedules and outlines important implementation tasks of the Recommended Alternative.

Section 8 – Potential Rate Plan for Recommended Alternative. This section identifies a differential flat rate structure as the recommended potential rate structure to be implemented to recover project costs for the Recommended Alternative. This section also includes discussion on rate limitations, other potential rate structures, and the public process utilized to identify the recommended rate plan.