



## Pajaro Valley Water Management Agency Overview

### About PVWMA

The agency was established by state charter through a special local election in 1984. The total area of the agency, which includes portions of southern Santa Cruz County, northern Monterey County and a small area within San Benito County, is about 110 square miles, or about 70,000 acres.

The purpose of this agency is to efficiently and economically manage existing and supplemental water supplies in order to prevent further increase in, and to accomplish continuing reduction of, long-term overdraft and to provide and insure sufficient water supplies for present and anticipated needs within the boundaries of the agency. Average annual water use in the basin is 55,000 acre feet\* per year (AFY). Agriculture makes up 85% of the water usage in the basin, with the remainder used for residential and industrial purposes.

### Board of Directors

PVWMA is governed by a seven-member Board of Directors, who must live within the agency boundaries and be registered voters. Four directors are directly elected by voters within their Division for overlapping terms of four years each. The remaining three directors are separately appointed by Monterey County, Santa Cruz County and the City of Watsonville. Appointed directors serve two-year terms and must derive at least 51 percent of their net income from agriculture.

#### ELECTED

Division A: Dwight Lynn, Treasurer

Division B: Rich Persoff

Division C: Dennis Osmer

Division D: John Eiskamp

#### APPOINTED

Monterey County: Salvador Vasquez

Santa Cruz County: Dave Cavanaugh, Vice Chair

City of Watsonville: Rosemarie Imazio, Chair

### Seawater Intrusion

The yellowed area on the map below depicts the extent of seawater intrusion in the coastal Pajaro Valley. Not all wells within the intruded zone are impacted with high salts but many are and more are reported each year.

\* One acre foot is equal to 325,000 gallons of water, or the amount that would cover one acre of land one foot deep.

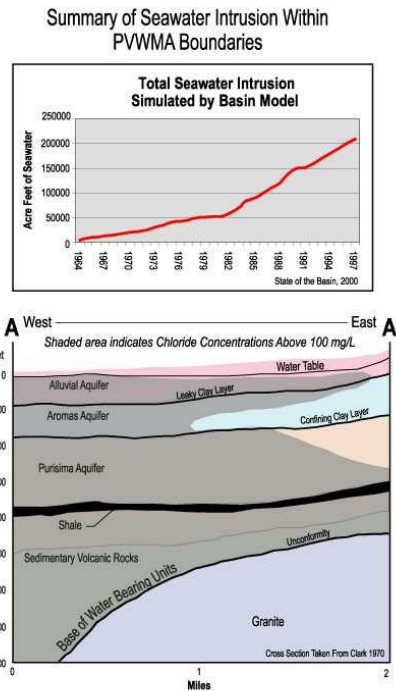
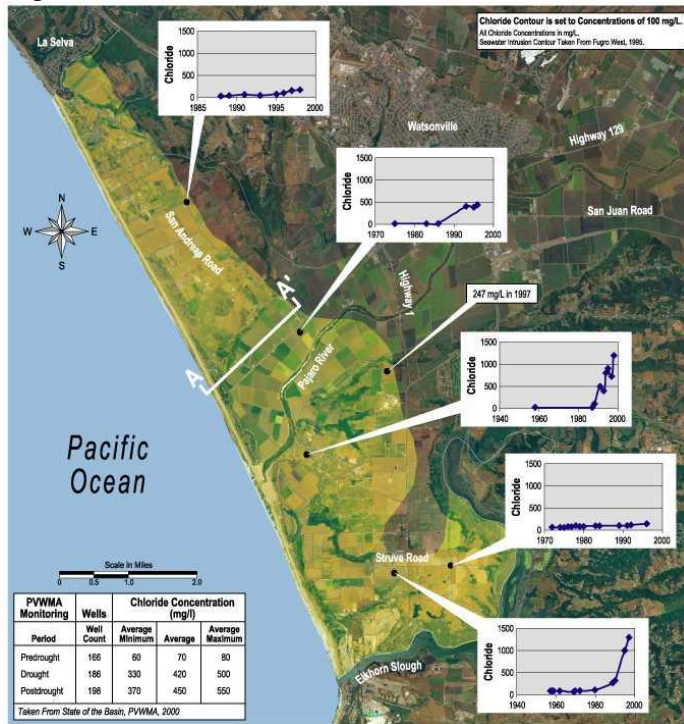


Figure 1: Location of Area Impacted by Seawater Intrusion

The Pajaro Valley is ranked fifth in California for agricultural production due to the fertile soils and ideal climate for growing lettuce, artichokes, strawberries, and raspberries (Pajaro Valley Chamber of Commerce). However, groundwater overdraft and seawater intrusion threaten our vital, agricultural economy. Current groundwater pumping exceeds the safe yield of the basin, resulting in basin overdraft and leading to seawater intrusion. Studies of the basin indicate that reducing groundwater pumping in the coastal zone and replacing it with a supplemental surface supply is needed to bring the groundwater basin into balance.

### SUPPLEMENTAL WATER PROJECT

PVWMA delivers supplemental water to the coastal zone to reduce the progression and impacts of seawater intrusion. Additional supplemental water is needed to bring the groundwater basin into balance, and this may be achieved by additional projects, intensified conservation and some land fallowing. The Agency has convened an Ad Hoc Basin Management Plan Committee of interested stakeholders to research alternatives, obtain engineering analyses and provide advice to the Board of Directors as to the projects and programs to be considered in an updated Basin Management Plan.

Key to bringing the overdrafted groundwater basin into balance are the existing projects and infrastructure that provides for coastal supplemental water deliveries. The Coastal Distribution System (CDS) is the pipeline that delivers supplies –the supplies come from the Harkins Slough Project, Recycled



In September 2007 a 1,400-foot horizontal directional drill (HDD) was used to install a 36-inch diameter steel pipe under the Pajaro River to deliver irrigation supplies to Monterey County.

Water Facility (RWF), supplemental wells and City of Watsonville supply. Cost of these combined projects is over \$60 million with State and federal grants paying for a majority of the project costs.

The Harkins Slough Project consists of a pump station on Harkins Slough near the coast that diverts winter flows to a 12-acre recharge basin. Since its completion, 7,000 acre feet of surface water that would otherwise have discharged into the ocean has been recharged into the coastal aquifers.

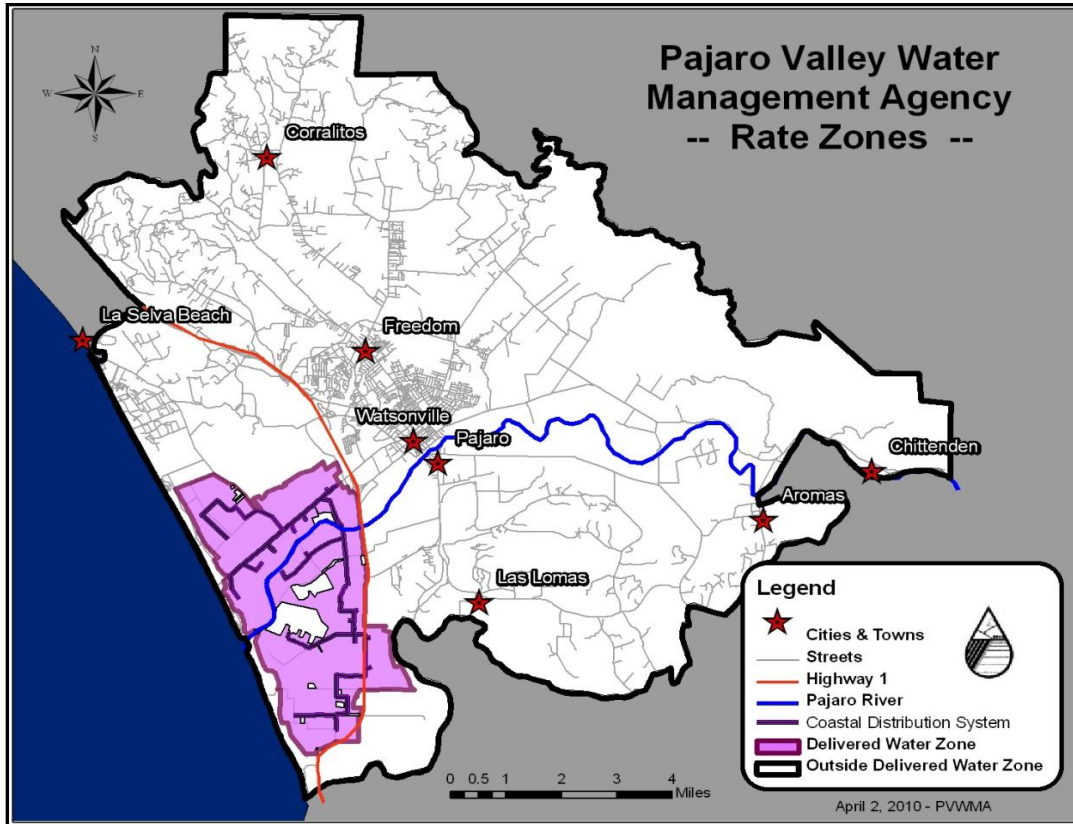
The Coastal Distribution System pipeline (CDS) has been delivering supplemental water to the coast since 2002. The Monterey County portion was completed in parallel with the Watsonville Area Recycled Water Treatment Facility in 2009. The CDS is a common element of all management strategies considered in the PVWMA 2002 Revised Basin Management Plan (BMP). The CDS project is necessary to deliver water to the coastal areas, eliminate coastal pumping, and optimize use of the groundwater basin without affecting current agricultural practices. The CDS has delivered over 10,000 acre feet of irrigation supply to the coastal area in the last decade, offsetting pumping of wells in and near the seawater intrusion front.

### **Watsonville Recycled Water Treatment Facility (RWF)**

The RWF provides 4,000 AFY of Title 22 disinfected tertiary recycled water for agricultural use in the Pajaro Valley coastal area. At full delivery, the 4,000 AFY of recycled water will be blended with up to 3,000 AFY of groundwater and surface water to meet delivered water quality objectives set by local growers. This combined supply of 7,000 AFY of blended recycled water will be delivered to farms in the Pajaro Valley coastal zone via the CDS project.



Additional water supplies identified in the new Basin Management Plan will be added to the 7,000 AFY of blended recycled water to achieve balance of the groundwater basin. With delivery of the 7,000 AFY of blended recycled water, modeling has shown that the basin is still overdrafted an average of 12,000 acre feet annually.



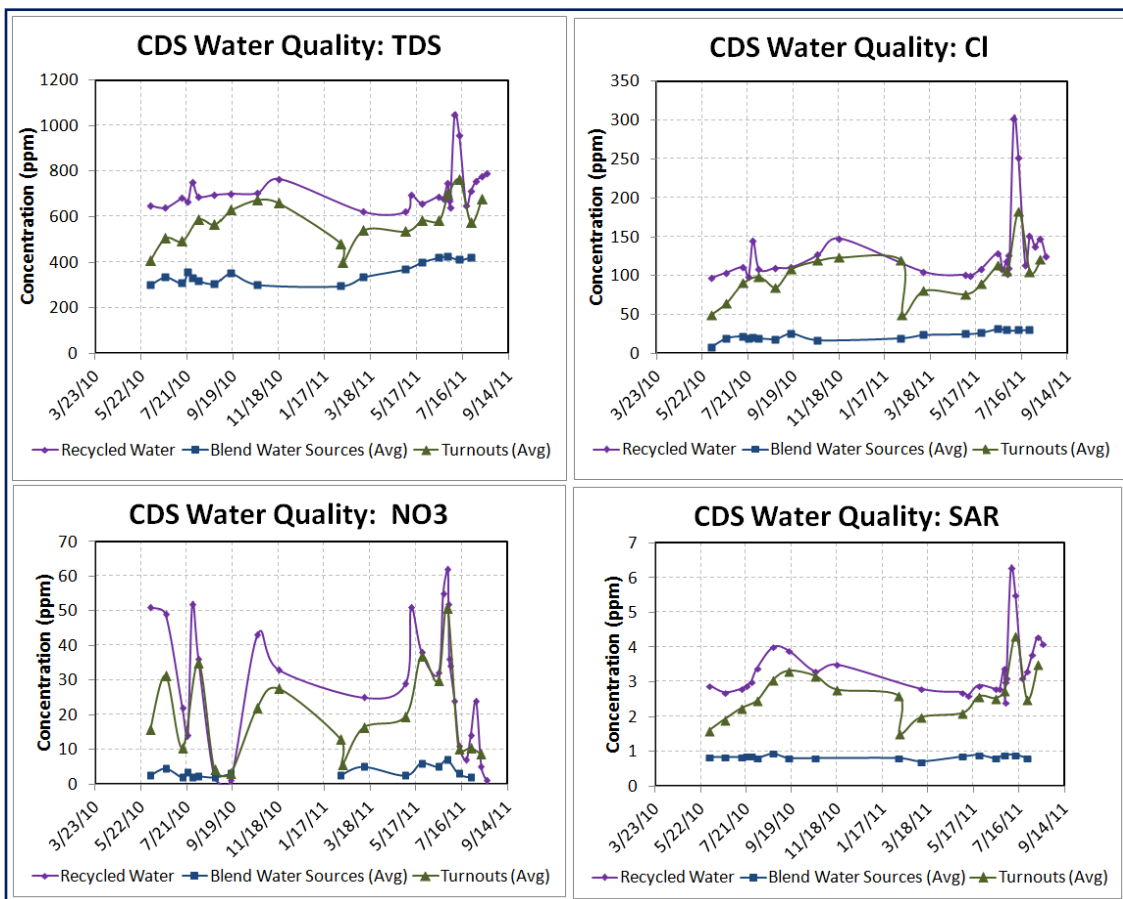
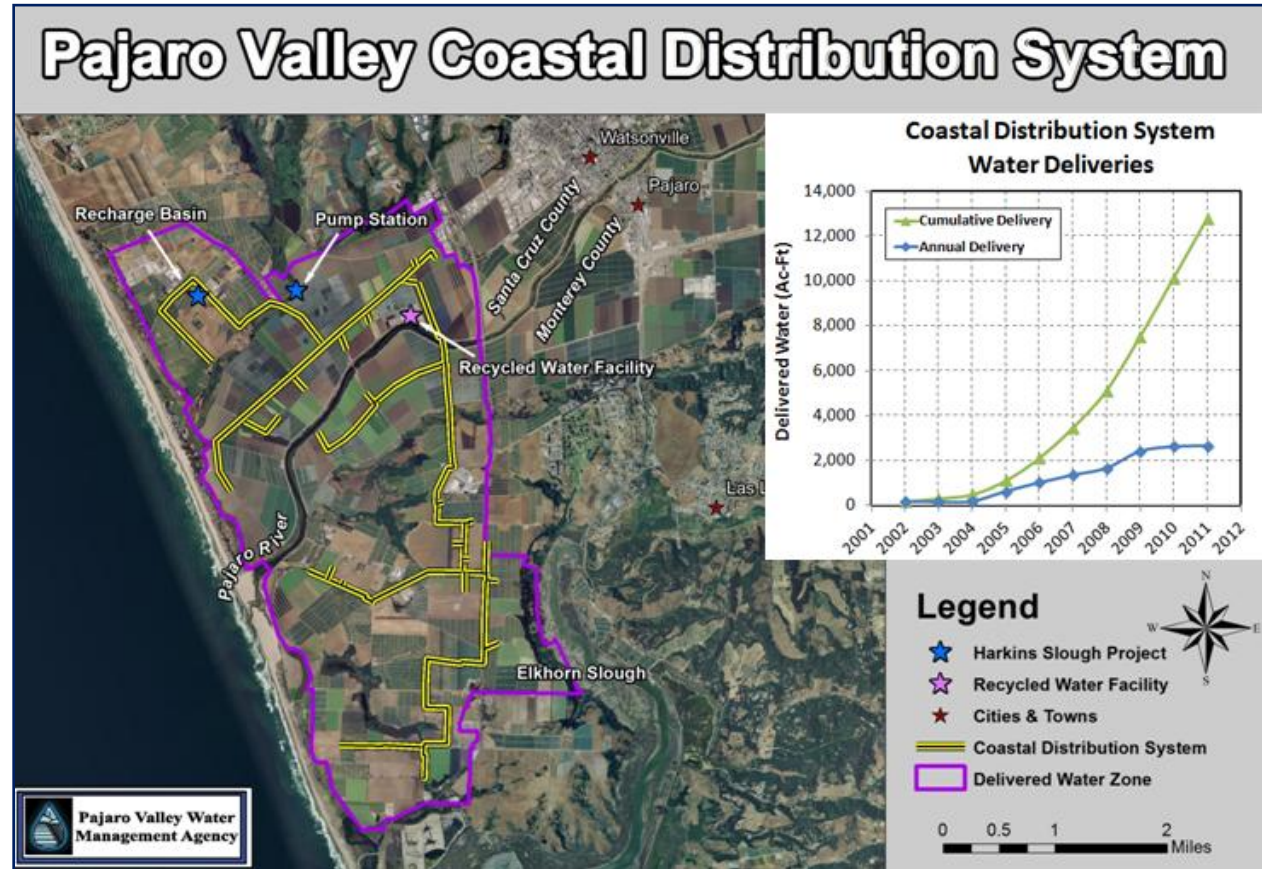
**New Water Rates**

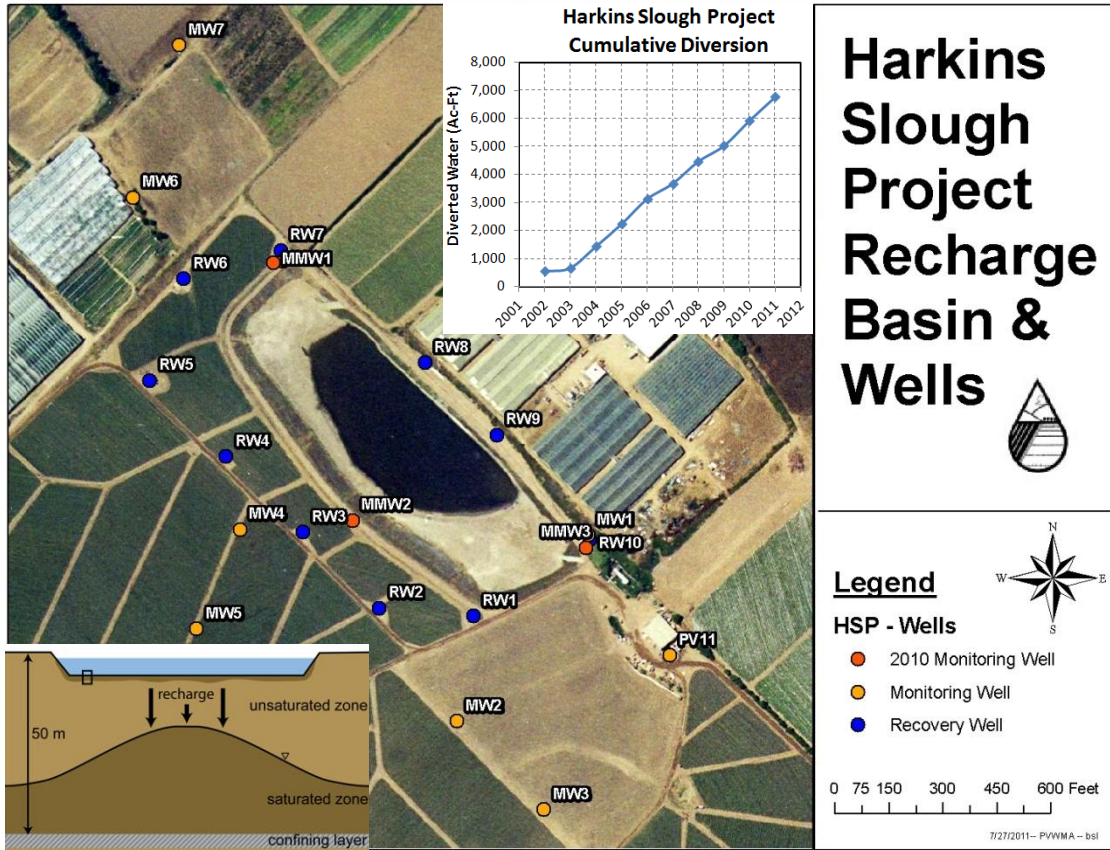
With a successful election in summer of 2010, water rates were established at a level that allows the PVWMA to continue its work of addressing seawater intrusion and balancing the overdrafted ground water basin.

Augmentation charges are applied to all wells that extract groundwater from the basin. Metered wells outside of the Delivered Water Zone (white area on map) \$166 per acre foot based on metered usage. Metered wells inside the Delivered Water Zone (purple area on map) pay \$200 per acre foot based on metered water usage. All unmetered (rural residential) well parcels with wells will be billed \$94 per year, based on an estimated 0.59 acre feet per residence water usage. Delivered water customers irrigating with blended recycled water from the Coastal Distribution System pay \$313 per acre foot.

Service Rate Class	Cost of Service Rate (Unit Cost Per Acre Foot)
Augmentation Charges: Metered Wells - Outside Delivered Water Zone	\$166
Metered Wells - Inside Delivered Water Zone	\$200
Unmetered Wells (Rural Residential)	\$160 (or \$94 annually per residence with a well)
Delivered Water Charge	\$313

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**HSP Monitoring Wells:  
 2008 --> 2010 Water Years**

