

# MONTEREY PENINSULA WATER MANAGEMENT DISTRICT 2005 ANNUAL REPORT

## Aquifer Storage and Recovery Benefits Community and Environment

The District is pleased to report the successful implementation of its innovative Aquifer Storage and Recovery (ASR) Project. This project was developed because sufficient water flow from the Carmel River is required to protect fish and river habitat. In most years, there is excess water flow in the River during winter and spring periods. To capture this water for community use, the District began a program in 1998 of diverting a portion of excess winter and spring flows to the Seaside Groundwater Basin through California American Water's (Cal-Am's) water pipes. The water is stored in the basin and later recovered and used by Cal-Am's customers, offsetting a portion of Cal-Am's need to pump from the Carmel River during drier times when fish and river habitat are at greater risk.

The District's ASR project test facilities have been in operation since 1998 and approximately 1,600 acre-feet\* (AF) of

excess winter and spring flows have been injected into the Seaside Basin. About 1,100 AF have been recovered and delivered to the community via the Cal-Am system as part of the test program. In 2005, District staff continued testing, with emphasis on water quality, by injecting about 350 AF into the basin. The District is also pursuing an expansion of the Project by adding a second injection well. The expansion project envisions a maximum diversion of 2,400 AF per year from the Carmel River, and an average yield of about 1,050 AFY from the Seaside Basin. The ASR Project is complementary to other proposed larger, long-term water augmentation projects.



It is good for the environment to take water from the Carmel River in winter and spring when flows are high and store it in the Seaside Groundwater Basin. The stored water is used during the summer so more water remains in the river for fish and wildlife.

\* An acre-foot (AF) of water is enough to cover a football field with one foot of water or supply four Monterey Peninsula homes with water for a year.

### VISION STATEMENT

The MPWMD:

1. Will strive to serve as a catalyst in collaboration with public and private entities for environmentally responsible solutions that result in a reliable and legal water supply; and
2. Shall be a fiscally responsible, professionally and publicly respected leader in managing water resources.

### MISSION STATEMENT

The mission of the MPWMD is to manage, augment and protect water resources for the benefit of the community and the environment.

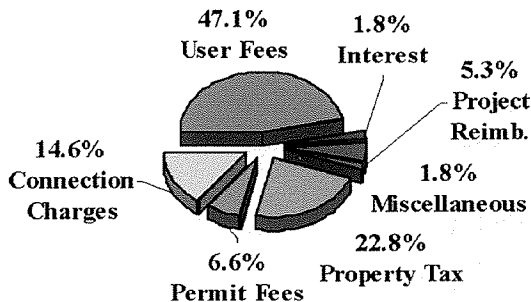


**Financial Update**

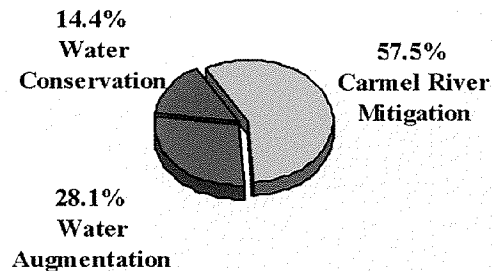
Total revenues received in Fiscal Year 2004-05 were \$3,935,593 while expenditures totaled \$4,266,594. The difference of \$331,001 was funded from general operating reserves set aside in previous years to fund projects such as those the District is currently pursuing. As of June 30, 2005, a balance of \$2,223,274 remained in the general operating reserves account.

The adopted Budget for FY 2005-06 anticipates revenues of \$4,464,000 and expenditures of \$4,650,800 combined with the use of an additional \$186,800 in general operating reserves. The FY 2005-06 budget was prepared using a series of strategies developed by the staff and adopted by the Board in 2004 reducing the use of general operating reserves to balance the budget. Included in the budget was a 1.2% increase to the user fee to provide funding for expansion of the District's ASR Project.

**FY 2004-05 Revenues  
\$3,935,593**

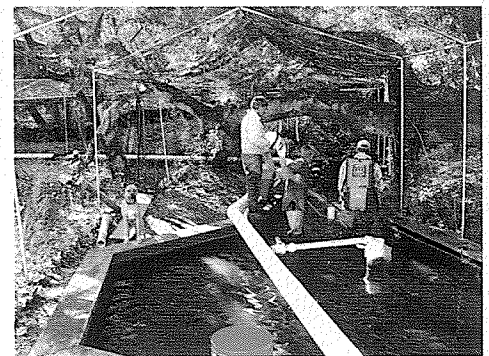


**FY 2004-05 Expenditures  
\$4,266,594**

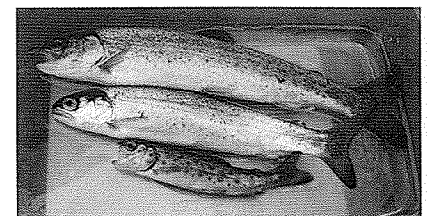


**Steelhead Rescue and Rearing Season**

During 2005 District staff rescued a total of 20,800 steelhead from drying reaches of the Carmel River. All of the fish rescued were transported to the District's Sleepy Hollow Steelhead Rearing Facility. A total of 24,600 fish were brought to the Facility through September 2005, including 3,800 fish from rescues conducted by the Carmel River Steelhead Association. Of this total, 24,500 fish were stocked in the tanks and rearing channel. The overall survival rate of fish held at the Facility in 2005 was 57%, or 13,900 fish. This was a favorable result compared to a summer survival rate of 10% to 40% under natural conditions. All surviving fish were in excellent physical condition. On January 6, 2006, District staff began releasing fish into the Carmel River at key locations best suited for their survival. The remaining fish were released from the rearing channel on March 3, 2006, and the Facility was shut down for the remainder of the winter.



(Above) Rearing channel at Sleepy Hollow Steelhead Rearing Facility. The District rescued 20,805 steelhead from the Carmel River and cared for them at the facility until river flows were high enough to release the fish back into the river.



(Right) These live steelhead reared at the Sleepy Hollow facility will be weighed and measured before being released into the Carmel River. Survival rates at the facility in 2005 were favorable.

## **Year 2005 Accomplishments and Milestones**



### **Water Supply**

- Updated a comprehensive matrix on water supply concepts that could meet community needs. Concepts included three desalination plants, aquifer storage and recovery (ASR) in the Seaside Basin, and two types of recycled water projects.
- Developed an Environmental Impact Report/Assessment for proposed ASR Project expansion as well as alternatives.
- Obtained temporary water rights and diverted 350 AF of Carmel River water into the Seaside Basin (ASR); conducted water quality tests to quantify beneficial effect on Basin.
- Participated in Monterey County led meetings of water district, city and county representatives regarding a potential governance structure for a publicly owned regional water supply project.



### **Environmental Protection**

- Continued efforts on Seaside Basin Groundwater Management Plan, including completion of a major technical study assessing the basin status and recommending solutions.
- Determined the amount of water that can be withdrawn annually from the Seaside Basin without the risk of seawater intrusion, which was later adopted by the court during an adjudication trial.
- Provided technical advice and barrier beach management on Carmel River Lagoon improvements.
- Conducted emergency bank stabilization work along a portion of the Carmel River.
- Maintained flow monitoring stations at 4 sites on the Carmel River and 11 sites on creeks to better assess surface water resources within the District.
- Counted adult steelhead at the San Clemente Dam fish ladder to assess the winter run.
- Collected surface water quality data from 3 Carmel River sites and water temperature data from 8 locations, focused on habitat conditions for rearing steelhead.
- Collected groundwater level data at 70 wells and groundwater quality data at 25 wells from the District's monitor well networks in the Carmel River and Seaside Basins.
- Conducted aquatic insect sampling at 5 locations as an indicator of habitat quality for all aquatic Carmel River life.
- Monitored the use of Carmel River habitat by birds at 10 locations and compared with previous year's data to evaluate wildlife habitat along the River.
- Conducted steelhead juvenile population surveys throughout the length of the Carmel River.



### **Conservation/Permitting**

- Approved 322 rebate applications for a total of \$41,607, resulting in annual water savings of approximately 7 AF.
- Issued 1,351 water permits and performed 1,849 inspections resulting in annual water savings of about 29 AF.
- Provided free showerheads and moisture sensors to the public.
- Actively participated in a statewide organization which provides a forum for discussion and demonstration of the latest water conservation techniques and technology.
- Provided demonstrations of the latest water savings devices including ultra-low flush toilets and waterless urinals at an event sponsored by the City of Monterey that focused on energy and water conservation.
- Participated in the Water Awareness Committee of Monterey County's Xeriscape Design Awards at the Monterey County Fair, and judged the garden displays in the horticultural center for promotion of the Water Awareness Committee's *Retire Your Turf* campaign.

**MPWMD Event Highlights Water Supply Options**

Following the District Board’s directive to explore opportunities to collaborate on regional water supplies, the District sponsored a Town Hall Meeting on potential water supply solutions on August 25, 2005, which was attended by over 100 people. Project proponents set up displays, made presentations and fielded questions from the audience. The entities participating in the event included California American Water, Marina Coast Water District, Monterey County Water Resources Agency, Monterey Peninsula Water Management District, Monterey Regional Water Pollution Control Agency and Pajaro/Sunny Mesa Community Services District.

The above participants also worked closely with District staff to update the Comparative Matrix of Water Supply Options for a focused discussion at the September 8, 2005 Strategic Planning Workshop. The 2005 Matrix features revised project description, cost and timeline information as well as one new project for review. Visit the District website for more detailed information.

**We Want To Hear From You**

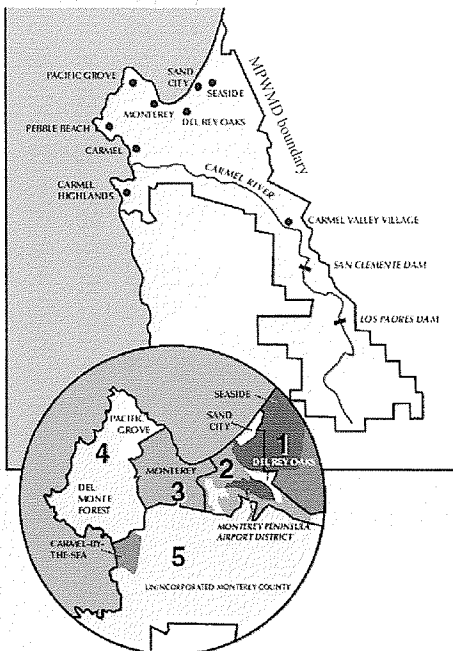
If you found the information in this report useful or have questions about water supply, conservation or other topics in this report, please contact Henrietta Stern at [henri@mpwmd.dst.ca.us](mailto:henri@mpwmd.dst.ca.us) or at 658-5621.

**2005 Board of Directors**

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