

# Monterey Peninsula Water Management District

## 2015 Annual Report

### Accomplishments

- **Monterey Peninsula Water Supply Project** – The District has made continued progress on the Monterey Peninsula Water Supply Project working jointly with California American Water (Cal-Am), the Monterey Peninsula Regional Water Authority, and other parties.
- **Funding for Desalination** – The District successfully passed SB 936 through the Legislature for financing the project in a manner to reduce impacts on ratepayers, working with Senator Bill Monning and Assembly member Mark Stone. Also provided funding for environmental and permitting work on an alternative desalination facility.
- **Pure Water Monterey Project** – The District led a coalition that includes Salinas Valley growers to expand the project potential in a multi-benefit, multi-regional manner. The District provided the majority of funding and provided services for environmental and permitting work on this innovative water recycling plant for serving a portion of the Peninsula's potable supply, working in partnership with the Monterey Regional Water Pollution Control Agency (MRWPCA).

The MRWPCA certified the Final Environmental Impact Report on Pure Water Monterey, which enables the District to enter into funding agreements for the project and obtain permits.
- **Aquifer Storage and Recovery (ASR)** - MPWMD operated the Phase 1 and Phase 2 facilities in coordination with Cal-Am while diverting 215 acre-feet (AF) of Carmel River Basin water for injection and storage in the Seaside Basin during the hydrologically-dry 2015 water year (WY). Since inception of the ASR program, a total of 4,986 AF has been diverted from the Carmel River for storage and subsequent recovery through the end of WY 2015.
- **Water Rights** – In its lead role as local resource manager, the District reviewed a water rights change permit issued by the State Water Resources Control Board for Carmel River diversions that enables a limited amount of new connections to the Cal-Am system. Also, MPWMD continued work on an integrated ground water – surface water GSFLOW/MODFLOW model to update instream flow needs for steelhead in the Carmel River, with a focus on model calibration, data review and input. The model is expected to be completed in mid-2016, and allow the District to model different water supply scenarios and their impacts on the Carmel River.
- **Well Permitting** – After reviews for potential impacts to the water resource system and other water users, MPWMD issued 6 Water Distribution System Permits and 13 Confirmation of Exemptions for private properties that met the criteria established in District Rules and Regulations.
- **Proposition 1 Integrated Regional Water Management Program** – The District took the lead for the Monterey Peninsula region in negotiating a draft agreement for sharing Proposition 1 funds in the Central Coast funding area. If approved by all regions, the Monterey Peninsula region would receive \$4.2 million for implementation of projects.
- **State-Mandated Carmel River Mitigation and Stewardship** – Completed a basis of design report for an upgrade for the Sleepy Hollow Steelhead Rearing Facility, which includes construction of a new intake and water supply system. The intent is to protect the facility from changes in river flows due to the removal of San Clemente Dam and to allow the facility to continue to operate during periods of extreme drought or high flows. The total project cost (design and construction) is estimated at \$2.2 million and will be reimbursed from funds generated by a Settlement Agreement between Cal-Am and the National Marine Fisheries Service (NMFS). The project is scheduled to be completed in 2017.



*The Water Management District's Aquifer Storage and Recovery project site.*

Successfully rescued 3,013 wild steelhead (including 384 collected during trapping operations) from approximately 10.9 miles of the Carmel River. Juvenile steelhead were released to upstream permanent habitats, predominantly in Cachagua Community Park, and adults and smolts to the ocean. The Sleepy Hollow Steelhead Rearing Facility could not be operated due to critically dry low flow conditions, compounded by fluctuating streamflows that resulted from fish passage construction projects at San Clemente Dam and Los Padres Dam.

Reinstalled the Dual-frequency Identification Sonar (DIDSON) in the lower river to count immigrating adult steelhead for the third year of operation. The run size was estimated at a net of 10 adult fish, based on observations of 56 individual fish (31 upstream/21 downstream).

Continued to work with NMFS, the United States Geological Survey, and California State University at Monterey Bay on field studies to: (a) evaluate the impact of removing San Clemente Dam, and (b) develop a steelhead population life history model for the watershed, where staff helped tag fish from their two studies, as well as MPWMD's fall population survey sites. This effort included NMFS installation of a tag detection array at the Carmel Area Wastewater District's treatment plant.

Characterized steelhead habitat in the full reach of the mainstem Carmel River, to prepare for selection of transects for use in the development of a hydraulic model to evaluate steelhead habitat. An analogous steelhead habitat assessment effort was last conducted in the 1980's. The model will be used to answer such questions as "Is the Carmel River better off with or without Los Padres Dam" and to determine what affect changes in stream diversions would have on the availability and quality of steelhead habitat.

Planted native trees on exposed banks of the Carmel River to improve habitat value, protect water quality, and reduce bank erosion.

Removed trash and plastic below major bridges along the Carmel River before winter rains and high flows washed the debris into the riverbanks or into the ocean. Also managed encroaching vegetation in the riverbed at six sites.

Completed four additional miles of survey work in the lower 15 miles of the Carmel River to document changes in the profile of the channel bottom since 2007.

- **Los Padres Dam Improvements** –Entered into a reimbursement agreement with Cal-Am for up to \$928,000 as part of the 2015-17 Public Utilities Commission General Rate Case to plan for the long-term future of the dam and associated reservoir. Completed a draft scope of work to assess upstream fish passage alternatives. Additional areas of study will include: sediment management, mitigating for downstream habitat impacts, and an evaluation of alternatives ranging from complete dam removal to increasing storage at the reservoir.

- **Conservation** – Approved 1,644 rebate applications totaling \$522,388.17 for annual savings of 32.443 acre-feet of water.

MPWMD began inspecting building-by-building for compliance with the Non-Residential water efficiency requirements (Rule 143). More than 277 businesses were inspected. All businesses will be verified by late 2016.

2,174 properties were inspected to verify compliance with Water Efficiency Standards (Retrofit Upon Change of Ownership or Use).

682 Water Permits were issued, including 40 Water Permits for Water Entitlement Holders.

American Rainwater Catchment Systems Association (ARCSA) training – MPWMD hosted a two day AP-level workshop on rainwater harvesting for those seeking ARCSA-accredited professional status.

Sponsored Commercial, Industrial & Institutional (CII) Water Efficiency Training. The three-day workshop provided a comprehensive overview of key CII water uses. Participants learned about potential water savings, auditing techniques, and return on investment.



*Carmel River steelhead fish. Staff rescued 3,013 steelhead and released them upstream or to the ocean.*

Hosted several greywater (“Laundry to Landscape”) and rainwater harvesting workshops, including hands-on demonstration installations at local locations.

Participated in numerous outreach events and school programs to promote conservation and the District.

- Financial Performance** – This is the first year that the District has prepared a Comprehensive Annual Financial Report (CAFR). A CAFR is a set of government financial statements comprising the financial report of a municipality that complies with the accounting requirements promulgated by the Government Accounting Standards Board. MPWMD received a clean financial audit report with no material weakness or deficiencies. The audit for fiscal year 2014-2015 was conducted by Hayashi Wayland, an independent auditing firm.
- Community Outreach** - Continued outreach with presentations to fifth graders from the International School of Monterey and Pacific Grove; freshman biology classes from Carmel High School; seniors of Environmental Science classes from Robert Louis Stevenson School; graduate school classes at CSUMB in Watershed Science and Policy; the Carmel Foundation; and the California Naturalist program.



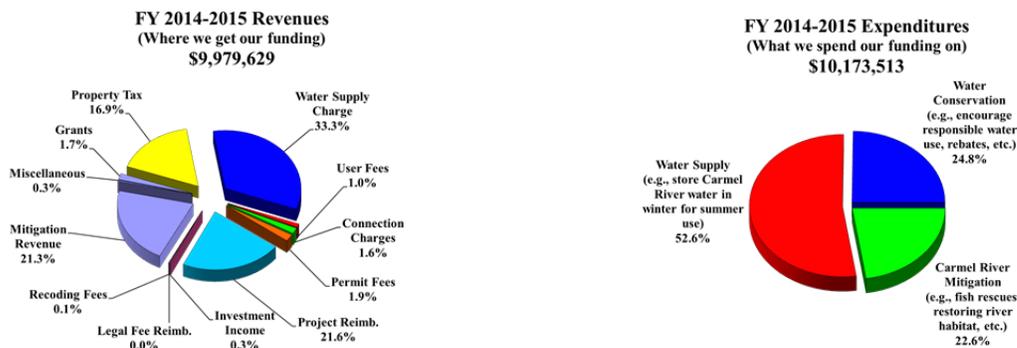
*The District offered training on rainwater harvesting methods such as installation of cisterns.*

Executed over 30 presentations to community groups and city councils, several guest opinions in local media, and posted weekly updates on the MPWMD Facebook page.

- Awards** - Received the Association of California Water Agencies Clair Hill Award for completion of the Pure Water Monterey Demonstration Facility, that was developed jointly with the Monterey Regional Water Pollution Control Agency. Entered a drought tolerant landscape display in the Monterey County Fair and was awarded second place in the Water-Wise Landscape category, and second place in the category of Gardens of Monterey County: Featuring Native/Drought Tolerant Landscaping, by the Water Awareness Committee of Monterey County.

## Financial Analysis

Total revenues received in Fiscal Year 2014-2015 were \$9,979,629, while expenditures totaled \$10,173,513, generating a decrease in fund balance of \$193,884. As of June 30, 2015, the District’s total fund balance was \$5,116,899.



The budget for Fiscal Year 2015-2016 anticipates revenues of \$13,930,850 and expenditures of \$13,930,850, which is a balanced budget. The total amount budgeted for completion of ASR 1 is \$502,400; ASR 2 work is budgeted at \$94,700; Pure Water Monterey work is budgeted at \$4,633,000; local water project is budgeted at \$466,000; Cal-Am desalination financing work budgeted at \$140,000; and alternate desalination project is budgeted at \$350,000. The budget also includes \$367,800 in funding for preliminary work on various other water projects. ASR Projects 1 & 2 are wells and appurtenances for underground water storage and recovery.

## Future Financing Methods

The District has historically paid for costs associated with water supply projects on a pay-as-you-go basis with the majority of the funding coming from user fees, which was the District's largest and most fluid revenue source. However, beginning in 2014 the User Fee revenue from Cal-Am customers was not available to the District. With the establishment of the Water Supply Charge, the District now funds its water supply projects from this funding source. The District also uses a line of credit to provide additional funding for preliminary costs of current and future potential water supply projects. Possible sources of funds to pay for actual construction of future water supply projects include ongoing revenue increases, user fees, water supply charge, new revenue categories, grants, and bond financing. Actual funding sources would be dependent on the type of project, the amount of funding needed and other variables.

## Groundwater Charge

**Groundwater Zone:** In June 1980, the District Board approved formation of a groundwater charge zone including all District territory, except portions of the District lying within the City of Sand City. The District-wide groundwater zone was formed to provide the legal basis for a comprehensive well-monitoring program consisting of well registration, well metering, and water production reporting. Formation of the groundwater charge zone was not intended to generate revenues and it was acknowledged that no groundwater charge would be levied for the production of any naturally occurring groundwater. Accordingly, it is recommended that no groundwater charge be levied in any zone of the District during Water Year 2015.

**Available Water Supplies:** In Water Year 2015, 12,244 AF of water were legally available in the Carmel River and Seaside Groundwater Basins to serve Cal-Am customers within the District. Similarly, approximately 4,660 AF of water were assumed to be available to serve non-Cal-Am users extracting water from the Carmel Valley Aquifer and the Seaside Basin. However, because of legal and regulatory constraints, MPWMD estimates that the long-term water supplies available to Cal-Am's customers in the future will be reduced to approximately 6,750 acre-feet per year (AFY) and the amount of water available from the Seaside Basin to non-Cal-Am users will be reduced by approximately 46 AFY. This assumes that Cal-Am will retain rights to produce 774 AFY from Seaside Groundwater sources (restored to 1,474 in 25 years), 94 AFY from the Sand City Desalination Facility, 2,000 AFY from Aquifer Storage and Recovery, and 3,376 AFY from Carmel River sources. In 2013, the State granted Cal-Am an additional 1,488 AFY of Carmel River diversions, subject to meeting instream flow requirements. MPWMD estimates a long-term yield of about 500 AFY from this diversion right. In its application to the California Public Utilities Commission for the Monterey Peninsula Water Supply Project, Cal-Am has sought to incorporate replenishment of the Seaside Basin, as well as potential demand for build-out in Pebble Beach, the potential "bounce back" in tourism resulting from economic recovery and utilizing existing visitor-serving capacity, and legal lots of record. Therefore, there is a required demand of 15,296 acre-feet.

**Requirements for Future Capital Improvements:** Based on the stated future demands discussed above, the resulting desalination facility size is 6,252 AF with Pure Water Monterey Groundwater Replenishment (GWR), or 9,752 AF without GWR. The Pure Water Monterey project expected to create 3,500 AFY of new supply is being cosponsored by the Monterey Regional Water Pollution Control Agency and the District, which funds 75% of that project from its Water Supply Charge. Product water will be stored in the ground for 6 months and recovered for sale to Cal-Am. Aquifer Storage and Recovery is expected to be doubled in capacity by 2019, to almost 3,000 AFY and is being developed jointly by the District and Cal-Am. However, until permit conditions are modified subsequent to the future lifting of the Cease and Desist Order, not all ASR capacity is reliably available in dry years, hence cannot all be counted upon to offset unlawful diversions. The District continues to develop plans for additional ASR opportunities for future water supply.



*The Association of California Water Agencies presented the Clair Hill Award to the Water Management District for completion of the Pure Water Monterey Demonstration Facility – a joint project with the Monterey Regional*