

# Celebrating a year of recycled water at Del Monte Forest golf courses

The Wastewater Reclamation Project operated by Carmel Area Wastewater District (CAWD) and Pebble Beach Community Services District (PBCSD) are celebrating the fact that the project has completed its first full water year using no potable water to irrigate the golf courses and recreational areas of the Del Monte Forest.

The water year was actually (October 1, 2009 to September 30, 2010) but with renewed focus on water recently, the company has released information concerning the recycling effort.

The golf courses include the world-famous resort courses of Pebble Beach Company (Pebble Beach Golf Links, Spyglass Hills Golf Course, and the Links at Spanish Bay), the Northern California Golf Association's Poppy Hills Golf Course, and the private courses at Cypress Point Club and Monterey Peninsula Country Club.

The recreational areas include the Stevenson School athletic fields and Pebble Beach Company's Collins Field.

"The Project has multiple benefits for many parties," said spokesperson Mike Niccum, General Manager of the Pebble Beach Community Services District.

According to Pebble Beach Company estimates, the Monterey Peninsula community as a whole benefits from a reduction in historical potable water used for irrigation that will average 950 acre-feet (300 million gallons) per year. The golf courses and recreational areas benefit by having a high-quality,

drought-proof, recycled water source.

Pebble Beach Company received a water entitlement of 365 acre-feet of potable water (out of the 950 acre-feet per year saved) to use for future projects in return for bonds "floated" by Pebble Beach Company. Some of this, according to Niccum, as sold to residents when Pebble Beach's development was scaled back. The unused water credits are potentially available until 2016, he said.

Pebble Beach's water credits are outside the potential moratorium requested by water purveyor California American Water, the decision on which is expected to be rendered by the Public Utilities Commission on March 24.

The local environment benefits both from the significant net reduction in potable water use from the Carmel River as well as from the substantial reduction in the amount of secondary treated wastewater that previously had been discharged to Carmel Bay, an Area of Special Biological Significance designated in the California Ocean Plan.

"All in all, the Project has been a true win-win for everyone concerned," said Pebble Beach's spokesperson.

## History of the Project

Financed by bonds issued by the Monterey Peninsula Water Management District (MPWMD) and guaranteed by Pebble Beach Company, the first phase of the Project began providing tertiary treated wastewater in 1994 to the golf courses and recreational areas in the Del Monte Forest, all of which previously

---

Pebble Beach's water credits are outside the potential moratorium requested by water purveyor California American Water, the decision on which is expected to be rendered by the Public Utilities Commission on March 24.

---

used potable water for irrigation needs. This phase of the Project met about 70 percent of the irrigation needs of the golf courses and recreation areas.

Approximately 10 years later, Pebble Beach Company financed a second phase of the Project in an effort to meet 100 percent of the irrigation needs of the golf courses and recreational areas. The second phase of the Project included the rehabilitation of

Forest Lake Reservoir in the Del Monte Forest to store 110 million gallons of recycled water produced in the winter for use in the peak summer irrigation months. The second phase also included the addition of a sophisticated Micro-filtration/Reverse Osmosis (MF/RO) desalination system to CAWD's facilities that converts wastewater into high quality recycled water so that the Del Monte Forest golf courses can use recycled water all of the time.

"Previously, salt in the recycled water would accumulate in the grass and had to be periodically flushed away with potable water. Now, the MF/RO system removes the salt so no potable water is needed. Every drop of recycled water used for irrigation in the Del Monte Forest is a drop of potable water saved for the Monterey Peninsula community and Carmel River environment," said the spokesperson.

The total cost of the Reclamation Project, including both the first and second phases, was \$67 million. No public or taxpayer dollars were used for this funding, as Pebble Beach Company has been the sole financial sponsor of the Project from its inception, the company points out.

"The operation of the project reflects a unique and successful public-private partnership among CAWD, PBCSD, MPWMD, Pebble Beach Company, and the other golf course and recreational area owners," says the Pebble Beach report.

CAWD owns and operates the MF/RO treatment system located at its plant on the south bank of Carmel River near Highway One. PBCSD owns and operates the recycled water distribution and storage system, including Forest Lake Reservoir. MPWMD facilitated the initial public financing for construction of the first phase of the Project, and performs billing and collection services for all recycled water sales. Pebble Beach Company guaranteed the initial public financing, provided all funding for construction of the second phase, and reimburses the three public entities for any operating or financing expense shortfalls of the Reclamation Project, according to the report.

---

The total cost of the Reclamation Project, including both the first and second phases, was \$67 million. No public or taxpayer dollars were used for this funding, as Pebble Beach Company has been the sole financial sponsor of the Project from its inception

---

Finally, project operating costs are paid primarily from the sale of recycled water to the golf courses and recreational areas, thus making Cypress Point Club, Monterey Peninsula Country Club, Poppy Hills Golf Course, and Stevenson School integral partners in seeing the success of this venture.



Below and right: Forest Lake Reservoir. The photo at right is an aerial view.

Right, topL the new treatment facilities at CAWD. Photos courtesy of Pebble Beach Community Services District.

