10/20/09 Bd Mtg
Cal-AM
Deadline: 9/30/09 by 12 noon

Mike Niccum, General Manager/Secretary

PEBBLE BEACH COMMUNITY SERVICES DISTRICT

3101 FOREST LAKE ROAD • PEBBLE BEACH, CALIFORNIA 93953 • (831) 373-1274 • FAX (831) 373-2357

September 25, 2009

Charles R. Hoppin, Chair
State Water Resources Control Board
c/o Jeanine Townsend, Clerk of the Board
1001 I Street
Sacramento, CA 95814

Re: Comment Letter: Cal Am CDO Hearing

Dear Chairman Hoppin and Members of the Board,

Pebble Beach Community Services District, a California public agency, has reviewed the proposed draft Cease and Desist Order ("CDO") against California American Water and supports the comment letters submitted in this matter by Pebble Beach Company and Monterey Peninsula Water Management District ("MPWMD"). Pebble Beach Company provided the financial guarantee in the public-private partnership with three public agencies that enabled construction and operation of the Carmel Area Wastewater District/Pebble Beach Community Services District Wastewater Reclamation Project, and has met or exceeded all of its commitments to the public agencies involved.

PBCSD respectfully recommends that you amend the draft Cease and Desist Order to reflect the previous 14-year State Water Board commitment to honoring the Pebble Beach Company Water Entitlements, as granted by the MPWMD. Both the Pebble Beach Company and many Del Monte Forest residents have relied on the previous commitments of the State Water Board in providing $33 million to finance Phase II of the Reclamation Project, which began operations in 2008 and is saving an additional 300 acre feet of potable water each year from the Carmel River. As a fellow governmental agency, we find no logic in the position taken in the draft CDO reneging on prior commitments and believe this action will certainly discourage other agencies from undertaking water recycling projects in the future.

Please feel free to contact me if you have any questions.

Sincerely,

Jeffrey B. Froke,
Board President

ENGINEERING REPORT

September 25, 2009

To: PBCSD Board of Directors

From: Christina Baca, PBCSD Assistant Engineer

Subject: **24th Annual WateReuse Symposium, September 13th – 16th**

The General Manager, Mike Niccum, and Assistant Engineer, Christina Baca, attended the 24th Annual WateReuse Symposium located in downtown Seattle, WA. Attending this conference had special significance for our community. PBCSD Staff aided Mike McCullough of Northern California Golf Association (NCGA) in nominating Pebble Beach Company (PBC) for WateReuse Customer of the Year Award. Competing against nine other nominations, PBC was nationally recognized as Customer of the Year for their outstanding efforts on the Water Reclamation Project. Brent Reitz was present to accept the award on behalf of PBC.

Brent Reitz (PBC)

Mike McCullough (NCGA), Brent Reitz (PBC), and Mike Niccum (PBCSD)

The 24th Annual WateReuse recognized projects from around the world; and, notably, many projects were from the Monterey Bay area. It was impressive to see that the local communities are at the forefront of WateReuse. In addition to PBC named Customer of the Year, Carmel Area Wastewater District was nominated for WateReuse Small Project of the Year for the addition of the Microfiltration/Reverse Osmosis facility at their plant. Furthermore, technical sessions included a discussion on "Carbon Neutral Desalination in Monterey, CA"; "Minimizing the Environmental Impacts of Desalination from California to Australia"; and "Tapping the Ocean in Monterey County, California: The Sand City Desalination Facility".

Attachment: Pebble Beach Company Award Nomination for WateReuse Customer of the Year

2009 WateReuse Customer of the Year: Pebble Beach Company

NOMINATION ABSTRACT:

Water availability has become an increasingly mainstream concern for many communities across the United States, as increasing populations and climate change threaten limited local water supplies. Golf courses use significant amounts of water and offer great potential for new conservation measures such as recycled water. To address this challenge, Pebble Beach Company (PBC) developed a permanent, sustainable solution.

PBC initially provided the financial guarantee to construct a $34 million reclamation facility and distribution system. In 1994, PBC began irrigating with tertiary - treated recycled water; however, the salt content of the recycled water exceeded estimates and potable water was periodically used for flushing cycles. To address the salinity concerns and eliminate the need for potable water, PBC funded a second phase at an additional cost of $33 million. With this funding, The Water Reclamation Project rehabilitated a 350 Acre Feet reservoir for recycled water storage and upgraded the treatment process by installing a state-of-the-art 1.5 MGD microfiltration/reverse osmosis system.

The completion of this project enabled PBC and other golf courses to exclusively use recycled water to irrigate seven world-renowned championship golf courses, local athletic fields, and selected landscaping inside the famous Del Monte Forest area of Monterey County, California. The project not only satisfied PBC's needs, but it also benefited the local environment and surrounding communities. PBC's commitment to using recycled water saves the local communities over 300 million gallons of potable water annually and improves water quality in the ocean at the same time.

ADDITIONAL BACKGROUND INFORMATION (PHASE ONE):

In 1994, the Carmel Area Wastewater District (**CAWD**), Pebble Beach Community Services District (**PBCSD**), the Monterey Peninsula Water Management District (**MPMWD**), and Pebble Beach Company (**PBC**) formed a public/private joint venture to produce and deliver recycled water for irrigation to seven golf courses in Pebble Beach, California, including world-renowned Pebble Beach Golf Links.

Through this venture they began Phase One of the Water Reclamation Project which included the construction and operation of tertiary treatment facilities at the CAWD wastewater treatment plant (WWTP) in Carmel. The tertiary treatment facilities included sand filtration and chlorine disinfection.

The $34 million project was designed with the intention of annually replacing 800 acre-feet ("AF") of potable water used on Del Monte Forest golf courses with recycled water each year. All of the cooperating golf courses agreed to pay the same water rate they would have paid for potable water, even though the recycled water is of a lesser quality than potable.

During the first few years of operations, the project was constantly being reviewed and modified. It became apparent very quickly that several challenges were discovered: the project's inability to meet extended peak

golf course irrigation demand, sodium levels in the recycled water, and ramifications of the public's desire to minimize the use of potable water for landscape irrigation.

The sodium concentration of the tertiary-treated effluent was higher than anticipated due to sodium in the existing water supply, sodium added by residential water users, sodium used in the CAWD treatment process, and water conservation on the Monterey Peninsula.

The golf courses began experiencing some problems with the turf grass particularly on the greens. This was discovered to primarily be the result of high sodium concentrations (at times as high as 200 mg/L) and high total dissolved solids (TDS) concentrations (at times as high as 1000 mg/L).

One solution for the golf courses to remove the excessive salts was to flush the turf with potable water every three to six weeks. This meant the golf courses continued to be dependent on potable water, which was supplied by **California American Water (Cal-Am)** until the water quality issue could be resolved.

All of the organizations and agencies began studying technical solutions to improve water quality and quantity, as well as methods for financing the improvements. This led the groups to begin Phase Two of the Water Reclamation Project with the intent of improving water quality and increasing the quantity of recycled water available for irrigation.

PHASE TWO WATER RECLAMATION PROJECT DETAILS:

The quantity of water available to the golf courses was addressed through the improvement of Forest Lake Reservoir (rated capacity of 325 acre-feet, later expanded to 350 AF), which would allow for storage of recycled water produced during the winter (non-irrigation season). The reservoir, along with the recycled water distribution system, is operated and maintained by PBCSD.

Forest Lake Reservoir was originally constructed in 1887 and had operated as an unlined reservoir, storing drinking water. Forest Lake was taken out of commission in the early 1990s, due to health regulations preventing the use of open reservoirs for drinking water; however, the same regulations did not apply to recycled water. In December 1998, PBCSD purchased the Forest Lake Reservoir from Cal-Am pursuant to a quid-pro-quo agreement. Forest Lake would provide the necessary recycled water storage for the golf courses to use 100% recycled water; however, Forest Lake required major rehabilitation efforts before it could be operable.

The Forest Lake rehabilitation project was commissioned by PBCSD, in line with new operating permit requirements of the California Department of Water Resources Division of Safety of Dams (DSOD). The reservoir was to be rehabilitated and new improvements constructed to meet DSOD requirements. The total cost to the PBC for repairing and retrofitting Forest Lake Reservoir was

$13 million.

The multi- million dollar facelift includes sophisticated leak detection monitoring equipment and state of the art pumping equipment as well as micro-strainers for algae removal. The lake is now seismically fit and sealed with a vinyl liner. The new Forest Lake was operational the beginning of 2006.

With the storage problem solved, the quality of recycled water still needed to be addressed. At the CAWD treatment plant, a second project was commissioned to install advanced treatment equipment to remove sodium to a level satisfactory for the golf courses to use 100% recycled water without potable water flushes.

To improve the quality of the recycled water, microfiltration (MF) followed by reverse osmosis (RO) was chosen as the treatment technology. The RO process removes significant amounts of sodium and TDS while the MF serves as an excellent pretreatment process for removing suspended solids and preparing the water for feed into the RO vessels. Microfiltration also received approval by the California Department of Health Services for meeting Title 22 recycled water requirements. In addition, only a portion of the MF treated water will be treated by RO, which helps minimize post-treatment chemical addition and decreases the size of the RO system.

One of the unique aspects of the project: it was designed and built simultaneously. The RO water is to be blended with MF water to meet the new water quality parameters Table 1. The approximate ratio for the recycled water is 75% RO and 25% MF. The plant will supply the recently renovated reservoir with up to 1.5 million gallons of "demineralized" water per day.

Table 1. Golf Course Irrigation Water Quality Criteria

Water Quality Parameter	Limit
Sodium Adsorption Ratio (SAR)	≤3.0
Adjusted SAR	≤4.0
Sodium, mg/L	≤55*
Electro-conductivity (EC), µmhos/cm	350 - 450
pH	6.3 - 7.3
* Target value to be achieved 95 percent of the time.	

Construction of Phase Two at CAWD started in February 2006 and the new MF/RO equipment became fully operational in July 2008. The total cost to the PBC for upgrading the treatment capabilities at CAWD was $20 million.

SUMMARY:

Since becoming online in 1994, the Water Reclamation Project has significantly reduced the amount of secondary treated wastewater discharged in the from the CAWD treatment plant to the Carmel Bay, which is designated an Area of Special Biological Significance in the California Ocean Plan.

Both phases of the Water Reclamation Project have saved the local communities approximately 11,242 Acre Feet of potable water over the past 15 years by converting the golf courses over to recycled water. The local communities have had a long history of water shortages and more than likely the communities would have had additional shortages during this time had not the golf courses switched to recycled water.

The Pebble Beach Company, by investing a total of $67 million for recycled water infrastructure, was the primary driver in getting a reliable, drought-proof water source for their courses as well as the other golf courses in the Del Monte Forest. These courses will now waive the use of potable water and rely solely on recycled water to provide world-class golf services to their clientele.

Pebble Beach Golf Links has hosted a number of major tournaments over the years. Winning the United States Open is considered by many to be the highest achievement in golf. When Pebble Beach hosted the US Open in 2000, it was the first time in US Open history that a host course utilized recycled water as their primary source of irrigation. When the US Open returns to Pebble Beach in 2010, it will again be the first US Open venue to use advanced- treated recycled water as its sole source of irrigation.

Agency Information:

Pebble Beach Community Services District (PBCSD) is the local government of Pebble Beach, CA which provides services, including Fire Protection and Emergency Medical Services; Supplemental Law Enforcement; Wastewater Collection and Treatment; Recycled Water Distribution; and Garbage Collection, Disposal, and Recycling. PBCSD is a multi-purpose special district, serving approximately 4,500 residents. PBCSD owns and operates approximately 75 miles of wastewater collection and interceptor lines, 8 wastewater lift stations, approximately 7 miles of recycled water distribution lines, a 2.5 million gallon recycled water storage tank, and a 350 acre-feet recycled water reservoir.

Carmel Area Wastewater District (CAWD) provides wastewater collection, treatment, and disposal services to approximately 10,000 customers in Carmel and Carmel Valley. PBCSD contracts with CAWD to provide wastewater treatment and disposal services for Pebble Beach. The wastewater treatment plant is designed for 3.0 million gallons per day (mgd), and receives a flow rate of approximately 1.6 mgd. CAWD treatment plant provides Pebble Beach with up to 1.5 mgd of microfiltration/reverse osmosis treated recycled water.

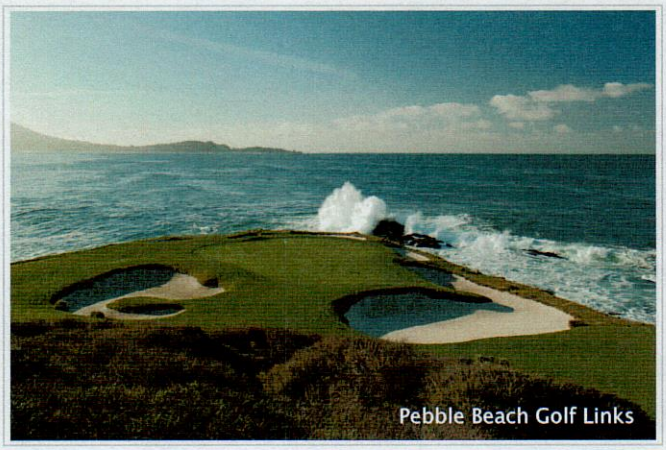
Monterey Peninsula Water Management District (MPWMD) is a special district serving approximately 112,000 people within the Monterey Peninsula. MPWMD's mission is to manage, augment and protect water resources for the benefit of the community and the environment. Furthermore, MPWMD manages the production of water from Carmel River, stored in San Clemente and Los Padres Reservoirs, and ground water from municipal and private wells in Carmel Valley and the Seaside Coastal Area. In addition to managing water resources, MPWMD promotes water conservation and water reuse and reclamation of storm and wastewater. MPWMD provided financing for the PBCSD/CAWD Wastewater Reclamation Project.

California American Water (Cal-Am) is the potable water purveyor for Pebble Beach, CA; and, they are a subsidiary of American Water Corporation. Cal-Am serves approximately 630,000 people throughout California, serving customers in Coronado, Felton, Larkfield, Monterey, Rosemead, Sacramento and Ventura.

Independent Recycled Water Users Group (IRWUG) is an unincorporated association of the Monterey Peninsula Country Club, the Cypress Point Club and the Northern California Golf Association (NCGA)/Poppy Hills Golf Course. IRWUG members are recycled water customers (along with several other parties in the Del Monte Forest area) that benefited from the PBCSD/CAWD Wastewater Reclamation Project that commenced in the early 1990s.

Pebble Beach Company (PBC) is the parent company of The Lodge at Pebble Beach, The Inn at Spanish Bay, Casa Palmero, The Spa at Pebble Beach, Pebble Beach Golf Links, The Links at Spanish Bay, Spyglass Hill Golf Course and Del Monte Golf Course. Pebble Beach Company resorts and golf courses are known worldwide for their stunning oceanfront location, peerless quality and outstanding service. The 1,600 company employees display a level of professionalism and proficiency unmatched in the industry.

Supporting Documents: Golf Courses Utilizing Recycled Water



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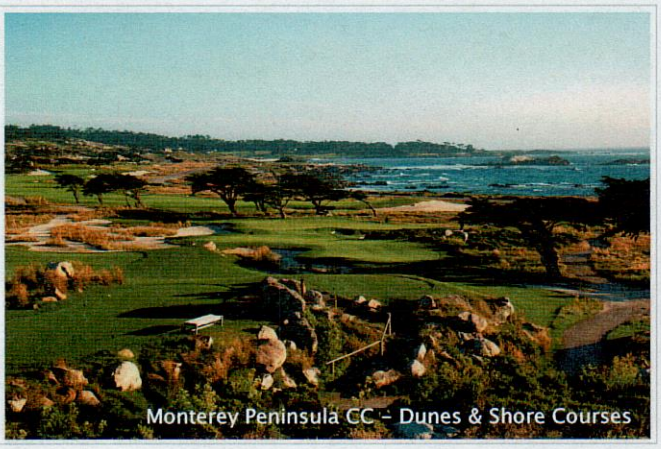

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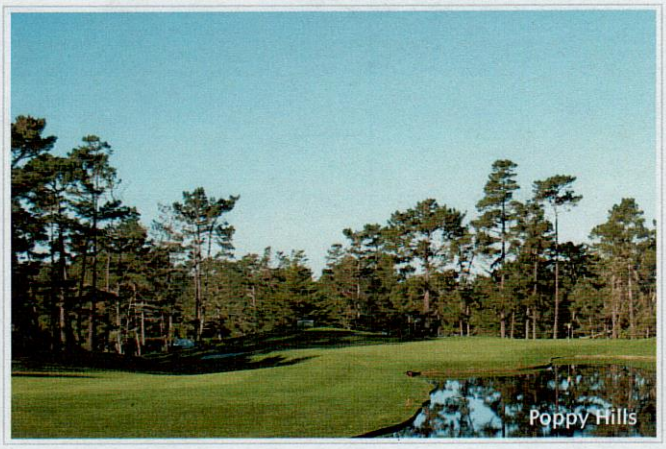

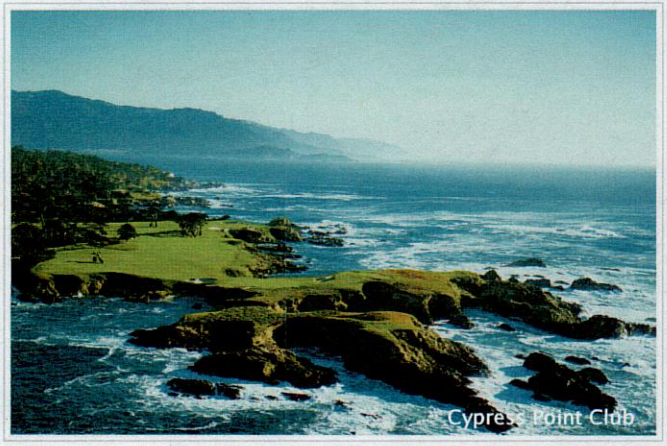

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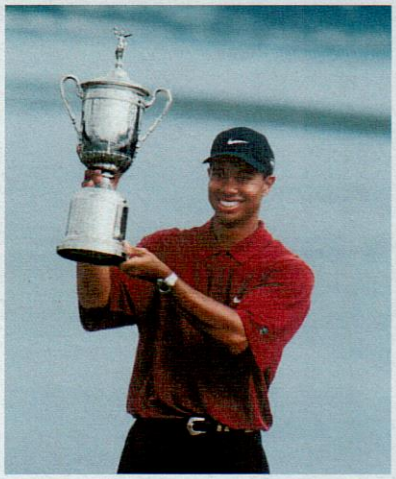
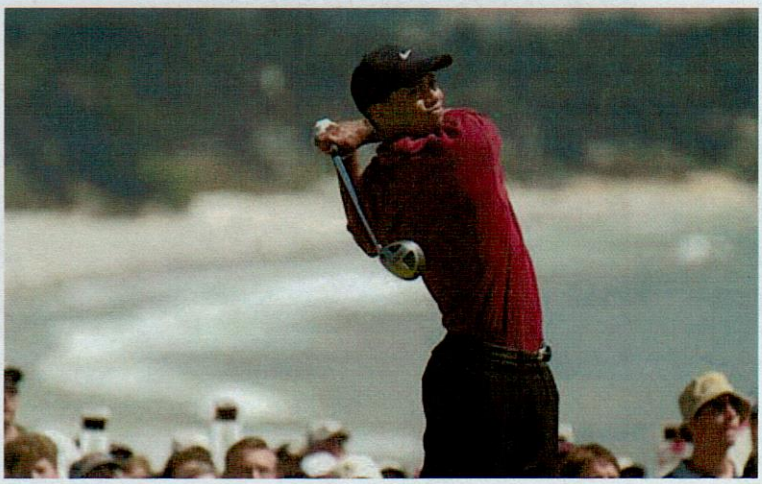
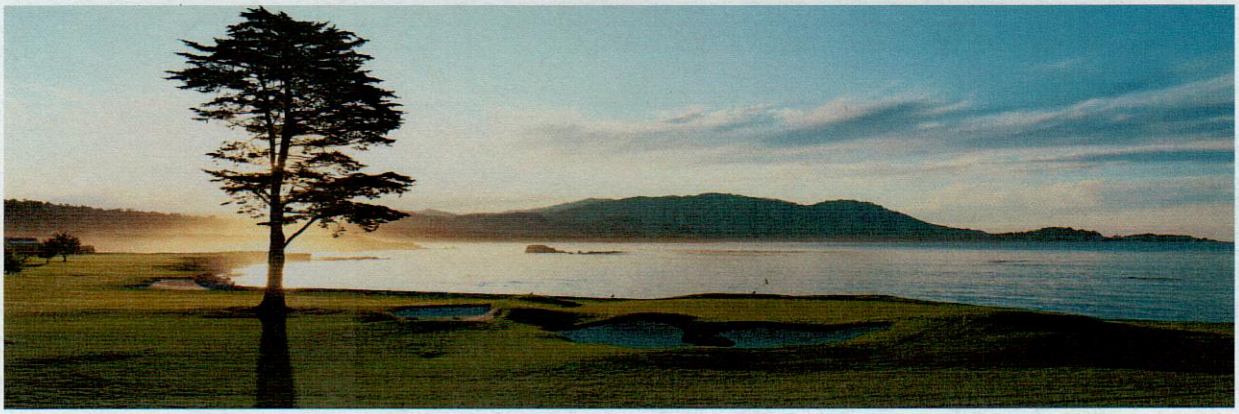
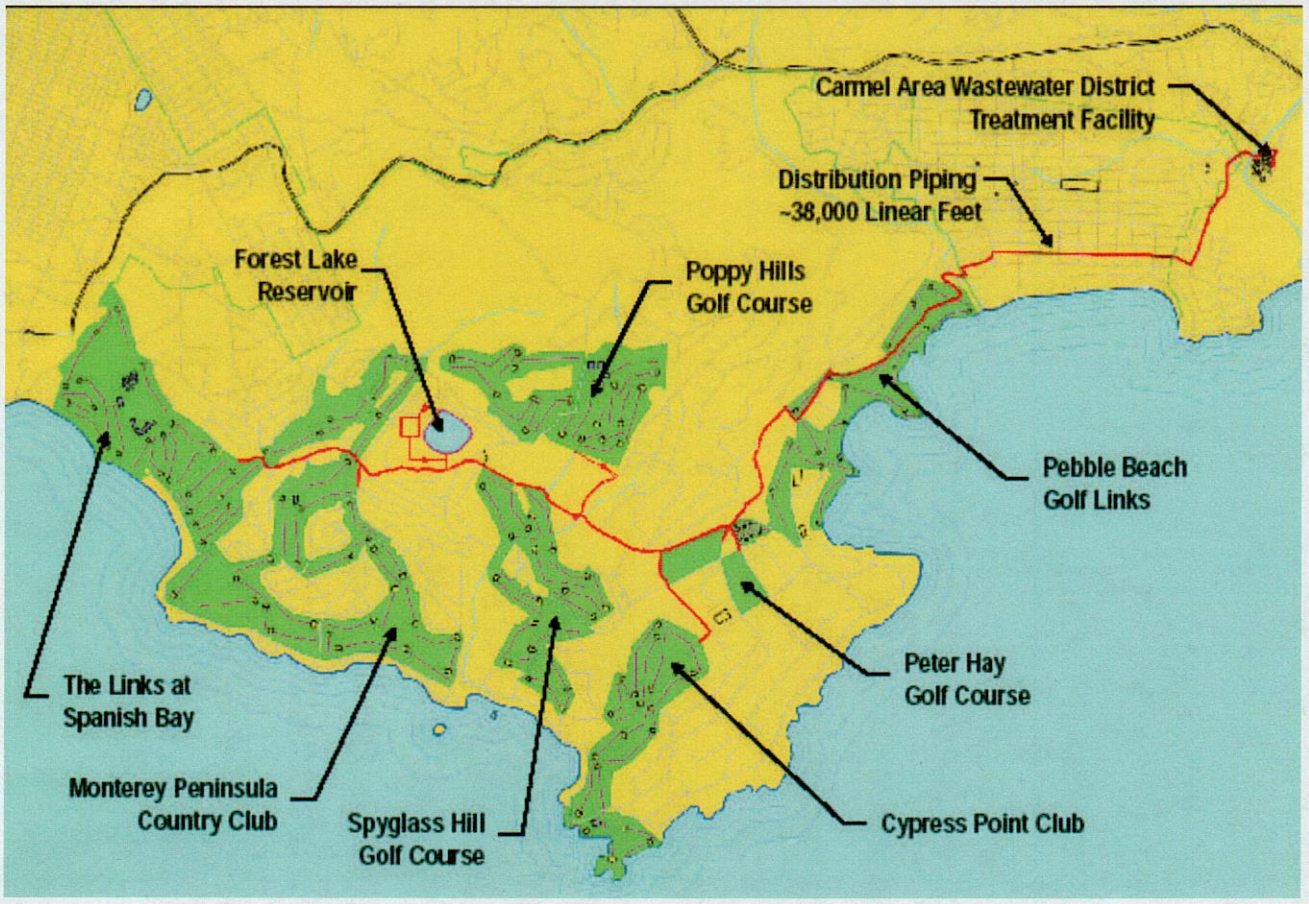




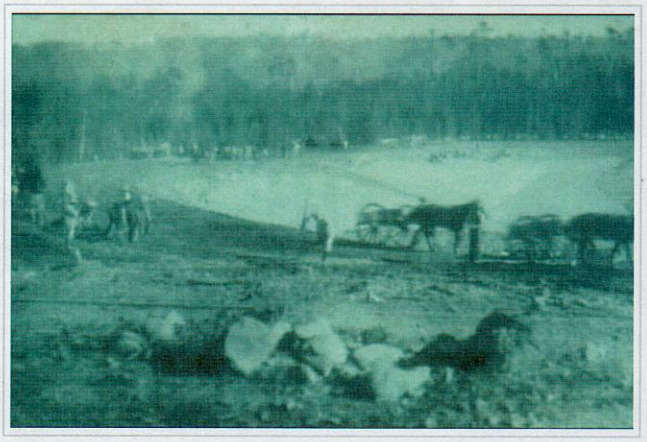
Tiger Woods wins the 100th U.S. Open at Pebble Beach Golf Links in 2000.

- Pebble Beach Golf Links was the first U.S. Open site to use recycled water.
- When the 110th championship returns to Pebble Beach it will the first U.S. Open site to use a blend of microfiltration/reverse osmosis recycled water.



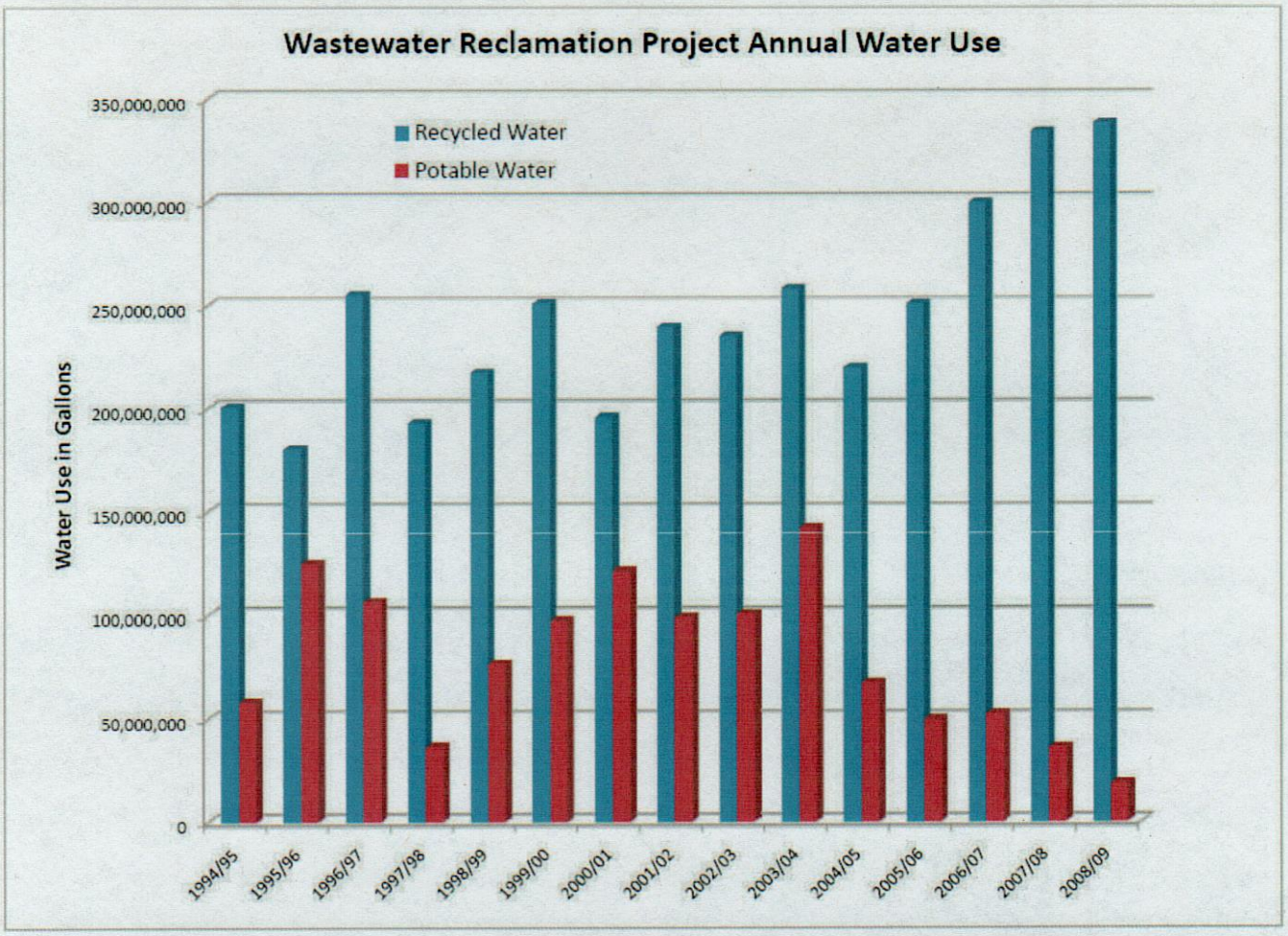


Forest Lake Reservoir



Originally constructed in 1887 for drinking water storage

Rehabilitated in 2006 for recycled water storage



Blended Microfiltration/Reverse Osmosis water delivered to Pebble Beach golf courses in July 2008.

Pouring the foundation for the new treatment facility

MF/RO equipment being installed

Completed project with fully functional equipment