

MMWD Rolls Out Tank Proposal

by Cindy Lowney
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Marin Municipal Water District is planning a \$23 million dollar improvement project to replace two storage facilities that are reaching the end of their useful lives. The Ross Reservoir, above the north side of Phoenix Lake, on Worn Springs Road, is to be removed. It will be replaced by two new reservoirs at or near the same location. Pine Mountain Tunnel, which is also used for storage, is to be decommissioned. A new tank is proposed at 5 Corners, above Deer Park.

Construction of these storage facilities will involve removal of a large quantity of soil, removing vegetation, importing material for the new tanks, and building new roads and retaining walls. New pipelines and power lines will be installed.

Ross Reservoir was constructed in 1927. It is threatened by a large landslide, and is in poor condition. The Pine Mountain Tunnel was constructed in 1918, and was originally designed and constructed to transport water from Kent Lake to the upper San Anselmo Creek watershed. MMWD abandoned the tunnel as a conveyance facility in 1971, but has since continued to use the



A new water tank, 200 feet long and largely sunk into a hill, is proposed for the 5 Corners area, above Deer Park in Fairfax. Photo by Gary Leo

tunnel for storage and surge protection for the Fairfax Transmission Line. Due to water quality issues, state regulators will no longer allow the use of the tunnel for water storage.

The current combined storage capacity of the Ross Reservoir and Pine Mountain Tunnel is 4 million gallons. The combined storage capacity of the three new tanks will be 8 million gallons, double the current capacity. All tanks will be partially buried but will maintain a 10 foot vertical exposure, meaning that at least 10 feet of tank will be visible above ground. The tank at 5 Corners is around 100' wide and 200' long with rounded corners. The two tanks at the Ross Reservoir site are different shapes. The first tank is circular with a diameter of around 100'. The second is around 160' long and 60' wide, with rounded corners. In addition to these new tanks, the project includes a hydraulic electric generator for energy recovery.

Environmental concerns for this project are many. Some trails will be relocated to facilitate road access. Hundreds of trees and shrubs will be removed to make way for access roads and to site the tanks themselves. Native plants will be disturbed, and removal of soil and vegetation could contribute to the propagation of invasive plants, including French broom. Erosion from all sites could reach salmonid-bearing tributaries to Corte Madera Creek. Yellow legged frogs, western pond turtles, and spotted owls are known or thought to be in the area and could be disturbed by construction.

The number of trucks delivering material to and removing soil from construction sites is significant. MMWD plans to reuse excavated soil to restore Bullfrog Quarry, located between Bon Tempe Lake and the Meadow Club golf course. Unfortunately, Bullfrog Quarry cannot accommodate all the soil that will be removed, and an additional use for this material has yet to be identified.

If another site within the watershed is not secured, a large quantity of soil will be removed by truck and

taken to a landfill, through Ross and Fairfax and along Sir Francis Drake Boulevard. In addition to material transported out of the watershed, trucks will deliver concrete and other construction materials into the watershed via these same routes. Traffic will impact air and water quality, wildlife and vegetation.

Environmental documents are expected in early 2015. Take time to visit the MMWD website, clicking Water Supply, Water Storage Improvement Project (WSIP). Attend public meetings and keep informed about how this project will affect the Corte Madera Creek watershed as a whole as well as the creeks in your neighborhood.



Above, the Ross Reservoir will be replaced by two new tanks. Below, Bullfrog Quarry, near Bon Tempe Lake, will be filled with excavated soil, and revegetated. Photos by Gary Leo.



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