

Villa Del Monte Mutual Water Company

P.O. Box 862
Los Gatos, CA 95031-0862

Water treatment and water storage issues

March 21, 2017

Water Treatment issues

VDM's primary source water is from Laurel Creek using our own water treatment plant which uses chlorine disinfection treatment methods. Additionally, supplemental water is provided by SJW distributed through the Montevina pipeline.

SJW has switched from chlorinated disinfection to chloramine disinfection water treatment. They initiated chloraminated water late last year and we immediately began to see issues with chlorine residual in our 300K gallon blended water storage tank. We shut down our plant switching solely to SJW purchased water.

We soon realized VDM had experienced partial nitrification in our 300K gallon water storage tank. A joint meeting was held at our site with San Jose Water personal, State Water Resources Control Board engineers, and our water operator. Together we reviewed Villa Del Monte's specific water quality concerns. SJW personal demonstrated methods to locally manipulate the tank to achieve the correct disinfection parameters.

As a result of this meeting it was agreed SJW would discontinue and postpone the initiation of their chloramine disinfection process giving other systems time to prepare for the change.

VDM is in early development of upgrades to our existing water treatment facility to treat and then generate chloraminated water compatible with SJW purchased water.

This would include replacement of the existing 300k gallon tank with two new smaller tanks. One tank 20k gallon would be used to treat Laurel creek water with chlorine as we do currently. The second 100k gallon tank would be used to store blended water from both sources. (SJW with its new chloramine treatment and VDM water properly treated to allow blending with the chloramine treated SJW water).

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Water Storage

The center support post of our 300,000-gallon water storage tank has failed.

We contracted Preferred Tank and Inspection company to come out and perform a complete tank inspection. In their report, they suggest the tank is beyond repair.



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Temporary Storage

We have developed a plan to create a temporary storage tank farm utilizing (6) 5,000-gallon poly storage tanks placed up by the reservoir. The County has reviewed and approved the plan and we are approximately 75% complete.

We expect the temporary tank farm to cost about \$50,000 and the cost will be covered by the reserve funds in our bank account.



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Water storage solutions

We have reached out to Preferred Tank who have completed their inspection and provided the following options: **(The tank inspection report is 25 pages long and is available by request)**

Preferred tank offered the following:

1. Provide a new bolted tank \$650k and 20-30 year life. This option requires county approval which involves additional engineering costs. Of concern is that the County has been reluctant to approve any new development since the 1989 earthquake.
2. Provide a new welded tank \$850k and unlimited life. This option also requires County approval which involves additional engineering costs. Of concern is that the county has been reluctant to approve any new development since the 1989 earthquake.
3. Repair current tank \$700k. This includes recoating outside, relining inside, removing roof and replacing with self-supporting aluminum dome, ring repair, overflow piping, protection, signage, code upgrades, ladders, etc. If would not require County approval nor additional engineering costs.
***Would not have a warranty or any manufacturers anticipated life expectancy!

National Storage Tank provided the following option:

Corrugated tank with liner \$300k. This option also requires County approval which involves additional engineering costs. Of concern is that the County has been reluctant to approve any new development since the 1989 earthquake.

Our Board has concluded that we need to resolve both the water treatment issue and the water storage issue at the same time.

Instead of replacing the current 300k gallon tank with a tank of similar capacity, we will install two new smaller tanks. One tank would be +/- 20k gallon and would be used to treat VDM creek water with chlorine as we do currently. The second tank would be +/- 100k gallon and would be used to store blended water from both sources, SJW with its new chloramine treatment and VDM water properly treated to allow blending with the chloramine treated water.

This option would require a transfer pump, ammonia control system and new foundation. It also requires County approval and associated engineering costs.

But if this is possible, it is a far more cost-effective solution.

*****Please see the attached sketches and very rough budget for the work.**

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Regardless of option selected, we are faced with the daunting question of how to pay for it. Options are member assessments, private loans, or possibly a State Revolving Fund (SRF) loan.

Additionally, if you would like to be included in the planning process, please let me know. Feel free to email me at atsunset2@verizon.net

The following members have asked to participate:

Lawrence Gordon
Don Navarini
Peter Van Cleef
Alejandro Arnaiz

Sincerely,

Mike Miller President
Villa Del Monte Water Company
408-348-4792 cell