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September 21, 2020

Board of Directors
Triunfo Water & Sanitation District
Ventura County, California

EQUIPMENT PURCHASE FOR CARLISLE LIFT STATION

Summary

The Carlisle sewage lift station has had operational issues since its installation. The primary problem has been odors, specifically Hydrogen Sulfide (H₂S) at both the station and the discharge manhole. Currently, we are using Bioxide, a calcium nitrate solution, and a blower with beneficial bacterial and nutrient injection. Both of these systems help with the odors but cause problems with a thick nitrate mat in the lift station. This mat requires at least semi-annual cleaning with a hydro-rodder and a confined space entry for thorough cleaning.

VRSD staff is recommending replacement of the contracted Chemsearch blower and nutrient system with a Reliant Water Technologies Wet Well Wizard (WWW). The WWW consists of a small regenerative air blower in a sound attenuating cabinet, air hoses, and two aeration tubes per wet well. The WWW aggressively agitates and mixes the wet well water. This constant agitation with highly forced air provides oxygen to the water, activating the growth of aerobic microbes in the wastewater, which in turn begins to digest the organic wastes in the water. This continual microbial activity, combined with constant aggressive agitation, not only eliminates the ability of H₂S to form, but also emulsifies all Fats, Oils, & Grease (FOG) and will not allow for FOG masses to collect and build on the wet wells. When the aerated water is pumped downstream in the collection system, it replaces all the water in the lines with oxygenated water, thereby eliminating odors downstream.

Please contact me at (805) 658-4648 or email RichardJones@vrsd.com if you have any questions or need additional information.

Fiscal Impact

The cost of the WWW system totals \$23,526.95. However, the system is expected to pay for itself within the current two-year budget, through an elimination of the Chemsearch

system (\$1,030 per month), a reduction in Bioxide usage (\$250 per month), and one less cleaning per year (\$5,000).

The purchase of the WWW is not budgeted within the Adopted FY2020-21 and FY2021-22 Budget, so a budget adjustment up to the amount of \$23,526.95 may be required for FY2020-21 (Account No. 45-210-221204-52069). Due to the uncertainty during the implementation period of when the WWW will be made operational, the budget impact will be monitored and may require a budget increase. Staff will bring this request back to the Board at a later date should an adjustment be necessary.

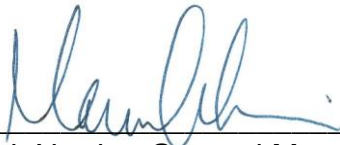
Recommendation

It is recommended that the Board approve and authorize the purchase and installation of the Wet Well Wizard at the Carlisle lift station and direct staff to request a budget increase should it be necessary following implementation.



RICHARD JONES – VRSD DIRECTOR OF OPERATIONS

REVIEWED AND APPROVED


Mark Norris - General Manager