



WASHOE COUNTY

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PARK COMMISSION STAFF REPORT MEETING DATE: FEBRUARY 2, 2021

DATE: January 25, 2021

TO: Open Space and Regional Parks Commission

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THROUGH: Eric Crump, Operations Division Director, Community Services Department, 328-2182, ecrump@washoecounty.us

SUBJECT: Presentation, discussion, and possible recommendation to Community Services Department staff to apply for a special use permit to construct a one-million-gallon water tank and associated infrastructure at Hidden Valley Regional Park for the storage and distribution of treated effluent water from the South Truckee Meadows Water Reclamation Facility. (Commission District 2).

SUMMARY

Washoe County, through its Utility Program in the Community Services Department, is responsible for the management and treatment of wastewater. Washoe County's Utility treats an average of five million gallons of wastewater per day at three regional wastewater plants, including the South Truckee Meadows Water Reclamation Facility (STMWRF). The STMWRF is undergoing an expansion to align with current and future growth. As part of the expansion project, the Utility Team is identifying potential locations for the distribution of treated effluent water and one of those potential locations is Hidden Valley Regional Park. In order to distribute treated effluent water at the park, a new water tank would need to be constructed and the park's existing potable water irrigation system would need to be converted to a reclaimed water irrigation system. This new water source would ultimately allow for additional landscaping and other potential amenities and would also allow for a portion of the potable water currently in use at the park to be utilized for other municipal purposes.

County Strategic Objective supported by this item: Safe, Secure and Healthy Communities

PREVIOUS ACTION

August 4, 1966 – The Washoe County Board of County Commissioners (BCC) accepted a Recreation and Public Purposes (R&PP) Act patent for a 260-acre portion of Hidden Valley Regional Park.

May 23, 1968 – The BCC accepted a R&PP Act patent for a 200-acre portion of Hidden Valley Regional Park.

April 29, 1969 – The BCC accepted a R&PP Act patent for a 40-acre portion of Hidden Valley Regional Park.

BACKGROUND

Washoe County holds Recreation & Public Purposes (R&PP) Act patents for Hidden Valley Regional Park. These patents were secured in the late 1960s. Any park development requires review and approval by the Bureau of Land Management to ensure that the development is consistent with the R&PP legislation.

The Washoe County Utility Program has been exploring potential locations for the distribution of reclaimed water to support the expansion of the South Truckee Meadows Water Reclamation Facility (STMWRF). They have conducted a number of preliminary tests at the park that have indicated that the park may be a good location for the construction of retention ponds and other park elements, such as a wetlands trail area. However, additional testing is still required and any large-scale park projects would also require an update to the Hidden Valley Park Master Plan to ensure consistency with community needs. Regardless as to whether those project elements move forward, the Utility Program would still like to construct a water tank at the park in order to support the STMWRF expansion, which would provide a number of park benefits, including a conversion of the existing potable water irrigation system to a reclaimed water irrigation system.

If approved, the current proposal would result in the construction of a one-million-gallon water tank at Hidden Valley Regional Park. The tank would be 77 feet in diameter and 36 feet tall. Other project elements would include the installation of $\pm 3,400$ feet of 24-inch pipeline to connect the tank to the STMWRF and the construction of a 15-ft-wide gravel road to provide access to the tank for operations and maintenance purposes. In total, the project would result in the exportation $\pm 4,300$ cubic yards of earthen material. The total disturbed area for the tank and access road would be ± 2.5 acres, of which ± 1.6 acres would be revegetated. The total disturbed area for the pipeline from the southwest corner of the park boundary to the tank access road would ± 2.4 acres. The entire area of disturbance related to construction of the pipeline would be revegetated.

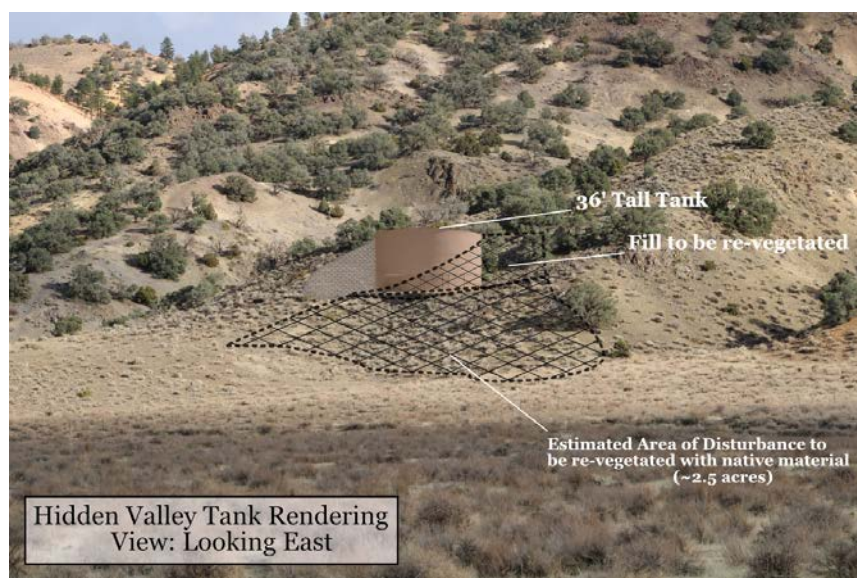
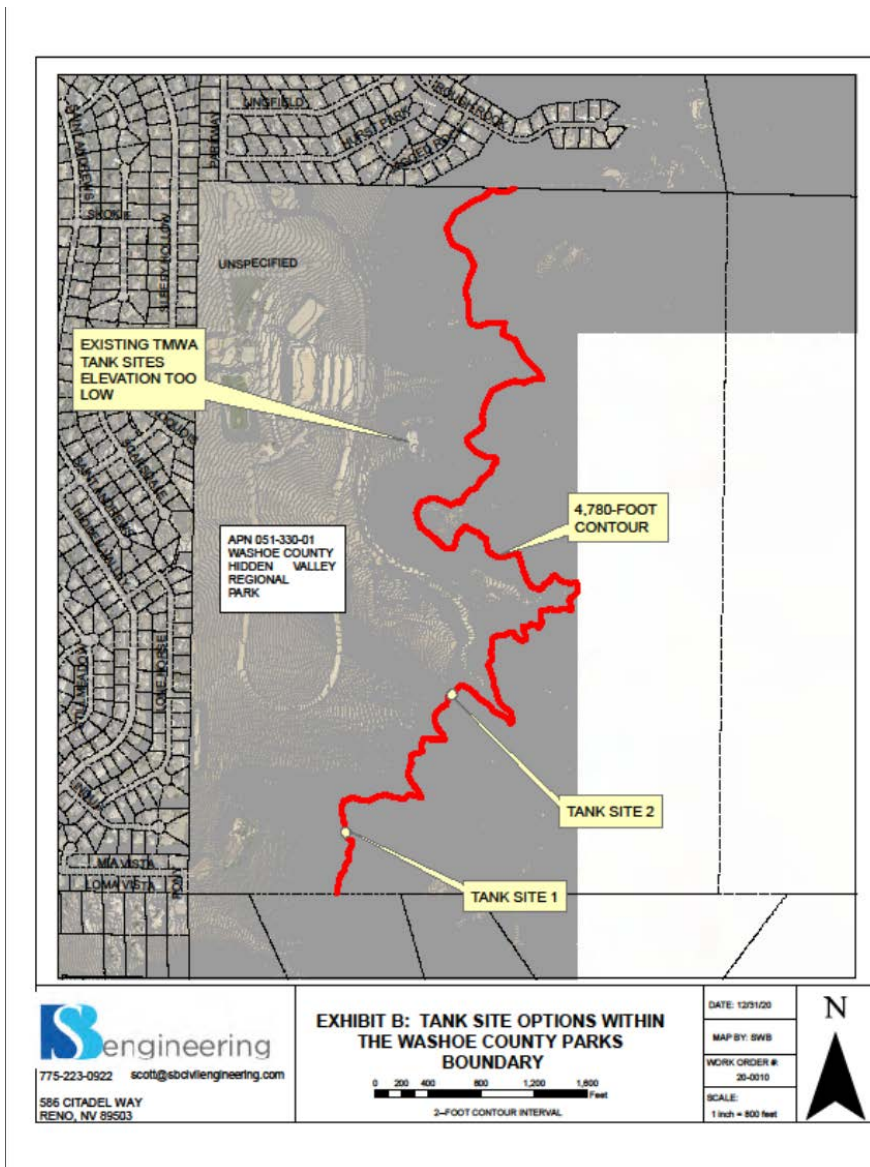


Photo Simulation 1: Looking East

Alternatives

Several project alternatives were considered before the preferred alternative was identified. The Washoe County Utility Team analyzed the viability of constructing a new water tank adjacent to the two existing TMWA water tanks on the park property. This option would minimize the disturbance required for the access road. However, hydraulic modeling indicated that the new tank needs to be located between 4,775 and 4,800 feet in elevation. The existing TMWA water tanks are at a lower elevation making that site incompatible with the proposed water tank. Other areas in the northern portion of the park were eliminated due to steep slopes and challenging topography. Ultimately, two potential locations were identified in the southern portion of the park. The preferred alternative (Tank Site 2) was selected because it would result in fewer impacts to the park and meets all tank requirements. Additionally, Tank Site 2 is better shielded by site topography, would require less overall grading, and would not impact any existing trails.



Map 1: Tank Alternatives

The Utilities Team also considered the construction of two smaller, welded-steel tanks in lieu of the larger, pre-stressed concrete tank. The two-tank option would provide for better maintenance abilities and the flexibility to take one tank offline during the winter when reclaim demand is lower. The construction costs for the two-tank option would also be significantly lower than the single-tank option. However, the larger, pre-stressed concrete tank option was ultimately selected because it would result in a smaller overall site footprint and it can be partially buried to better integrate into the surrounding environment



Photo Simulation 2: Looking Southeast



Photo Simulation 3: Looking Southeast from Northern Parking Lot

Mitigation

If approved, the tank would be partially buried and painted in a muted color to blend with its surroundings. The pipeline would be entirely buried, and the surface would be restored to the pre-existing condition or better. As part of the special use permit conditions of approval, a revegetation plan would be required. At a minimum, the plan would include: existing site conditions; the area of impact; selection of native/perennial adapted plants or seed mixes; revegetation methods; measures to prevent the spread of noxious weeds, revegetation success criteria; and appropriate monitoring provisions.

The project improvements would be constructed over a six- to eight-month timeframe. Disruptions to the park would be minimal as the project location avoids existing trails and trenches would be backfilled daily.

Park Benefits

Construction of the water tank and pipeline would allow for the conversion of the park's existing potable water irrigation system to a reclaimed water irrigation system. Potable water would be maintained for drinking fountains, but any landscaping could utilize reclaimed water. Additionally, this less expensive, sustainable water source would allow for the installation of further landscaping improvements and other park amenities. The potable water rights currently in use at the park could also be utilized for other purposes.

Next Steps

Should the Park Commission support the proposal, the next step is to apply for a special use permit. The special use permit application would ultimately be reviewed by the Washoe County Board of Adjustment. Should the outcome of that review be favorable, the proposal would also need to be reviewed and approved by the Bureau of Land Management.

FISCAL IMPACT

Cost to convert the irrigation system to effluent will be included in the project cost covered by the Utility Program. The Utility Program is currently conducting a rate study. It is anticipated that irrigation costs will decrease, as effluent is less expensive than potable water.

RECOMMENDATION

It is recommended that the Open Space and Regional Parks Commission recommend that Community Services Department staff apply for a special use permit to construct a one-million-gallon water tank and associated infrastructure at Hidden Valley Regional Park for the storage and distribution of treated effluent water from the South Truckee Meadows Water Reclamation Facility.

POSSIBLE MOTION

Should the Commission agree with staff's recommendation, a possible motion would be:

“Move to recommend that Community Services Department staff apply for a special use permit to construct a one-million-gallon water tank and associated infrastructure at Hidden Valley Regional

Park for the storage and distribution of treated effluent water from the South Truckee Meadows Water Reclamation Facility.”