



# Hidden Valley Water Tank Project



Washoe County Open Space and Regional Park Commission  
February 2, 2021



# Background

- The Washoe County Utility owns and operates the South Truckee Meadows Water Reclamation Facility (STMWRF).
- The STMWRF is a zero-discharge facility and all highly treated effluent is used for either irrigation (parks, schools, golf courses, streetscape, etc.) or to support construction activities.
- The treated effluent is very high quality (Class A) and is widely used throughout the STM.
- The STMWRF is undergoing an expansion to meet future growth in the South Truckee Meadows and the County is currently planning for the additional effluent that will be generated from the expansion.
  - Currently several projects have been identified for the East Reno/Hidden Valley Area:
    - Bella Vista Ranch (Temporary)
    - Hidden Valley Golf Course
    - Washoe County Hidden Valley Regional Park and Rapid Infiltration Trench Project





# Project Elements

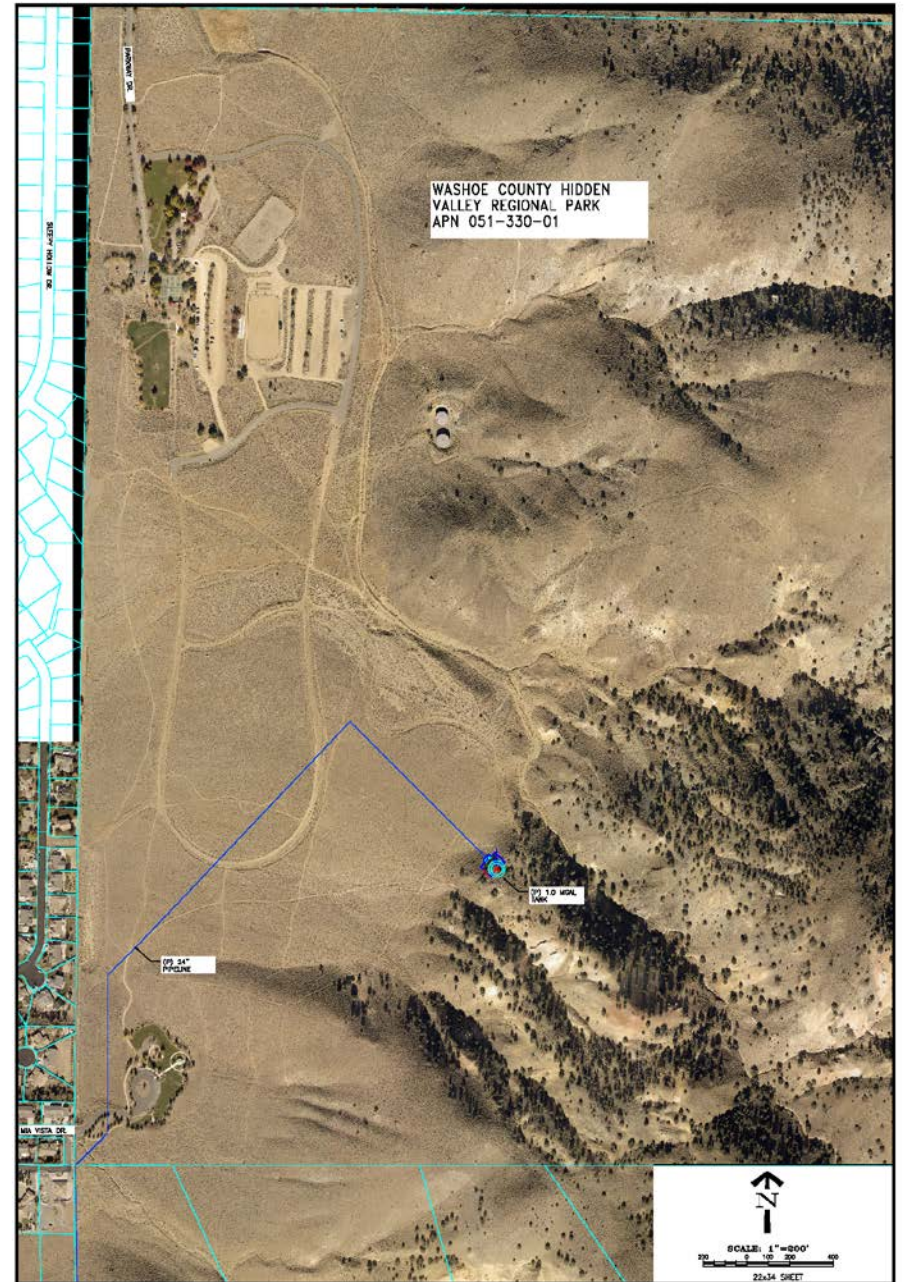
## Need to Support Continued Use of Highly Treated Effluent (Reclaimed Water)

- One-million-gallon water storage tank
  - 77 feet in diameter and 36 feet tall
  - Partially buried, pre-stressed concrete tank
  - Total disturbed area for the tank and access road would be  $\pm 2.5$  acres, of which  $\pm 1.6$  acres would be revegetated.
- Tank access road
  - 15 feet wide
- Pipeline to connect the new tank to the STMWRF and the park's irrigation system
  - 24-inch pipeline
  - Approximately 3,400 feet long
  - Total disturbed area for the pipeline would be  $\pm 2.4$  acres. This entire area would be revegetated.





# Tank Site



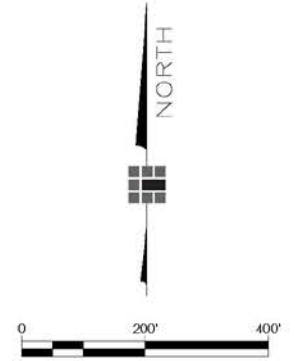
775-323-0822  
565 CITADEL WAY  
RENO, NV 89503

WASHOE COUNTY COMMUNITY SERVICES  
PROPOSED RECLAIM FACILITY  
ADDITIONS - HIDDEN VALLEY REGIONAL PARK

DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
WORK ORDER #: \_\_\_\_\_  
SCALE: 1" = 200'

EXHIBIT  
A





JANUARY 2021



HIDDEN VALLEY TANK PLANNING  
PRE-STRESSED CONCRETE TANK  
(OVERALL SITE LAYOUT)





# Tank Renderings



36' Tall Tank

Fill to be re-vegetated

Estimated Area of Disturbance to be re-vegetated with native material (~2.5 acres)

Hidden Valley Tank Rendering  
View: Looking East





# Tank Renderings





# Tank Renderings

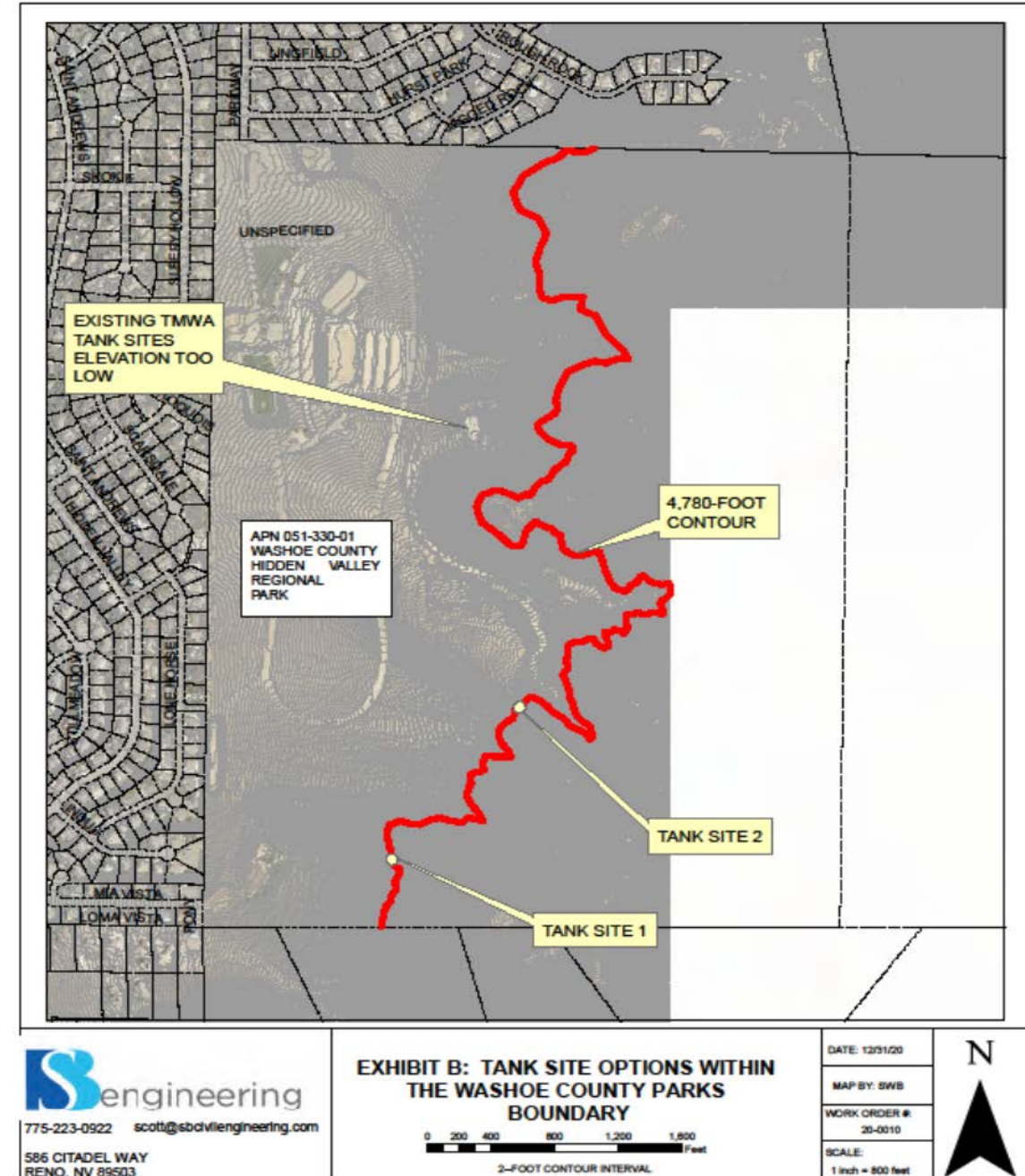






# Alternatives

- Alternative Locations:
  - Adjacent to the existing TMWA water tanks
    - Initially considered but not a viable option due to the elevation (low)
  - Tank Site 1 – to the south of the property
  - Tank Site 2 – proposed location
    - This site was selected because it would result in fewer impacts to the park (less grading, shielded by topography and would not impact existing trails)







# Alternatives

- Alternative Tank Options:
  - Two smaller, welded-steel tanks
    - Lower construction costs (30-40% less expensive)
    - Could take one tank offline in the winter when reclaimed demand is lower
    - Larger overall footprint
  - One larger, pre-stressed concrete tank
    - Can be partially buried with backfill placed directly against the tank walls
    - Less visible
    - Fewer park impacts





# Park Impacts/Mitigation

- Construction Timeline:
  - Pipeline: Approximately 17 working days at 200 feet/day
  - Water Tank: 6-8 months
- The pipeline would be buried and the surface restored to pre-existing condition or better.
- The concrete tank option would be partially buried and painted a muted color to blend.
- All disturbed areas would be revegetated in conformance with a revegetation plan.
- Disruptions to park use would be minimal. Trenches would be backfilled daily.





# Park Benefits

- Onsite reclaim water offers the ability to expand green areas within the park at a lower cost.
- Irrigating with reclaim water maximizes an existing resource and preserves potable water.
- Converting existing irrigation to reclaim water has a lower monthly/annual cost and allows for potential expanded irrigated areas.
- Existing potable water rights may be reviewed for options.





# Next Steps

- Special Use Permit
- Bureau of Land Management Approval





# Possible Motion

Move to recommend that Community Services Department staff apply for a special use permit to construct a reclaimed water tank and associated infrastructure at Hidden Valley Regional Park for the purpose of expanding the use of the County's treated effluent water while preserving existing potable water resources.

