



WASHOE COUNTY

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STAFF REPORT

BOARD MEETING DATE: December 11, 2018

DATE: November 9, 2018

TO: Board of County Commissioners

FROM: Dylan Menes, S.E., P.E., Senior Licensed Engineer
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THROUGH: Dwayne Smith, P.E., Division Director, Engineering and Capital Projects
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SUBJECT: Acknowledge receipt of the following plans for maintaining and expanding Washoe County's utility facilities: 1) South Truckee Meadows Water Reclamation Facility Plan Update and addendum updates, January 2016; 2) Spanish Springs Sanitary Sewer Collection System Facility Plan, July 2016; and 3) Cold Springs Wastewater System Facility Plan, June 2017 and 4) Pleasant Valley Interceptor Reach 3 and 4 Alternatives Alignment Study. (Commission Districts 2, 4 and 5.)

SUMMARY

Washoe County operates and maintains sanitary sewer conveyance systems in the South Truckee Meadows, Cold Springs and North Spanish Springs areas of Washoe County. In addition, the County operates wastewater treatment in the South Truckee Meadows and the Cold Springs area as well as a large reclaimed water system in the South Truckee Meadows. All sewage in the South Truckee Meadows is conveyed to the South Truckee Meadows Wastewater Treatment Facility (STMWRF). All non-septic system sewage in Cold Springs is conveyed to the Cold Springs Water Reclamation Facility (CSWRF).

Washoe County Utility facility plans were prepared in response to the Board of County Commissioners (Board) strategic goals for enhancing community safety through investing in critical infrastructure, both for current and future needs. To meet these requirements engineering staff initiated facility plan updates anticipating new growth in all current service areas. The updates were generally completed in the early part of 2016 and based on the need in these areas. Staff will utilize these plans to make recommendations for facility expansions in several critical areas.

Executive Summaries are attached to this staff report. The full Facility Plans are available at: https://www.washoecounty.us/csd/engineering_capitalprojects/index.php

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

PREVIOUS ACTION

On March 10, 2015, the Board approved a consulting service agreement with Carollo to provide an update to the 2008 STMWRF Facility Plan.

AGENDA ITEM # _____

On April 17, 2015, the Washoe County Purchasing Manager approved a consulting services agreement with Farr West to create a Facility Plan update for the Spanish Springs Sanitary Sewer Collection System (Spanish Springs Sewer).

On April 12, 2016, the Board approved a consulting service agreement with Farr West to provide an update to the 2002 CSWRF Facility Plan.

On June 13, 2017, the Board approved a consulting service agreement with Carollo Engineers to provide facility planning and engineering design services for sanitary sewer interceptors within the South Truckee Meadows Water Reclamation Facility service territory.

BACKGROUND

Washoe County's Facility Plan Update for STMWRF includes an update of the 2008 Facility Plan Update. The last facility Master Plan, titled *Draft Facility Plan Update South Truckee Meadows Water Reclamation Facility 6-mgd Expansion Project* (CH2M, April 2008), began in a period of significant economic and population growth, and was published at a time where changes had taken place in economic growth, regulatory climate, wastewater quality, and treatment technologies.

STMWRF was originally constructed in 1991 as a 1.5 million gallon per day (MGD) sewer treatment facility. In 2003, the facility capacity was expanded to 4.1 MGD through the addition of a new oxidation ditch, four secondary clarifiers, tertiary filters, chemical building, and associated appurtenant structures. STMWRF is owned by Washoe County and managed by the Community Services Department (CSD) Utility.

CSWRF was built in 1997 in order to eliminate additional septic systems being constructed in the Cold Springs hydrobasin and to allow for future development. Its original capacity was 0.35 MGD and was expanded to 0.70 MGD based on the 2002 CSWRF Facility Plan and 2003 Design document recommendations.

The Spanish Springs Sewer Collection System was constructed over time as the area was developed to allow for the conveyance and treatment of sanitary sewer flows through the City of Sparks area and then to the TMWRF, a regional facility owned by both the City of Reno and City of Sparks. Washoe County and the City of Sparks entered into an agreement which identified the costs and total capacity reservations for treatment within the TMWRF. The 2005 *Interlocal Agreement to Provide Sanitary Sewer Service in Spanish Springs Valley* (Agreement), the *Nitrate Occurrence Project Study for Spanish Springs Valley* in 2002, prepared by Washoe County Staff, and an initial *Water and Wastewater Facility Plan for Spanish Springs Valley* prepared in 1991 by Kennedy/Jenks/Chilton is the agreement that is currently in place and followed for new development in that area.

CSD Utilities Fund staff is responsible for preparing and maintaining a comprehensive Capital Improvement Program (CIP), identifying the need for improvements and repairs, and maintaining sufficient treatment capacity to align with building permit and usage growth projections.

Carollo was retained to provide engineering services and a Facility Plan for the CIP planning for STMWRF. This Facility Plan identified potential improvements for the facility through year 2035 based on population and development projections.

For the CSWRF CIP planning, Farr West was retained to provide engineering and consulting services that would identify potential improvements for the facility through year 2050 based on population and development projections.

Farr West also provided engineering and consulting analysis and recommendations for CIP planning for the County owned and operated portions of the Sanitary Sewer Collection System in Spanish Springs in the 2016 Facility Plan. This Plan evaluated the system through 2035, and was built upon previous modeling studies conducted by CH2M Hill in 2011, a Facility Plan created by Stantec in 2005, a Nitrate Occurrence Project Study for Spanish Springs Valley in 2002, prepared by Washoe County Staff, and an initial Facility Plan for Spanish Springs prepared in 1991 by Kennedy/Jenks/Chilton.

CSD Utilities Fund staff had recommended that the STMWRF, Spanish Springs, and CSWRF Facility Plans be updated to evaluate the current design criteria, establish new criteria as appropriate, and make recommendations for the CIP. A series of technical memoranda have been prepared to analyze and document the findings and recommendations throughout these facility planning efforts. These Facility Plan Updates will be used to develop and justify upcoming Capital Projects that the Utility will undertake. Therefore, it is recommended that the Board be cognizant and have a full understanding of these completed updated Facility Plans by an official acknowledgment of receipt.

The 2016 STMWRF Facility plan also updated the several decade old Pleasant Valley Interceptor (PVI) project. Utilities staff recommended, based on the Carollo findings, that the PVI project needed a more detailed analysis. Carollo was contracted to provide the update to the PVI project. Their final analysis was completed in January 2018 and it was titled the Pleasant Valley Interceptor Reach 3 and 4 Alternatives Alignment Study.

In their analysis, Carollo proposed several alternatives to the original PVI project and recommended a new project that included a new lift station to replace the existing Dorothy Towne lift station, a force main, and a sanitary sewer gravity main that would tie into the Phase 2 PVI project located at the southern end of Damonte Ranch Parkway.

The facility plans hold value to the County by providing the general roadmap that is utilized by staff in meeting the needs of the community specific in this case to wastewater treatment. It is important to have plans prepared and in place prior to actually needing them. Washoe County staff is well prepared with these plans to respond and coordinate with the development community as the region continues to grow responsibly.

FISCAL IMPACT

There is no fiscal impact.

RECOMMENDATION

It is recommended the Board of County Commissioners acknowledge receipt of the following Facility Plans: 1) South Truckee Meadows Water Reclamation Facility Plan Update and addendum updates, January 2016; 2) Spanish Springs Sanitary Sewer Collection System Facility Plan, July 2016; 3) Cold Springs Wastewater System Facility Plan, June 2017, and 4) Pleasant Valley Interceptor Reach 3 and 4 Alternatives Alignment Study.

POSSIBLE MOTION

Should the Board agree with staff's recommendation, a possible motion would be: "Move to acknowledge receipt of the following Facility Plans: 1) South Truckee Meadows Water Reclamation Facility Plan Update and addendum updates, January 2016; 2) Spanish Springs Sanitary Sewer Collection System Facility Plan, July 2016; 3) Cold Springs Wastewater System Facility Plan, June 2017; and 4) Pleasant Valley Interceptor Reach 3 and 4 Alternatives Alignment Study."