



# WASHOE COUNTY

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CM/ACM	<u>KS</u>
Finance	<u>DN</u>
DA	<u>SH</u>
Risk Mgt.	<u>N/A</u>
HR	<u>N/A</u>
Comptroller	<u>CH</u>

## STAFF REPORT

BOARD MEETING DATE: July 12, 2016

**DATE:** June 15, 2016

**TO:** Board of County Commissioners

**FROM:** Alan Jones, Project Manager, Engineering and Capital Projects  
Community Services Department, 954-4651, [ajones@washoecounty.us](mailto:ajones@washoecounty.us)

**THROUGH:** Dwayne Smith, P.E., Division Director, Engineering and Capital Projects,  
Community Services Department, 328-2043, [desmith@washoecounty.us](mailto:desmith@washoecounty.us)

**SUBJECT:** Recommendation to approve a Change Order [\$30,188.85] to the Agreement for Professional Consulting Services between Washoe County and NewFields Companies, LLC, that provided inspection and material testing services during construction of the Huffaker Hills Effluent Storage Reservoir – Phase 2 Liner Expansion Project [total project cost \$213,387.85]. (Commission District 2.)

### SUMMARY

Washoe County's Huffaker Hills Effluent Storage Reservoir is used to store treated effluent produced from the South Truckee Meadows Water Reclamation Facility (STMWRF). Construction of the reservoir was completed in 1991, which included a bentonite clay soil-liner system. Historically, this liner has proven ineffective resulting in significant water loss. Consequently, it was decided that the facility should be rehabilitated with a liner system.

To date the rehabilitation of the reservoir lining system has been delivered in two phases. The first phase included lining the bottom 25% of the reservoir with a HDPE liner (approximately 1 million square feet) and was completed in 2007. The second phase was completed in spring of 2016 and included additional liner to an elevation of 4,525, approximately 43 ft. above the elevation of the Phase 1 lining. Approximately 1.3 million square feet of HDPE liner was installed in the second phase. With the completion of the second phase approximately 68% of the reservoir is lined with an HDPE membrane.

On August 11, 2015, NewFields Companies, LLC, was contracted to provide inspection and material testing services during construction of Phase 2 of the project. The scope of work included construction quality assurance testing and construction oversight for the project. Quality assurance testing included field and lab testing for the soils and the geosynthetic liner placement. Their negotiated fee was \$183,199.00.

Due to the difficult construction conditions and the late start to the project the work schedule was increased by the contractor to six days a week. The NewFields proposal was based on a five days a week construction schedule. This change, along with additional survey requested by County staff, increased the budget an additional \$30,188.85. This request represents a 16.5% increase in the contract amount. The proposed total contract amount is \$213,387.85.

Washoe County Strategic Objective supported by this item: Safe, secure and healthy communities.

### **PREVIOUS ACTION**

On August 20, 2002, the Board of County Commissioners (Board) adopted the *South Truckee Meadows Water and Wastewater Facility Plan*.

On May 13, 2003, the Board accepted receipt of a status report on a request that Washoe County received from the Cities of Reno and Sparks to begin a dialogue relative to storing Truckee Meadows Water Reclamation Facility effluent at Washoe County's Huffaker Hills Reservoir.

On January 23, 2007, the Board approved a professional services contract in the amount of \$387,519 for improvements to the Huffaker Hills Treated Effluent Reservoir.

On October 16, 2007, the Board awarded a bid and approved the Contract to the lowest responsive, responsible bidder for the Huffaker Hills Effluent Storage Reservoir – Phase 1 Liner Improvements Project, A&K Earth Movers, Inc. in the amount of \$1,988,316.

On July 22, 2014, the Director of the Community Services Department approved a consulting services contract with New Fields Companies, LCC for the amount of \$49,500.

On January 30, 2015, the Purchasing and Contracts Manager approved a consulting services contract with New Fields Companies, LCC for the amount of \$80,900 for the Phase 2 design of the project.

On July 14, 2015, the Board awarded a bid and approved the Agreement to the lowest responsive, responsible bidder for the Huffaker Hills Effluent Storage Reservoir – Phase 2 Liner Expansion Project, A&K Earth Movers, Inc. in the amount of \$4,060,000.

On August 11, 2015, the Board approved a Professional Consulting Agreement with NewFields Companies, LCC in the amount of \$183,199.00 for Phase 2 inspection and material testing services during construction.

### **BACKGROUND**

The need to rehabilitate the reservoir's lining system has been identified for many years. The reservoir was completed in 1991, which included a partial bentonite clay soil-amended liner system to reduce water loss by absorption into the ground. Historically, this liner has proven ineffective resulting in significant water loss. It is estimated prior to

the two phases of reservoir lining that the reservoir lost 920 to 1820 acre feet of treated effluent per year.

The first phase of improvements was done in 2007 which included lining the bottom twenty-five percent of the reservoir with a HDPE liner, installing a 6-foot tall chain link security fence around the full perimeter of the reservoir, constructing an access road, constructing an under-liner drainage system and associated soil grading required for the Phase 1 Lining improvements.

Subsequently, Staff has been obtaining water level data from the reservoir and additional seepage is occurring when the water level is above the liner. NewFields was contracted to investigate the possible locations of the leakage and provide recommendation on additional lining. Their investigation identified a wide range of leakage locations and recommended the next increment of HDPE lining around the entire reservoir. Based on funding and staff analysis, the Phase 2 project resulted in extending the lining to an elevation of 4525, approximately 43 ft. above the elevation of the existing Phase 1 lining. It is anticipated that a Phase 3 project will complete the lining of the reservoir and will be planned for and budgeted appropriately.

#### **FISCAL IMPACT**

Sufficient funds and budget authority exist in project number WR495119, account 781080. Revenues in support of this project are provided from monthly sewer rate charges.

#### **RECOMMENDATION**

It is recommended that the Board of County Commissioners approve a Change Order [\$30,188.85] to the Agreement for Professional Consulting Services between Washoe County and NewFields Companies, LLC, that provided inspection and material testing services during construction of the Huffaker Hills Effluent Storage Reservoir – Phase 2 Liner Expansion Project [total project cost \$213,387.85].

#### **POSSIBLE MOTION**

Should the Board agree with staff's recommendation, a possible motion would be. "Move to approve a Change Order [\$30,188.85] to the Agreement for Professional Consulting Services between Washoe County and NewFields Companies, LLC, that provided inspection and material testing services during construction of the Huffaker Hills Effluent Storage Reservoir – Phase 2 Liner Expansion Project [total project cost \$213,387.85]."