



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Through: David L. Corliss, Town Manager

From: Mark Marlowe, P.E., Director of Castle Rock Water
Matt Benak, P.E., Water Resources Manager
Zuzana Howard, Water Resources Program Analyst

Title: **Resolution Approving the First Amendment to the Intergovernmental Agreement between the Town of Castle Rock, the South Metro Water Supply Authority, Dominion Water and Sanitation District, and Parker Water and Sanitation District regarding the WISE Pump Station Expansion and Infrastructure Design** *[Rueter-Hess Reservoir Water Purification Facility, Parker Water and Sanitation District, Parker, CO]*

Executive Summary

The purpose of this resolution (see **Attachment A**) is to seek Town Council approval for cost adjustments required by the design consultant (HDR) for the design of an expansion to Parker Water and Sanitation District's (PWSD) WISE pump station and associated infrastructure. Castle Rock entered into an intergovernmental agreement (**Attachment B**) with PWSD for this work under approval from Castle Rock's Town Council on December 7, 2021.

During the course of project design HDR recognized additional design efforts that needed to be included for an effective final design. The cost adjustments include:

- Ten (10) additional progress meetings and workshops;
- Transient modeling and mitigation; and additional effort for:
 - Basis of design report and 30% layout drawing additions;
 - 60% plans, specifications, and development of Engineers Opinion of Probable Construction Cost (EOPCC) for the Pump Station, chemical feed system and flow control vault;
 - 90% plans, specifications, and EOPCC for the Pump Station, chemical feed system and flow control vault;
 - Final bidding plans, specifications, and EOPCC;
 - Permitting for the chemical feed system; and
 - Procurement packaging and submittal reviews.

Details of HDR's engineering design services amendment are included as ***Exhibit 1***.

One of Castle Rock's key pieces of its renewable water supply portfolio is water from the Water Infrastructure and Supply Efficiency (WISE) project. The WISE Program is a source of renewable and sustainable water supply for ten (10) South Metro water providers, including Castle Rock and PWSD. Previously, expansions to the associated WISE receiving tank, pump station, and site piping were deferred and the pump station inside PWSD's existing Rueter-Hess Water Purification Facility (RHWPf) was used to pump WISE water. Now, PWSD is in need of its own pump station capacity within the RHWPf and desires to design and construct the deferred WISE infrastructure.

The additional costs associated with this amendment are \$228,400; however, \$54,780 are related to PWSD's parallel water line and not the responsibility of the other partners. Thus, Castle Rock's portion is 54% of \$178,620, which equals \$93,754.80. The original total cost of the design was \$825,600 (Castle Rock's portion being \$445,824). This design amendment represents a 21% cost increase for Castle Rock.

History of Past Town Council, Boards & Commissions, or Other Discussions

On December 1, 2021, staff presented the Intergovernmental Agreement with Parker Water and Sanitation District for the WISE Pump Station Expansion and Infrastructure Design to the Castle Rock Water Commission. Commission recommended Town Council approve the IGA with a vote of 7-0.

On December 7, 2021, the Town Council approved the Intergovernmental Agreement with Parker Water and Sanitation District for WISE Pump Station Expansion and Infrastructure Design.

Castle Rock Water staff presented this item to the Castle Rock Water Commission at their meeting held on May 24, 2023, and the Castle Rock Water Commission voted 6 to 0 to 1 (Kathryn Gienger abstained) to recommend Town Council approval of the Resolution as presented.

Discussion

During the course of project design, the design consultant, HDR, recognized additional design efforts that needed to be included for an effective final design. This additional effort includes:

- Ten (10) additional progress meetings and workshops;
- Transient modeling and mitigation; and additional effort for:
 - Basis of design report and 30% layout drawing additions;
 - 60% plans, specifications, and development of the EOPCC for the Pump Station, chemical feed system and flow control vault;
 - 90% plans, specifications, and EOPCC for the Pump Station, chemical feed system and flow control vault;
 - Final bidding plans, specifications, and EOPCC;
 - Permitting for the chemical feed system; and
 - Procurement packaging and submittal reviews.

The number of meetings and workshops doubled from the initial estimate, from 10 to 20.

The hydraulic transient analysis was significantly expanded beyond the initial specifications to include evaluating the future WTP expansion, future Western Loop pump station, and existing Canyon's pump station to confirm that surge mitigation measures are adequate for the planned expansions.

The Basis of Design Report (BDR) was expanded to include drawings for the chemical feed building addition and flow control vault.

All of these additions to the original scope of work will have increased time and cost impacts not only in the preliminary design phase but also when preparing the 60%, and 90% Plans, Specifications, and EOPCC Deliverables.

In 2015, a 42-inch steel pipeline (the Ridgeway Pipeline [RGL]) was designed and constructed to convey WISE water from the primary WISE East-West transmission main to RGL regional partners. At that time, the associated WISE receiving tank, pump station, and site piping were deferred and the pump station inside PWSD's existing RHWPf was used to pump WISE water. Now, PWSD is in need of its own pump station capacity within the RHWPf and desires to design and construct the deferred WISE infrastructure. It is PWSD's desire that the design be completed to allow for this WISE infrastructure be operational no later than June 2024.

The WISE system is controlled independently of the PWSD system and therefore requires its own supervisory control and data acquisition (SCADA) and controls integration to communicate to the WISE backbone SCADA system. Depending on the configuration and hydraulics of the WISE PS to the PWSD system, additional communication and coordination will be necessary between the two agencies to deliver adequate integration and controls.

PWSD is the Operator of the WISE system and will own this infrastructure, but coordination with the South Metro WISE Authority (SMWA) on this project may be required. The Consultant may also be asked to assist in providing updates to the SMWA Board.

Budget Impact

Castle Rock's share of HDR's additional cost of the design project is \$93,754.80.

Monies for this project will come from 211-4375-443.77-72 Water Resources, CIP – WISE Infrastructure, Project Code <WR WLI>. This account has a remaining budget of \$14,171,260 for 2023.

Staff Recommendation

Staff and CRW Commission recommend that Town Council approve the Resolution as presented in ***Attachment A***.

Proposed Motion

"I move to approve the Resolution as introduced by title."

Alternative Motions

"I move to approve the resolution as introduced by title, with the following conditions: (list conditions)."

"I move to continue this item to the Town Council meeting on _____ date to allow additional time to (list information needed)."

Attachments

Attachment A: Resolution

Exhibit 1: Amended Agreement

Attachment B: Original Agreement