



## **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 Resource Manager  
Scott Tait, E.I., Water Resources Project Manager

**Title:** **Resolution Approving an Intergovernmental Agreement with Douglas County for the Highway 85 Wastewater Collection and Treatment System**  
*[Located along the Highway 85 Corridor North of E. Happy Canyon Rd to W Titan Rd in northern Douglas County]*

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### **Executive Summary**

Castle Rock Water (CRW) staff recommends Town Council approval of a Resolution (**Attachment A**) approving an Intergovernmental Agreement (IGA) with Douglas County for CRW to manage the design and construction of a wastewater collection and treatment system to be located along the Highway 85 corridor. Key terms of the IGA with Douglas County are as follows:

- Provides CRW with \$26.8 Million in Douglas County American Rescue Plan Act funds to design and construct the system with funds needing to be spent by December 31, 2026;
- Allows CRW to charge a 1% project management fee for these services;
- Dedicates the constructed system assets in the corridor to CRW for long term operation, maintenance, repair and replacement;
- Makes CRW the retail and wholesale wastewater provider in the Service Area (see **Attachment B**);
- Requires CRW to develop rates and fees for the Service Area;
- Allows CRW to charge a 10% extraterritorial surcharge for all aspects of this service; and
- Ensures that new development in the corridor beyond the first 200,000 gallons of wastewater can only occur if renewable water supplies are available.

The benefits of the IGA to Chatfield Reservoir, Douglas County, the corridor and CRW are as follows:

- Improves water quality in Chatfield Reservoir (drinking water source for CRW) by removing untreated or poorly treated wastewater sources in the corridor (e.g. Louviers);
- Allows all reusable water supplies used in the corridor to be captured for reuse by CRW and Dominion Water and Sanitation District (DWSD) with DWSD only taking those supplies where they are the supplier;
- Creates wastewater solutions for existing communities in the corridor (e.g. Louviers and Sedalia) and existing businesses (e.g. CORE a big employer in the region);
- Improves the economic viability and vitality of this key transportation corridor (good location for primary jobs) by ensuring that wastewater service is available;
- Provides opportunities for additional water quality and environmental projects along Plum Creek utilizing easements obtained from this project;
- Gives the opportunity for consolidation of some of the small underfunded water and sanitation districts into more sustainable systems like CRW; and
- Allows for collaboration on a trail system running from Castle Rock all the way to Chatfield Reservoir by co-locating the sewer system with trails on easements obtained in the corridor.

Additional benefits of the IGA to CRW include:

- Ensures that CRW has oversight of water and wastewater development in this critical CRW water resources corridor;
- Contributes to economies of scale for CRW's operations over the long term helping to spread our costs amongst a larger customer base;
- Gives CRW more financial resources from the extraterritorial surcharge to accomplish our core mission and vision; and
- Provides ARPA funding for a pump station that will pump reuse water back to CRW's reservoirs in Sedalia and help offset the cost of our Chatfield Pump Back system (at least a \$2 to \$4 million benefit for our long term water plan)

The Highway 85 corridor is adjacent to East Plum Creek and Plum Creek which discharges into Chatfield Reservoir. The majority of wastewater collection and treatment systems along the corridor consist of individual onsite septic tanks with leach fields that discharge to groundwater. The exception to this is that the community of Louviers has a gravity sewer collection system that treats its wastewater in a facultative pond and discharges effluent via land application. CRW will utilize \$26.8 million in American Rescue Plan Act) (ARPA) funds provided through and by Douglas County to manage the project for the design and construction of infrastructure for the major wastewater components which include conveyance gravity sewers, force mains and lift stations and a wastewater treatment plant to serve the corridor. CRW will receive a 1% project management fee for its project management services for the project.

### **Notification and Outreach Efforts**

CRW has worked closely with potential customers in the corridor including LSD, Sedalia, CORE and another new development in northern Douglas County.

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

Castle Rock Water staff presented this item to the Castle Rock Water Commission at their meeting held on April 26, 2023, and the Castle Rock Water Commission voted unanimously 6 to 0 to recommend Town Council approval of the Resolution as presented.

### **Discussion**

#### **Alternative Selection**

Castle Rock Water will evaluate the various alternatives for building a wastewater collection and treatment system for the Highway 85 corridor. This evaluation will be shared with Douglas County and the most favorable alternative will be selected based on cost, environmental benefits, constructability, permitting, technology feasibility, ease of implementation, differing operability, ease of schedule, regional partnerships and other factors for selecting the best alternative. There are three project alternatives listed in the IGA as follows:

- Alternative 1. All Force Main with two lift stations with discharge to Plum Creek Water Reclamation Authority (PCWRA).
- Alternative 2. Louviers Wastewater Treatment Plant with gravity sewers from Sedalia with discharge of treated effluent to Plum Creek and/or piping of wastewater to the Castle Rock reservoir system.
- Alternative 3. Chatfield Basin Water Reclamation Facility (CBWRF) with a lift station at Louviers and a force main from Louviers to a Sterling Ranch gravity sewer then on to the Titan Road lift station.

Alternative 3 is currently the preferred Alternative and as shown in **Attachment C**, takes advantage of participation with additional utility stakeholders. Dominion Water & Sanitation District (DWSD) would be the other utility participant. A Term Sheet (**Attachment D**) with DWSD is the basis of a more definitive IGA to be worked out with DWSD with later submission to Town Council for approval.

For the Alternative 3 infrastructure, a wastewater treatment plant located on Caretaker Road off West Waterton Road and near the South Platte River would be built by CRW as part of the overall project, and owned and operated by DWSD. To convey Highway 85 corridor wastewater to the Caretaker Rd location it would flow through DWSD infrastructure of gravity sewers, force mains and lift stations from a future CRW owned and operated lift station in Louviers. Wastewater that would flow to the Louviers lift station would come from the Louviers community collection system and also eventually from the Sedalia area. Since the ARPA funds represent a finite amount of monies that must be spent by December 31, 2026, System Development Fees will provide funding for the sewer expansions to the south, north and east of Louviers. CRW will provide retail and/or wholesale wastewater service in the Service Area. CRW will reuse the wastewater collected and treated from the corridor via a pump station at the Dominion wastewater treatment plant site that will connect to CRW's future Chatfield Reservoir Pump Back Project that is presently in the Preliminary Engineering phase. The reuse water would be stored at the CRW reservoirs near Sedalia for later treatment to potable water quality levels at the Plum Creek Water Purification Facility.

### Project Management of Phase 1

The project will be completed in two phases. The concept for Phase 1 will be to construct infrastructure to provide roughly 200,000 gallons per day of average daily collection and treatment capacity in the Highway 85 corridor. After the selection of the alternative and the engineering tasks required to select the infrastructure treatment site locations, lift station(s) and pumping station(s) and pipeline routes, Castle Rock Water will break the project down into phases as appropriate. For example, for Alternative 3, the project will be broken down into:

- Louviers Lift Station
- Louviers Force Main
- Chatfield Basin Water Reclamation Facility
- Titan Road Lift Station

Castle Rock Water will then manage all aspects of the acquisition of professional engineering and construction services for the permitting, design and construction of the infrastructure associated with the selected alternative for the Regional Wastewater Collection and Treatment Project. A work breakdown structure and Gantt style schedule will be developed with the various project components identified. An example high level schedule is provided below.

Castle Rock Water will evaluate the most appropriate project delivery methods for the various project components based on the rules of the ARPA funding, permitting, the schedule, technical aspects of the work, availability of qualified consultants and contractors, and availability of critical equipment (pumps, treatment process equipment, etc.).

RFPs for professional engineering services will be issued. Once selection is made with Douglas County's concurrence, design will begin. Castle Rock will work with Douglas County to set up the appropriate escrow accounts for each contract awarded as part of the project. As design progresses, Castle Rock will begin easement and property acquisition. Temporary easements will be obtained that are needed for the construction of the infrastructure.

Easements will also be obtained for the multipurpose trail where the proposed location matches the wastewater collection piping routes. Also, as part of the design, permitting will be completed for each work phase. As designs for each phase are complete as appropriate depending on the delivery method used, construction bidding will be completed. Work will be awarded with Douglas County concurrence. Castle Rock Water will oversee construction for each phase using professional engineering services as appropriate to ensure we receive a good project.

In the initial phases of the project, Castle Rock will develop and write Requests for Proposals (RFP's) needed for acquiring the professional engineering services to accomplish the tasks of schematic design (30% engineering), the 60% engineering needed for drawings and most permits, 90% engineering for drawings, specifications and cost estimates, and 100% engineering needed for complete construction. Castle Rock will use our standard process for engineering and construction services including our contracts and documents for obtaining design and construction services. Each component will go through approval with our Council like we do for any project over \$250,000. Each component will also be brought to Douglas County for approval.

Castle Rock is planning on constructing the infrastructure using alternative delivery methods as allowed based on the ARPA funding rules. For example, Castle Rock will consider the CMAR (Construction Manager at Risk) delivery method for some components of the project. The CMAR delivery method is designed for speed of construction implementation and transparency of costs in addition to communitive and excellent collaboration between internal and external stakeholders of the project. At the 30% engineering design level, construction contractors will be solicited to submit labor, materials, overhead and profit proposals for the project which Castle Rock will oversee and evaluate with input from the professional engineering services team. The CMAR contractor will provide a Guaranteed Maximum Price Construction Management (GMPCM) contract at that time and work towards developing a Final Guaranteed Maximum Price (FGMP) contract.

#### Provision of Wastewater Service

Once the project infrastructure is complete, Castle Rock Water will own, operate, maintain, repair and replace the collection system infrastructure in the Highway 85 corridor and the reuse water components of the system. The wastewater treatment plant (CBWRF) will be assigned to Dominion to own, operate, maintain, repair and replace once construction is complete if Alternative 3 is selected.

Castle Rock Water will provide retail and/or wholesale wastewater service in the Service Area. In addition to operating and maintaining the system, this service will include an annual cost of service evaluation and setting of rates and fees, billing and customer service. Castle Rock will also consider providing retail water service where water supply is available and the customer would like to have that service as well as part of a more holistic retail service.

As the wastewater provider Castle Rock Water will also annually evaluate and set system development fees (SDFs) to be paid by customers connecting to the system, which fees will be different for existing development verses new development and redevelopment. For all potential customers, Castle Rock Water will determine necessary improvements, available capacity and SDFs and then provide a will serve letter if service can be provided.

#### Project Management of Phase 2

Castle Rock will utilize SDFs to build Phase 2 of the project in the future to allow service to be provided beyond the capacities created in Phase 1. SDF revenue will be put into a project fund. As funds accrue, Castle Rock will design, permit and construct additional infrastructure in the corridor. Ultimately, the concept will be to construct a full collection system from Titan Road Lift Station to just North of Plum Creek Water Reclamation Authority and approximately 1 million gallons per day of average daily flow treatment capacity. Past Phase 1 capacities, Castle Rock will also evaluate availability of renewable water supplies for new development and redevelopment. Confirmation of renewable water supplies will be an additional requirement in order to gain wastewater services.

#### Budget Impact

CRW will receive a 10% surcharge on all rates and fees and system development fees towards the operations and overhead cost of CRW.

### **Staff Recommendation**

Staff recommends Town Council approval of this IGA with Douglas County for the Highway 85 Wastewater Collection and Treatment System.

### **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:	Agreement
Attachment B:	Service Area
Attachment C:	Alternate Option #3
Attachment D:	E-85 Wastewater Intergovernmental Agreement