City of Bellevue

MEMORANDUM

☐ **Action**
☒ **Information**
☐ **Discussion**

DATE: April 1, 2021

TO: Environmental Services Commission

FROM: Chad Beck, Operations and SCADA Supervisor

SUBJECT: SCADA Master Plan Implementation Update

Action Required at this Time

No action by the Commission is required at this time.

Fiscal Impact

The SCADA Master Plan implementation has a total budgeted cost of $7 million over the next seven years (2021-2027). This includes $1.26 million in drinking water, $4.36 million in wastewater, and $1.46 million in storm water.

Policy Issues

There are no policy decisions for the Commission to make at this time. However, The SCADA Master Plan identified a project roadmap that will align the Utility's SCADA system with Federal and State regulations on critical infrastructure security and resilience. Additionally, the planned upgrades are in alignment with the Bellevue City Council's Smart City Initiative.

Background

The City of Bellevue Utilities Department utilizes a supervisory control and data acquisition (SCADA) system to control and monitor the potable water, wastewater and storm water systems. Today, the City operates and monitors 32 drinking water sites, 48 wastewater sites and 11 storm sites through the SCADA system. Using the SCADA system, Utilities staff remotely operate pumps and valves, fill and drain reservoirs, and empty wastewater wet wells. Additionally, the SCADA system measures, transmits and records valuable data such as pressure and flow that are routinely used for engineering designs, system modeling and financial planning.

This is an informational briefing on the implementation of our SCADA Master Plan that was finalized in September 2020. In the past six months, the City has begun implementing the early stages of Phase 1 of our plan, upgrading critical industrial control hardware at remote sites across the city. This work is pivotal to the

communications infrastructure upgrades that will occur later this year, followed by software and business intelligence upgrades scheduled for 2022 and beyond.

This presentation will review all four phases of the SCADA Master Plan, which include:
1. Communications & Process Control Hardware Upgrades
2. Software & Security Upgrades
3. Advanced Field Sensor Installation
4. Business Intelligence Integration

Attachments

This is a follow up presentation to a brief that was given on February 6th, 2020 on the status of the Master Planning effort. The agenda memo and presentation slides can be found in the City of Bellevue Council and Commissions website https://bellevue.legistar.com and are also linked below for reference.

1. ESC Agenda Memo, SCADA Master Plan Update, Feb 6 2020 :
    https://bellevue.legistar.com/LegislationDetail.aspx?ID=4322600&GUID=0B6F5929-084E-4BF8-9E67-736CB5CC6909&Options=&Search=

2. ESC Presentation, SCADA Master Plan Update, Feb 6 2020 :
    https://bellevue.legistar.com/View.ashx?M=AO&ID=85137&GUID=61df9c6b-2da3-4b64-9bbc-8a639f8a65a5&N=U0NBREEgTWFzdGVyIFBsYW4gUHJvamVjdCBVcGRhdGU%3d