

IMPACT STATEMENT

Legislation title: Authorize a contract with Brown and Caldwell, Inc. for professional services for the Inverness Pump Station 24-inch Pressure Line Rehabilitation for \$1,100,000, BES Project No. E10887 (Ordinance)

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Purpose of proposed legislation and background information:

The Inverness Pump Station 24-inch is an approximately 46,000-foot long pressure line and was installed in the 1980's. During the construction of the Columbia Slough Consolidated Conduit (CSCC) in the late 1990's, approximately 1,000-feet of the 24-inch ductile iron pipe (DIP) was abandoned, and inspection of samples taken from the abandoned pipe section showed evidence of corrosion, and at that time a recommendation was made to conduct further investigations at a later date.

There are known problems with plugging in the connections to the 17 air/vacuum (A/V) valve assemblies along the 24-inch Inverness PS pressure line system that has caused those A/V valves to be non-functional since the mid-1990's. In order to compensate for the lack of functioning A/V valves the BES Wastewater Group Operation and Maintenance staff was forced to periodically pig that line to remove accumulated air pockets that adversely affect the flow capacity of the line and significantly increases the power demand to convey wastewater through that pressure line. After the newer 36-inch/30-inch/24-inch Inverness force main system was installed and successfully operated for several years the 24-inch line was removed from service, and it has been out of service for more than 10-years. It is anticipated that the accumulated air pockets that were due to the non-functional A/V valve assemblies may have resulted in accelerated corrosion of the 24-inch DIP. A future project will follow to perform a thorough condition assessment, and correction of any deficiencies that may be identified before returning the 24-inch pressure line to routine operation. The future condition assessment requires reconfiguration of all A/V assembly installations in order to achieve reliable air and vacuum release during operation of the 24-inch pressure line system. Once the 24-inch force main is returned to service, a second future project will perform a thorough condition assessment, and correction of any deficiencies that may be identified on the 36-inch/30-inch/24-inch force main.

The primary purposes of this project are to:

- 1) Reconfigure the A/V valve assemblies to provide long term reliability, and safe operation and maintenance access.
- 2) Perform all needed preparatory work to facilitate a detailed inspection and condition assessment of the 24-inch force main system to identify deficiencies that will need to be addressed in a subsequent project.

Financial and budgetary impacts:

This contract will not increase current and future revenues or staffing levels. The budgetary impact for the contract is an estimated \$1,100,000 for professional services with 20% of the estimated contract total, or approximately \$220,000, identified for subcontracting with M/W/ESB firms. The Confidence

