

May 10, 2018

To: Members  
Public Works and Infrastructure Committee

Re: Request for Proposal (RFP) - Engineering Services for Water Distribution System  
Eastern Pressure Solution

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**RECOMMENDATION**

1. That a Request for Proposal to initiate the engagement for professional engineering services to complete all phases of the Water Distribution System Eastern Pressure Solution be approved.
2. That the Executive Director, City Planning and Development be authorized to negotiate, award and enter into, and amend contract with the highest ranked proponent, provided the fee for predesign engineering services is less than the project budget of \$1.8 million including contingency.
3. That the City Clerk be authorized to execute a Consulting Service Agreement with the highest ranked proponent upon review and approval of the City Solicitor.
4. That this report be forward to the May 28, 2018 meeting of City Council for approval.

**CONCLUSION**

Based on the recommendations presented in the *Water Master Plan Report* (WMP) completed by AECOM in 2017, upgrades to the City of Regina (City) water distribution system are required to maintain current levels of service, as well as to permit continuing development in areas east of Ring Road. The WMP also recommends upgrades to the City's water reservoir storage capacity to meet Water Security Agency (WSA) guidelines for the next 25 years.

The above recommendations will be achieved by construction of a new pumping station, reservoir and supply main in the northeast area of the city.

**BACKGROUND**

*Design Regina: The Official Community Plan Bylaw No. 2013-48* (OCP) provides the framework to guide the development of the City's infrastructure to accommodate long term growth.

To achieve the vision established by the OCP for the City's water infrastructure, a comprehensive engineering study of the City's supply and distribution system has been

completed. The forthcoming WMP, to be presented to Council later in 2018, reviewed and analyzed the City's water infrastructure supply lines, water storage reservoirs and distribution system to determine how to maintain and improve the level of service, reduce risk and vulnerabilities and accommodate growth. Based on this analysis, the WMP provides a multiyear capital upgrade plan to guide development of the City's water infrastructure system for the next 25 years.

The WMP identified some areas east of Ring Road are already experiencing pressure deficiencies during peak hour demand periods. As growth continues, pressure deficiencies are expected to increase. Therefore, to accommodate growth in areas east of Regina, while maintaining levels of service for existing areas, the WMP recommends construction of a new pumping station located in the northeast.

The WMP also recommends the City maintain a minimum reservoir storage volume based on guidelines provided by the WSA and Regina's distance to the Buffalo Pound Water Treatment Plant. The new reservoir will be designed to meet the City's long-term water reservoir storage requirements for the next 25 years.

Before the recommended upgrades can be implemented, a pre-design study is required to confirm the project requirements and develop sufficient detail to allow for detailed design and construction to be completed.

In order to accommodate anticipated growth and maintain existing levels of service, the Eastern Pressure Solution will have to be in operation by 2025. Proceeding with pre-design in advance of formal approval of the WMP is required to achieve this timeline. Delay of the Eastern Pressure Solution may have a further impact on the anticipated growth of the city.

## DISCUSSION

The WMP recommends construction of a new pump station in the northeast to address the current pressure efficiencies in areas of east Regina, as well as allow for continued development in the east. A new water supply main is also required from the existing North Pump Station to supply water to the new pump station and reservoir.

An evaluation of the City's water reservoir storage was also completed as part of the WMP. Based on WSA guidelines, the WMP recommends maintaining a minimum storage volume equal to two times the average day demand. However, by 2020 the WMP estimates the City's existing reservoir storage will not meet this requirement. Therefore, additional reservoir storage is also required to meet the City's long-term reservoir storage requirements.

Administration therefore requires the services of a consulting engineering firm to complete the design in preparation for construction. The project is strategically divided into the following phases:

### **Phase 1: Pre-design Study**

Before the recommended upgrades can be implemented, a pre-design study is required to:

- Confirm the location of proposed new pump station, reservoir and supply lines to establish if any additional land acquisition is required.
- Develop a set of design criteria to be used to guide the development of the project.
- Develop an implementation plan for delivery of the project.
- Develop details for each element of the project sufficient to permit detailed design of the project to proceed.
- Review options for delivery methods including conventional Design-Bid-Build, Design-Build or other alternate delivery methods.
- Complete a geotechnical investigation for the recommended new reservoir and pump station location.
- Develop cost estimates for each element of the project.

Administration intends to proceed with the following timeline for Phase 1 subsequent to the approval of this report:

- June 2018: Issue the RFP for Phase 1: Pre-design
- July 2018: Award RFP for Phase 1: Pre-design
- August 2018 to December 2019: Completion of Phase 1: Pre-design

Engineering fees for Phase 1: Pre-Design is estimated at \$1.8 million. The successful proponent will be appointed to provide engineering services for all phases of this project with an initial upset fee established for only Phase 1.

### **Phase 2: Detailed Design and Construction**

Detailed design for the upgrades will be based on the details and recommendations provided in the pre-design study. The Administration is preparing to deliver on Phase 2: Detailed Design in 2020 and Construction beginning in 2021. The beginning of Phase 2 is dependent on satisfactory performance by the consultant on Phase 1 and subsequent funding approval.

Administration requests City Council's approval to delegate authority to the Executive Director, City Planning and Development, to initiate the process to engage consulting and professional engineering services for all phases of the project. Approval is also requested for the Executive Director, City Planning and Development, or his or her designate, to negotiate, award, enter into and amend a contract with the highest ranked proponent.

The engineering service fees for this commission are expected to exceed \$500,000, therefore,

City Council's approval is required to engage consulting and professional engineering services for this project as required by *The Regina Administration Bylaw No. 2003-69*, Schedule D, Section 7.

## RECOMMENDATION IMPLICATIONS

### Financial Implications

The value of the engineering services to complete the pre-design phase of the project is estimated at \$1.8 million and includes contingency. The funding for this work was approved by Council in CR15-138 in December 14, 2015 and is funded from Servicing Agreement Fees. The expenditure was previously contemplated by Council in CR15-14 Servicing Agreement Fee (SAF) and Development Levy (DL) Policy Review and Final Phasing and Financing Project where the growth-related capital projects list was reviewed and updated. Funding is approved and allocated for this project to proceed.

### Environmental Implications

Approval from the WSA will be obtained throughout this process and in advance of the construction. This application will be part of the professional engineering services.

### Policy and/or Strategic Implications

The OCP provides the framework to guide the development of the City's infrastructure to accommodate long term growth. This proposal is consistent with the policies contained within Part A of the OCP with respect to:

#### Section D4: Infrastructure

Goal 1 - Safe and Efficient Infrastructure: Meet regulatory requirements and industry best practices for design, construction and operation of infrastructure.

- 6.1 Design, construct and operate infrastructure to comply with relevant legislative and regulatory requirements.
- 6.2 Ensure new and reconstructed infrastructure follows industry best practices and overall City standards for design and construction.

Goal 3 - Planned Infrastructure for Growth: The infrastructure needed for growth will be planned from a long-term perspective.

- 6.6 Develop infrastructure plans that will:

- 6.6.1 Address both short and long term growth requirements.
- 6.6.2 Manage the impacts of the new development on system-wide services.
- 6.6.3 Optimize use of existing infrastructure to minimize financial and environmental impacts of growth.

Goal 5 - Infrastructure Staging: Build infrastructure in a sequential and coordinated manner.

- 6.14 Plan and build infrastructure from a long-term perspective and permit servicing only when aligned with the servicing needs for long-term growth.
- 6.15 Align new infrastructure with planned upgrades to existing City assets.

#### Other Implications

None with respect to this report.

#### Accessibility Implications

None with respect to this report.

#### COMMUNICATIONS

The public procurement process will be followed as outlined in Part V of Schedule D of *The Regina Administration Bylaw 2003-69*, Sections 51 through 65. Generally, this requires Administration to advertise for these services on SaskTenders.ca.

Prior to the construction phase of the project, a communications approach will be identified to advise residents of work taking place which will impact residents.

#### DELEGATED AUTHORITY

The recommendations contained within this report require City Council approval.

Respectfully submitted,



Louise Folk, Director  
Development Services

Respectfully submitted,



Diana Hawryluk, Executive Director  
City Planning and Development