

**DECISION OF
CITY COUNCIL
MEETING OF FEBRUARY 25, 2008**

Communication from the Office of the City Clerk

ITEM #:	CR08-28
SUBJECT:	Works and Utilities Committee: Wastewater Treatment Plant Upgrade
DECISION:	Recommendation concurred in

February 25, 2008

To: His Worship the Mayor
and Members of City Council

OK
Approved

Re: Wastewater Treatment Plant Upgrade

The Works and Utilities Committee, at its meeting held on February 19, 2008, considered the following report from the Administration:

BACKGROUND

The City of Regina is required to meet federal and provincial legislation with regards to the municipal wastewater effluent from the Regina Wastewater Treatment Plant (WWTP). Compliance with future regulation changes and current regulations necessitates improving the operating performance of the WWTP. Some of the components of the WWTP are 30 and 40 years old and require extensive refurbishing. To meet newer standards, replacement rather than refurbishment is necessary. The Administration recommends upgrading/expansion of the WWTP to meet anticipated future regulations. This project is identified in the Utility Capital Works Program.

The purpose of this report is to obtain City Council approval to initiate the process to engage professional engineering services required to upgrade the WWTP (pre-design, detailed design and construction engineering) and, specifically, to commission the pre-design engineering stage.

DISCUSSION

The City has done a planning study for the WWTP operations. The study provides a schedule of required equipment upgrades based on life expectancy. The study also recommended that the WWTP be upgraded to address the identified regulatory requirements. The proposed facility will be capable of biologically removing compounds, rather than the current approach of using chemicals. The main enhancement is that a new facility will be capable of meeting the nitrogen and ammonia removal requirements expected over the next 20 years. The WWTP upgrade will cost approximately \$120 million.

The pre-design of the WWTP upgrade should be completed in approximately one year. The engineering steps to complete this work are: information gathering, assessment of data, option planning and assessment, site investigations, costing, preliminary layout drawings, schedule for construction and assessment of delivery options. The Administration has examined the spectrum of delivery options and concluded that the following three delivery options should be assessed in the pre-design:

- Design, Bid, Build
- Construction Manager
- Design Build

The Administration seeks City Council approval to initiate the process to select a consultant to provide all engineering services (pre-design, detailed design and construction engineering) for the WWTP upgrade. The most qualified engineering team will be selected on the basis of qualifications and ability to execute the project according to the City's requirements. The Administration also seeks City Council approval to delegate authority to the General Manager of Public Works to award the engineering services contract.

After the pre-design stage is complete, City Council will be provided with a report containing the Administration's recommendation on the best project delivery method and provide recommendations on detailed design and construction engineering as well as the consultant's recommended treatment process, cost estimates and scheduling.

Pursuant to Schedule D of *The Regina Administration Bylaw 2003-69*, prior to initiating a process to engage consulting and professional services, the Administration shall obtain appropriate approval. Since the professional engineering services are projected to exceed \$500,000, City Council approval is required.

BUDGET IMPLICATIONS

Funding for the WWTP upgrade is provided through the Utility Capital budget. Typically, pre-design engineering is in the range of 1% to 2% of the capital cost of the project. The total for pre-design, detailed design and construction engineering fees are likely to approach \$12 million, based on the available estimate of the capital cost for the WWTP upgrade of approximately \$120 million. City Council will be provided with further reports on subsequent engineering services after completion of the pre-design engineering stage.

Estimated costs were identified in the 2007 to 2011 capital plan and used in the long-range capital forecasts used to determine utility rates. The current best estimate will be included in the proposed 2008 to 2012 capital plan. The award of a commission will be contingent on approval of the 2008 Capital Budget.

COMMUNICATION PLAN

The Regina Administration Bylaw 2003-69 stipulates that a project with consulting fees exceeding \$500,000 requires a proposal call for professional engineering services that must be advertised publicly.

ENVIRONMENTAL IMPLICATIONS

Saskatchewan Environment has outlined permit criteria that it expects the City to comply with by 2011/2012. The future limit for nitrogen will be half of the current value. Compliance with future regulations necessitates improving the operating performance of the WWTP.

Environment Canada has the responsibility of protecting fish habitat as well as other environmental impacts such as those created by "compounds of concern" (ie: medications, hormones) being discharged into the environment.

The City of Regina will need improved treatment capability and require operational flexibility to meet the requirements of provincial and federal authorities.

DELEGATED AUTHORITY

The recommendations in this report require City Council's approval.

CONCLUSION

The City's WWTP requires major upgrading to meet more stringent provincial and federal effluent quality criteria, especially in the area of nitrogen control. The WWTP upgrade will also address aging/deteriorating infrastructure. A consultant is required to provide engineering services for the upgrade/expansion of the WWTP.

RECOMMENDATION

Your Administration recommends that:

1. City Council authorize the Public Works Division to initiate the process to engage professional engineering services for pre-design, detailed design and construction engineering for the Wastewater Treatment Plant upgrade.
2. Subject to City Council's approval of the 2008 Capital Budget, the authority to award a commission for the pre-design engineering stage, after review of proposals from professional engineering firms, be delegated to the General Manager of Public Works.
3. The Administration provide a report to City Council after completion of pre-design that will cover the Administration's recommendation on the best project delivery method as well as the recommended treatment process, cost estimates (capital and further engineering costs) and scheduling.

RECOMMENDATION OF THE WORKS AND UTILITIES COMMITTEE - FEBRUARY 19, 2008

The recommendation contained in the report be concurred in.

Councillors: Bryce, Clipsham and O'Donnell were present during consideration of this report by the Works and Utilities Committee.

Respectfully submitted,

WORKS AND UTILITIES COMMITTEE

28 (1) - Personal Information


Mavis Torres, Secretary