Agenda – Executive Policy Committee – May 12, 2010

REPORTS

Item No. 11 Sewage Treatment Plant Upgrades and Expansion Program
eFile WS-7

WINNIPEG PUBLIC SERVICE RECOMMENDATION:

1. That the Chief Administrative Officer (CAO) be directed to approve and issue a Letter of Notification to Veolia in order to immediately begin design and construction of the South and North End sewage treatment plant upgrades and expansion and biosolids handling facility which are required under the current provincial Environment Act license requirements and estimated at $661 million.

2. That the CAO be delegated the authority to enter into a multi-year contract with Veolia that conforms to the terms set out in this Report.

3. That Council delegates authority to the CAO to approve contract awards for upcoming South and North End sewage treatment plant capital projects where the value of each contract does not exceed $30 million and there are sufficient funds in a budget approved by Council.

4. That the proper officers of the City be authorized to do all things necessary to implement the foregoing.

ADMINISTRATIVE REPORT

Title: **Sewage Treatment Plant Upgrades and Expansion Program**

Issue: **Urgent Provincial Environment Licensing Deadlines Requiring Sewage Treatment Plant Upgrades and Expansion**

Critical Path: **EPC - City Council**

AUTHORIZATION

Authors	Department Head	CFO	CAO
H. Hunter M. Geer B. Gray	M. Ruta, CFO	M. Ruta	G. Laubenstein

RECOMMENDATIONS

1. That the Chief Administrative Officer (CAO) be directed to approve and issue a Letter of Notification to Veolia in order to immediately begin design and construction of the South and North End sewage treatment plant upgrades and expansion and biosolids handling facility which are required under the current provincial Environment Act license requirements and estimated at $661 million.

2. That the CAO be delegated the authority to enter into a multi-year contract with Veolia that conforms to the terms set out in this Report.

3. That Council delegates authority to the CAO to approve contract awards for upcoming South and North End sewage treatment plant capital projects where the value of each contract does not exceed $30 million and there are sufficient funds in a budget approved by Council.

4. That the proper officers of the City be authorized to do all things necessary to implement the foregoing.

REASON FOR THE REPORT

- Provincial Environment Act licensing terms require the design and construction of sewage treatment plant upgrades to be in place by the end of 2012 and 2014 at the South and North End plants respectively.

- November 19, 2008 City Council directed that the Public Service begin the procurement process that could bring private sector experience to the design, construction, finance and potentially the operation of North and South End sewage treatment plants as well as potential operation of the West End sewage plant, and that the CAO approve and issue the REOI, RFQ and RFP as elements of the procurement process.

IMPLICATIONS OF THE RECOMMENDATIONS

- Quick Start of Construction Work to Meet Provincial Deadlines

    - Work will begin upon the Letter of Notification being issued for the design and construction of the upgrades at our sewage treatment plants to meet strict new provincial license requirements which take effect in 2012 and 2014 at the South and North End plants respectively.
    - The $600 million cost estimate for the sewage treatment upgrades and expansion includes the cost of nitrogen removal which the City is still appealing with the Province.
    - If nitrogen removal was not required, the capital costs would decrease by $350 million and annual operating costs would decrease by $9 million.

- City Retains Full Ownership and Control of Sewage Treatment System

    - The City of Winnipeg (City) will retain complete ownership of all the sewage system assets.
    - No other City services or assets are involved in this contract.
    - The City drinking water system is not a part of this sewage treatment deal in any way and is required by provincial law to always remain under the complete ownership, control and responsibility of the City.
    - The City will continue to exercise control over the sewage treatment system by means of City Council budget approvals and by the setting of service quality standards that will be reported publicly on a regular basis.
    - The City will continue to control operating and maintenance parameters by which the sewage system shall operate.
    - Decisions for the sewage treatment system will be made by the City based upon the best advice of City management and Veolia experts working together in the spirit of partnership to provide service excellence and best possible cost of service for citizens.
    - City retains full accountability for compliance with regulatory permits and licenses.

- City Staff Continue Providing Operations and Maintenance Work at Sewage Plants

    - City staff will continue their work with sewage treatment system operations and maintenance under the supervision of City managers.

- Accountability and Taxpayer Protection Introduced to Sewage Treatment Service Contract

    - The 30 year contract is expected to save taxpayers from 10 to 20% of the entire sewage treatment program costs.
    - The 30 year sewage treatment program will be delivered with full consideration for whole life costs.
    - The program will be developed to achieve value for money for Winnipeg taxpayers. All direct costs will be delivered on a transparent and open book basis and be subject to audit.
    - Winnipeg taxpayers will be afforded protection through this 30 year Program as all margins applied to the program work by Veolia will be at risk for the entire 30 year contract.
    - If quality of service standards fail to be met or capital cost targets are missed then Veolia will forfeit margins to share these costs with the City.
    - Alternately, if the sewage treatment system improves workplace health safety and if performance targets such as meeting environmental standards, reducing energy and reducing chemical use are all met or exceeded and the taxpayers save money then Veolia will share this as well.
    - The financial risks associated with the sewage treatment plant program will be shared with Veolia so as to give taxpayers protection from the full cost of problems that were experienced in the past.
    - The contract will contain provisions for the City to terminate if ever required.

HISTORY

A Renewed Commitment for the Environment and Taxpayers

- After a very large spill of raw sewage into the Red River in September 2002 that attracted national news media attention, the Province of Manitoba convened Clean Environment Commission hearings that resulted in the Province issuing an Environment Act license for sewage effluent discharges that are significantly more stringent and require major upgrade and expansion of the three civic existing sewage treatment plants.
- The West End sewage treatment plant has been completed and issues with the project consultant continue to be outstanding.
- These improvements along with provincially mandated requirements for sludge handling and combined sewer outflow work will total well over $1 billion.
- In an effort to better control capital construction costs and schedules a new and improved approach to how the City hires contractors was examined.

Commitment to Public Service Delivery

- Deloitte's report in the Fall of 2008 recommended the use of a design, build, finance and operate model of contracting out for the sewage treatment plant upgrades and expansion. But instead, the Public Service has pursued an innovative model of collaboration with world-class sewage treatment service providers where City utility staff will continue to operate and maintain the sewage system.

The Procurement Process Outcome

On November 19, 2008, City Council directed that the public service begin the procurement process that could bring private sector experience to the design, construction, finance and potentially operation of North and South End sewage treatment plants as well as potential operation of the West End sewage plant. The Public Service dutifully undertook this procurement process as such and the resulting contract award proposal is contained herein:

- Request for Expressions of Interest
    - Through its website and national advertisements, the City of Winnipeg solicited expressions of interest from prospective proponents interested in a collaborative, whole life risk sharing approach for the delivery of the City sewage treatment plant upgrades.
    - The Public Service hosted an information session in February 2009 with over 100 people and organizations representing interested companies, labor unions, First Nations, provincial and city staff to provide information about the project.

- Request for Qualifications
    - Sixteen respondents with varying levels of experience and resources submitted expressions of interest. Each of these proponents was then invited to submit their qualifications for consideration to be shortlisted with an invitation from the City to submit a detailed proposal. Six firms chose to submit their qualifications to the procurement process:
        - Epcor/Suez
        - United Utilities/Parsons
        - Corix
        - CH2M Hill
        - Black and Veatch
        - Veolia

After evaluation of the qualifications three firms were shortlisted and invited to submit detailed bid proposals

- Black and Veatch
- CH2M Hill
- Veolia

- Request for Proposals

    - The three shortlisted proponents and the public service participated in a series of collaborative workshops designed to allow all parties an opportunity to explore and gain a detailed understanding of the vision of the City retaining ownership and operations of the entire sewage treatment system while wishing to work collaboratively and in a risk sharing contractual relationship with a world-class sewage service provider.
    - Following these separate workshops with each of the firms all 3 chose to submit detailed bid proposals that were evaluated from a technical, commercial and financial perspective.
    - The evaluation examined the firms' available resources, design and construction capacity and their compatibility with the vision of our innovative approach to the collaborative risk sharing style of engagement.
    - The financial evaluation was directed towards the proponent's margins on the various aspects of work which were competitively bid in this phase of the procurement process.

The ranking of the proponents following the evaluations was as follows:

i. Veolia
ii. CH2M Hill
iii. Black & Veatch

To ensure that the integrity of the procurement process and that all proponents were treated equally the City engaged an independent process monitor to monitor the competitive part of the procurement process. The process monitor was Knowles Consultancy Canada Inc.

- Establishment Audit

    - The first ranked proponent, Veolia was required to provide additional information and references to establish that the details provided in their proposal accurately depicts their role on the various contracts that they cited. They also demonstrated that they are financially viable.

    - Four such third party utility owner/operator audits were conducted with government utilities from around the world where Veolia has provided services under contract. In each case the utility owner/operator confirmed their satisfaction with the quality of services rendered and also confirmed that financial value for the local taxpayers was derived from the Veolia contract.

- Commercial Workshop

    - Veolia and the Public Service examined the various commercial aspects of the proposed agreement and agreed to a set of contract principles that capture all the City of Winnipeg objectives as mandated in the procurement process and as outlined within this Report.

Veolia have been selected as the first ranked proponent and have now provided sufficient supporting information through the establishment audit and due diligence process to verify that they are financial sound and that the information supplied by them is accurate.

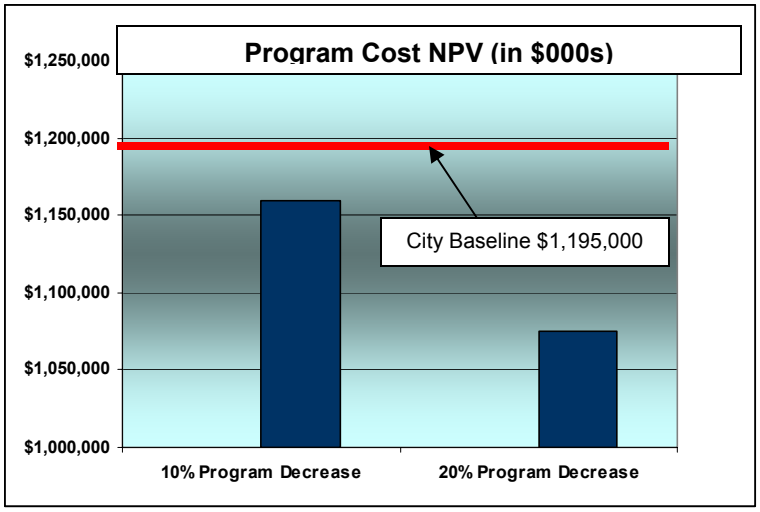
The public service recommends that a contract be awarded to Veolia as set out herein.

FINANCIAL IMPACT

The financial impact of this program is to reduce the 30 year life costs of sewage treatment over a multi-year contract. A key principle of this contract is the achievement of value for money for Winnipeg taxpayers through the use of an innovative collaborative contracting strategy that capitalizes on the strengths of both the public and private sector participants.

In the proposed contract, Veolia shares the risk of the whole life performance of the sewage treatment system and are compensated based upon their performance. The risk sharing reduces the City's overall exposure and because Veolia's remuneration is directly tied to the overall program performance, they are motivated to achieve positive results.

The estimated reduction in whole life costs for the sewage treatment system is between 10 to 20% as illustrated in the following chart:



Notes:

1. **Program Cost NPV** is the discounted value of the 30 year costs for both sewage treatment capital and operating costs.
2. **City Baseline** is the discounted value of the 30 year costs for both sewage treatment capital and operating costs if delivered status quo and under traditional capital project methods.
3. **City Baseline includes estimated** capital costs for the South End sewage treatment plant BNR and expansion of $200 million, North End sewage treatment plant BNR of $400 million and $61 million for biosolids handling.
4. **10% and 20% Program Decrease** is discounted value of a range of 30 year costs for both sewage treatment capital and operating costs if delivered under this contract.
5. **The NPV is based upon 30 year total operating cost of $1.6 billion and capital cost of $661 million (North End, South End, biosolids) discounted at 6%.**

These savings are expected from a reduction in capital costs and operations optimization through:

- Improved treatment plant design and innovation
- Improved construction management and capital project delivery through innovative sub-contracting strategies and accountability
- World wide procurement and bulk purchasing power

In addition to the contractual incentives for Veolia to deliver superior performance, the Public Service is confident in the company's abilities to do so. The procurement process and establishment audit proved that Veolia:

- Has extensive, world-wide experience in the design, construction and operation of large sewage treatment facilities.
- Has delivered substantial savings in various contracts – as verified through discussions with utility owners/operators throughout the world.
- Is a world-class sewage treatment service provider with 80,000 employees working in 80 countries.

The financial impact of this contract is described in the foregoing analysis. The 10% to 20% reduction in program costs is based upon Council approved existing capital budgets for the sewage treatment plant upgrades, Council approved operating budgets for the sewage treatment plants and as well long term financial projections. The actual budget revisions that will result from this 30 year program will be factored into future operating and capital budgets.

"original signed by"

Moira L. Geer, CA, Manager of Utility Development

CONSULTATION

In preparing this report there was consultation with:

- Water and Waste Department
- Legal Services Department
- Aikins LLP
- Deloitte LLP
- Taylor McCaffrey LLP

SUBMITTED BY

Prepared by Utility Development Management Team:

- Henry Hunter, P. Eng.
- Moira Geer, C.A.
- Bryan Gray, LL.B.

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