Agenda - Council - March 22, 2006

Report - Standing Policy Committee on Infrastructure Renewal and Public Works - March 7, 2006

Item No. 2 Adjustment to the Completion Date for the Water Treatment Program from 2007 to 2008
File WS-7

STANDING COMMITTEE RECOMMENDATION:

On March 15, 2006, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submits the following to Council:

1. That the schedule for the implementation of the Water Treatment Program be amended in order that the water treatment plant is operational in 2008.

2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

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DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On March 15, 2006, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On March 7, 2006, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the administrative recommendation and submitted the matter to the Executive Policy Committee and Council.

RE: ADJUSTMENT TO THE COMPLETION DATE FOR THE WATER TREATMENT PROGRAM FROM 2007 TO 2008

FOR SUBMISSION TO: THE STANDING POLICY COMMITTEE ON INFRASTRUCTURE RENEWAL AND PUBLIC WORKS

ORIGINAL REPORT SIGNED BY: Barry D. MacBride, P. Eng.,
Director
Water and Waste Department

REPORT DATE: February 24, 2006

RECOMMENDATION(S): That the schedule for implementation of water treatment be amended such that the water treatment plant will be operational in 2008.

REPORT SUMMARY

KEY ISSUES:

- The project is currently projected to exceed budget by a minimum of $5 Million. A sensitivity analysis concludes that there is a risk that the cost increase could be as much as $20 Million.
- Based on advice from contractors, the original project completion date of 2007 will result in even higher costs due to the high demand for qualified trades in the construction industry in Manitoba and nationally. In order to mitigate costs, the project completion date should be extended by twelve (12) months to 2008.
- A report concerning budget adjustments will be provided once upcoming tenders for major project components have been received and detailed cost estimates for the balance of the program have been updated.

IMPLICATIONS OF THE RECOMMENDATION(S):

General Implications

	None
	For the organization overall and/or for other departments
X	For the community and/or organizations external to the City of Winnipeg
	Involves a multi-year contract

Comment(s): A delay in the Water Treatment Plant (WTP) means that the benefits of treatment, which include a reduction of THMs, multiple barriers against waterborne pathogens such as giardia and cryptosporidium, reduced turbidity and an improvement in the taste and odor of the water will be delayed. On the positive side, the Ultraviolet Disinfection Facility is almost ready to start-

up, and this will provide a barrier against cryptosporidium, where none existed previously. This will enhance the security of our water supply until such time as the WTP is completed.

Policy Implications

X	No
	Yes – Comment(s):

Environmental Implications

X	None
	Yes – Comment(s):

Human Resources Implications

X	No
	Yes – Comment(s):

Financial Implications

X	Within approved current and/or capital budget
	Current and/or capital budget adjustment required

REPORT

REASON FOR THE REPORT:

Adjustments to the Water Treatment Program schedule must be approved by Council.

HISTORY:

1993 Council approved the creation of the Water Treatment Reserve Fund to cash finance a portion of the cost of a water treatment plant.

2000 On November 22, Council adopted the Water Treatment Program.

2002 On July 17, Council approved an amendment to the Water Treatment Program to add ultraviolet light disinfection (UV) and to have staged implementation of water treatment such that the full water treatment plant would be operational in 2007.

2003 On June 25, Council adopted a recommendation that a "construction management" strategy be utilized for design and construction of the WTP, and that City forces operate the facility.

2004 On June 8, the Standing Committee on Fiscal Issues received "Water Treatment Program Financial Status Report No. 1" as information.

2003 On October 12, the Standing Committee on Fiscal Issues received "Water Treatment Program Financial Status Report No. 2" as information.

2005 On February 8, the Standing Committee on Fiscal Issues received "Water Treatment Program Financial Status Report No. 3" as information.

2005 On March 23, Council amended the Water Treatment Program to include on-site generation of sodium hypochlorite and a standby power system at a total additional cost of $13.3 Million.

2005 On June 14 the Standing Committee on Fiscal Issues received "Water Treatment Program Financial Status Report No. 4" as information.

2005 On November 8 the Standing Committee on Fiscal Issues received "Water Treatment Program Financial Status Report No. 5" as information.

2005 On November 28, Council amended the Water Treatment Program to include additional control systems infrastructure, space for personnel and workshops at an estimated capital cost of $2.8 million.

2006 On February 7 the Standing Committee on Fiscal Issues received "Water Treatment Program Financial Status Report No. 6" as information.

DISCUSSION:

Current Status:

The Water Treatment Program comprises all works related to the treatment process approved by Council.

Design and construction of the UV disinfection facility (which has been installed in the existing Deacon Booster Pumping Station (DBPS)) has been completed. Testing is underway and it is expected that the UV system will be operational by March of 2006.

Preliminary engineering of the WTP has been completed and detailed design of the WTP is proceeding, concurrent with construction. Tenders have been received for certain long delivery and early construction items. Bulk excavation for the WTP clear well and the WTP proper has been completed. Piling for the clear well is complete and concrete work is underway. Overall, construction of the clear well is approximately 50% complete. Yard piping has commenced and is approximately 70% complete. Yard piping will be completed in the spring of 2006.

A tender has been issued for the WTP Structural Concrete Contract, which has an estimated value of approximately $40.6 Million. A report on award of this contract is scheduled to be submitted to the May 9, 2006 meeting of the Standing Policy Committee on Infrastructure Renewal and Public Works.

Recommended Adjustment to Schedule:

The WTP project is so large that very few general contractors in Winnipeg would be able to secure bonding for a bid submission. Lack of competition on a large project can significantly impact bid prices. Further, a significant number of large construction projects are being undertaken in Winnipeg concurrent with construction of the WTP. The construction sector nationally is extremely busy especially in Alberta and British Columbia. There is competition for labour, equipment and material resources. Construction firms are reaching capacity, and a period of high inflation within the heavy construction industry now exists, locally and across Canada. This has placed an upward pressure on the budget for the Water Treatment Program and created significant challenges in delivering the project within the original budget and schedule. Other projects in Manitoba such as the floodway expansion and the new airport are also experiencing cost increases and slippage in schedule.

The overall completion of the Water Treatment Program had been scheduled such that the WTP would be operational in 2007, pursuant to the Council approved plan. A very aggressive design and construction schedule had been pursued in order to meet this completion date. A detailed evaluation of the project schedule has been undertaken. Based upon this review and discussions with prospective contractors, there is a concern regarding the capacity within the construction industry to complete the project within the schedule currently approved by Council. Efforts to maintain the current accelerated project pace will likely result in price escalation for the remaining work as there is extreme competition for limited construction resources and materials. Accordingly, the Department recommends that Council approve an extension to the program schedule such that the WTP will become operational in 2008 instead of 2007. Relaxation of the schedule will hopefully result in more bidders and better pricing on the remainder of the work.

Finances:

In a separate report to the Standing Committee on Fiscal Issues, distributed to all members of Council, it was projected that the project will exceed budget by $5 Million. A sensitivity analysis concluded that there is a risk that the cost increase could be as much as $20 Million. At present, about $73 million or 32 % of the project budget is committed. At the end of the first quarter of 2006 a 57 % level of commitment ($130 million) is projected. A report concerning budget adjustments will be provided once upcoming tenders for major project components have been received and detailed cost estimates for the balance of the program have been updated.

In 1993, council approved the creation of the Water Treatment Reserve Fund to cash finance approximately 50% of the cost of a WTP. As a result of this initiative, approximately $118 million of the $230 million budget for the Water Treatment Program will be funded from the reserve and $112 million in debt financing. All expenditures to date have been funded from the reserve. An extension to the completion date for the Water Treatment Program will delay borrowing and add another year's contributions to the Water Treatment Reserve Fund, which will mitigate the rate impacts of anticipated cost increases.

FINANCIAL IMPACT:

There is no financial impact associated with this recommendation.

Moira L. Geer, C.A.
Manager of Finance and Administration

IN PREPARING THIS REPORT THERE WAS CONSULTATION WITH AND CONCURRENCE BY:

Not applicable

THIS REPORT SUBMITTED BY:

Department: Water and Waste Department
Division: Engineering Services Division
Prepared by: Tom Pearson
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