



**THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT**

**THE CITY OF WINNIPEG WATER TREATMENT PLANT
EXPRESSION OF INTEREST/QUALIFICATIONS**

TABLE OF CONTENTS

INTRODUCTION	1
EXISTING WATER SUPPLY SYSTEM	1
PLANT PROCESS	3
CITY COUNCIL AUTHORIZATION	5
REGULATORY APPROVALS	5
PROJECT SCHEDULE	8
PROJECT FINANCING	8
PROJECT INSURANCE COVERAGE	8
PROJECT ORGANIZATIONAL STRUCTURE	8
CONSULTANT ENGAGEMENT	12
EXPRESSION OF INTEREST/QUALIFICATIONS RESPONSE DOCUMENT	14
ADDENDA	15
CONSULTANT SELECTION PROCESS	15
CONSULTANT CONTRACT	17
FURTHER INFORMATION	17
DISCLAIMER	17
DRAWINGS & CHARTS	4 Pages

INTRODUCTION

The City of Winnipeg Water and Waste Department (the City) requests Expression of Interest/Qualifications documents from construction managers, engineering consultants and operations consultants for the design, construction and commissioning of the City's first and only water treatment plant, which will be owned by the City and operated by City staff. The City intends to engage three separate and distinct entities to undertake the construction management, engineering design and operations advisory functions of the project. Entities that submit appropriate Expression of Interest/Qualifications documents and are deemed qualified by the City will be requested to participate in a subsequent proposal process in competition for these services. Any entity that does not submit appropriate Expression of Interest/Qualifications documents or is not deemed qualified by the City to provide services will not be allowed to participate in the subsequent proposal process/competition.

The water treatment plant is intended to serve a projected population of 641,000 as well as associated commercial and industrial customers. The conceptual design of the facility has been completed. The conceptual design recommends a capacity of 515 megalitres per day and its estimated construction cost is \$160,000,000. Value engineering of the conceptual design has been completed and the capacity and certain details of the facility are currently under review. The recommended water treatment process train as approved by City Council will consist of ferric chloride coagulation, dissolved air flotation, ozonation, biological activated carbon filtration, ultraviolet light disinfection and chloramination. The ultraviolet light disinfection component of the process train has already been designed and its installation will commence in May and be commissioned by the end of 2004 under a separate assignment. It is intended that the water treatment plant be commissioned by the end of 2007.

The construction manager, on a fee for service basis, will generally be responsible for determining optimal construction packages, all project scheduling, value engineering, cost tracking and reporting, contract administration and documentation, control of the site, risk management and the safety and security of the works.

The design consultant will generally be responsible for the preliminary (functional) and detailed design, preparation of drawings and specifications, construction inspection and commissioning.

The operations consultant will generally be responsible for design review from an operational perspective, assistance with engagement and training of operating staff, assistance with plant commissioning and advice regarding workplace safety and health considerations.

Construction managers and consultants who will be interested in submitting an Expression of Interest/Qualifications submission can submit an Expression of Interest/Qualifications document in the format set out herein.

EXISTING WATER SUPPLY SYSTEM

The City of Winnipeg has relied on Shoal Lake as its source of drinking water since 1919, when the Shoal Lake Aqueduct was commissioned. Shoal Lake is located approximately 160 kilometres southeast of Winnipeg in the Canadian Shield. It lies on each side of the Manitoba/Ontario border and is tributary to the Lake of the Woods which itself lies on each side of the Canada/United States border.

The City of Winnipeg water supply system consists of the following major components:

- the McPhillips Pumping Station and Reservoir which was constructed prior to the Shoal Lake Aqueduct;
- an intake and low-lift pumping station at Shoal Lake;
- the Shoal Lake Aqueduct from Shoal Lake to Deacon which was commissioned in 1919;
- the Branch 1 Aqueduct from Deacon to the McPhillips Pumping Station and Reservoir which was commissioned in 1919;
- the Tache Booster Pumping Station on the Branch 1 Aqueduct which was completed in 1950;
- the Branch 2 Aqueduct from Deacon to the Hurst Pumping Station and Wilkes Reservoir which was commissioned in 1960;
- the Hurst Pumping Station and Wilkes Reservoir which was commissioned in 1960;
- the Aqueduct Interconnection between the Branch 1 and 2 Aqueducts which was commissioned in 1963;
- the MacLean Pumping Station and Reservoir which was commissioned in 1964;
- two reservoir cells at Deacon which were constructed in the 1970's;
- the Deacon Booster Pumping Station which was commissioned in 1980; and
- two reservoir cells at Deacon which were constructed in the 1990's.

The Shoal Lake Aqueduct transports water by gravity from the intake at Shoal Lake to the Deacon Reservoir cells, a distance of approximately 135 kilometres. The City's water supply system employs two types of reservoirs, terminal storage at Deacon and distribution reservoirs. The Deacon Reservoir is located immediately east of the City in the Rural Municipality of Springfield. It is comprised of four open storage cells with a total effective volume of 8,800 megalitres. It is located at the end of the Shoal Lake Aqueduct and is the origin of the Branch Aqueducts that deliver water to the regional reservoirs and pumping stations in the City. The Deacon Reservoir meets seasonal peaks during which water demands are less than the Aqueduct inflow. The in-city distribution reservoirs provide daily balancing storage, storage to accommodate the high rate of withdrawal needed to fight fires and emergency storage in the event of a mechanical or structural failure in the supply system. Such peaks may exceed the capacity of the Branch Aqueducts which feed the three distribution reservoirs and pumping stations.

The capacity of the Branch 1 Aqueduct was increased through the commissioning of the Tache Booster Pumping Station in 1950. The ability of the Branch 2 Aqueduct to convey increased

flows to the City was facilitated through the commissioning of the Deacon Booster Pumping Station in 1980.

Chlorine is currently added to the water at the Shoal Lake Intake, as well as just downstream of the Deacon Reservoir cells and at the regional pumping stations, just prior to discharge to the distribution system. Fluoride to reduce dental cavities and orthophosphate for lead control are added into the Branch Aqueducts just downstream of the Deacon Reservoir cells.

The existing water supply system is schematically shown on the attached figures.

PLANT PROCESS

The water in the Deacon Reservoir is characterized by moderate to high algae levels, low turbidity and moderate to high total organic carbon. As a result of chlorination at the Shoal Lake Intake, Deacon Reservoir water also contains significant background levels of disinfection by-products. Taste and odour events in the distribution system normally coincide with or follow elevated algae levels in Deacon Reservoir and/or Shoal Lake. Historical raw water quality information is summarized in Table 1.1.

Table 1.1: Historical Raw Water Quality (1997-2001)

Parameter	Units	Average	Minimum	Maximum
Shoal Lake Intake				
pH	Units	8.0	7.0	9.0
TOC	mg/L	8.9	4	11
DOC	mg/L	8.9	3.5	12
Alkalinity (total)	mg/L as CaCO ₃	79	71	89
Hardness (total)	mg/L as CaCO ₃	79	66	90
Color (true)	TCU	7	<5	15
Deacon Reservoir Inlet				
Turbidity	NTU	0.80	0.25	1.9
Plankton	Cells/mL	14400	700	114300
TTHM	µg/L	113	26	192
Outlet from Deacon Reservoir Cells 1 & 3				
Turbidity	NTU	0.76	0.25	4.0
Plankton	Cells/mL	19900	790	285000
TTHM	µg/L	56	1.5	129

The City's water treatability issues together with existing and anticipated water quality guidelines and regulations were used to develop water quality targets for water treatment process evaluation. These targets are summarized in Table 1.2.

Table 1.2: 1996/1997 Pilot Plant Performance Targets

Treatment Goal	Specific Parameter	GCDWQ ¹	Pilot Target	Reasons for Pilot Target
Clear water	Turbidity	<1.0 NTU	<0.1 NTU	Future probable regulation; ensures best treatment
Particulate removal	Particles >2 µm	NG	<20 particles/mL	Pathogen protection i.e. <i>Giardia</i> / <i>Cryptosporidium</i>
DBP control	TTHMs THAAs	100 µg/L NG	100 (40) µg/L N/A (30) µg/L	Short-term (long-term future USEPA regulation)
TOC removal	TOC	NG	40%	Minimize DBP precursors
T&O control	TON	Aesthetic	Inoffensive / consistent	Level at which T&O should meet public expectations
Algae removal	% removed	NG	Maximize removal	Minimize T&O events and other aesthetic concerns
Colour reduction	TCU	15	<5	Value which should meet public expectations
Efficient filter water production rate	UFRV (Unit filter run volume)	NG	>200 m ³ /m ²	Balance of filter construction costs, production rate, and wasted backwash water
Filter loading rate	m/hr	NG	>15 m/hr	Minimize filter construction costs
Treatment consistency	Opinion	NG	High degree	Ability to consistently meet treatment goals during changes in raw water quality

NG = No guideline

Since that time, some of the anticipated water quality guidelines and regulations have been somewhat modified but the treatment targets are still valid.

In 1993, the City completed a comprehensive conceptual planning study of the existing regional water supply system. From the study, it was determined that the Shoal Lake water supply would require treatment to meet increasingly stringent water quality regulations, minimize potential health risks, and meet consumer expectations. As a result of the planning study, a short term Phase 1 water treatment pilot testing was conducted during the summer of 1994 to identify potential treatment processes. An intensive Phase 2 pilot water treatment program which treated water from the Deacon Reservoir, was initiated in 1996 and completed in 1997. Results from the Phase 2 program led to the recommendation of a baseline water treatment process. In 1999, this baseline process was used to complete the report entitled “The City of Winnipeg’s Drinking Water Quality Enhancement Program”. This report included a conceptual design of the full-scale water treatment plant and included capital, operation and maintenance cost estimates. The baseline process was adopted by City Council in November of 2000.

Since 1999, there have been a number of developments in disinfection practices using ultraviolet light (UV) as well as other water treatment processes. In light of these developments, the City undertook pilot testing of UV disinfection and recommended revisions to the baseline treatment process and construction schedule to City Council in 2002. In November 2002, a value engineering review team confirmed that the baseline treatment process was best suited for Winnipeg’s supply water. The value engineering team also identified high-rate dissolved air flotation (DAF) as opposed to conventional DAF as a potential cost savings measure for consideration by the City. The value engineering team further concurred that UV disinfection facilities should be incorporated into the baseline treatment process.

In 2003, the City carried out the Phase 3 pilot water treatment program to determine the suitability and limits of the high-rate DAF process. The Phase 3 pilot program was completed in

December 2003, and the results showed that high-rate DAF can operate at twice the loading rate of conventional DAF for Winnipeg water.

In 2003, Phase 3 pilot results led to the recommendation that high-rate DAF be considered as an alternative to conventional DAF in the baseline treatment process. Since 1999 there have also been other modifications to the baseline process that have occurred independently of high-rate DAF testing. The final recommended treatment process is presented in the attached process schematic. The recommended water treatment process train as approved by Council will consist of ferric chloride coagulation, dissolved air flotation, ozonation, biological activated carbon filtration, ultraviolet light disinfection and chloramination.

In 2000, the City implemented phosphate addition for lead control and relocated the fluoride addition system, both downstream of the Deacon Booster Pumping Station and the proposed water treatment plant. These process modifications are included in the process schematic.

Results from the UV pilot testing indicated that UV was viable year-round for primary disinfection of Winnipeg's unfiltered water supply. Therefore, design of UV facilities was completed in 2003 with construction beginning in May of 2004. The UV system will be located within the Deacon Booster Pumping Station. Once the Water Treatment Plant is constructed, the UV system will be modified to treat filtered water that has a higher UV transmittance. The UV system will continue to be used for primary disinfection. The ozone process will primarily be used for taste and odour control during cold water conditions and will also provide an additional disinfection barrier during cool and warm water conditions.

CITY COUNCIL AUTHORIZATION

The Council of the City of Winnipeg has adopted various resolutions regarding the water treatment plant. Specifically, the preferred process train for the water treatment plant has been approved and it has been determined that the plant will be owned by the City and operated by City personnel. Council has also approved a completion date for construction (2007) and delivery of the project using the construction management model. Variations to any of these must be authorized by Council.

Appropriate funding for the project is in place and is reflected in the City's five-year capital estimates.

REGULATORY APPROVALS

Outlined herein is an overview of the regulations which are applicable to this project as well as a status of the City's regulatory approval undertakings.

The Environment Act

The Environment Act is intended "to develop and maintain an environmental management system in Manitoba which will ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for this and future generations". The Act is administered by the Department of Conservation. In practice, it is used to assess, regulate and control discharges to the environment. The primary mechanism for achieving this action is through the licencing of developments under the

provisions of the Act. The *Classes of Development Regulation 164/88* provides the specific undertakings that are considered to be developments under the Act. Water treatment plants are not listed in the regulation and as such are not subject to licencing under the Act. "Water treatment plant (wastewater)", if it were to be discharged directly to the environment, would be considered a Class 1 development and would require a licence.

Based on the current plans for the water treatment plant utilizing wastewater management through freeze-thaw lagoons with recycling of supernatant back to the plant and disposal of solids at the Brady Road landfill site, a licence would not be required under the Environment Act.

The *Water and Wastewater Facility Operators Regulation 77/203* has been developed to set requirements for experience and education for operators of water and wastewater facilities. This is done through a facility classification and an operator certification system. The regulation is administered by staff of Manitoba Conservation. The administrative provisions of the regulation came into force on September 1, 2003. The operating requirements of the regulation, as covered by sections 23 to 27, will apply on September 1, 2006. Staff of the water treatment plant will require certification in accordance with the provisions of the regulation.

The Department has engaged a consultant to prepare documentation concerning the environmental effects of the water treatment program, engage in a dialogue with stakeholders and ensure that any concerns are appropriately addressed.

The Drinking Water Safety Act

The Drinking Water Safety Act was proclaimed on January 30, 2004. The Act is intended to "better protect the drinking water supplies of Manitobans". The Office of Drinking Water in the new Water Stewardship Department administers the Act. Several sections of the Act that are dependent on regulations that have not been finalized yet will not come into force until later in 2004. The sections are as follow:

- Section 3 "Drinking Water Quality Standards"
- Section 7 "Construction and Alteration of Water Systems"
- Section 8 "Operating Licences for Water Systems"
- Section 9 "Assessments of Water System Infrastructure and Water Supply Sources"
- Section 10 "Assessments of Water System Infrastructure and Water Supply Sources"
- Section 20 "Disinfecting Water"
- Section 21 "Sampling, Analysis and Reporting"
- Section 22 "Sampling, Analysis and Reporting"
- Section 23 "Sampling, Analysis and Reporting"
- Section 24 "Sampling, Analysis and Reporting"
- Section 25 "Records"
- Section 30 "Non-Potable Systems"

The Office of Drinking Water confirmed that the status quo under The Public Health Act would be in effect for the above until the new regulations are brought into effect. Once the regulations are developed, a permit to construct the water treatment plant will be required under section 7 of the Act and a licence will be required to operate the plant under section 8 of the Act.

The Public Health Act

The Public Health Act is intended to “preserve life and the health of the people of the province” including the regulation of public water supplies. The *Water Works, Sewerage and Sewage Disposal Regulation 331/88 R* relates to requirements for the construction, alteration and operation of public water systems along with other considerations. Manitoba Health, Manitoba Conservation and the Water Stewardship Department administer this regulation jointly. The requirements under this regulation will apply to the water treatment plant until the new regulations under The Drinking Water Safety Act are brought into effect. Section 2 of the regulation requires that a certificate of approval be obtained for the construction and operation of the plant.

The Workplace Safety and Health Act

The Workplace Safety and Health Act is intended to “secure workers and self-employed persons from risks to their safety, health and welfare arising out of, or in conjunction with, activities in their workplaces”. The water treatment plant will have to be designed, constructed and operated in accordance with the provisions of the Act and regulations thereunder.

The Dangerous Goods Handling and Transportation Act

The Dangerous Goods Handling and Transportation Act is intended to regulate the handling of dangerous goods in Manitoba. The planned water treatment plant, when constructed, will utilize a number of chemicals in the treatment process that will be considered to be “dangerous goods” under the provisions of the Act and regulations thereunder. Section 3 of the Act states that: “No person shall handle or dispose of dangerous goods or cause dangerous goods to be handled or disposed except in compliance with this Act and the regulations”. Compliance with the requirements of the Act and regulations will have to be ensured during the design, construction and operation of the plant.

Federal Requirements

Jurisdiction over the regulation of drinking water rests with the provinces in Canada. Therefore, The Public Health Act and/or The Drinking Water Safety Act will apply with respect to the approval and operation of the water treatment plant as discussed above. “*Guidelines for Canadian Drinking Water Quality*”, which are developed jointly by the federal, provincial and territorial governments, are used as a guideline in Manitoba for drinking water quality.

Environment Canada has advised that, based on current plans, there "are no regulations in place at the current time that the City had to respond to". If federal funds were contributed toward the project, an Environmental Assessment under the provisions of the Canadian Environmental Assessment Act would be required. The City has not been and will not be seeking Federal funds.

The City will take the lead role for the regulatory approval process with assistance from the Environmental Effects Consultant.

PROJECT SCHEDULE

It is the City's intention to have all of the consultants for the water treatment plant engaged by the end of July, 2004 and to have the plant commissioned by the end of 2007.

PROJECT FINANCING

Appropriate funding for the project is in place and is reflected in the City's five-year capital estimates.

PROJECT INSURANCE COVERAGE

The City will arrange for insurance coverage either by self-insurance or purchase to cover all parties engaged in the design, construction and commissioning of the water treatment plant.

PROJECT ORGANIZATIONAL STRUCTURE

The water treatment plant project will be organized and undertaken as shown on the organizational chart enclosed herein. The roles and responsibilities of the various entities are generally as follow.

Water Treatment Program Advisory Committee

The advisory committee is the senior decision making body within the Water and Waste Department for the project. The Project Director, who is a member and chairperson of the advisory committee, coordinates the activities of the committee. The committee through consensus is responsible for establishing objectives, acceptance of recommendations or selection from alternatives to meet the objectives of the project and approving significant changes to objectives or scope which occur over the course of the project.

In addition to the foregoing, committee members represent their respective division within the Department and are individually responsible for ensuring the interests of their respective division are identified.

Project Director and Support Staff

The Engineering Division's Project Director is responsible for project administration and coordination from project initiation to completion. The consultants report directly to the Project Director. The Project Director undertakes the foregoing functions, or delegates them to the Project Manager and support staff where appropriate.

The Project Director will be represented at the construction site by a full time staff person. This representation is intended to ensure effective and prompt response to contract administration issues and the monitoring of resident contract administration and construction inspection services.

Major Capital Steering Committee

This committee is comprised of multi-disciplinary City Department heads with the mandate and authority to oversee and guide a major capital project. The committee will ensure the early recognition of risks and communicate these risks to senior City administrators (Chief Administration Officer and Chief Financial Officer) for timely reaction.

Internal Department Resources

Water Services Division

The Water Services Division of the Water and Waste Department is essentially the "owner-operator" of the City's water supply and distribution system including the proposed water treatment plant.

Engineering Division

The Engineering Division of the Water and Waste Department provides support to the public services of water, wastewater, land drainage and flood control, and solid waste collection and disposal. The services provided by the Engineering Division include long term planning and policy development, asset management, capital programming and budgeting, design and contract administration, public consultation and records management. Projects are undertaken with in-house resources and outside engineering consultants. For this project, the Project Director and support staff are from the Engineering Division.

Laboratory Services Division

The Laboratory Services Division of the Water and Waste Department is responsible for monitoring the quality of the water supplied to the customers.

Finance and Administration Division

The Finance and Administration Division of the Water and Waste Department is responsible for all financial matters of the Department.

Wastewater Services Division

The Wastewater Services Division of the Water and Waste Department has a Civil, Mechanical and Electrical/Instrumentation Branches which provide maintenance services throughout the Department.

Customer Services Division

The Customer Services Division of the Water and Waste Department is responsible for ensuring that the Department's customers are satisfied with the service provided and providing the customers, stakeholders, regulators and other interested parties with timely, accurate and sufficient information regarding Department services.

External Department Resources

Legal Services Division

The Legal Services Division of the Corporate Finance Department for this project will provide advice regarding the structure of contracts and contract administration issues and prepare contract documents for execution.

Materials Management Branch

The Materials Management Branch of the Corporate Finance Department for this project will post the tender packages and addenda on the City's bid opportunity website and receive and open tender submissions.

Risk Management Branch

The Risk Management Branch of the Corporate Finance Department will arrange for a comprehensive wrap-up insurance coverage for all project participants.

Partnering Consultant

The Department strongly promotes the concept of partnering with consultants and contractors for large, complex and unique projects. For this project, the partnering consultant will perform the following functions:

- arrange and conduct a partnering workshop involving the City, the construction manager and the project consultants;
- arrange and conduct a partnering workshop(s) involving the City, the construction manager, contractors and the project consultants; and
- preparation and distribution of the partnering workshop minutes.

Facility and Site Security Consultant

A security consultant will be engaged to undertake the following:

- undertake a security audit of the existing site and facilities;
- review of the preliminary and detailed plant designs to maximize its security;
- provide advice regarding appropriate security measures to be undertaken during the construction of the water treatment plant; and
- provide training to operating and maintenance staff regarding the security plan.

Risk Assessment Consultant

A risk assessment consultant will be engaged to undertake the following:

- facilitate a risk assessment workshop;
- prepare a risk mitigation plan; and
- conduct periodic meetings to review the risk mitigation plan and identify new risks which have developed.

Environmental Effects Consultant

The Provincial and Federal regulators have indicated that an environmental impact assessment will not be required. The environmental effects consultant, however, will undertake the following:

- assess the environmental effects that the construction of the plant might have on the surrounding area;
- assess the environmental effects that the completed plant once operational might have on the surrounding area;
- assess the environmental effects that a chemical plant spill at the plant might have on the surrounding area; and
- participate in a stakeholder information session(s); and
- provide recommendations concerning the mitigation of adverse effects identified through the foregoing process.

Construction Manager

The responsibilities of the construction manager will generally include:

- development of a work breakdown structure for the entire project including the activities of the City and all consultants;
- monitoring and updating of the project schedule;
- preparation of cost estimates for all aspects of the project;
- monitoring and reporting of project costs as well as the preparation of cashflow projections;
- ensuring conformance between projected and actual design and consultation progress and costs;
- arranging for the advertisement of tenders and preparing recommendations for contract awards;
- processing of contractor progress estimates;
- provision of contract administration services;
- participation in a constructability review with the design consultant;
- undertake a value engineering workshop at the completion of the preliminary (functional) design;
- participation in a risk assessment workshop and assistance with the development of a risk mitigation strategy;
- management of the site including security and safety;
- development and implementation of a document control protocol; and
- scheduling and coordination of the plant start-up and commissioning.

An effective, collaborative working relationship with the design consultant and the operational consultant will be necessary in order to fulfill the foregoing responsibilities.

Design Consultant

The responsibilities of the design consultant will generally include:

- undertaking of the preliminary (functional) design and the documentation of same;
- undertaking of the detailed design and the documentation of same;
- preparation of construction drawings and specifications;
- provision of technical advice during the tender and contract award period;
- provision of technical advice and inspection services during construction;
- processing of shop drawing submissions;
- participation in a constructability review with the construction manager;
- participation in a value engineering workshop after completion of the preliminary design;
- participation in a risk assessment workshop and assistance with the development of a risk mitigation strategy;
- preparation of plant start-up and commissioning protocols; and
- participation in plant start up, commissioning and performance verification.

An effective, collaborative working relationship with the construction manager and the operational consultant will be necessary in order to fulfill the foregoing responsibilities.

Operational Consultant

The responsibilities of the operational consultant will generally include:

- participation in preliminary (functional) and detailed design milestone meetings to provide advice to the design consultant from an operational and maintenance perspective;
- review of the preliminary (functional) and detailed design from an operational perspective;
- review of design considerations for operation and maintenance requirements, equipment selection and chemical and residuals handling for the optimization of life cycle costs;
- assistance and advice regarding the plant control strategy;
- identification of operating and maintenance staff requirements as well as the organizational structure for same;
- assistance with the engagement of certified operating and maintenance personnel;
- provision of training/assistance in certification of the operating staff;
- assistance with the development of maintenance schedules and protocols;
- assistance with the development of operating and maintenance manuals;
- assistance with the plant start-up and commissioning;
- assistance with the initial purchase of treatment process chemicals;
- advice with respect to workplace safety and health requirements;
- participation in a risk assessment workshop and assistance with the development of a risk mitigation strategy; and
- participation in constructability reviews.

An effective, collaborative working relationship with the construction manager and the design consultant will be necessary in order to fulfill the foregoing responsibilities.

CONSULTANT ENGAGEMENT

The Department at a later date will be issuing the following three requests for proposal:

Proposal No. 1	Water Treatment Plant
	Provision of Construction Management Services

Proposal No. 2 Water Treatment Plant
Provision of Engineering Design Services

Proposal No. 3 Water Treatment Plant
Provision of Operational Advice Services

In order to avoid any perceived conflict of interest, the City wants to ensure that there are three (3) independent work streams in connection with the foregoing, with minimal overlap between the entities providing the services.

No person or affiliated corporation may be the prime consultant for more than one of the consultant assignments with the City listed above.

No person or affiliated corporation that is a prime consultant for one of the consultant assignments with the City listed above may be a subconsultant for a material aspect of the other assignments. In the context of this document, "material" is intended to mean any involvement in which constitutes a significant portion of the work or may affect the outcome of the project in a significant way.

No person or affiliated corporation that is a subconsultant for a material aspect of one of the consultant assignments with the City listed above may be subconsultant for a material aspect of the other assignments.

If persons or affiliated corporations form a team to compete for one or more of the proposals, the prime consultant and subconsultant(s) shall be identified.

If persons or affiliated corporations form a joint venture to compete for one or more of the proposals, a joint venture agreement shall be entered into to set out responsibilities of each person.

The person or affiliated corporation for the provision of operational advice services may not be a subconsultant for either of the other two request for proposals.

No person or affiliated corporation providing the construction management services shall be allowed to bid on any of the tenders nor be a subcontractor or sub-subcontractor for the construction of the water treatment plant.

Assignment of the environmental effects consultant, partnering consultant, facility and site security consultant and the risk assessment consultant are not being made at this time. Further, the Department is not canvassing for interested consultants for these assignments at this time.

The terms "person", "affiliated corporation", "prime consultant" and "subconsultant" used herein are defined as follows:

“Person” means an individual, firm, partnership, association, or any combination thereof, and includes heirs, administrators, executors or legal representatives of a person.

“Affiliated corporation” shall have the same meaning as in the Canada Business Corporations Act. One body corporate is affiliated with another body corporate if one of them is the subsidiary of the other or both are subsidiaries of the same body corporate or each of them is controlled by the same person; and if two bodies corporate are affiliated with the same body corporate at the same time, they are deemed to be affiliated with each other.

The “prime consultant” means the person undertaking the performance of the work under the terms of the assignment.

The “subconsultant” means a person contracting with the prime consultant for the performance of a part or parts of the work and includes a subconsultant’s subconsultant.

EXPRESSION OF INTEREST/QUALIFICATIONS RESPONSE DOCUMENT

Construction managers and consulting engineers wishing to respond to this Expression of Interest/Qualifications request shall submit a written response which includes the following:

- identification of the organizations within the project team including an organizational chart;
- provision of the corporate structure for each organization of the team;
- identification of key personnel and their area of expertise;
- availability and residency of key staff;
- identification of previous projects of a similar scope and complexity;
- provision of reference names;
- provision of a copy of the drawings and specifications from a representative project; and
- identification of a contact person.

Each submission should consist of eight (8) copies. The submission shall be limited to a maximum of twenty (20) pages of project specific material and a maximum of eighty (80) pages of support documentation, including curriculum vitae, project descriptions, project references and brochures.

All documents will be held in strictest confidence by the City.

The submission deadline is 4:00 p.m./Winnipeg time, May 4, 2004.

Submissions determined by the Manager of Materials to have been received later than the submission deadline will not be accepted and will be returned unopened.

The Project Director or the Manager of Materials may extend the submission deadline by issuing an addendum at any time prior to the time and date specified above.

The submission shall be submitted enclosed and sealed in an envelope. The envelope shall be clearly marked with the Bid Opportunity Number and the Submitter's name and address.

Samples or other components of the submission, which cannot reasonably be enclosed in the envelope, may be packaged separately, but shall be clearly marked with the Bid Opportunity Number, the Submitter's name and address, and an indication that the contents are part of the Submitter's submission.

Submissions submitted by facsimile transmission (fax) or Internet electronic mail (e-mail) will not be accepted.

Submissions shall be submitted to:

Manager of Materials
c/o The City of Winnipeg
Materials Management Branch
Main Floor - Mandarin Building
185 King Street
Winnipeg, Manitoba
R3B 1J1

ADDENDA

The City may, at any time prior to the submission deadline, issue addenda correcting errors, discrepancies or omissions in the document entitled "The City of Winnipeg Water Treatment Plant - Expression of Interest/Qualifications", or clarifying the meaning or intent of any provision therein.

The City will issue each addendum at least three (3) business days prior to the submission deadline, or provide at least three (3) business days by extending the submission deadline.

Addenda will be available in Adobe Acrobat (.PDF) format at the City of Winnipeg, Corporate Finance, Materials Management internet website at <http://www.winnipeg.ca/matmgt/bidopp.asp>.

Construction managers and engineering consultants interested in submitting an Expression of Interest/Qualifications document are responsible for ensuring that they have received all addenda and are advised to check the Materials Management internet website for addenda shortly before submitting this document.

CONSULTANT SELECTION PROCESS

The Department's Water Treatment Program Advisory Committee will review the Expression of

Interest/Qualifications documents and develop a short list of qualified firms who will be invited to submit proposals for each of the three assignments.

The general criteria for the short listing process will be as follows:

Construction Manager

- construction/program management expertise;
- experience in the development of work breakdown structures;
- scheduling and schedule monitoring expertise;
- cost estimating and control capabilities;
- risk management and constructability experience;
- key staff availability and residency;
- experience with projects of a similar type, scope and complexity; and
- experience in the design and construction of water retaining structures.

Design Consultant

- project management expertise;
- experience in the design, construction and commissioning of water treatment plants treating cold surface water;
- expertise in geotechnical, structural, electrical, mechanical, pipeline and instrumentation and control engineering;
- key staff availability and residency;
- experience with projects of a similar type, scope and complexity; and
- experience in the design and construction of water retaining structures.

Operations Consultant

- experience with the design, commissioning, operation and maintenance of a water treatment plant treating cold surface water;
- experience with water treatment plant instrumentation and control systems;
- experience with work management practices and plant operator training and certification; and

- experience with projects of a similar type, scope and complexity.

Construction Managers and Engineering Consultants who have been notified as being short listed will be invited to submit detailed proposals for the study. The invitation will be in the form of a Request for Proposals and will include detailed Terms of Reference.

The proposals will be rated by the Department's Water Treatment Program Advisory Committee using evaluation criteria as set out in the Terms of Reference.

CONSULTANT CONTRACT

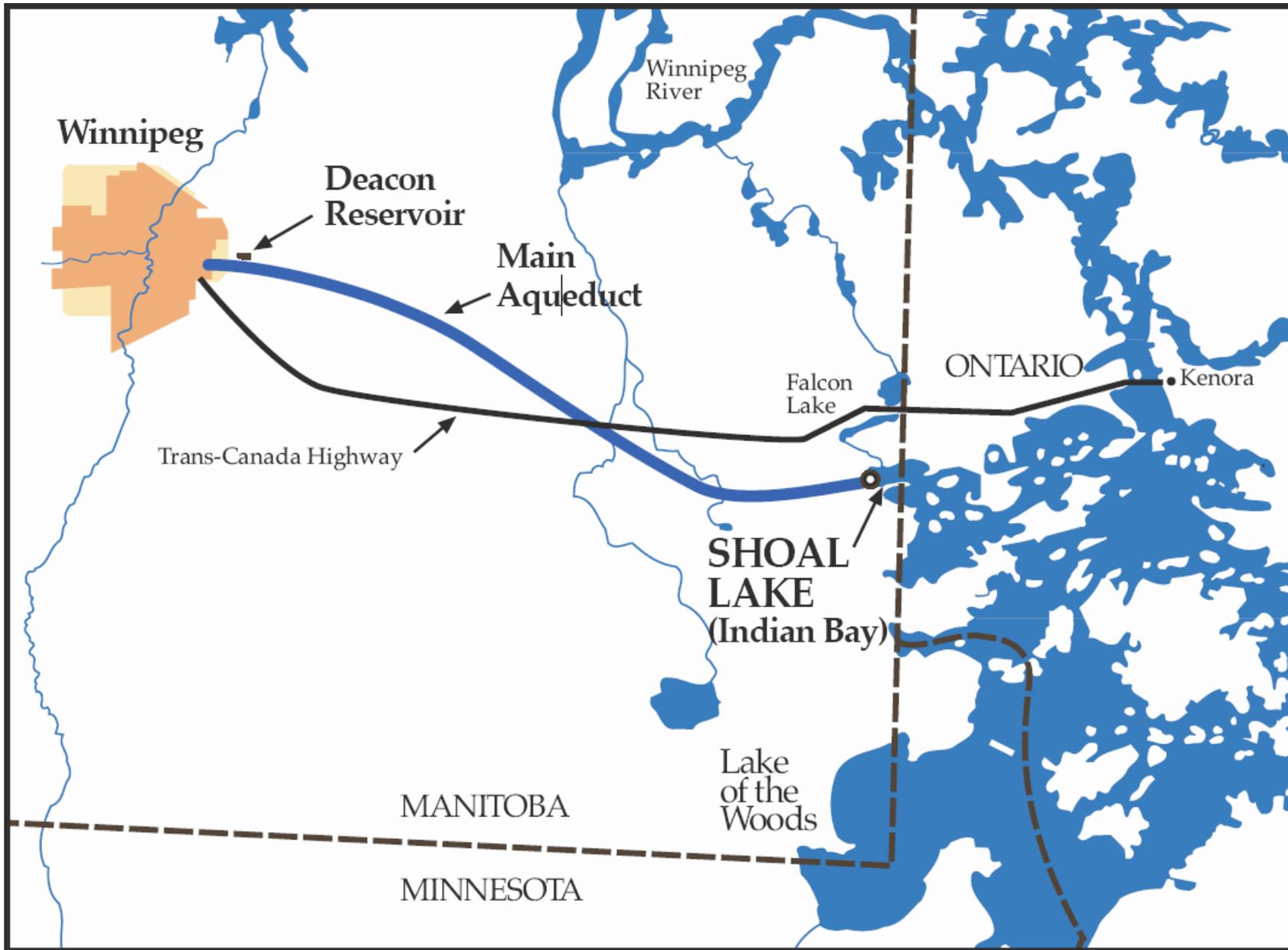
The format of the contract between the City and the Construction Manager and Engineering Consultants will include the combined documents including the City's terms of reference and standard terms and conditions for consultants, the consultant's proposal document, all letters by the City and consultants regarding clarifications of the proposal and the City's letter of assignment.

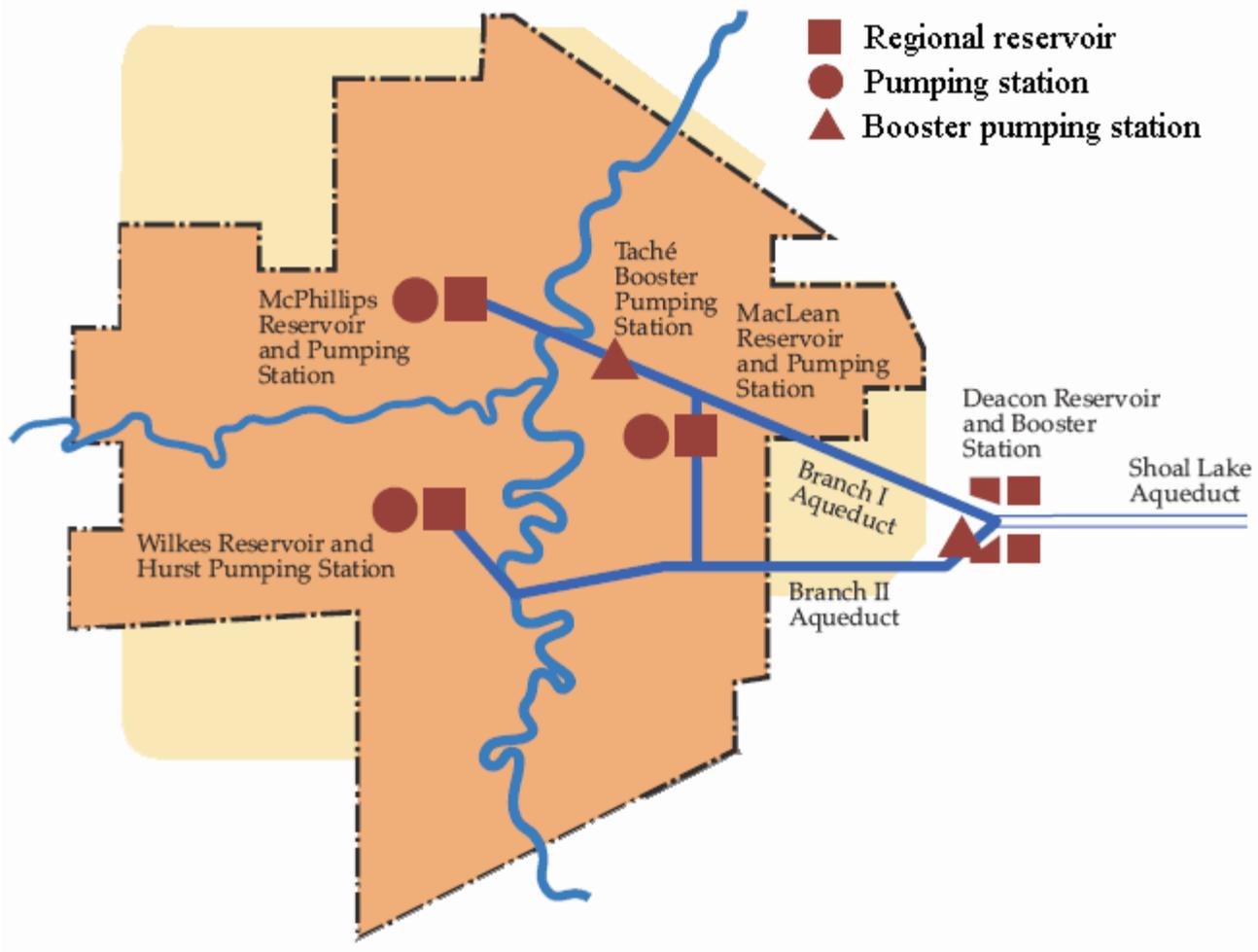
FURTHER INFORMATION

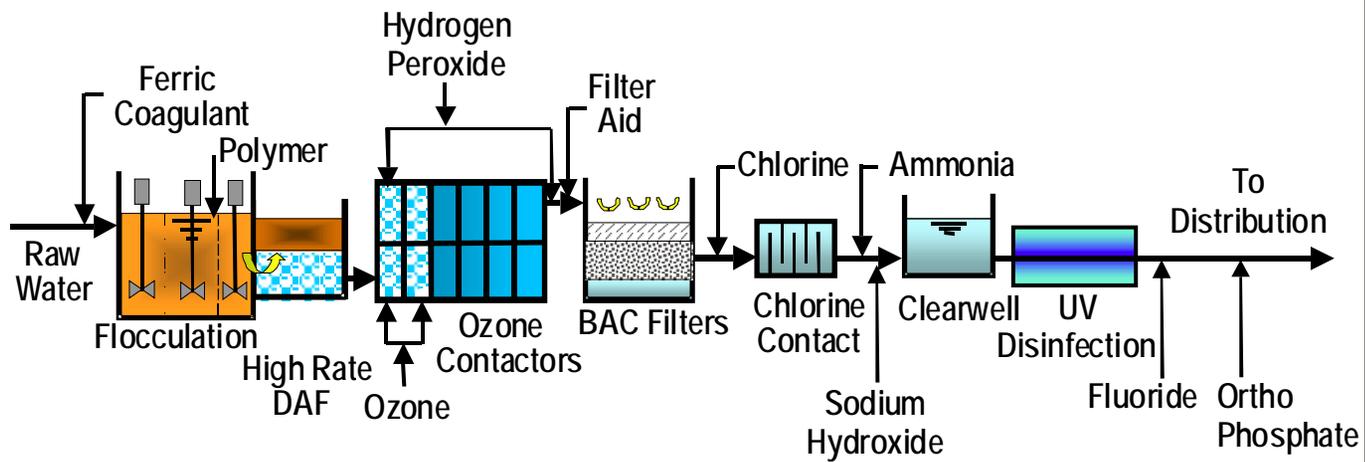
For more information, contact Ron Sorokowski, P. Eng., Project Manager, City of Winnipeg Water and Waste Department, by telephone at 204/986-4472, by facsimile at 204/224-0032 or by e-mail at rsorokowski@winnipeg.ca.

DISCLAIMER

The submission of an Expression on Interest document does not commit the City to award any contracts or to defray any costs incurred in the preparation of the document pursuant to this request.







City Of Winnipeg Water Treatment Plant Process Flow

**WATER TREATMENT PLANT PROJECT
ORGANIZATIONAL CHART**

DEPARTMENT WATER
TREATMENT
PROGRAM ADVISORY
COMMITTEE

DEPARTMENT PROJECT
DIRECTOR

MAJOR CAPITAL
STEERING
COMMITTEE

EXTERNAL DEPARTMENT RESOURCES

- LEGAL SERVICES DIVISION
- MATERIALS MANAGEMENT DIVISION
- RISK MANAGEMENT BRANCH
- PARTNERING CONSULTANT
- FACILITY AND SITE SECURITY CONSULTANT
- RISK ASSESSMENT CONSULTANT
- ENVIRONMENTAL EFFECTS CONSULTANT

DEPARTMENT
PROJECT MANAGER
AND SUPPORT
STAFF

INTERNAL DEPARTMENT RESOURCES

- WATER SERVICES DIVISION
- ENGINEERING DIVISION
- LABORATORY SERVICES DIVISION
- FINANCE AND ADMINISTRATION DIVISION
- WASTEWATER SERVICES DIVISION, CIVIL,
MECHANICAL AND ELECTRICAL/
INSTRUMENTATION MAINTENANCE
BRANCHES
- CUSTOMER SERVICES DIVISION

OPERATIONAL
CONSULTANT

DESIGN
CONSULTANT

CONSTRUCTION
MANAGER

CONTRACTORS

SUB-CONSULTANTS

SUB-CONTRACTORS

—— CONTRACTUAL RELATIONSHIP
- - - - LINES OF COMMUNICATION