**Agenda - Executive Policy Committee - November 12, 2008**

## REPORTS

**Item No. 6 Alternate Service Model – City of Winnipeg Utility Corporation**
**File GL-5.6.1**

WINNIPEG PUBLIC SERVICE RECOMMENDATION:

1. That Council approve the concept of a City owned Municipal Corporate Utility as a new arm's length business model to operate city owned utilities, and the Public Service be directed to conduct a due diligence process and identify legislative authorities required to establish and operate the Municipal Corporate Utility and report back to Council for a decision.

2. That the Public Service be authorized to begin the procurement of a Strategic Partner that could bring private sector experience to the design, construction, finance and potentially the operation of the North and South End Water Pollution Control Centers as well as potential operation of the West End Water Pollution Control Center and that the Chief Administrative Officer be authorized to approve and issue the Request for Expressions of Interest followed by a Request for Qualifications and the Request for Proposals.

3. That Council request the Province of Manitoba make the necessary legislative changes to ensure that future water and sewer rates proposed by the Municipal Corporate Utility be reviewed and approved by the Public Utilities Board.

4. That the following new 2009 capital projects be approved:

    - Municipal Corporate Utility Business Plan in the amount of $1,250,000 ($625,000 in the Waterworks Fund and $625,000 in the Sewage Disposal Fund).
    - Strategic Partner Development, in the amount of $3,000,000 (Sewage Disposal Fund).

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

**RE: ALTERNATIVE SERVICE MODELS – CITY OF WINNIPEG UTILITY CORPORATION**

**FOR SUBMISSION TO:** **EXECUTIVE POLICY COMMITTEE**

**ORIGINAL REPORT SIGNED BY:** **CHIEF ADMINISTRATIVE OFFICER**

**REPORT DATE:** **OCTOBER 30, 2008**

**RECOMMENDATIONS:**

1. That Council approve the concept of a City owned Municipal Corporate Utility as a new arm's length business model to operate city owned utilities, and the Public Service be directed to conduct a due diligence process and identify legislative authorities required to establish and operate the Municipal Corporate Utility and report back to Council for a decision.

2. That the Public Service be authorized to begin the procurement of a Strategic Partner that could bring private sector experience to the design, construction, finance and potentially the operation of the North and South End Water Pollution Control Centers as well as potential operation of the West End Water Pollution Control Center and that the Chief Administrative Officer be authorized to approve and issue the Request for Expressions of Interest followed by a Request for Qualifications and the Request for Proposals.

3. That Council request the Province of Manitoba make the necessary legislative changes to ensure that future water and sewer rates proposed by the Municipal Corporate Utility be reviewed and approved by the Public Utilities Board.

4. That the following new 2009 capital projects be approved:
    - *Municipal Corporate Utility Business Plan* in the amount of $1,250,000 ($625,000 in the Waterworks Fund and $625,000 in the Sewage Disposal Fund).
    - *Strategic Partner Development*, in the amount of $3,000,000 (Sewage Disposal Fund).

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

## Report Summary

**Key Issues:**

**Why a Utility Corporation**

The City of Winnipeg engaged Deloitte & Touche LLP ("Deloitte") through RFP 222-2007 to investigate the concept of creating a Utility Corporation ("Corporation") to provide utility type services.

The benefits of a Utility Corporation Model include:

- maintain and enhance water and waste services to protect public health and environmental stewardship while increasing fiscal accountability to ratepayers;
- ensuring on-time and on-budget delivery of capital construction projects for wastewater treatment;
- enhancing certainty of process with development of business contracts to provide for the many upgrades of our wastewater treatment systems;
- ensuring financial sustainability of the utility services;
- create an arm's length relationship for the Water and Waste Department ("WWD") with the City with appropriate authority and control over its assets, rates and plans accessing new federal grant programs while preserving access to traditional grant programs;
- improving ability to attract and retain specialized utility, professional and technical staff;
- serving other municipalities with utility services through businesslike arrangements that protect the City and ratepayers from undue risk; and
- providing other utility related lines of business that fill market demand such as green energy including the geothermal energy, landfill gas and biogas from the City's wastewater treatment facilities.

Deloitte's proof of concept report (attached hereto in Appendix "A") identifies that a Municipal Corporate Utility, using a private sector approach to governance while retaining full City ownership, is the most capable business model to achieve the above noted benefits.

The Corporate Utility Model also contemplates the involvement of the private sector as a Strategic Partner to bring innovation and risk management skills to the South End Water Pollution Control Centre ("SEWPCC") and the North End Water Pollution Control Centre ("NEWPCC") upgrade projects as well as bringing their experience to the design, construction and potentially the operations of all the wastewater treatment facilities.

The facilities may be operated directly by the Strategic Partner or the Corporation or combination of both as determined by the Board of Directors based upon a competitive process.

Deloitte recommended the following:

- The WWD should be restructured to form a Municipal Corporation owned by the City of Winnipeg.
- A Project Team including appropriate City staff and external legal and business advisors be established to guide the development of a business plan for the Corporation and support the procurement of the Strategic Partner.
- An Advisory Panel comprised of potential future board members of the Corporation be established to guide the work of the Project Team.
- The strategic partner procurement process should begin immediately so that the December 2012 SEWPCC deadline can be met. This would require that the City initiate the strategic partner procurement process, with the ultimate decision on the Strategic Partner being made by the Board of Directors of the Corporation.
- Creation of the Utility Corporation upon receipt of a satisfactory business plan.

The Public Service recommends that the CAO be delegated the authority to carry out the necessary due diligence including producing a detailed business plan for the implementation of the Utility Corporation Mode. In addition, it is recommended that the procurement of a Strategic Partner be conducted in tandem with the generation of the detailed business plan. The procurement of a Strategic Partner would be reconsidered if the business plan was unfavorable. It should be noted however, that if the Utility Corporation is not created then the Strategic Partner concept could still be utilized directly by the City through the existing Water and Waste Department model.

The Strategic Partner will be responsible for the design, construction and financing of the upgrades of the SEWPCC and NEWPCC to meet Province of Manitoba requirements and, potentially, the operation and maintenance of all wastewater treatment plants (SEWPCC, NEWPCC, WEWPCC) and outfalls including management of bio-solids produced by the plants.

The Strategic Partner will be identified through a competitive process based on their skills and expertise in capital project management and wastewater operations, access to capital; and cost of service (rate bid by Strategic Partner for wastewater treatment). As part of this process the City will investigate a number of strategic partnership forms including, where possible, models through which City staff, under the new Utility Corporation, would continue with the operation of the treatment plants in a truly competitive manner.

The $4,250,000 budget amount for developing a business plan for Utility Corporation and to also for financing the strategic partner procurement process is an investment that will deliver future benefits.

The establishment of a Utility Corporation for service delivery will be used to drive efficiency improvements that will have a positive effect on community sustainability and will provide cost savings to allow the city to recoup the initial $4,250,000 investment.

Similarly, the procurement of a strategic partner will benefit the City in terms of cost certainty relating to the capital investment required to expand and upgrade the existing wastewater treatment plants and also provide cost savings relative to the total cost of ownership during the partnership term.

**Implications of the Recommendation(s):**

**General Implications**

( ) None

(X) For the organization overall and/or for other departments

( ) For the community and/or organizations external to the City

( ) Involves a multi-year contract

Comment(s): The establishment of a Utility Corporation would affect City staff currently engaged in water and waste operation. Also, the use of a Strategic Partner for the provision of the Wastewater Treatment Plant upgrades and potentially, the subsequent operations is significant change to the current mode of operation.

**Policy Implications**

( ) No

(X) Yes

Comment(s): The Utility Corporation departs from the traditional method of relevant service delivery historically used by the City of Winnipeg.

**Regulatory Implications**

( ) None

( ) Eliminates or reduces regulatory impact

(X) Proposes regulatory impact

Comment(s): The City will request the Province enact PUB regulation of water and wastewater rates proposed by the Utility.

**Environmental Implications**

( ) No

( X) Yes

Comment(s):
Increasingly stringent wastewater effluent standards and more vigilant enforcement in the future will be met or exceeded through a rigorous system of monitoring and accountability provision of management contracts.

**Human Resources Implications**

( ) No

(X) Yes

Comment(s): The new Utility Corporation will become the employer of staff currently employed in the Water and Waste Department.

**Financial Implications**

( ) Within approved current and/or capital budget

(X) Current and/or capital budget adjustment required

Comment(s): Cost will be incurred for the preparation of the Utility Corporation business plan and the procurement of the Strategic Partner.

**REASON FOR THE REPORT:**

A new business model to deliver existing services is sought to enhance both quality of service as well as increase accountability to taxpayers.

New and innovative services for citizens such as municipal green energy are also goals in this effort to make Winnipeg a leader in innovation and quality service delivery.

## HISTORY:

The City of Winnipeg engaged Deloitte & Touche LLP (Deloitte) through RFP 222-2007 to review several projects identified in the City's 2008 Capital Budget for their suitability for delivery using the various P3 models. The South End Water Pollution Control Centre (SEWPCC) Upgrade and Expansion project was one of the projects reviewed.

Deloitte recommended that the project be delivered using a Design Build Finance Operate (DBFO) model. This prompted further discussion on the wastewater treatment system as a whole and the way that water and waste services are provided currently.

Deloitte was then instructed to investigate the concept of utilizing a Utility Corporation to provide utility services to the citizens of Winnipeg. A number of meetings and consultation with key stakeholders has taken place culminating in a proof of concept report which is discussed further in this report.

## DISCUSSION:

The following discussion covers the concept of utilizing a Municipal Corporate Utility business model for the delivery of water and waste services.

### Corporate Utility Model

A high level analysis of the current governance structure of the WWD was carried out and compared against a municipal corporate governance model to determine if the latter would provide opportunity to meet the City's long term objectives.

### Current Delivery Model

The WWD reports administratively to the Chief Administration Officer (CAO) and politically to the Standing Policy Committee on Infrastructure Renewal and Public Works.

### Delivery Model Assessment

Several delivery models were analyzed and assessed against how each could address the challenges and take advantage of the opportunities. The models experienced include:

- Municipal Utility (current model).
- Municipal plus P3 (current model with P3 (DBFO) delivery of the upgrades to SEWPCC and NEWPCC).
- Municipal Corporate Utility (Corporation with City as sole shareholder with the Corporation governed by an independent Board of Directors).

- Municipal Corporate Utility plus Strategic Partner (as above with a single private sector partner responsible for wastewater treatment).

This assessment identified the Municipal Corporate Utility plus Strategic Partner as being worth consideration and to take forward for consultation with the key stakeholders.

**Stakeholder Consultation**

A series of discussions have been held with the key stakeholders. The stakeholders include Water and Waste Department, Legal Services Division of the City, Manitoba Public Utilities Board, Province of Manitoba, WAPSO and CUPE.

**Market Participants**

The recent analysis for the SEWPCC Upgraded and Expansion project is still valid and relevant to the strategic partnership concept. In addition, recent market soundings with major participants in water and wastewater construction and operations market all expressed interest in the role of strategic partner. The size of the capital program is sufficient to generate interest and the project timeline required to meet licensing requirements is acceptable.

**Recommended Utility Partnership**

The model proposed is shown in Figure 1. The Municipal Corporation would have a separate Board of Directors that are appointed by City Council. The City will be the sole shareholder of the Corporation.

Water services would be provided directly by the City owned Corporation. Wastewater services would be provided by the Corporation and/or a Strategic Partner engaged in a long term contract with the Corporation. Other lines of utility like business will be considered such as the commercial and residential use of geothermal energy, capture and utilization of land and biogas for heating and or power generation would be added as the corporation matures. These will contribute to the City and Provincial efforts to reduce greenhouse gas emissions.

Other lines of utility like business can evolve in the future which the utility would be well placed to deliver to the benefit of the City residents.

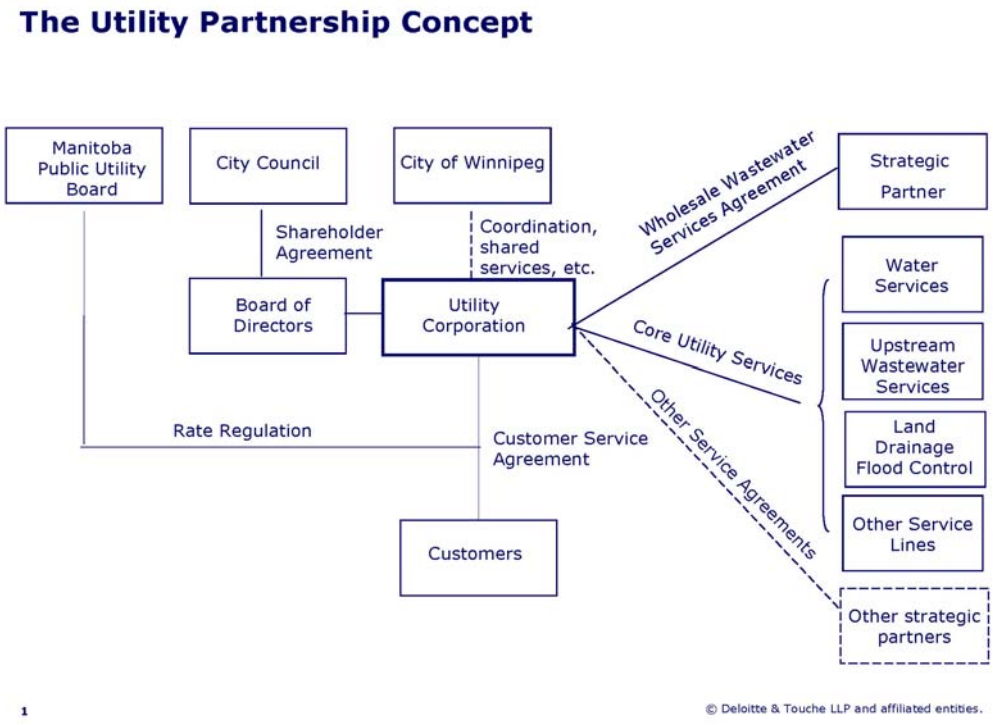


**Figure 1**

## Next Steps

A two prong approach is recommended to develop a business plan and procure a Strategic Partner both to be done concurrently.

Develop a clear business plan covering in detail:

- Governance
- Legal Issues
  - Assignment / Transfer of Assets
  - Shareholder Agreement
  - By-laws
  - Incorporation Documents
- Service Agreement
- Organizational Design
- Human Resources

- Financial
    - Access to Capital
    - Access to Grants
    - Tax Implications
    - Accounting Implications
- Technical & Engineering
- Assignment or Transfer of Assets

Procure Strategic Partner:

- Define Scope
- Issue Request for Expressions of Interest
- Issue RFQ
- Issue RFP

This process will take between 12 and 18 months and needs to start as soon as possible.

**Recommendations for Corporate Utility and Strategic Partner**

It is recommended that the Winnipeg Public Service proceed towards the creation of a Utility Corporation initially to provide the water and waste services within the City of Winnipeg. Once established, the Utility Corporation will look to establish other business lines, strategically aligned with Corporate objectives. A detailed business plan is required; accordingly $1.25 million is being requested to be added to the 2009 Capital Budget.

It is also recommended that the Winnipeg Public Service utilize a Strategic Partner for the upgrade of the wastewater infrastructure if supported by the business plan. Accordingly, $3.0 million is requested to be added to the 2009 Capital Budget.

For budgeting purposes, the projects would be split as follows:

- Sewage Disposal Fund - $3,625,000, being one-half of the estimated cost to develop the business plan and 100% of the cost associated with procuring a Strategic Partner
- Waterworks Fund - $625,000, being one-half of the estimated cost to develop the detailed business plan

**Financial Impact Statement:**

**Project Name: Alternative Service Models - City of Winnipeg Utility Corporation**

**Date: October 1, 2008** **First Year of Program** **2009**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| **Capital** | | | | | |
| Capital Expenditures Required | $ 4,250,000 | $ - | $ - | $ - | $ - |
| Less: Existing Budgeted Costs | - | - | - | - | - |
| Additional Capital Budget Required | $ 4,250,000 | $ - | $ - | $ - | $ - |
| **Funding Sources:** | | | | | |
| Debt - Internal | | $ - | $ - | $ - | $ - |
| Debt - External | - | - | - | - | - |
| Grants (Enter Description Here) | - | - | - | - | - |
| Reserves, Equity, Surplus | 4,250,000 | - | - | - | - |
| Other - Enter Description Here | - | - | - | - | - |
| Total Funding | $ 4,250,000 | $ - | $ - | $ - | $ - |
| Total Additional Capital Budget Required | $ 4,250,000 | | | | |
| Total Additional Debt Required | $ - | | | | |
| **Current Expenditures/Revenues** | | | | | |
| Direct Costs | $ - | | | | |
| Less: Incremental Revenue/Recovery | - | - | - | - | - |
| Net Cost/(Benefit) | $ - | $ - | $ - | $ - | $ - |
| Less: Existing Budget Amounts | - | - | - | - | - |
| Net Budget Adjustment Required | $ - | $ - | $ - | $ - | $ - |

**Additional Comments: No Capital Budget has been established for this project. This capital project will be funded by water utility retained earnings in the amount of $625,000 and sewer utility retained earnings in the amount of $3,625,000.**

*Original Signed by*

Moira L. Geer, CA
Water + Waste Department

**IN PREPARING THIS REPORT THERE WAS:**

**Internal Consultation With and Concurrence by:**
Corporate Finance Department
Water & Waste Department
Legal Services Department
Public Works Department
Planning Property & Development

**External Consultation With:**

Deloitte and Touche LLP.

**THIS REPORT SUBMITTED BY:**
Department Corporate Finance
Prepared by: Henry S. Hunter P.Eng., Moira Geer, CA, Bryan R. Gray, LL.B.
File No.


Deloitte Proof of Concept Oct 15.pdf

Deloitte

# A New Model for the City of Winnipeg's Utility Services

## Proof of Concept

Final Report

October 15, 2008

Audit.Tax.Consulting.Financial Advisory.

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# Executive Summary

The City of Winnipeg (the "City") provides a broad range of utility-related services to residents and businesses in Winnipeg through the City's Water and Waste Department. The services that are financially independent through utility rates with no reliance on property taxes and other sources of general revenue include water and wastewater services. There are utility rates for solid waste disposal (landfill operations and recycling) services but they also rely on property taxes for revenue. These services are referred to by the City as "utilities" because of their utility rate revenue base and the high cost and long life infrastructure required to provide these services; however, they are governed and controlled like any other service provided by the City.

As part of the City's ongoing approach to exploring new ways to deliver public infrastructure and related services to provide greater value for money to its constituents, Deloitte was retained in 2007 to study new approaches to delivering certain infrastructure projects for a range of Departments.

Some of the City's largest upcoming projects are found within the Water and Waste Department's capital budget including the remaining two wastewater treatment upgrade projects – the North End Water Pollution Control Centre (NEWPCC) and South End Water Pollution Control Centre (SEWPCC) estimated to have a combined capital cost of approximately $600 million. Deloitte studied the SEWPCC and recommended that a design-build-finance-operate model involving a private sector partner be used to reduce the City's exposure to cost overrun, delays and other project risks as well as to reduce the cost of the project on a lifecycle basis. The study triggered a consideration of the broader context of the City's wastewater capital plan (given the larger pending NEWPCC project) and broader objectives for the City's utility services.

Governments worldwide have examined alternative forms of governance and private sector involvement in the provision of utility services to:

- Accelerate infrastructure investment;
- Ensure that utility rates cover the full cost of providing the services;
- Improve capital and operating cost efficiency (i.e. minimize cost to ratepayers);
- Reduce exposure to project risk (e.g. capital cost overrun risk);
- Enhance transparency and accountability; and
- Enable technical and management innovation.

The above objectives mirror many of the objectives the City has for the provision of utility services derived from the various challenges and opportunities currently facing the Water and Waste Department. The basic question addressed by this report is: is there a different model that the City could use for the provision of utility-related services to better address the City's objectives?

The model which showed the most promise was found to be a Municipal Corporate Utility that utilizes an arms-length approach to governance while retaining full City ownership. The model also contemplates the involvement of the private sector as a Strategic Partner[1] to mitigate risks associated with the NEWPCC and SEWPCC upgrade projects. The utilization of the Strategic Partner approach will bring innovation and additional skills to other potential "new business" pursuits of the Municipal Corporate Utility such as geothermal energy capture and landfill gas utilization. This model, named in this report as a "Utility Partnership" for ease of reference, addresses the City's objectives as follows:

[1] The term "Strategic Partner" is used to describe a private sector company selected through a competitive procurement process that would possess the expertise and resources necessary to deliver specific infrastructure project(s) under a long-term performance based contract as well as be available to support the pursuit and development of related new business of the Municipal Corporate Utility.

1. The Utility Partnership would be better equipped through its governance structure to keep ahead of ever increasing regulatory requirements and service level expectations that protect public health and stewardship of the environment. Furthermore, there is an opportunity to enhance the accountability for wastewater effluent quality through the performance based contractual arrangement with the Strategic Partner. This would reduce the inherent conflicts of the current system where one level of government (Federal or Provincial) regulates another level of government (municipal). This would be achieved by the City passing through regulatory compliance requirements to the Strategic Partner.

2. Involvement of a Strategic Partner under a performance based long-term contract would significantly reduce the City's exposure to risks related to cost overrun, delay of project completion, scope creep, asset maintenance, etc. (together referred to as "project risks") on pending wastewater treatment plant upgrades.

3. Procurement of the Strategic Partner by the Municipal Corporate Utility (rather than the City) would reduce risks related to procurement schedule slippage, not attracting a sufficient number of bidders, lack of political commitment, etc. (together referred to as "procurement risks") because of the business-to-business nature of the procurement.

4. The combination of rate regulation by the Public Utilities Board (the "PUB") and long term provision of wastewater treatment services by the Strategic Partner would contribute to improved financial sustainability and cost-transparency of the utility services.

5. The Municipal Corporate Utility would legitimize and ensure the segregation of the Water and Waste Department from the City through appropriate authority and control over its assets, rates and plans. Discretionary transfers out of utility accounts by the City would no longer occur and property taxes will no longer be at risk of being used to support utility functions.

6. The Utility Partnership may be able to access potential public-private partnership (P3) specific federal grant programs while preserving access to traditional grant programs.

7. The Utility Partnership would have an improved ability to attract and retain specialized utility and other professional staff (indirectly, through its Strategic Partner, and directly through the Corporation's own human resource policies).

8. The Utility Partnership would be better equipped to conclude utility service agreements with other municipalities in a "business-like" manner that protects the City and ratepayers from undue risk.

9. Innovative thinking and methods would be incorporated into the provision of utility related lines of business. Other lines of business such as the commercial and residential use of geothermal energy capture and utilization of biogas for heating and /or power generation could be added as the Municipal Corporate Utility matures. The Municipal Corporate Utility could then be at the forefront of the City's effort to reduce its carbon emission footprint. New lines of utility-like services may evolve in the future, and the Municipal Corporate Utility would be well placed to deliver them.

Several stakeholders were consulted to identify issues, concerns and ideas to enhance the Utility Partnership concept. The Utility Partnership concept was explored with the Province, the PUB, the Water and Waste Department and both relevant civic employees unions CUPE and WAPSO. The City has pledged further consultation with these stakeholders to ensure their input throughout the project development.

Based on the challenges and opportunities identified for the Water and Waste Department and the City, on the input of key stakeholders, and on a strategic assessment of relevant delivery models including the status quo, it is recommended that:

- The WWD undergo an organization transformation to become a Municipal Corporate Utility (the "Corporation");

- A Project Team including appropriate city staff and external legal, technical and business advisors be established to guide the development of a business plan for the Corporation and support the procurement of the Strategic Partner;
- An Advisory Panel comprised of potential future board members of the Corporation be established to guide the work of the Project Team; and
- The planning stage for the Strategic Partner procurement begin immediately so that the first market facing stage of the procurement process (the Request For Expressions of Interest) can be launched before the end of the 2008 calendar year so that the December 2012 SEWPCC deadline can be met. This would require City Council to approve the initiation of the Strategic Partner procurement process, with the ultimate decision on the Strategic Partner being made by the Board of Directors of the Corporation.

# 1.0 Introduction

## Background

The City is exploring new ways to deliver public infrastructure and related services to provide the citizens of Winnipeg with value for money. In the context of utility services, value for money means the provision of utility services in a manner that meets all necessary regulatory and service level requirements, particularly protection of public health and stewardship of the environment, at the least cost to rate payers over the life of the infrastructure.

In 2007/2008, the City of Winnipeg conducted an analysis of delivery models for a planned upgrade/expansion of the South End Water Pollution Control Centre (SEWPCC) – one of three large wastewater water treatment plants owned by the City and managed and operated by the City's Water and Waste Department. The analysis examined Traditional, Design-Build, Design-Build-Operate (DBO), and Design-Build-Finance-Operate (DBFO) delivery models for the $212 million project[2].

The analysis undertaken by Deloitte concluded that DBFO, a Public-Private Partnership (P3) model, was the preferred delivery option based on an assessment of the relative risks of the delivery models, relative value for money to the City, and the expressed interest of the market of service providers. Procurement risk was identified as the most significant concern (there is a history in Canada of aborted municipal water/wastewater P3s due to interest group pressure and lack of political commitment to the procurement model). Procurement risk refers to all risks that impact the success of the procurement of a Strategic Partner such as schedule slippage, not attracting a sufficient number of bidders and political interference.

The exercise triggered a consideration of the broader context of the City's wastewater capital plan (e.g. the pending larger North End Water Pollution Control Centre (NEWPCC) expansion/upgrade project) and broader objectives for the City's utility services. It was recognized that P3s might be one of the elements in achieving these goals, but that there were potentially other forms of partnerships and governance that might assist the City in achieving its objectives.

This report summarizes the challenges, opportunities and related objectives for its current and future utility services, and examines a number of different approaches to achieving them including a recommendation to adopt a Municipal Corporate Utility model for certain existing services provided by the Water and Waste Department as well as consideration of a Strategic Partner for certain major capital projects and utility services.

## Scope of Work

The work program for this assessment included:

- Identify challenges and opportunities relevant to utility services provided by the City's Water and Waste Department;
- Review best practices in municipalities across Canada and other jurisdictions in the areas of partnerships and governance relevant to this assignment;
- Develop the concept for a water and wastewater utility partnership based on identified challenges and opportunities through a review of concept options and strategic assessment;
- Evolve the concept through preliminary investigations in key areas, and discussion with key stakeholders; and
- Based on the evolved concept, determine what the City requires to make a decision to proceed, and develop a detailed action plan to fill any information gaps for decision-making purposes.

[2] SEWPCC Upgrading/Expansion Preliminary Design Report, Stantec

This approach was determined to be the most efficient and practical way to converge on the concept to be carried forward. The actual business case for a utility partnership would be completed as a subsequent assignment to meet the "specification" determined from the above work program.

A Working Group comprising of the Chief Administrative Officer (CAO), Chief Financial Officer (CFO), and a number of City Corporate staff was organized to support our work and provide guidance particularly with respect to the identification of challenges and opportunities facing the City with respect to utility services, and related objectives to be addressed by partnership and governance options.

## Notice to Reader

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# 2.0 Water and Wastewater Service Delivery Models

There is significant diversity in the types of delivery models used to provide water and wastewater systems and services in North America. They are publicly owned and privately owned; some are a combination of both. They are operated by all levels of government – local, regional, state or provincial, and national. Some have private sector involvement in operations and capital investment responsibility through permanent or fixed duration contractual arrangements. They are governed by elected officials, appointed officials, independent authorities and corporate boards.

Two key public policy issues in the water and wastewater sector are forms of governance and private sector involvement. The policy objectives that government typically promotes through alternate forms of governance and private sector involvement include:

- Accelerate infrastructure investment;
- Ensure that utility rates cover the full cost of providing the services;
- Improve capital and operating cost efficiency (i.e. minimize cost to ratepayers);
- Reduce exposure to project risk (e.g. capital cost overrun risk);
- Enhance transparency and accountability; and
- Enable technical and management innovation.

## Governance

Forms of governance include public utility governance (following public sector governance models) and private utility governance (following private sector corporate governance models). There is also a hybrid – a corporatized government-owned utility model also referred to in Canada as a Municipal Corporate Utility. The governance of a Municipal Corporate Utility seeks to mimic private sector corporate governance while retaining public ownership. In this way, it seeks to simultaneously obtain the advantages of public and private sector involvement.

In Canada, public utility governance can be found in three common service delivery models for water and wastewater systems. These are Municipal Department, Municipal Utility and Utility Commission. Moving across this spectrum there is an increasing level of financial and decision making independence with the Utility Commission having the highest level of independence within a public governance setting. We consider the City's Water and Waste Department (WWD) to be an example of a Municipal Utility although some of its service lines that are tax supported could be considered Municipal Departments. Examples of the Utility Commission model can be found in Ontario, Alberta and Nova Scotia although they are not predominant. The Utility Commissions in these provinces have a range of different characteristics based on the commission related legislation of the particular province. The one common characteristic of these Utility Commissions is that their board of directors/commissioners has some political representation. Utility Commissions are usually formed to manage the interests of multiple municipalities that own and operate a common infrastructure system or utility service. In Ontario, they are a result of electrical distribution deregulation, and in that case they have the characteristics of both a Utility Commission and a Municipal Corporate Utility.

Aside from small systems, there are very few examples of private utility governance for municipal-scale water and wastewater systems in Canada. One of the largest water systems under a private utility service delivery model is in White Rock, BC where 20,000 residents in the City of White Rock, and certain adjacent areas in the City of Surrey, including the Semiahmoo First Nation are served by a system owned and operated by EPCOR Utility Services.

Examples of the Municipal Corporate Utility model can be found in Alberta and Ontario although it is even less predominant than the Utility Commission model. EPCOR Utility Services, owned by the City of Edmonton, supplies owns and operates the City's water system and provides services to several

other municipalities in Alberta and other provinces. Examples that cover both water and wastewater services include Aquatera and Utilities Kingston. Detailed descriptions of these examples are provided in Appendix A.

### Private Sector Involvement

Private sector involvement in water and wastewater can range from a public utility outsourcing a narrow range of services or functions to a private sector service provider to a fully private utility as in the case of White Rock. A variety of other alternatives that generally fall between these two options are commonly referred to as P3 delivery models. They include long-term operation and maintenance (O&M) contracts, design-build-operate (DBO) contracts and design-build-finance-operate (DBFO) contracts. The DBFO contract provides the greatest level of risk transfer away from government as the private sector service provider is responsible for making initial and ongoing capital investments under a contract structure that compensates based on performance of the service provided.

Later in this report we use the term Strategic Partner to describe an arrangement where a private sector partner, under a P3 type delivery model, is contractually obligated at the government's request to apply its resources and expertise to develop new or expanded services.

In Canada, there are several examples of private sector involvement in the delivery of water and wastewater services particularly in Alberta and Ontario although they are not predominant. However, the involvement of the private sector and number of companies providing water and wastewater services is rapidly growing on a global basis.

### Winnipeg's Current Service Delivery Model for Water and Waste

The City's Water and Waste Department (the "WWD") is responsible for providing a wide range of services to the public including water, wastewater, land drainage and flood control, solid waste collection, solid waste disposal and recycling and waste minimization. Water and wastewater services have been organized as financially independent units with no reliance on property taxes and other sources of general revenue of the City. Solid waste disposal and recycling and waste minimization services are also organized as a financially independent unit although it still relies somewhat on property taxes for its revenue base. Since these services are either entirely or mostly reliant on utility rates and charges, they are considered "utilities" in the financial statements of the City. Land drainage and flood control and solid waste collection are tax-supported services, although land drainage and flood control is primarily funded by the Wastewater Utility.

| WWD Services | 2008 | | 2008 FTE | Form of Organization |
|---|---|---|---|---|
| | Expenditure Budget | Revenue Budget | | |
| Water | 80.5 M | 93.6 M | 446.12 | Municipal Water Utility |
| Wastewater | 99.9 M | 131.9 M | 395.96 | Municipal Wastewater Utility |
| Solid Waste Disposal | 9.9 M | 9.7 M | 36.97 | Municipal Solid Waste Disposal Utility |
| Recycling and Waste Minimization | 10.0 M | 9.5 M (from solid waste disposal) | 18.74 | |
| Solid Waste Collection | 16.4 M | 2.4 M (from solid waste disposal) | 18.66 | Tax supported unit (Municipal Department) |
| Land Drainage and Flood Control | 13.7 M | 13.7 M (from wastewater) | 20.64 | Tax supported unit (Municipal Department) |

Aside from Solid Waste Collection and Recycling and Waste Minimization, most services are provided directly by Department Staff. Solid Waste Collection and Recycling was contracted out to private collection companies some time ago with the WWD responsible for customer service and contract administration.

Most major capital projects undertaken by the WWD so far have been delivered under Traditional (design-bid-build) methods. The new water treatment plant is being delivered under a construction management approach which in essence is a complex series of managed smaller design-bid-build contracts.

The WWD has its own support functions of customer service, information technology, human resources and finance. These support functions are shared by all of the WWD's service lines.

The WWD like all other City Departments is governed by City Council, with primary control exercised through the annual budgeting process including rate setting for the "utility" services. The WWD reports administratively to the Chief Administrative Officer (CAO) and politically to the Standing Policy Committee on Infrastructure Renewal and Public Works.

# 3.0 Challenges and Opportunities

Finding innovative and effective ways to address the infrastructure and related service needs is one of the most important challenges and opportunities facing the City. The WWD is particularly challenged with a forecast capital budget of $1.1 billion[3] to undertake necessary capital investments over the next 6 years. The following section provides a compilation of current and future challenges and opportunities facing the WWD primarily as result of these significant planned capital investments but also a desire to build on the success of the WWD. The challenges and opportunities form the basis of the City's objectives against which different delivery models were assessed. The following nine objectives were identified by the project team with input from the Working Group:

### 1. Ensure utility service levels and regulatory requirements are met to protect public health and stewardship of the environment

The WWD has a good track record in terms of providing services in a manner that protects public health and stewardship of the environment. Regulatory requirements and service level expectations will continue to increase.

The challenge is to ensure that City has the means to keep ahead of these ever increasing requirements and expectations.

### 2. Reduce risk on pending major wastewater treatment plant upgrades (SEWPCC and NEWPCC)

Approximately 80% of the forecast capital budget for WWD relates to wastewater services. Both the SEWPCC and NEWPCC require significant upgrades (approximately $600 million in total) to meet the anticipated conditions of an Environment Act License that has been issued by Manitoba Conservation requiring year round effluent disinfection and effluent limits for nitrogen and phosphorous. For the SEWPCC, Manitoba and Conservation requires compliance by December 31, 2012. The completion date for the NEWPCC is 2 years thereafter.

The recent cost-overruns and completion delays experienced on the WEWPCC upgrade and the new water treatment plant (still under construction) highlights the significant risks faced by the City on its major capital projects. These projects were undertaken with traditional delivery methods (design-bid-build and construction management).

The challenge is to reduce the City's exposure to cost overrun and completion delay risk for the SEWPCC and NEWPCC.

### 3. Preserve and enhance the City's ability to undertake P3 procurements for all asset types

The City has recently launched a P3 procurement process for the Disraeli bridge project with the release of a Request for Qualifications to the bidding community. The project will be built under a DBFM (design-build-finance-maintain) delivery model to reduce the City's exposure to risk and obtain better value for money compared to traditional project delivery models.

The analysis undertaken by Deloitte concluded that DBFO was the preferred delivery model for the SEWPCC; however, the report also cautioned the City with respect to procurement risk if this delivery model is to be implemented, given the history in Canada of aborted municipal water/wastewater P3s due to interest group pressure and lack of political commitment to the procurement model. A failure of P3 procurement of SEWPCC could negatively impact the procurement of the Disraeli Bridge and other future procurements undertaken by the City.

[3] Preliminary 2008 Operating Budget

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There is an opportunity for the City to mitigate P3 procurement risks for water/wastewater infrastructure and enhance the City's reputation as a leader in municipal P3 procurement.

### 4. Ensure that utility services are cost-effective and financially sustainable

The WWD has adopted a user pay and full cost pricing approach for its utility services with plans to adopt a similar approach for land drainage and flood control services. This represents a best practice approach to ensuring a financially sustainable services assuming that full cost rates are accepted by the governing body. Jurisdictions that do not adopt this best practice generally have significant deferred maintenance issues and a backlog of capital investment.

In Manitoba, with the exception of the City of Winnipeg, all municipal water and sewer utilities are required to go before the Public Utilities Board (the "PUB") for rate setting approval. Instead, the WWD goes through an annual budgeting process including rate setting for the "utility" services with City Council.

There is an opportunity to consider PUB regulation to enhance the cost effectiveness and financial sustainability of certain WWD's services. We found through consultations with the PUB that the cost of PUB regulation is likely immaterial.

### 5. Preserve and enhance the water and waste department's independence from City's financial accounts and its ability to manage its assets

The establishment of separate water, wastewater, and solid waste disposal utility services from a financial perspective was intended to ensure the financial independence of utility services. However, the City has in the past made discretionary transfers out of the utility accounts. Likewise, property taxes are still at risk of being used to support utility functions.

There is an opportunity to enhance the level of financial independence and/or apply it to other utility like services.

### 6. Preserve and enhance access to senior government grants

Federal and provincial government grant programs may be an important source of future capital for the WWD. One of the more significant grant commitments under the Canada-Manitoba Infrastructure Program announced in April 2005 was $42 million from the federal government and $25 million from the provincial government for the Winnipeg Wastewater Treatment System covering the upgrades at WEWPCC and SEWPCC. A new Canada-Manitoba infrastructure funding agreement utilizing the Building Canada Fund was announced in September 2008. The Building Canada plan of the federal government encourages the development and use of P3 best practices by requiring that P3s be given consideration.

There may be an opportunity to improve access to new federal grant programs. Care must be taken in any change in service delivery model to ensure continued access to existing provincial and federal grant programs.

### 7. Improve ability to attract and retain specialized utility and other professional staff

The WWD is one of the largest departments in the City with over 900 employees. Many of these employees have a high degree of technical training and those in treatment plant operation positions hold required operator certifications. The demographics of the WWD workforce plus a nation-wide shortage of professional staff in the water and wastewater sector is creating a human resource challenge for the WWD.

There is an opportunity to improve the ability to attract and retain specialized utility and other professional staff.

### 8. Serve other municipalities with utility services through businesslike arrangements that protect City and ratepayers from undue risk

There is an opportunity to potentially leverage the WWD's asset base (current and future) to serve other municipalities. In the past, the WWD has considered a couple of opportunities to provide wastewater services outside of the City of Winnipeg but to date no such arrangements exist.

Service delivery models should be considered in terms of their ability to pursue and capture opportunities to leverage the City's asset base.

### 9. Incorporate innovative thinking and methods into the provision of utility-related lines of business

There is a growing global trend related to energy conservation and replacement of non-renewable energy sources with green (renewable) energy sources. The Province of Manitoba has made several related commitments under the Western Climate Initiative and the City has its own "green agenda". The utility services currently provided by WWD present significant opportunities for innovation related to developing green energy sources.

Initially, the City's sustainability objectives could be built into the water and wastewater operations. There is an opportunity to design facilities and processes to expand heat capture and other innovations. Landfill gas utilization is another similar immediate opportunity. Such initiatives could form the foundation for the City's green agenda. In the long-term, opportunities may arise to develop new utility-related lines of business such as geothermal capture to reduce the City's overall carbon emission footprint.

The City currently has a limited ability in terms of human resources and capital to consider and develop new utility-related lines of business particularly those related to green energy.

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# 4.0 Delivery Model Assessment

The full range of delivery models available to the City was discussed in detail with the Working Group and based on these discussions the following combination of governance and private sector involvement models were conceived and selected for assessment against the challenges and opportunities facing the WWD. The models assessed were:

- **Status Quo** – Municipal Utility with extension of this model to Land Drainage and Flood Control.
- **Status Quo plus P3** – Same as previous model except with DBFO delivery model employed for the SEWPCC and NEWPCC upgrade projects through two separate P3 procurements.
- **Municipal Corporate Utility** – Creation of a Corporation encompassing all services currently provided by WWD with the City as the sole shareholder. The Corporation would be governed by an independent board of directors with relevant experience. The staff would be employees of the Corporation under a collective agreement separate from the City. The Corporation would have a commercial approach to operations.
- **Municipal Corporate Utility plus Strategic Partner** – Same as previous model except with a single private sector partner responsible for wastewater treatment plant upgrades and operation and available to support the pursuit and development of new utility related lines of business. The Corporate Utility will have an opportunity to supply plant operations services to the Strategic Partner as an alternative to the operations being undertaken solely by the Strategic Partner, provided the services supplied by the Corporation are competitive. A competitive procurement process is used to select the Strategic Partner.

  Other Strategic Partners could be selected for other new lines of utility-like services such as geothermal energy capture and other green energy sources.

A Utility Commission model was not explicitly considered further as there is no legislation in the Province of Manitoba that allows municipal government to establish a commission.

The results of the analysis indicate that the Municipal Corporate Utility plus Strategic Partner is the best model to address the challenges and opportunities facing the WWD. The assessment of this delivery model against the Status Quo model is summarized in the table below.

| Challenge and Opportunity | Assessment of Status Quo | Assessment of Municipal Corporate Utility plus Strategic Partner |
|---|---|---|
| 1. Regulatory Requirements and Service levels | Nothing to suggest that current regulatory requirements and services levels are not being met<br><br>Inherent conflict in one level of government regulating another level of government | Better equipped in terms of resources and governance structure to keep ahead of increasing regulatory requirements and service level expectations<br><br>Effluent quality risk transferred to private partner<br><br>Reduction of the inherent conflict in current regulatory regime if effluent quality is made the responsibility of the Strategic Partner, including pass-through of any related fines |
| 2. Treatment plant project risks | Traditional design-bid-build procurement methods expose the City to high level of cost overrun | Project risk (overrun, delay, etc) assumed by Strategic Partner. Performance based contract designed to |

| | | |
|---|---|---|
| | and delay risk | ensure transfer of risk to Strategic Partner "sticks" |
| 3. Mitigation of procurement risk | Traditional procurement of wastewater projects – no risk of impacting the City's reputation for P3 procurement (e.g. Disraeli) | Strategic Partner procurement risk mitigated with business to business procurement – no Council involvement or potential for political interference |
| 4. Financial sustainability | Council control over rates has potential to erode financial sustainability<br><br>Potential value identified for DBFO approach not realized | Rate regulation by PUB would contribute to financial sustainability of the utility<br><br>Strategic Partner arrangement can be used to improve financial sustainability of certain assets (e.g. wastewater treatment plants) |
| 5. Independence from the City | Although financially segregated, the WWD is not truly financially independent - Council control over rates and capital budgets, City has transferred funds from utility accounts to subsidize annual civic operating budgets | Corporation ensures the segregation of the WWD from the City through appropriate authority and control over its assets, rates and plans |
| 6. Access to grants | Access to traditional grants not impaired<br><br>Potential P3 specific grants would not be accessible | Access to traditional grants not likely impaired as long as City is sole owner<br><br>Potential P3 specific grants may be accessible depending on nature of Strategic Partnership arrangement |
| 7. Attract and retain staff | Reportedly having problems attracting and retaining human resources – problems will increase in future | Improved ability to attract and retain staff though improved training, flexibility and career path for staff<br><br>A "qualified" Strategic Partner in terms of expertise and scale of operations would give the Corporation access to a greater pool of human resources |
| 8. Expand outside City | Government to government nature of negotiations introduces risk of political pressure to provide services without profit or below cost | Corporation would not entertain non-profitable or commercially unreasonable service expansions |
| 9. New utility related lines of business | Additional expertise and capital required for new utility-related lines of business. Likely difficult to attract human resources in a municipal government setting. | An organization with a focus on growing new lines of utility-like businesses would be better positioned to attract human resources required for new areas of business<br><br>Strategic Partner(s) could be used to bring relevant expertise and capital to the table |

Based on the above assessment and follow up discussion with the Working Group, a decision was taken to develop a full description of the Municipal Corporate Utility plus Strategic Partner delivery model to be used in consultation with key stakeholders.

# 5.0 Stakeholder Consultation

Key stakeholders relevant to the services provided by the WWD were identified and consulted with to identify issues, concerns and ideas to enhance the Municipal Corporate Utility plus Strategic Partner delivery model. In our consultations we adopted the term "Utility Partnership" for the Municipal Corporate Utility plus Strategic Partner delivery model. The following section summarizes who we consulted with.

### Water and Waste Department

The WWD Department was the first group to be consulted. The department head and a key senior manager were involved in the consultations.

### Public Utilities Board

We consulted with the Secretary and Executive Director of PUB.

It was noted that the City of Winnipeg is the only municipality in Manitoba that does not use the PUB to regulate rates for municipal utility services. There are two systems managed by the Manitoba Water Services Board that are also exempted.

### Province of Manitoba

An initial meeting was held with the Clerk of the Executive Council and Cabinet Secretary as well as the Secretary of the Community Economic Development Committee of Cabinet. The purpose of the meeting was primarily to identify the key stakeholders within government to consult with and also obtain feedback on the Utility Partnership concept.

Subsequent meetings were held with senior officials from the Intergovernmental Affairs, Finance and Treasury Board.

### CUPE and WAPSO

The two relevant unions for the WWD were consulted with. The City pledged to continue with an open dialogue on the initiative.

### Market Sounding

A detailed market sounding was undertaken for the SEWPCC delivery model assessment in January 2008 with five leading water/wastewater DBO/DBFO service providers - American Water, CH2M Hill OMI, EPCOR Water Services, Suez Environment, and Veolia Water. The results of the market sounding directly apply to the Strategic Partnership aspect of the Utility Partnership.

The key findings of the market sounding were:

- The SEWPCC project is of sufficient size to attract the attention of these service providers;
- The amended permit's target date of December 31, 2012 for effluent quality could be achieved through a DBO or DBFO if the procurement begins in 2008;
- The "upgrade" nature of the project is manageable through appropriate risk allocation, private partners will take risk on the portion of the existing structures that they are able to inspect; and
- The biggest risk in the eyes of the service provider community is the procurement risk, which must be mitigated through a strong City project champion and commitment of the City to follow through with a project award if it commences a procurement process.

The scope of the arrangement contemplated under the Utility Partnership is at least as large as the SEWPCC given that it includes SEWPCC and NEWPCC. We therefore expect significant market interest in the Strategic Partner procurement.

There may be an even greater market response to a Strategic Partner procurement managed by the Municipal Corporate Utility (i.e., business-to-business procurement) and the procurement can be made even more successful with an experienced board of directors.

# 6.0 Recommended Utility Partnership

Based on the feedback obtained through stakeholder consultations, further input from the Working Group and research into comparable service delivery models in other countries (See Appendix B – Examples of Utility Partnership), the Utility Partnership concept was further refined. This section provides a detailed description of the Utility Partnership concept that represents the most current thinking as to how the final Utility Partnership model would look and feel if approved by City Council and the Minister.

## Description of the Utility Partnership Concept

The WWD would undergo a two stream transformation to create a new water and wastewater utility company equipped to meet the challenges and opportunities facing the City today and well into future.

- Stream 1 involves creating a Municipal Corporate Utility (the "Corporation") that is focused on providing water and wastewater services to its customer base which may include communities outside City boundaries. All other WWD services such as land drainage and flood control and solid waste would also be considered to move to the Corporation.
- Stream 2 involves entering into a long-term agreement with a Strategic Partner that will provide wholesale wastewater treatment services at performance levels specified by the Corporation. Essentially, the operations and upgrade of the treatment plants (NEWPCC and SEWPCC) will become the responsibility of the Strategic Partner for a 20 to 30 year period. The Corporate Utility will have an opportunity to supply plant operations services to the Strategic Partner as an alternative to the operations being undertaken solely by the Strategic Partner, provided the services supplied by the Corporation are competitive.

Steam 1 and Stream 2 would be implemented simultaneously with the goal of having the Corporation and its Strategic Partner in place within 18 months from the decision to proceed with the concept. For the Strategic Partner aspect, this would leave sufficient time to meet the December 31, 2012 deadline for the SEWPCC upgrade assuming the procurement process begins before the end of 2008.

*The key characteristics of the Corporation:*

- An independent board of directors comprised of members with relevant experience.
- The Corporation's relationship with the City of Winnipeg defined by a shareholder agreement.
- Assets and liabilities to be assigned or transferred to the Corporation in return for shares. The selection of assignment or transfer approach will be dependent on a number of factors including accounting treatment for the City and Corporation, implications for access to capital and ease of process.
- Decision making falls to the board and CEO of the Corporation.
- Water and wastewater rate regulation by the PUB.
- Mandate to seek new utility-like business outside of and within the City of Winnipeg. Wastewater service expansion would require the involvement of the Strategic Partner whereas other services lines would not.
- Potential dividends and franchise fees provide return to the City (particular for new services or services provided outside of City of limits).
- Unionized City employees would transfer to the Corporation (potential for new collective agreement more catered to a corporate environment and beneficial to employees).
- Senior management employees for the new Corporation would be selected by the board of directors.

- Initial Scope of operations:
  - Full water services – collection, treatment and distribution of treated water;
  - Upstream wastewater services – collection and conveyance of wastewater to treatment plants, source control;
  - Management of the contract with the strategic partner for operations of the wastewater treatment plants;
  - Land drainage and flood control; and
  - Customer service – meter reading, billing and revenue collection.
- Other services to be considered for initial scope of operations:
  - Solid waste disposal;
  - Solid waste collection; and
  - Recycling and waste minimization.

  These services are currently tax supported and therefore mechanisms to move them to a financially independent position need to be found before including them in the initial scope of operations.

*The key characteristics of the Strategic Partnership:*

- Strategic Partner identified through a competitive process based on:
  - Skills and expertise in capital project management and wastewater operations;
  - Access to capital; and
  - Cost of service (rate bid by Strategic Partner for wastewater treatment).
- Strategic Partner responsible for:
  - the design, construction and financing of the upgrades of the SEWPCC and NEWPCC to meet Province of Manitoba requirements;
  - the operation and maintenance of all wastewater treatment plants (SEWPCC, NEWPCC, WEWPCC) and outfalls; and
  - Management of bio-solids produced by the plants.
- Treatment plants remain under ownership of the Corporation – operational control over the plants returns to the Corporation at the end of the agreement (20 to 30 years).
- Strategic Partner may be required to take on existing City wastewater treatment plant employees who transfer to the Corporation for minimum period of time at compensation and benefits at least equal to the Corporation.
- As an alternative, the Corporation could supply treatment plant operations services (e.g. labour, expertise) to the Strategic Partner under a services contract that preserves the desired transfer of project risks to the Strategic Partner.
- Corporation responsible for conveyance of wastewater to the treatment plants within set volume and quality parameters.
- Strategic Partner receives a performance payment from the Corporation that is based on volume of wastewater treated and a capital recovery/replacement amount.
- Strategic Partner and Corporation jointly pursue new wastewater business outside the City of Winnipeg.
- Performance based contract with Strategic Partner subject to board approval. Key features of the contract would include:
  - Defined minimum service standards;
  - Influent / effluent quality parameters;
  - Performance security;
  - Right to set-off payments (list of penalties/abatements) if service levels not met;
  - Step-in rights for the Corporation;
  - Termination provisions;

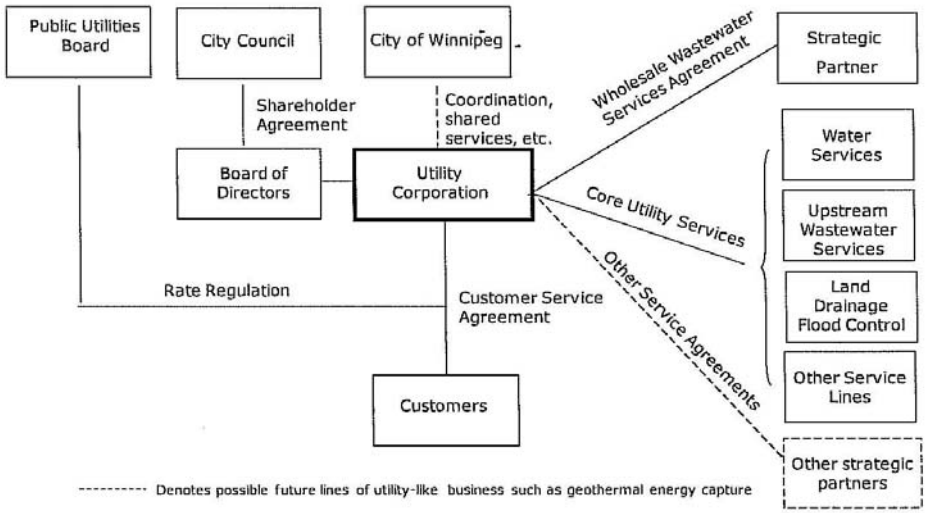
- Hand-back requirements to ensure the wastewater treatment plant infrastructure returns to the Corporation control in good condition at the end of the contract; and
- Pass through of any regulatory fines received by the City / Corporation to the Strategic Partner.

- Other strategic partners may be found if other utility-like lines of business are pursued such as geothermal energy capture and other green energy sources.

*Requirements of the City:*

- Facilitate the establishment of the Corporation and initiate the procurement of a Strategic Partner (select board, select consultant to manage procurement, etc.) with the Corporation making the final decision on the selection of the Strategic Partner.
- Assignment or transference of water and wastewater assets and liabilities to Corporation.
- Monitor performance of Corporation with formal annual reporting process:
  - Financial performance; and
  - Operational performance.
- Commitment to apply for relevant grants from senior levels of government on behalf of the Corporation (for any grants not available directly to the Corporation).
- Coordination related to:
  - System expansions (new development / densification); and
  - Maintenance, road closures, etc.
- Make certain back-office services available to the Corporation (if required) on fee for service basis (legal, IT, finance, etc).

The diagram below indicates the basic organizational construct of the Utility Partnership.



# 7.0 Next Steps

We provide the following information to help the City develop a realistic timeline for the establishment of the Corporation for the City's water, wastewater, and land drainage and flood control services.

## Experience from Elsewhere

Aquatera - From filing of the initial letter of intent to with the Minister of Municipal Affairs to achieving full operation of the municipal corporation took approximately 1½ years. The negotiation on governance structure, operating principles etc. between the three municipal stakeholders consumed the greatest amount of time and resources. We note that Winnipeg does not face the multi-shareholder issue.

EPCOR - EPCOR was the first utility service in Canada to use the municipally controlled corporation model. Much of the legislation regarding municipally controlled corporations contained in the Municipal Government Act and Regulations were created to facilitate the creation of EPCOR. The creation of EPCOR took approximately 1½ years to complete.

## Key Activities – Establishing the Corporation

There would be two key phases of activity for the establishment of the Corporation – first the development of a business plan, followed by implementation.

The first step in the development of a business plan for the Corporation would be the establishment of a project team that will be responsible for managing the development of the business plan. Supporting the project team would be consultants and in-house staff responsible for developing certain components of the business plan. Also supporting the business plan could be an advisory panel comprised of future board members of the Corporation.

The project team would need to investigate and conclude on the following key aspects of the business plan before moving to implementation:

### Governance

The structure of the Board of Directors of the Corporation would need to be determined. This would include the number of directors, and the composition of the board especially in terms of whether the board will include elected officials of the City of Winnipeg. Considerations would include:

- Corporation's need for business expertise on the Board;
- Council's comfort level with (and/or desire for) truly "arms-length" operation of the Corporation; and
- Possible Provincial requirements.

Once a decision is made on governance, the board members need to be identified and ideally available to the project team as an advisory panel during the business plan and implementation phase.

### Legal

A review of the legal requirement to create the Corporation should be conducted to identify the documents or other instruments that would be required. The following documents / instruments should be considered:

- Asset Assignment / Transfer Agreement;
- Shareholders' agreement;
- Franchise Agreement;
- Utility Bylaw; and
- Incorporation Documents.

These documents could be developed in parallel with the development of the business plan.

At some point during the formation of the Corporation, it will likely require legal counsel independent of the City.

### Service Agreements

An inventory of all the services the Water and Waste Department receives from the City needs to be compiled to determine which components/functions will move into Corporation, and what Corporation may need to do to acquire support services previously provided by the City.

Service level agreements need to be developed for services that the Corporation will continue to receive from the City.

A similar exercise must be done for any services that are contracted out by City such as solid waste collection. The contractual arrangements may require revision to reflect separation of the Corporation from the City.

### Organizational Design

The organization of the existing Water and Waste Department needs to be reconsidered in terms of the broader mandate of Corporation and the implications of a Strategic Partner approach to the wastewater treatment services division.

### Human Resources

Creation of the Corporation will require the transfer of staff from City. To give Corporation the flexibility to meet its objectives, a bargaining unit separate from City would ideally be created. Investigation of the ability and process for transitioning union staff to the Corporation and a new bargaining unit is required.

Consideration of the process for transitioning management staff is also required. Job profiles will need to be developed for new positions or new roles of management staff.

Implications of a Strategic Partner approach to the wastewater treatment services division need to be considered, which may vary depending on the role of the Corporation and/or its staff in treatment plant operations services.

### Financial

The Water and Waste Department of the City of Winnipeg is treated as a separate entity from a financial reporting perspective with separate financial statements for Water and Wastewater. We understand that Land Drainage and Flood Control and Solid Waste services are not reported in the same manner as Water and Wastewater. Financial statements may need to be constructed for these services, and it may also be necessary to develop a utility-type revenue model and fee structures for these services. Land Drainage and Flood Control may be particularly challenging in this regard, and may require development of parallel City policies/by-laws to allow the City to collect drainage charges and/or property taxes in a manner that supports the operation of drainage services as a utility.

Other financial matters that need further investigation include:

- Access to capital;
- Access to grants;
- Tax implications; and
- Accounting implications.

### Technical and Engineering

There could be a wide range of technical/engineering issues that need to be considered including the condition of the asset base, performance requirements and service standards, and expandability to serve surrounding municipalities, etc.

Also, some work would be required with respect to the implications of a Strategic Partner approach to wastewater treatment, to help inform some of the activities noted below under *"Key Activities – Procuring a Strategic Partner"*.

### Asset Assignment or Transference

The options of asset assignment or transference need to be fully explored from a legal, financial, and philosophical perspective.

### Key Activities – Procuring a Strategic Partner

The Strategic Partner procurement could be undertaken primarily on a separate but parallel timeline to the development of business plan and implementation of the Corporation. As noted in the previous section, there are implications of the Strategic Partnership approach for Corporation that need to be understood before certain key points in the procurement process such as the RFP stage.

The Strategic Partner procurement would be very similar to the process currently underway for the Disraeli Bridge and would include the following key steps:

- Planning stage (4 to 6 months):
  - Define scope of project;
  - Develop deal structure and payment mechanism;
  - Assemble technical data; and
  - Prepare Corporate Utility Benchmark (public sector comparator).
- Request for Expressions of Interest stage (2 months potentially in parallel with the previous step):
  - Prepare RFEI;
  - Review responses; and
  - Refine findings from planning stage.
- Request for Qualifications stage (2 to 3 months):
  - Prepare RFQ document; and
  - Evaluate responses.
- Request for Proposals stage (6 to 8 months):
  - Prepare RFP document;
  - Prepare Draft Project Agreement;
  - Evaluate responses; and
  - Negotiate.

The timeline from the start of the planning stage to conclusion of negotiations is expected to be no less than 12 months and if managed effectively, no greater than 18 months.

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# 8.0 Recommendations

Based on the challenges and opportunities identified for the WWD and the City, on the input of key stakeholders, and on a strategic assessment of relevant delivery models including the status quo, it is recommended that:

- The WWD undergo an organization transformation to become a Municipal Corporate Utility (the "Corporation");
- A Project Team including appropriate city staff and external legal, technical and business advisors be established to guide the development of a business plan for the Corporation and support the procurement of the Strategic Partner;
- An Advisory Panel comprised of potential future board members of the Corporation be established to guide the work of the Project Team; and
- The planning stage for the Strategic Partner procurement begin immediately so that the first market facing stage of the procurement process (the RFEI) can be launched before the end of the 2008 calendar year so that the December 2012 SEWPCC deadline can be met. This would require City Council to approve the initiation of the Strategic Partner procurement process, with the ultimate decision on the Strategic Partner to be made by the Board of Directors of the Corporation.

# Appendix A – Examples of Municipal Corporate Utility Model

Example 1 - Aquatera Utilities

Aquatera Utilities is a Municipal Corporate Utility providing water, wastewater, and solid waste services to the City of Grande Prairie, Town of Sexsmith, Hamlet of Clairmont, Town of Wedgewood, and some areas of the County of Grande Prairie. Aquatera was formed in 2003 by the City of Grande Prairie, County of Grande Prairie, and Town of Sexsmith.

The Aquatera Corporation arose from the City of Grande Prairie's desire to create a stand alone utility that could meet water, wastewater and solid waste service needs while providing a return to the municipality. Grande Prairie County and the Town of Sexsmith interest in the corporation arose from their need to obtain water to service regional growth.

In the late 1990's an annexation application by the City and rewriting of the Inter-municipal Development Plan between the City and the County brought servicing issues to the fore. Conflicts arose over increased use of ground water.

- **Organizational Structure and Decision-Making** – Aquatera is a corporate entity comprised of three shareholders, the City of Grande Prairie, Grande Prairie County and the Town of Sexsmith. Shareholder capital is based upon assets contributed to the corporation by each of the shareholders. The City of Grande Prairie has contributed the bulk of assets to Aquatera, and is the majority shareholder of the corporation.

  Aquatera's shareholders have entrusted the corporation to a seven member Board of Directors. The structure of the Board has 5 members appointed by the City of Grande Prairie and 1 member from each of the County and Town. Aquatera's Board has three public at large members and four politically appointed members. The three public at large members were appointed as part of the 5 members appointed by the City of Grande Prairie. Grande Prairie wanted the majority of its appointed Board Members to be driven purely from a "business perspective". The four political members of the Board include the Mayor of Grande Prairie, a selected City Councilor, the Reeve of the County, and the Mayor of the Town. The Mayor of the City of Grande Prairie is the Chair of the Board of Directors.

  Aquatera is still highly reliant upon the City of Grande Prairie municipal administration for various support functions. Corporate services such as finance, human resources etc., are provided through the City on an "understanding basis"—service level agreements have not been created between Aquatera and the City administration that would define service levels that are to be met by the civic administration.

  From Aquatera's perspective the establishment of separate support services at the outset of incorporation could have been advantageous particularly for finance and human resource functions. Aquatera will likely considered support service level agreements in the near term with a longer term objective of creating its own support around key strategic support areas.

- **Human Resources** – Aquatera is part of the same bargaining unit as the City of Grande Prairie. This is because at the time Aquatera was created it was not legally possible to create a separate bargaining unit, as was desired (it is now possible, based on a recent court decision regarding Enmax). A separate bargaining unit would buffer Aquatera from labour actions that may in the City's collective agreement. Further, a separate bargaining unit would allow Aquatera to set compensation schemes that are appropriate to its circumstances and financial abilities.

- **Initial Asset Transfers** – When Aquatera was created various assets were transferred to the new corporation including, assets and chattels, water diversion rights, public utility lands, and operating licenses and approvals. It should be noted that easements for utility lines were not transferred to Aquatera but remain with their respective municipalities.

- **Future Asset Contributions** – Each municipality has the ability to finance and construct water, wastewater and solid waste management capital assets and transfer them to Aquatera for additional share capital. This provision permits Aquatera to pursue capital

priorities while allowing municipalities to create infrastructure that it requires to serve community growth. Furthermore municipalities may recoup the cost associated with asset construction through additional dividends received from the additional share capital created with the asset transfer.

- **Rate Setting –** Aquatera has established a single postage stamp style rate (i.e. customers are charged the same rate regardless of differences in their actual cost of service) for water services. The single rate approach does result in some cross subsidization between customer classes however the centralized nature of the service area diminishes wide variation that might otherwise exist between customer groups. Wastewater services that are established by Aquatera are unique for each municipality served.

  Each municipality has the ability to establish rates and pay to Aquatera the difference between municipal rates and that required by Aquatera to meet full cost and profit requirements. This provision permits Aquatera to stay whole, while allowing municipalities to create conditions that are either favourable to existing municipal customers or that provide incentives toward future community growth.

- **Access to Capital** – Currently Aquatera maintains a banking arrangement with a national bank. Open five-year loans are obtained from the bank for the construction capital requirements. At the end of the five-year period any outstanding loans are refinanced.

  Aquatera had considered creating its own bond offering to be used to construct its capital requirements, but its immediate capital financing requirements were less than the minimum bond issue threshold of $60M.

  Aquatera has established a corporate guideline of a 1 to 1 debt to equity ratio. This coupled with not having contributed assets valued on the company's financial statements is a conservative operational approach that is attractive to any loan agency. The approach however, constrains Aquatera's financing capacity, and could lead to future issues when major capital additions may be required.

  It should be noted that debt held by Aquatera is solely that of the corporation and no guarantees have been given by shareholders.

- **Access to Grants** – Aquatera is able to access Alberta Infrastructure & Transportation grants through its municipal partners under the Alberta Municipal Water / Wastewater Partnership (AMWWP) Program. Grants are used to pursue capital improvements for each shareholder / municipal partner.

- **Return on Capital** – When Aquatera was initially created, it elected to establish a two-year dividend holiday. This holiday allowed Aquatera to gather financial momentum. Aquatera has subsequently established a 5% dividend (return on equity) commitment to its shareholders. This dividend is not overly burdensome yet sufficiently attractive to encourage subsequent financial investment from the municipal shareholders.

- **Franchise Agreement** – A franchise agreement was negotiated between Aquatera and each municipality served. The franchise agreement sets out the terms for the corporate operation within the municipality. Aquatera pays to the municipality a franchise fee in lieu of taxes for the right to use municipal rights of way and easements.

- **Tax Status** – Aquatera has received a municipal tax status from Canada Customs and Revenue Agency. This tax status results in Aquatera receiving a rebate on GST and allows utility revenue to be exempt from corporate income tax.

- **Timing and Effort Required for Corporate Transformation** – From filing of the initial letter of intent to with the Minister of Municipal Affairs to achieving full operation of the municipal corporation took approximately 1½ years. The negotiation on governance structure, operating principles etc. between the three municipal stakeholders consumed the greatest amount of time and resources.

The Province has been very supportive of the creation of Aquatera, in particular the Ministry of Municipal Affairs. Municipal Affairs funding was made available through an Exploration and subsequently an Implementation Grant. The Exploration Grant in the amount of $50,000 funded the conceptual feasibility study and a facilitator to guide the three municipal Councils to agreement on the governance structure and operation principles of the municipally controlled corporation.

The implementation grant in the amount of $175,000 on a 75/25% cost-shared basis helped to offset the costs of implementing the Corporation and finalizing the detailed agreements among the shareholders / municipalities.

It is estimated that concept exploration and implementation cost approximately $450,000 including $225,000 in provincial grant support outlined above.

The creation of Aquatera has permitted needed utility services to be provided to each municipality without political interference that might otherwise exist if the service was provided as a municipal department. The corporation has a number of unique agreements with municipalities / shareholders that permit each municipality to control service rates and construct growth related infrastructure without negatively impacting Aquatera. During the creation of Aquatera grant and no-cost assets were transferred at no value into the corporation. The selection of a conservative debt to equity ratio and undervaluing no-cost assets may act as a future constraint on debt capital that can be raised by Aquatera.

### Example 2 - EPCOR Water Services

EPCOR Water Services Inc. ("EPCOR Water") is incorporated under the Business Corporations Act and has all of the powers and rights of a typical business corporation in the private sector. EPCOR Water Services Inc. ("EWSI") delivers water services to the City of Edmonton, and is wholly owned by the City of Edmonton through EPCOR Utilities Inc. ("EPCOR"). EWSI and EPCOR are involved in business outside of the City of Edmonton; however this discussion is focused on the provision of water services to the City – which is done through a Municipal Corporate Utility model.

EPCOR was created as a business opportunity for the City of Edmonton. Initially EPCOR consisted of power related services with water and wastewater services later added to the range of services provided by EPCOR.

- **Governance** - EPCOR is a 2,400 person organization that has its own 13 member Board of Directors with no board members having an interest in the shareholder, i.e., no City employees or elected officials. The management of EPCOR Utilities Inc. and all of its subsidiaries are subject to powers vested in the Board of Directors of EPCOR Utilities Inc.

- **Organization** – EWSI has three main service offerings: retail water sales (treatment and distribution of potable water and related services to its customers in Edmonton), wholesale water sales (supply of potable water to communities surrounding Edmonton), and commercial services (a range of water and wastewater services sold to municipal and industrial clients primarily in Alberta and B.C.).

  EWSI receives a number of services from other divisions of EPCOR and the City for its retail water sales business only. EWSI receives from EPCOR: corporate services (financial, legal, HR, IT, etc.); communication services; billing, collection, call centre and meter reading services. EWSI receives from the City: road resurfacing; water service connections and cathodic protection; and vehicle maintenance.

  EPCOR also provides various services to the City of Edmonton including utility billing for drainage and solid waste management.

  Services between the various subsidiaries of EPCOR and between EPCOR and the City are framed by service level agreements.

- **Rate Setting** – EWSI aims to operate on a full cost recovery basis while maximizing returns on its equity.

  Based on the City's performance based rates bylaw (in effect until March 31, 2007), annual water rate increases for Edmonton customers are limited to inflation less 0.5% plus non-routine adjustments. Operations of Commercial Services (unregulated business) are funded by payments earned through the various contracts it has with its clients.

  The Retail Water Sales and Wholesale Water Sales units are referred to as the "regulated" business because the rates they charge are regulated by the City and Alberta Energy and Utilities Board (AEUB) respectively. Commercial Services are self-regulating because they operate in a competitive market.

- **Human Resources** – There are seven bargaining units in EWSI. The collective agreements of the City of Edmonton were originally grand fathered during the creation of EPCOR. EPCOR has since negotiated various parts of the agreements to meet its operating needs and capacities.

- **Initial Asset Transfers** – When EPCOR was created various assets were transferred from the City of Edmonton to the new corporation including, assets and chattels, water diversion rights, public utility lands, and operating licenses and approvals. Though no cost assets (grant assets and developer assets) were transferred along with equity assets, EPCOR does not reflect the no-cost assets on its balance sheet.

- **Access to Capital** – EPCOR has various means to obtaining capital and has established a subsidiary that has a primary function of raising and investing capital. One of the more unique methods that EPCOR has used in raising capital is the sale of preferred shares on the open market. These preferred shares provide a return to investors but do not relinquish control of the corporation from the City—preferred share hold no voting rights.

- **Access to Grants** – EPCOR has not as yet, called upon the City to relinquish grants for capital construction. Currently all grants received by the City are used for other infrastructure needs.

- **Franchise Agreement** – A franchise agreement has been established between EPCOR and the City of Edmonton that provides a return for the City for use of the City's rights of ways etc.

- **Tax Status** – EPCOR has received a municipal tax status from Canada Customs and Revenue Agency that applies to services provided on regulated water services. EPCOR's commercial water services are subject to all applicable taxes.

- **Timing and Effort Required for Corporate Transformation** – EPCOR was the first utility service to use the municipally controlled corporation model. Much of the legislation regarding municipally controlled corporations contained in the Municipal Government Act and Regulations were created to facilitate the creation of EPCOR. The timeframe for the creation of EPCOR took approximately 1½ years to complete. The cost of transformation is unknown.

The creation of EPCOR has resulted in significant returns to the City of Edmonton. EPCOR provides a large number of services beyond City and provincial boundaries that would otherwise not be possible had the municipal controlled corporate structure been adopted. ECPOR staff have a very high level of morale and the private enterprise model is able to provide performance incentives based upon company growth and returns.

Example 3 –Utilities Kingston

Utilities Kingston ("UK") was incorporated in 2000 to manage, operate and maintain the assets of the City of Kingston's five utilities. Kingston Electricity Distribution Limited ("KEDL") holds the assets of the former Hydro Electric Utility Commission, UK holds the assets of the Fibre Optic utility and the City holds the water, wastewater assets and natural gas assets. All these services and assets where housed within a utility department of the City prior to the establishment of UK and KEDL.

UK was created in response to Bill 35 which required the City to move the electricity distribution business into corporation and the City's desire to capitalize on the competitive advantage of utility convergence (one call, one crew, one bill)

- **Governance** – UK has no political representation on its board. The board is comprised of 5 members: the City CAO, the CEO and VP of UK, and two citizens – one with a legal background in the utility business and the other a business agent of the union.
- **Organization** – UK has 5 main service offerings: electrical distribution, gas distribution, water and wastewater services and fibre optic. UK also has a water heater rental business as well as provides water services to a least one community outside of the City limits.

  UK receives a number of services from the City including IT support, legal and some back office finance services. Services between UK and the City are framed by service level agreements.
- **Rate Setting** – water and sewer rates are approved by the City when UK presents its annual budget. Currently, rates have been approved for the next 3 years. UK also posts a 10 year rate forecast on its website. Rates have more than doubled for sewer and increased by approximately 60% for water to meet the needs of a significant capital improvement program.
- **Human Resources** – All unionized employees at UK are members of IBEW. City employees switch from CUPE to IBEW when they transferred to UK. Some changes were made to the IBEW collective agreement with the establishment of UK including pay rates that depend not only on years of service but level of certification.
- **Asset Transfers** – The City holds the water and wastewater assets – no transfer. Some concern over the years by the City in terms of the level of debt that is attributed to UK.
- **Access to Capital** – UK's capital is from rates and debentures issued by the City.
- **Access to Grants** – The City holds the water and sewer assets so there is no issue with access to grants.
- **Service Agreement** – A service agreement between the City and UK gives UK the right and responsibility to manage, operate and maintain the water and sewer systems.
- **Shareholder Agreement** – A shareholder agreement specifies the City as the sole shareholder of UK and requires Council approval of annual budget and rates. Council approval is also required for any material business decisions (e.g. develop new service offering).
- **Tax Status** – Rates charged by UK are GST exempt through the City's involvement as receiver of rate revenue. Some of UK's services (such as water services to other municipalities) are subject to all applicable taxes including corporate tax. UK does not pay PILT on water and sewer assets.
- **Timing and Effort Required for Corporate Transformation** – TBD

The creation of UK has allowed for significantly more flexibility in decision making. It allowed UK to address the water and wastewater infrastructure gap issues in a much more robust manner than would have been possible under the municipal department model. UK staff have

a very high level of morale and are highly service oriented. The business arrangements made with municipalities outside of the City limits would not have been possible under the municipal department model.

# Appendix B – Examples of Utility Partnerships

## Examples of a Corporate Utility entering into arrangement with a Strategic Partner for multiple wastewater treatment plants

**1. Northern Ireland Water, Project Omega**

Sponsor:

- Northern Ireland Water (NI Water), a government owned corporation. NI Water supplies 625 million litres of clean water a day for 1.7 million people and treats 134 million m3 of wastewater each year.

Background:

- Historic under-investment in NorthernIreland's water and sewerage services resulted in the need for a £1.1 billion capital investment program in order to comply with European Union legislation. A PPP programme was implemented to accelerate the upgrades – Project Alpha focused on water treatment while Project Omega focused on wastewater treatment and sludge disposal.

Project:

- Project Omega is principally comprised of the construction of a new, state-of-the-art wastewater treatment plant at Donaghadee and a second sludge incinerator – rated at 24,000t per year – in Belfast, the project is intended to form a sustainable wastewater strategy to meet the Province's needs for the next 25 years.
- The project also includes upgrading six existing wastewater plants, refurbishing a number of sludge facilities and constructing three pumping stations and associated transfer pipelines.
- Upon completion, the private sector partner will be responsible for 20% of Northern Ireland's waster water treatment and 100% of the region's sludge disposal.

PPP Type:

- Design, Build, Finance, and Operate (DBFO) model, with the consortium financing and operating the facilities over a 25 year period.
- The payment mechanism is a Unitary Charge based on the following:
- Wastewater volume at each facility, less performance deductions; and
- Tonnage of total dry solids of sludge disposed of, less performance deductions.



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## Examples of a Corporate Utility entering into arrangement with a Strategic Partner for multiple wastewater treatment plants

Contractor:

- Glen Water, a Joint Venture Corporation. The Glen Water consortium is comprised of a number of organizations, namely:
  - RWE Thames Water PLC[1] (JV partner)
  - Laing O'Rourke Portfolio Projects Ltd (JV partner)
  - Thames Water Services Ltd
  - Laing Utilities Limited
  - Laing O'Rourke Holdings Ltd
  - Dawson WAM
  - BSG Civil Engineering
  - Williams Industrial Services Ltd
  - Hyder Consulting (UK) Ltd

Value:

- £122 million contract (CAD $277 million[2])

VFM:

- Savings of 17% were achieved from NI Water's initial estimates. This value was credited to strong competition throughout the bid process and a high degree of contractor innovation facilitated by the performance output approach of PPPs.

[1] RWE Thames Water PLC subsequently sold its equity interest to Veolia Water UK

[2] GBP/CAN exchange rate was 0.44 in March 2007 when the PPP contract was awarded.



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## Examples of a Corporate Utility entering into arrangement with a Strategic Partner for multiple wastewater treatment plants

**2. Scottish Water, Various Projects**

Background:

- Scottish Water is a government-owned corporation created in 2002 from the merger of the three former regional water authorities. The organisation is the fourth largest water and sewerage operator in the UK with revenue of £1 billion. It provides services to 5 million domestic customers and 130,000 businesses. It operates within a regulatory framework involving the Drinking Water Quality Regulator, the Water Industry Commission for Scotland, Waterwatch Scotland and the Scottish Environment Protection Agency.
- Scottish Water, and its predecessor organizations, has entered into several PPPs to provide wastewater treatment. Three examples follow that illustrate cases involving both existing and new assets being bundled into a single PPP contract.

**Aberdeen Wastewater Project**

Sponsor:

- North of Scotland Water Authority

Project:

- The project involved detailed design and construction of three new wastewater treatment works and a major refurbishment of one existing works, on a fast-track basis. The plants serve a population of 526,000 people. The scheme incorporated the provision of a regional sludge treatment centre for sewage sludges within the Grampian and other regions of northern Scotland.

PPP Type:

- DBFO model, with the consortium financing and operating the facilities over a 30 year period.

Contractor:

- Earth Tech, in a construction joint venture with Balfour Beatty Construction Ltd.

Value:

- £65 million construction value (CAD $155 million[1])

Timeline:

- June 1998 - Project start date
- April 2002 - Project completion

[1] GBP/CAN exchange rate was 0.419 in June 1998 when the PPP contract was awarded



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## Examples of a Corporate Utility entering into arrangement with a Strategic Partner for multiple wastewater treatment plants

**Tay Wastewater Project**

Sponsor:

- North of Scotland Water Authority

Project:

- The project primarily enabled interception of foul flows from 41 outfalls previously discharging into the Tay Estuary and lower Angus coast. This was undertaken by the design and construction of a series of new collection pumping stations and transmission pumping mains together with a new wastewater and sludge treatment plant at Hatton (Hatton WTP) situated between Arbroath and Carnoustie. Increased storm storage facilities and improved storm screening plant will be provided at the pumping stations together new or extended outfalls to ensure discharge below Mean Low Water Spring sea level. The final effluent from the Hatton WTP flows through a new long-sea outfall whose discharge point is located 1.6 km offshore.
- The Concessionaire disposes of all sludge arising from the treatment processes and up to 1,000 tonnes dry solids of sludges per annum that North of Scotland Water Authority may elect to import. Disposal will primarily be to agricultural land in accordance with present legislative requirements.

PPP Type:

- DBFO model, with the consortium financing and operating the facilities over a 30 year period.

Contractor:

- Catchment (Tay) Ltd. a special purpose company owned indirectly by IWL, United Utilities and Morrison Construction Ltd. The consortium members included Caledonia Water, a subsidiary of United Utilities, which will perform the operations and maintenance.

Value:

£100 million capital value (CAD $235 million[1])

Timeline:

- December 1999 - Concession agreement signed
- 2001 - Project completion

[1] GBP/CAN exchange rate was 0.425 in December 1999 when the PPP concession agreement was signed.



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## Examples of a Corporate Utility entering into arrangement with a Strategic Partner for multiple wastewater treatment plants

**Glasgow Sewage Treatment Project**

Sponsor:

- West of Scotland Water Authority

Project:

- The project covers three sludge treatment works and waste water treatment centres at Meadowhead, Stevenston and Inverclyde. The existing works at Meadowhead and Stevenston were upgraded to deal with secondary treatment, while a new waste water and sludge treatment works was built for Inverclyde.

PPP Type:

- DBFO model, with the consortium financing and operating the facilities over a 30 year period.

Contractor:

- Ayr Environmental Services Ltd.

Value:

- £65 million capital value (CAD $143 million[1])

Timeline:

- January 1998 - PPP announced
- October 2000 - Financial close
- October 2002 - Start of operations

[1] GBP/CAN exchange rate: 0.456



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## Examples of a Corporate Utility entering into arrangement with a Strategic Partner for multiple wastewater treatment plants

### 3. Water/Wastewater Governance in Australia

- Australia reorganized its water governance in 2006, moving towards a system of government-owned corporations (statutory corporations). Though policy differs from state to state, these corporations are typically either bulk water and wastewater treatment businesses or retail water businesses.
- The procurement policies of these corporations vary state to state; however, consideration of PPPs is common. For example, the Barwon Wastewater Treatment project, described below, has proceeded utilizing a DBFO model. In addition, Melbourne Water is currently procuring a $3.1 billion water treatment plant in conjunction with the Department of Sustainability and Environment.

**Barwon Water Biosolids Management Project**

Sponsor:

- Barwon Region Water Corporation, a State of Victoria statutory corporation

Project:

- The treatment and beneficial use of biosolids from the Black Rock Sewage Treatment Plant and Barwon Water's other water reclamation plants. The project involves providing the following services:
  - accepting delivery of input materials;
  - processing input materials;
  - Storing input and output materials;
  - providing measuring equipment;
  - beneficial use of output materials in line with Environmental Protection Authority requirements;
  - complaints handling; and
  - monthly performance reporting.

P3 Type:

- Plenary Environment will design, build, finance and operate the facility. The contract will be for a 20-year period post commissioning, which is expected in mid-2009.

Value:

- AUS$77.6 million



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