



City of
Peterborough

To: **Members of the General Committee**

From: **Sandra Clancy, Chief Administrative Officer**

Meeting Date: **June 20, 2022**

Subject: **Water, Wastewater, and Stormwater Service Delivery Review
Report CAO22-006**

Purpose

A report to provide trends, comparison of municipal structures and detailed review and evaluation from WSP on the City's Water, Wastewater, and Stormwater Service Delivery.

Recommendations

That Council approve the recommendations outlined in Report CAO22-006, dated June 20, 2022, of the Chief Administrative Officer, as follows:

- a) That the presentation by Kevin Morawski from WSP and Jim Harnum from Municipal Vu Consulting Inc. received for information.
- b) That Report CAO22-006, dated June 20, 2022, of the Chief Administrative Officer, be received for information.

Budget and Financial Implications

There are no budget or financial implications as a result of receiving this report. Staff recommendations will be brought forward on July 11, 2022 and the budget and financial implications will be identified at that time.

Background

Service Delivery Review

At its meeting of July 26 and 29, 2021 Council approved the following motions regarding the combining of water and wastewater operations:

That staff be directed to report during the November budget meeting (for the 2022 budget) with recommendations on combining water and wastewater operations, that include third party recommendations, and

That the services of the consultant be obtained through a non-standard procurement and be awarded by the Administrative Staff Committee; and

That, if the third party deems the timeline too restrictive, staff report back with an interim report during the November budget meetings, that includes an update and recommended timeline for completion of the review.

In response to the above motions, the City issued RFP 38-21 on September 17, 2021, and invited three prospective proponents to submit proposals to conduct the water, wastewater, and stormwater service delivery review. From that process, the City engaged the services of WSP, an engineering professional services firm. WSP has completed several similar engagements for other municipalities.

The service delivery review included the following:

- An examination of the City's existing water, wastewater, and storm water service delivery models and operations contrasting organizational structure, level of service, financial performance, staffing levels, and operational optimization.
- Identification of best management practices and current and future trends related to the oversight and delivery of water and wastewater operations.
- Identification of potential alternative organizational approaches to derive cost savings while maintaining or improving levels of service.
- Cost benefit analysis of existing model in comparison to alternative models with consideration given to organizational structure, staffing, assets, and financial performance.

Future of Water and Wastewater Utility Operations (Report CAO19-011)

The above motions approved by Council at its meeting of July 26 and July 29, 2021 were further to an earlier report on the future of water and waste water operations, Report CAO19-011. While the recommendations from Report CAO19-011 were amended by General Committee and Council as outlined below, the report provides important current and historical context and is therefore attached as Appendix A.

The recommendations in the staff report were as follows:

- a) That a 2020 Capital Project be created for \$150,000 funded from a transfer from the Capital Levy Reserve of \$75,000 and a transfer from the Wastewater Reserve Fund of \$75,000;
- b) That a Request for Proposals be issued by the City to hire a consultant to review all the options available to the municipality to operate its water and wastewater operations, including a review of other municipal structures, a community engagement process and a report back to Council; and
- c) That a Steering Committee be formed including the Chair of Finance and Chair of Public Works and representation from City staff to evaluate the Request for Proposals submissions and guide the review.

General Committee, at its meeting of December 2, 2019, approved the following motions regarding the recommendations contained in Report CAO19-011:

That recommendations a) and b) be carried as stated.

That recommendation c) be amended to add the words “and that COPHI staff be involved in a working group that advises the Steering Committee” to the end of the sentence following the word “review”.

That a recommendation d) be added as follows “That a guiding principle for this review be, that our water assets remain publicly owned.”

Council, at its meeting of December 9, 2019, approved the following motions regarding the recommendations contained in Report CAO19-011:

That recommendations a) and b) be deferred to enable COPHI and City staff an opportunity to discuss the scope of a consultant’s work prior to issuing an RFP.

That recommendation d) be amended to add the words “and wastewater” to the sentence “that our water and wastewater assets remain...”.

Therefore, the motions that were approved were to have a Steering Committee which included:

- Chair of Finance
- Chair of Public Works
- Chief Administrative Officer
- Commissioner of Infrastructure and Planning Services
- Commissioner of Corporate and Legislative Services

The Steering Committee met on a few occasions and attempted to move the project forward with some communication and clarification from COPHI on the proposal they had made however, the COVID-19 Pandemic along with not being able to issue an RFP and hire a consultant impeded the progress until the further motion in 2021 came forward.

Report CAO19-011 provided background information on Council's decision through Report CAO-007 of September 25, 2000, to have the Water Utility remain as a separate corporation. It also provided an overview of the governance structure of Peterborough Utilities Group of Companies. The following summary provides key information from the Report on the current governance structure for water:

- The City owns the water utility and retains the PUC format for the water utility which operates the water and zoo operations on a contract basis.
- Council is represented by five Councillors appointed to the PUC.
- The PUC operates as a Municipal Service Board and for the most part, financially independent from the City, but seeks approval for certain transactions (e.g., debt issuance).
- The debt of the PUC falls within the City's debt capacity.
- The City does not receive any dividend from the PUC.
- Council relies upon the PUC to fulfill its regulatory obligations under the **Clean Water Act**, nevertheless, the City remains liable for its regulatory obligations under the **Clean Water Act**.

Comparison of Municipal Water, Wastewater, and Stormwater Management Structures

One element of the work that was completed prior to engaging WSP, was preliminary research by City Staff on how other municipalities manage their water, wastewater, stormwater operations. This included reviewing the operating structures of 29 other municipalities. The details of this research are provided as Appendix B.

The following is a brief summary of staff's findings:

Of the 29 municipalities researched,

- More than 80% are municipally managed and delivered, either at a regional (8 municipalities) or local level (16 municipalities).
- Less than 20% (5 municipalities) have their water, wastewater, and/or stormwater operations outsourced.

Of the 5 municipalities who have outsourced their water, wastewater, and/or stormwater operations,

- 3 have a structure similar to the City of Peterborough with wastewater and stormwater operations provided in-house and water treatment and distribution outsourced.
- 2 provide water and wastewater operations on behalf of the municipality.
- 4 of the 5 have electrical distribution, reinforcing the decision 20 years ago that kept electrical distribution and water together when the electricity in the City of Peterborough was distributed by PDI.

In addition to researching the above mentioned municipalities, staff contacted the Ontario Municipal Water Association (OMWA) regarding whether it maintains statistics on the management structures and service delivery models for water, wastewater, and stormwater operations across the province. Both the City of Peterborough and Peterborough Utilities are members of OMWA, which represents approximately 180 municipal members.

While OMWA indicated that it does not maintain information related to management and operating structures, it did indicate that Peterborough's governance structure is not as common as it once was. OMWA provided the names of 4 municipalities who continue to outsource part or all of their water and wastewater operations: Windsor, Kingston, Cobourg, and Sault Ste. Marie.

OMWA's Key Principles for Public Drinking Water Systems

OMWA's sole purpose, as described on its website, is to be a political organization advocating for municipally owned water systems, for sustainable policies and legislation for drinking water, wastewater and stormwater. OMWA promotes the following principles as the key beliefs for the operation of Ontario's public water drinking systems, which given OMWA's role, can be regarded as best practices:

- Full financial transparency (full-cost accounting, no cross-subsidization).
- Direct public accountability (financial separation, dedicated revenues).
- Capturing natural efficiencies (integration of various public utilities).
- Maintaining public ownership and control of drinking water, a critical and essential municipal service.
- Meaningful public input (before any change in water authority governance).

Trends Toward Integration of Water Systems

Another trend that staff identified while researching other municipalities is that many municipalities have moved to combined water and wastewater master plans, with some municipalities moving toward a "one water" approach. A quick survey showed over 20 municipalities with combined water and wastewater master plans. A listing of those municipalities is included as Appendix C. This trend is likely in response to requirements under the current and past Provincial Policy Statements that water and wastewater infrastructure be planned and provided in a coordinated, efficient, and cost-effective manner.

One water is an integrated approach to water management that focuses on the full water cycle in all its forms (e.g., drinking water, wastewater, rainwater, surface water, and groundwater), rather than segmented planning, management, and delivery of drinking water, wastewater, and stormwater systems. Some of the benefits of a one water or more integrated approach are said to include: increased opportunity for innovation, optimized use of existing infrastructure, reduced need to build new infrastructure, and decreased pressure on natural and financial resources.

WSP's Process

The review by WSP included many meetings, conversations with staff and information requested and provided to WSP by staff. Examples of the process are as follows:

- Initial kick-off meeting with the Steering Committee on January 13, 2022
- Two service delivery workshops:
 - o Workshops with the City on January 26, 2022 and May 10, 2022
 - o Workshop with PUC on February 3, 2022
- Stakeholder Conversation with Selwyn Township on February 9, 2022
- Numerous requests for information from staff and meetings to clarify information and ensure understanding;
- Meeting with the Steering Committee on May 13, 2022
- A joint SWOT (strengths/weaknesses, opportunities and threats) analysis intended to be with the City and PUC staff; however senior staff from the PUC declined to attend; May 26, 2022
- Consultation with Councillors on June 9, 2022 and June 13, 2022

Technical Memo #1 was produced providing understanding of the current:

- o Services and Systems overview
- o Levels of Service
- o Applicable legislation
- o Staffing and Licensing
- o Asset Management Plans
- o Analysis of Financial Operating and Capital Results

Technical Memo #2 was produced providing:

- Service Delivery models being considered:
 - o Model A – Status Quo
 - o Model B – All Water Assets transferred to City of Peterborough
 - o Model B – All Wastewater/Storm Assets transferred to the PUC/COPHI
- Guiding Principles
- SWOT
- Staffing Implications
- Financial Implications

The guiding principles were as follows:

Protection of Public Safety

Protection of Public Interest and Affordability

Protection of the Environment

Accountability and Transparency
Efficiency and Effectiveness
Flexibility, Innovation and Change

The Executive Summary of all of the findings is attached to this Report as Appendix D.

Next Steps

The governance and service delivery for water, wastewater and storm water is a fundamental municipal service to the citizens of Peterborough.

Presenting the report in the June cycle of Council will provide additional time for the information to be absorbed. A further staff report will be provided to General Committee on July 11, 2022 with further analysis and specific recommendations.

Summary

In response to the motions approved by Council at its meeting of July 26 and 29, 2021, the City hired WSP to complete a water, wastewater, and stormwater service delivery review for the City. The review was to include an examination and evaluation of the viabilities and effectiveness of water, wastewater, and storm water service delivery models.

Through this Report, the staff analysis on trends and other municipal management structures is provided and the results of the analysis from WSP. The next report in July will provide further recommendations and next steps.

Submitted by,

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City of Peterborough

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Attachments:

Appendix A - CAO19-011 Future of Water and Wastewater Utility Operations

Appendix B - Comparison of Municipal Water, Wastewater, and Stormwater Management Structures

Appendix C - Municipalities with Combined Water and Wastewater Master Plans

Appendix D - WSP Water and Wastewater Service Delivery Review Report

Appendix A – Report CAO22-006



City of
Peterborough

To: Members of General Committee

From: Sandra Clancy, Chief Administrative Officer

Meeting Date: December 2, 2019

Subject: Report CAO19-011
Future of Water and Wastewater Utility Operations

Purpose

A report to recommend next steps to review the Water and Wastewater utility operations for the City of Peterborough.

Recommendations

That Council approve the recommendations outlined in Report CAO19-011, dated December 2, 2019, of the Chief Administrative Officer as follows:

- a) That a 2020 Capital Project be created for \$150,000 funded from a transfer from the Capital Levy Reserve of \$75,000 and a transfer from the Wastewater Reserve Fund of \$75,000;
- b) That a Request for Proposals be issued by the City to hire a consultant to review all the options available to the municipality to operate its water and wastewater operations, including a review of other municipal structures, a community engagement process and a report back to Council; and
- c) That a Steering Committee be formed including the Chair of Finance and Chair of Public Works and representation from City staff to evaluate the Request for Proposals submissions and guide the review.

Budget and Financial Implications

It is estimated that the cost of the review will be \$150,000. It is proposed that one-half of the cost be funded from the Capital Levy Reserve and one-half from the Wastewater Reserve Fund.

Background

History

In September 2000, the **Energy Competition Act – Bill 35** changed the landscape of how an electrical utility was operated and municipalities had to make a decision whether to sell their electric utility or whether to keep it. City Council decided to retain the electric utility as a separate Corporation. Peterborough Distribution Incorporated (PDI) was created for the poles and wires distribution business.

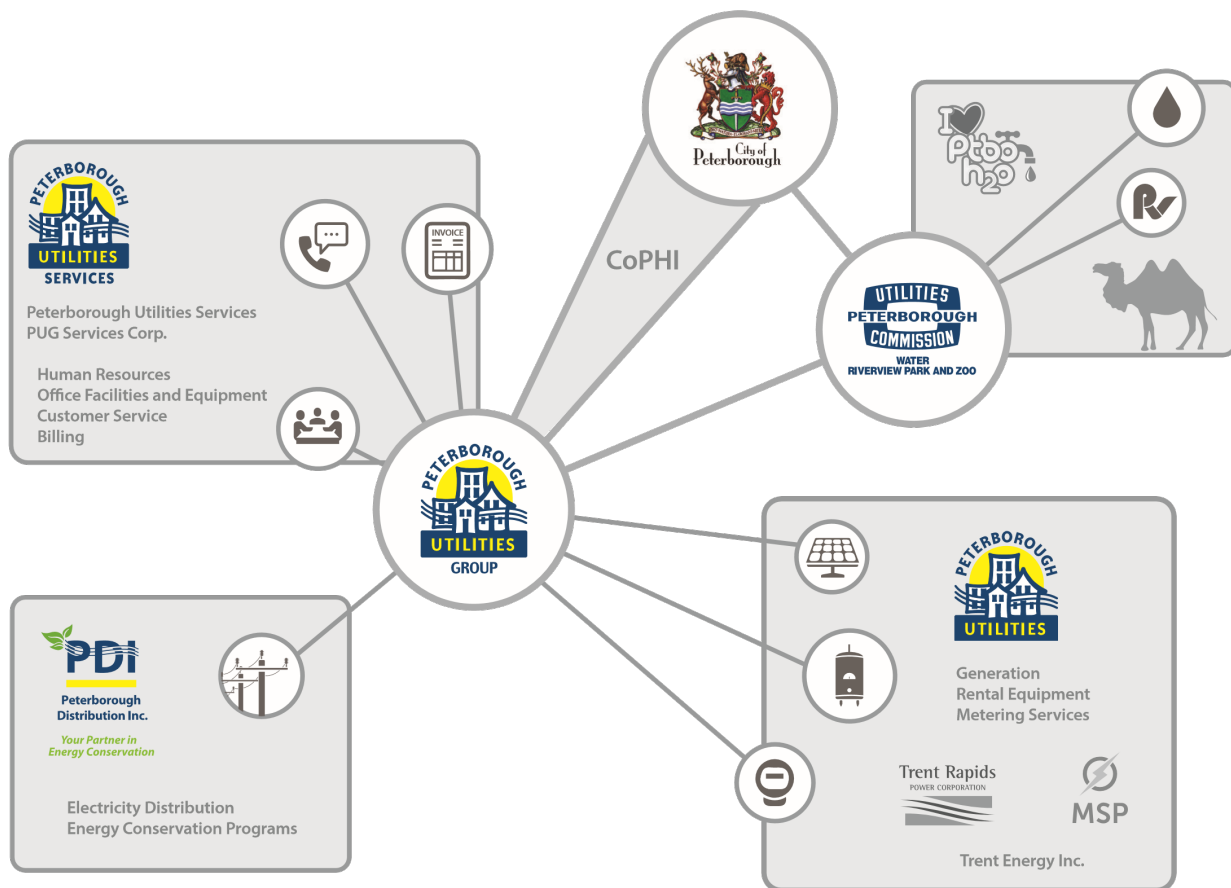
The City also did a review of the Water Utility. A joint City/Peterborough Utilities Commission (PUC) restructuring Committee was established, a consultant was hired and recommendations were made to Council through Report CA00-007 City/PUC Water Utility Review, dated September 25, 2000.

The Water Utility remained a separate corporation, the Peterborough Utilities Commission (PUC), for the following reasons:

- There were synergies between the electric and water utilities as there were shared operations and resources such as training, the billing system and combined purchasing power. Administration costs were also shared with 65% assigned to the electric utility;
- It was assumed that additional labour costs would exceed any efficiencies gained should the City assume the water operation;
- Although some synergies between water and wastewater were identified, it was deemed that the synergies between electric and water were more significant.

Current Governance Structure for Peterborough Utilities Group of Companies

The chart on the following page shows the current structure of the Peterborough Utilities Group of Companies (PUG).



There is a pending sale of the PDI business to Hydro One. The transaction is currently awaiting approval of the Ontario Energy Board (OEB). None of the other companies are part of the potential sale.

Current Governance Structure for Water

- The City owns the water utility and retains the PUC format for the water utility which operates the water and zoo operations on a contract basis;
- Council is represented by five Councillors appointed to the PUC;
- The PUC operates for the most part, financially independent from the City, but seeks approval for certain transactions (eg. debt issuance);
- The debt of the PUC falls within the City's debt capacity;
- The City does not receive any dividend from the PUC;
- Council relies upon the PUC to fulfill its regulatory obligations under the **Clean Water Act**, nevertheless, the City remains liable for its regulatory obligations under the **Clean Water Act**.

Updated Review

With the pending sale of PDI to Hydro One, it is a natural time to review the governance structure. When the sale closes and the electric operations are moved to Hydro One, the synergies that were present back in 2000 between the electric and water utility will not exist.

It is recommended that a Request for Proposals (RFP) be issued by the City to hire a consultant to review all the options available to the municipality to operate its water and wastewater operations. A review would include information on:

- Changes in legislation since 2000;
- The current water operations;
- The current wastewater operations;
- The current synergies between water and wastewater;
- Impact on other operations such as stormwater and major road reconstruction;
- Financial considerations, including rate impacts, debt impacts, future operating and capital requirements and ability to fund those requirements;
- The governance structures in other municipalities;
- Potential negative impacts of each option;
- Other impacts to the ratepayers such as customer service;
- Identification of any risks;
- Impact on Asset Management responsibilities; and
- Implications to staffing.

The review would explore all options where the City retains ownership such as, but not limited to, the following and make a recommendation to City Council:

- Status Quo: Water service provided by PUC, Wastewater service provided by the City
- Re-structure the Utility to include Wastewater Service
- Re-structure the City to include Water Service

Timing

The review will take time and upon receiving the recommendations, Council will be faced with making a decision that may have major implications for both the City, the PUC and other companies within the City of Peterborough Holdings Inc. (COPHI). If a reorganization is approved, a plan will need to be developed and implemented to make the changes. This will also take a significant period of time.

For these reasons, it is recommended that the review proceed in early 2020. The consultant should assume that the assets of PDI is being sold to Hydro One.

Steering Committee

It is recommended that a Steering Committee be formed that would include:

- Chair of Finance
- Chair of Public Works
- Chief Administrative Officer
- Commissioner of Infrastructure and Planning Services
- Commissioner of Corporate and Legislative Services

The Steering Committee would evaluate the RFP to be issued, the submissions and work with the consultant as they do their review.

COPHI Work Done to Date

Staff and the Board of COPHI will be very involved in the review and will need to provide some key information required by the consultant. They have also done some preliminary work on the option of moving the Wastewater to the Utility which can be shared with the consultant.

Community Engagement

The review will include community engagement. A re-organization of the water and wastewater operations will impact the water and wastewater ratepayers in terms of the operations, billing, customer service and the decision will have an operational and financial impact on other areas of responsibility for the City. The Steering Committee will include a community engagement plan in the RFP to provide the opportunity for the community to express their opinions.

Summary

It is recommended that a Request for Proposals be issued to hire a consultant to review the Water and Wastewater utility operations for the City of Peterborough.

Submitted by,

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Appendix B – Report CAO22-006

Comparison of Municipal Water, Wastewater, and Stormwater Management Structures

Table 1.0: In-House Water and Wastewater Operations

Water, Wastewater, and Stormwater Operations Delivered by Municipalities		
Aurora**	Guelph	Mississauga**
Barrie	Halton Hills**	North Bay
Belleville	Hamilton	Oakville**
Brampton**	Kawartha Lakes	Orillia
Brantford	Kingston	Richmond Hill
Burlington**	London	St. Catharines
Collingwood	Markham**	Thunder Bay
Greater Sudbury	Milton**	Vaughan
** Treatment services provided by regional municipality		

Table 2.0: Outsourced Water and/or Wastewater Operations

Municipality	In-House Operations	Outsourced Operations
Chatham-Kent	City/Town: <ul style="list-style-type: none"> Water and wastewater collection and distribution 	Chatham-Kent PUC: <ul style="list-style-type: none"> Water and wastewater treatment
Cobourg	City/Town: <ul style="list-style-type: none"> Wastewater treatment 	Lakefront Utilities <ul style="list-style-type: none"> Water treatment and distribution Electricity distribution Fibre optic services
Kingston		Utilities Kingston <ul style="list-style-type: none"> Water and wastewater treatment and distribution Gas and electricity distribution Broadband network
Sault Ste. Marie	City/Town: <ul style="list-style-type: none"> Wastewater treatment 	Sault Ste. Marie PUC: <ul style="list-style-type: none"> Water treatment and distribution Electricity distribution
Windsor	City/Town: <ul style="list-style-type: none"> Wastewater Treatment 	Windsor Utilities Commission: <ul style="list-style-type: none"> Regulates water rates and quality ENWIN Utilities Ltd: <ul style="list-style-type: none"> Contracted by WUC to operate and maintain the WUC owned water system Local electricity distribution

Appendix C – Report CAO22-006

Municipalities with Combined Water and Wastewater Master Plans

- Brantford
- Carleton Place
- East Gwillimbury
- Greater Sudbury
- Guelph
- Halton
- Hamilton
- Kingston
- Mapleton Township
- Markham
- Newmarket
- Niagara Region
- Oxford County
- Peel Region
- Tecumseh
- Vaughan
- Waterloo
- Whitchurch-Stouffville
- York Region

CITY OF PETERBOROUGH

PETERBOROUGH WATER & WASTEWATER SERVICE DELIVERY REVIEW

JUNE 14, 2022

FINAL



CONTRIBUTORS

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APPROVED¹ BY *(must be reviewed for technical accuracy prior to approval)*

Name, Designation

June 14, 2022
Date

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EXECUTIVE SUMMARY

PUC is a corporation owned by the City of Peterborough, that has overall responsibility for providing drinking water services to the community as well as providing water and wastewater services to the Township of Selwyn. The City of Peterborough has overall responsibility for providing wastewater and storm water services to the community within its geographical boundary.

The City of Peterborough has engaged WSP to conduct a Service Delivery Review (the Review) that examines the viabilities and effectiveness of water, wastewater and storm service delivery models.

The overall purpose of the assignment is to systematically determine the most appropriate, cost-effective, sustainable way to provide municipal water, wastewater, and storm services in the City, while maintaining or improving service levels and without increasing risks.

WSP proceeded to evaluate the two alternate service delivery models to deliver water, wastewater, and storm services for the City of Peterborough. The models were discussed and selected in consultation with the stakeholder group. The models, related assets, responsibilities, and current service levels are provided in this report.

Through consultation workshops, data reviews, and analysis, the two alternate service delivery models were evaluated, in comparison to current state **Model A - Status Quo**. **Model B – City**, which would see the City take over the ownership and responsibility for water as well as continue to provide wastewater and storm services and **Model C – PUC** which would see PUC take over the ownership and responsibility for wastewater and storm service as well as continue to provide water services.

Guiding Principles were developed. The City required these principles to be considered in the review and that whichever model was put forward as a preferred model would, at a minimum, be closely aligned to these Principles.

- a) Protection of Public Safety
- b) Protection of Public Interest and Affordability
- c) Protection of the Environment
- d) Accountability and Transparency
- e) Efficiency and Effectiveness
- f) Flexibility, Innovation and Change

The consulting team undertook a financial modeling exercise to determine the estimated financial impact for the three service delivery models A, B and C. They were evaluated and compared. The financial evaluation considered expected changes in overall annual operating expenditures for each service delivery options.

The summary of the estimated operating expenditures of the three models is listed below in Table 1-1 below.

Table E-1 Summary of Operating Costs of Financial Models

Model A – Status Quo	\$36,864,075	Status Quo
Model B – City	\$34,035,184	\$2,828,891 p.a. saving (7.7%)
Model C – PUC	\$35,539,481	\$1,324,594 p.a. saving (3.2%)

The financial estimate favors Model B (transfer of services to the City) ahead of Model C (transfer of services to PUC/COPHI), and both options provide savings compared to Model A (the status quo). The difference in estimated annual savings between Model B and Model C is less than 5%. Cost alone, therefore, does not provide sufficient separation between Model B and Model C to give a clear recommendation.

It is necessary to consider the non-financial aspects to determine the qualitative value for each model in addition to the quantitative estimate for cost savings.

The non-financial benefits also favor Model B over Model C and the main influences for this include:

- Economy of size for the City which is expected to provide several benefits for management of services, reduced overheads, and ability to respond to changing circumstances and peak demand
- Better coordination across multiple service areas within the City, particularly between roads and water services for both construction projects and for better integration on long-term planning
- Greater visibility of asset information, ongoing tracking and understanding of the state of the assets, better financial preparedness for the future, and greater adaptability and resiliency to manage risks, protect the environment, and pursue long-term sustainability for all service deliver.
- Transparency of decision-making, more direct accountability to the community, and flexibility to consider changing community needs as they arise and adapt decision-making process and priorities to achieve the best holistic community outcomes.

In our opinion, **Model B** offers the most advantages and least number of disadvantages and risks to the City and its citizens. It is recommended that Model B be further pursued as the preferred model for management and delivery of water, wastewater, and storm services in the City of Peterborough.

1 BACKGROUND

The City of Peterborough has engaged WSP to conduct a Service Delivery Review (the Review) that examines the viabilities and effectiveness of water, wastewater and storm service delivery models. The City and Peterborough Utilities Commission (PUC) have shared roles in the providing water, wastewater and storm services, with PUC currently owning and operating all water assets and the City owning and operating all wastewater and storm assets.

The purpose of this assignment was to review this current operational model in more detail, assessing the people, processes, technology, and expenditures involved in service delivery, and identifying potential opportunities for improvement that would optimize the service delivery model.

The provision of water and wastewater services is viewed in most jurisdictions as a service that is fundamentally tied to the life and wellbeing of the community and is seen quite differently than other utilities such as power, gas and telecommunications. Hence, special consideration of a range of criteria were included in the evaluation for this service.

The key categories of service tasks for both water and wastewater include:

- Billing
- Customer service
- Engineering
- Operation, maintenance, and monitoring,
- Planning,
- Policy/legal, and
- General compliance/conformance tasks

1.1 COST LOS RISK

Ontario municipalities delivering water and wastewater services are challenged by complex legislation, fiscal constraints, increasing customers/expectations, and aging infrastructure. To address these challenges while maintaining service levels and financial targets, owners and operating authorities strive to balance three intrinsically connected elements: service level, cost, and risk.

Finding an acceptable balance between these elements requires consideration of trade-offs and impacts. For example, by allowing one element to decline or conversely by enhancing another, an organization can be pushed off balance and away from the optimum center point. A municipality may elevate its levels of service beyond what the organization can afford, the cost-of-service provision may be reaching beyond what the community is willing to pay. When the tension between level of service and cost is not

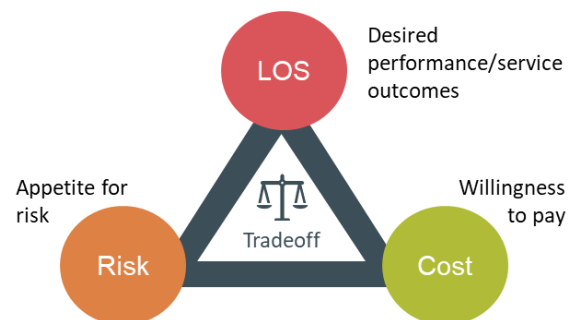


Figure 1-1 Balance of Risk - Level of Service - Cost

balanced, it exposes the organization to greater risks and is not sustainable.

The City of Peterborough is seeking to establish a sustainable balance between service level, cost, and risk. This review provides a foundation for this by defining the current service delivery state, exploring alternate models for water and wastewater service delivery, and identifying cost and operational efficiencies and governance structures that will support an optimal, sustainable balance.

1.2 OBJECTIVE

The overall purpose of the assignment is to systematically determine the most appropriate, cost-effective, sustainable way to provide municipal water, wastewater, and storm services in the City, while maintaining or improving service levels and without increasing risks.

The goal of the City of Peterborough is to optimize the relationship between service level, cost, and risk, while maintaining safe, reliable, and sustainable services.

1.3 METHODOLOGY

The methodology for the review began with establishing a stakeholder group to collect data, consult on current practices, and discuss model options for service delivery. The stakeholder group included representation from the City of Peterborough and senior staff from Peterborough Utilities Commission (PUC).

A common industry framework², illustrated in the **Figure 1-2** below, was used to view water and wastewater service provision.



Figure 1-2 Effective Utility Management Model

² <https://www.nacwa.org/docs/default-source/resources---public/eum-primer-final-1-24-17.pdf?sfvrsn=6>

The framework is designed to help water and wastewater utility managers make informed decisions and identify practical, systematic changes to achieve excellence in utility performance in the face of everyday challenges and long-term needs of the utility and the community it serves.

The WSP team carried out the following steps to complete this assignment:

- Phase 1. Consultation / Data Review & Analysis / Interviews / Workshops
- Phase 2. Current state review
- Phase 3. Model definition and evaluations
- Phase 4. Financial modelling of service delivery models
- Phase 5. Final recommendation

The model evaluations and comparison considered:

- Relevant legislation
- Maintenance of service levels
- Governance and organizational structure
- Planning and sustainability
- Customer relations
- SWOT analysis
- Risks
- Financials – including revenues, expenditures, reserves and capital forecasts

1.4 MODELS

We expect advantages and economies can be realized from coordination of the City's water and wastewater services under one service provider, whether that service provider is the City or PUC/COPHI. Therefore, two service delivery models were explored and put forward for evaluation to compare to the Status Quo.

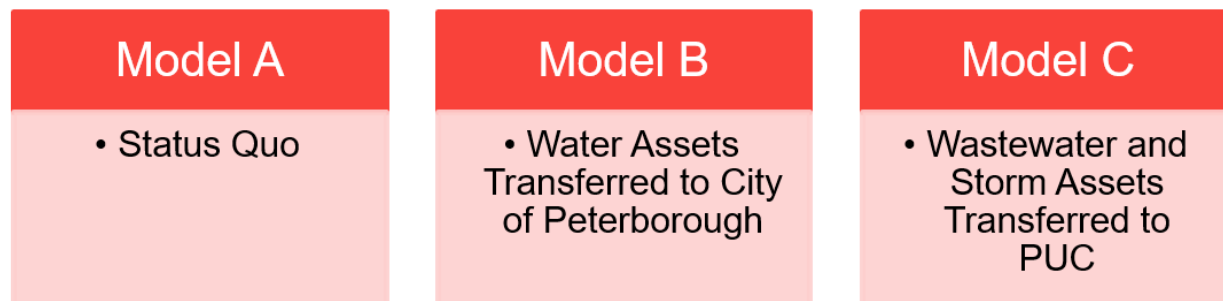


Figure 1-3 Comparator Models

In discussions with senior staff from PUC, other options were considered that included variations on the two models proposed in Figure 1-3, such as only transferring wastewater treatment to PUC (i.e. not moving storm assets over to PUC); doing a pilot program to assess the efficiencies of merging different services; having PUC be a service provider for wastewater services only; and others that were not specifically defined.

In considering other options, WSP does not recommend separating wastewater treatment from wastewater collection, nor do we recommend separating water treatment from water distribution. Such separation of assets and functions within a service would add unnecessary complexity that will hinder the service providers ability to be effective and efficient in providing the total service, coordinating work, resolving issues, and forward planning. Furthermore, we would expect separation of treatment components from collection and distribution components to increase the overall cost of service and risk of service issues. Storm water services and the processes to operate and maintain these assets are similar in several respects to wastewater assets, therefore we recommend storm and wastewater services are also coordinated under one service provider.

It is none-the-less possible to separately provide storm, wastewater, and water services and to provide treatment services separate to collection and distribution services. We do not recommend this as the best governance model, or the best economic and management model.

WSP and Municipal VU met with PUC senior staff and their consultant Grant Thornton to request PUC put forward their preferred model for review and analysis. The PUC team declined to provide further input into the service delivery models being considered..

The review proceeded therefore with the three options shown in **Figure 1-3**.

1.4.1 MODEL A – STATUS QUO

The current governance model remains unchanged.

- PUC continues to own and operate the water assets and provide drinking water service to the community.
- The City continues to own and operate all wastewater assets and provide wastewater service to the community.
- The City continues to own and operate all storm water assets and provide storm water services to the community.
- Peterborough Utilities Service Inc. continues to provide billing services for water and to the City for wastewater.
- Peterborough Utilities Service Inc. continues to provide Information Technology Services to the PUC and the City.

1.4.2 MODEL B – WATER ASSETS TRANSFERRED TO THE CITY

This model would see all water assets and services transferred to The City.

- PUC would transfer all water assets to The City and the City would now provide drinking water service to the community.
- The City continues to own and operate all wastewater assets and provide wastewater service to the community.
- The City continues to own and operate all storm water assets and provide storm water services to the community.

- Peterborough Utilities Service Inc. would no longer provide billing services to the City for water or wastewater and this service would be absorbed into the City's tax billing group.
- Peterborough Utilities Service Inc. would no longer provide Information Technology (IT) services to the City, these services would be transferred to the City and the City would provide IT services to PUG
- Relevant PUC water service and IT staff would be offered the opportunity to transfer to the City

1.4.3 MODEL C – WASTEWATER AND STORM ASSETS TRANSFERRED TO PUC

This model would see all wastewater and storm assets and services transferred to PUC/COPHI.

- The City would transfer all wastewater assets to PUC/COPHI and the PUC/COPHI would now provide wastewater service to the community.
- The City would transfer all storm water assets to PUC/COPHI and the PUC/COPHI would now provide storm water service to the community.
- PUC continues to own and operate all water assets and provide drinking water services to the community.
- Peterborough Utilities Service Inc. continues to provide billing services for water and for wastewater.
- Peterborough Utilities Service Inc. continues to provide Information Technology Services to the PUC and the City.
- Relevant City wastewater and storm service staff would be offered the opportunity to transfer to PUC.

2 GUIDING PRINCIPLES

Following discussion with Senior staff from the City of Peterborough, the following Guiding Principles were developed. The City required these principles to be considered in the review and that whichever model was put forward as a preferred model would at a minimum be closely aligned to these Guiding Principles.

- a) Protection of Public Safety
- b) Protection of Public Interest and Affordability
- c) Protection of the Environment
- d) Accountability and Transparency
- e) Efficiency and Effectiveness
- f) Flexibility, Innovation and Change

a) Protection of Public Safety

This principle includes the need to provide high quality drinking water, free from substances that could cause personal harm either in the short or long term. An acceptable standard of aesthetic quality of drinking water must also be provided.

b) Protection of Public Interest and Affordability

Water and wastewater treatment and storm water management are essential services. Access to drinking water and treatment of wastewater is a basic human necessity. Accordingly, this principle requires the affordability of water and wastewater services to be maintained. The preferred model should be able to offer “best value” for services provided.

c) Protection of the Environment

The City of Peterborough needs to be an active stakeholder in managing environmental issues. Appropriate management of the relationship between water treatment, wastewater collection, wastewater treatment, stormwater management, and health of the natural environment is important to the City, and fundamental to the sustainability of current service delivery. This principle requires due consideration of the importance of drinking water quality, protection of raw water sources, effective treatment of water returned to the environment, promotion of water conservation, minimizing adverse impacts on the natural environment and continued focus on local and regional water issues.

d) Accountability and Transparency

This principle requires recognition of a strong public service mandate and the need for clear lines of accountability in the governance structure for delivery of municipal services. Currently the wastewater and storm water services are fully integrated within the City's municipal governance structure. This structure provides for public meetings, published agendas and reports, decisions by publicly elected officials, and opportunity for public involvement. These characteristics maintain a high level of transparency and accountability for wastewater and storm service delivery.

e) Efficiency and Effectiveness

This principle is for efficient and effective operations and management of water, wastewater, and storm services. Key characteristics that support this objective include: an educated, qualified, and motivated workforce; sustainable asset management approaches to infrastructure management, planning, decision-making, and service delivery; appropriate administrative policies and procedures supporting operational needs and required levels of service; clear authority and accountability for service provision; and a focused

political interface for policy direction that provides for the best interests of the community. The preferred service model should manage the water, wastewater, and storm services in a sustainable fashion and promote effective management of shared resources.

f) Flexibility, Innovation and Change

This principle requires the preferred service model to include opportunity for innovation, public involvement, apolitical decision-making for operational issues, mechanisms for timely decision-making, and the flexibility to easily adapt to changing circumstances. The preferred governance structure should seek to be both robust and flexible, and it should facilitate development and delivery of long-term, sustainable investment strategies and asset management approaches.

3 CURRENT STATE

This section provides an overview of services provided by PUC and the City, and the infrastructure assets used to provide those services.

PUC is a corporation owned by the City of Peterborough, that has overall responsibility for providing drinking water services to the community as well as providing water and wastewater services to the Township of Selwyn. The City of Peterborough has overall responsibility for providing wastewater and storm water services to the community within its geographical boundary.

3.1 ASSETS

To provide water services, PUC owns the drinking water systems within its sphere of jurisdiction. PUC provides drinking water to 27,323 customers. The City of Peterborough owns and operates the wastewater systems and the storm water system that provides collection/treatment services to the community.

3.1.1 ASSETS OPERATED AND MAINTAINED BY PUC

Table 3-1 below outlines all the major asset classes that are owned and operated by PUC to provide drinking water to the community.

Table 3-1 Water Assets Operated and Maintained by PUC

Asset Type	Asset Subtype	Inventory	Unit
Water Distribution	Transmission Main (>400mm)	469	km
	Services (incl. T&W?)	27,323	each
	Meters	N/A	each
	Hydrants	2,394	each
	Valves	6,666	each
	Customer Valve (Curb stop)	N/A	each
Water Treatment	Pumping Stations	8	Facilities/Structures
	Storage (Reservoir & Elevated Tank)	5	Facilities/Structures
	Wells (Clearwell)	1	Facilities/Structures
	Water Treatment Facility	1	Facilities/Structures
	Other	N/A	Facilities/Structures
	Vehicles	N/A	Fleet

3.1.2 ASSETS OPERATED AND MAINTAINED BY THE CITY

Table 3-2 below outlines all the major asset classes that are owned and operated by the City of Peterborough to provide wastewater services to the community.

Table 3-2 Wastewater Assets Operated and Maintained by the City

Asset Type	Asset Subtype	Inventory	Unit
Wastewater Collection	Sewer Gravity Main (incl. T&W)	336	km
	Forcemain	12	km
	Sewer Manhole	5,424	each
Wastewater Treatment	Pumping Stations	14	Facilities/Structures
	Wastewater Treatment Plant	1	Facilities/Structures
	Odour Control Facilities	N/A	Facilities/Structures
	Biosolids Centralized Storage Facility	N/A	Facilities/Structures

Table 3-3 below outlines all the major asset classes that are owned and operated by the City of Peterborough to provide storm services to the community.

Table 3-3 Storm Assets Operated and Maintained by the City

Asset Type	Asset Subtype	Inventory	Unit
Stormwater	Storm Sewer Mains	346	km
	Ditches	115	km
	Storm Manholes	7,506	each
	Storm Catch Basins	5,982	each
	Storm Ponds	34	each
	Storm Treatment Facilities	N/A	each
	Oil Grit Separator Unit	31	each
	Foundation Drain Collector	6,774	m

3.2 CORE SERVICES – STATUS QUO

Services are provided through core functions, which vary in responsibility and authority across the systems.

In general, the functions required to provide water and wastewater services to the communities are summarized below, by the responsible provider. We can see from these tables that although there are inherent differences in the service that are provided (water, wastewater, and storm) there are also many similarities in the core functions required to provide those services.

Table 3-4 Required Functions in Water and Wastewater Treatment Services

Water Treatment (PUC)	Wastewater Treatment (City)
Billing	Billing
Billing and Payments	Billing Inquiries
Billing Inquiries	Billing Provider Contract Management
Customer Communications	Customer Communications
Customer Outreach & Communication	Customer Outreach & Communication
Customer Service	Customer Service
Engineering	Engineering
Capital Delivery Support	Capital Delivery Support
Development Application Review	Development Application Review
Hydraulic Modelling	Hydraulic Modelling
	Inflow & Infiltration Studies
Process Engineering & Optimization Studies	Process Engineering & Optimization Studies
General	General
DWQMS	Biosolids Land Application
Bylaw Enforcement	Bylaw Enforcement
Capital & Operating Budget	Capital & Operating Budget
Climate Change Adaptation	Climate Change Adaptation
Emergency Management	Emergency Management
	Environmental Compliance Approval Management
Health & Safety Management	Health & Safety Management
Policy and Bylaw Setting	Policy and Bylaw Setting
Planning	Planning
Asset Management	Asset Management
Long-term Budget Forecasting	Long-term Budget Forecasting
Master planning & Class EAs	Master planning & Class EAs
Rate Studies	Rate Studies
Secondary Plan/Functional Servicing Reporting	Secondary Plan / Functional Servicing Reporting
Operation, Maintenance & Monitoring	Operation, Maintenance & Monitoring
Quality Management	Effluent Quality Management
SCADA	SCADA
Water Treatment Operation	Wastewater Treatment Operation

Table 3-5 Functions - Water Distribution and Wastewater Collection

Water Distribution (PUC)	Wastewater Collection (City)
Billing	Billing
Billing and Payments	Billing Inquiries
Billing Inquiries	Billing Provider Contract Management
Meter Reads	
Shutoffs	
Customer Communications	Customer Communications
Customer Service	Customer Outreach & Communication
Customer Outreach & Communication	Customer Service
Engineering	Engineering
Capital Delivery Support	Capital Delivery Support
Development Application Review	Collection System Optimization Studies
Hydraulic Modelling	Development Application Review
	Hydraulic Modelling
	Inflow & Infiltration Studies
General	General
Backflow Enforcement	Biosolids Land Application
Bylaw Enforcement	Bylaw Enforcement
Capital & Operating Budget	Capital & Operating Budget
Climate Change Adaptation	Climate Change Adaptation
DWQMS	Emergency Management
Emergency Management	Environmental Compliance Approval Management
Health & Safety Management	Health & Safety Management
Locates	Locates
New Service Inspections	New Service Inspections
Policy and Bylaw Setting	Policy and Bylaw Setting
Planning	Planning
Asset Management	Asset Management
Long-term Budget Forecasting	Long-term Budget Forecasting
Master planning & Class EAs	Master planning & Class EAs
Rate Studies	Rate Studies
Secondary Plan / Functional Servicing Reporting	Secondary Plan / Functional Servicing Reporting
Operation, Maintenance & Monitoring	Operation, Maintenance & Monitoring
Backflow Testing	CCTV Inspection
Operation & Maintenance of Main & Trunk	Operation & Maintenance of Main & Forcemain
Break Repair	Effluent Quality Management
Hydrant Flow Test	Grinder Pump Inspection & Maintenance
Hydrant Flushing	Inspection Support
Hydrant Inspection	Maintenance Hole Inspection
Main break Repair	Septic Tank Inspection
Meter Installation/R&R	Sewer Flushing
Quality Management	SCADA

4 COMPARISON OF MODELS

With current state established, WSP proceeded to evaluate the two alternate service delivery models to deliver water, wastewater, and storm services for the City of Peterborough. The models were discussed and selected in consultation with the stakeholder group. The models, related assets, responsibilities, and current service levels are provided in this report.

Through consultation workshops, data reviews, and analysis, the two alternate service delivery models were evaluated, in comparison to current state (Model A - Status Quo).

- Strengths, limitations, external opportunities, and external threats were discussed and defined.
- Organizational Considerations, Financial Considerations were evaluated in detail.
- Risks were explored in the categories of Operational, Governance, Staffing, Compliance, Environmental, Technology, Financial and Reputational.

Using the analysis listed above, a qualitative summary of comparative benefits was developed, and the highlights of that analysis are summarized in the following sections.

4.1 MODEL B – CITY OF PETERBOROUGH

This model would see all water assets and services transferred to The City. The City would be the sole provider of Water, Wastewater, and Storm services.

Table 4-1 Comparative Influences on Costs, Risks, and Governance - City

Cost, Risks, & Governance	Issues / Influence	Benefit
Management		
Operational efficiencies	<ul style="list-style-type: none">• Combined services under one provider will deliver cost efficiencies• At City additional benefit and efficiency can be gained from flexibility to use staff on other tasks when needed	High
Coordination with other services	<ul style="list-style-type: none">• Opportunity for high level of coordination with other City services for construction works i.e., between roads and utilities, as well as for long term planning	High
Supporting services	<ul style="list-style-type: none">• Comprehensive support groups (PW, mechanics, accredited laboratory, HR, legal, etc.). This should generate cost efficiency in overheads and stronger coordination and standardization across the organization	High
Visibility of assets and issues (increased opportunity/options)	<ul style="list-style-type: none">• City will have greater visibility of asset data allowing better informed decisions and risk mitigation across multiple assets/services	High
Financial		
Lower overheads	<ul style="list-style-type: none">• Economy of scale at the City should allow lower overhead costs for combined services	Med
Profit not an incentive	<ul style="list-style-type: none">• City is not required to generate a profit from service delivery, allowing an option for lower fees.	Med

Cost, Risks, & Governance	Issues / Influence	Benefit
Long-term financial stability and sustainability	<ul style="list-style-type: none"> Decisions will focus on long-term sustainable service delivery without adverse influence of profit considerations. 	Med
Sell services to others	<ul style="list-style-type: none"> Although the City's governance model allows for the sale of services to others, this would not be a primary mandate/driver. 	Low
Technology		
Asset Management systems	<ul style="list-style-type: none"> Having a well-developed AM system and asset data for all assets allows <ul style="list-style-type: none"> greater integration, coordination, and standardization across services. cost efficiencies, reduced risks, and improved service delivery across multiple services improves accountability and transparency compared to status quo where the City has little if any visibility of the state of the assets and rate of deterioration better preparedness for potential future asset issues and greater ability to mitigate cost and service risks 	High
Asset Management Plans	<ul style="list-style-type: none"> Asset Management Plans (AMP) are required for all utility services (wastewater, storm, and water). It is critical to have access to all the relevant asset data to prepare an AMP and maintain it up to date. AMP's must be comprehensive and cover state of the infrastructure, level of service, performance measures and targets, lifecycle strategies, risk management, demand assessment, long term financial forecasts, continuous improvement, and implementation plans. The AMPs must also align with the City's objectives and O.Reg 588 requirements. If the City was managing all the assets and services, they would be in a better-informed position to develop and maintain up-to-date, compliant, AMP's and reporting. Information would also be readily accessible to the City's decision-makers and for better coordination across services and asset groups. 	Med
Billing systems	<ul style="list-style-type: none"> Although there will be set-up costs for new billing, the City already has the systems and staff for billing and can handle the extra volume for a lower incremental overhead 	Med
Compliance		
Experience and Capability	<ul style="list-style-type: none"> Issues regarding staff experience and capabilities for operations, maintenance, and compliance will be similar for both Model B and Model C. It is unlikely to be a major issue because staff providing the service now will be offered the option to transfer to the new service provider There will be some set-up costs for recording/reporting systems 	Low

Cost, Risks, & Governance	Issues / Influence	Benefit
Staff		
Staffing capacity / utilization	<ul style="list-style-type: none"> The City (because it provides more services) is better positioned to efficiently manage staff capacity and utilization. This can be very important for risk mitigation in emergency events. The City has a greater pool of people who could be temporarily assigned to assist in peak times. Or in slow times, some staff could assist other services 	Med
Attracting staff	<ul style="list-style-type: none"> The City will probably have some labour and wage issues to manage with staff transferring from PUC/COPHI on different agreements and pay rates to City staff 	Low
Governance		
Transparent governance	<ul style="list-style-type: none"> The City has a more transparent governance structure and level of public scrutiny. There are more requirements on the City for financial reporting, robust asset management, long-term financial planning, defensible decision-making, reporting to the public and involvement of the public. This provides a higher level of protection to the community for responsible management of service delivery, and quality of decision-making and future planning 	High
Customer service response and tracking	<ul style="list-style-type: none"> The City has a stronger mandate for accountability to the community. Customer service systems and staff can be expanded to provide for the new service for less overhead cost than the status quo Having all customer requests and issues recorded in one corporate system allows better visibility and coordination across multiple service areas The City could offer in person counter services 	Med
Flexibility / Adaptability / Resiliency	<ul style="list-style-type: none"> The City is vested in the wellbeing and long-term sustainability of the community. Through the elected officials, the City is directly accountable to the community and has the flexibility to adapt to a wide range of issues, circumstances, and changing priorities, as needs arise. The City is committed to resiliency, protection of the environment, quality of life, economic viability, and management of risks including climate change. 	High

4.2 MODEL C - PUC

This model would see all wastewater and storm assets and services transferred to PUC/COPHI. PUC/COPHI would become the sole provider of Water, Wastewater, and Storm services.

Table 4-2 Comparative Influences on Costs, Risks, and Governance – PUC/COPHI

Cost, Risks, & Governance	Issues / Influence	Benefit
Management		
Operational efficiencies	<ul style="list-style-type: none"> Combined services under one provider will deliver cost efficiencies At PUC some additional benefit and efficiency may be gained from flexibility to use staff on other tasks when needed but this will be less than Model B because of fewer staff and less services than the City 	Med
Coordination with other services	<ul style="list-style-type: none"> Opportunity for coordination between water and wastewater but no change to current low level of coordination with other City services for construction works and long-term planning. 	Low
Supporting services	<ul style="list-style-type: none"> Minor cost efficiencies in overheads for supporting services but less than what would be expected for Model B 	Low
Visibility of assets and issues (increased opportunity/options)	<ul style="list-style-type: none"> City will have less visibility of asset data if service is transferred to PUC/COPHI and less information for decisions and risk mitigation across multiple assets/services 	Low
Financial		
Lower overheads	<ul style="list-style-type: none"> Economy of scale at PUC/COPHI should allow some lower overhead costs for combined services, but savings are not expected to be as much as for Model B 	Med
Profit is an incentive	<ul style="list-style-type: none"> PUC/COPHI is required to generate a profit from service delivery. This would typically drive higher fees than Model B. However, this is balanced trade-off because the profit is a revenue source for the City. 	Med
Long-term financial stability and sustainability	<ul style="list-style-type: none"> PUC/COPHI have strong drivers for short-term planning and profit generation, but less focus on long-term sustainable service delivery and less direct accountability to the community and lower public scrutiny. 	Low
Sell services to others	<ul style="list-style-type: none"> The PUC/COPHI governance model allows the sale of services to others. This would be a stronger driver for PUC/COPHI than for the City in Model B. However, the City and indirectly the community would benefit from any profits generated from these activities. 	High

Cost, Risks, & Governance	Issues / Influence	Benefit
Technology		
Asset Management Systems	<ul style="list-style-type: none"> Even if PUC/COPHI had a well-developed AM system and comprehensive asset data, there would be little benefit to the City or the community unless the City had full access to this information. Currently the City has little or no access to water asset data and would expect in Model C to also lose visibility of wastewater and storm asset data 	Low
Asset Management Plans	<ul style="list-style-type: none"> PUC currently has ownership of all water assets; however, their asset management plan is dated (2014) and only addresses some asset management components of the underground linear assets. This would not be in compliance with O.Reg 588. The City has overall responsibility for compliance but requires input and participation from PUC to comply. If wastewater and storm services are transferred to PUC, provision will be needed for the AMPs, alignment with the City's objectives, and reporting requirements. 	Low
Billing systems	<ul style="list-style-type: none"> Although there will be set-up costs for new billing, the PUC/COPHI already have systems for billing, but it is not clear if existing staff numbers can handle the extra volume or whether additional staff will be required and how that might affect overhead costs 	Low
Compliance		
Experience and Capability	<ul style="list-style-type: none"> Issues regarding staff experience and capabilities for operations, maintenance, and compliance will be similar for both Model B and Model C. It is unlikely to be a major issue because staff providing the service now will be offered the option to transfer to the new service provider There will be some set-up costs for recording/reporting systems 	Low
Staff		
Staffing capacity / utilization	<ul style="list-style-type: none"> PUC/COPHI (because it provides only a few services) is not as well positioned as the City to efficiently manage staff capacity and utilization. This can be very important for risk mitigation in emergency events. PUC/COPHI has a smaller pool of people compared to the City and less able to temporarily assign resources to assist in peak times. 	Low
Attracting staff	<ul style="list-style-type: none"> PUC/COPHI will probably have some labour and wage issues to manage with staff transferring from the City on different agreements and pay rates to PUC/COPHI staff. However, PUC/COPHI generally offers better pay rates so would attract staff more easily than the City, which is a positive benefit. But the higher pay rates would potentially drive higher fees which would be a negative outcome for the community. 	Med

Cost, Risks, & Governance	Issues / Influence	Benefit
Governance		
Transparent governance	<ul style="list-style-type: none"> PUC/COPHI has less direct public scrutiny and fewer requirements for financial reporting, robust asset management, long-term financial planning, defensible decision-making, reporting to the public and involvement of the public. This provides a lower level of protection to the community compared to Model B, for responsible management of service delivery, and quality of decision-making and future planning 	Low
Customer service response and tracking	<ul style="list-style-type: none"> PUC/COPHI cares about customers and has a good customer service response and tracking system. However, there is no connection between this system and the City system that records issues for other service areas. This reduces opportunity for coordination across multiple service areas and having a holistic view of all services to the community and performance tracking 	Med
Flexibility / Adaptability / Resiliency	<ul style="list-style-type: none"> PUC/COPHI is vested in the wellbeing and long-term sustainability of the community. However, public scrutiny and accountability in Model C is less direct than for Model B PUC/COPHI is expected to have as much opportunity for flexibility, innovation, and adaptation to a wide range of issues, circumstances, and changing priorities, as available in Model B. However, it is unclear how much the need for change would be driven by the organization or responding to the needs of the community. The level of organizational commitment to resiliency, protection of the environment, quality of life, economic viability, and management of risks including climate change is not as clearly understood for Model C and may be slightly less than expected in Model B. 	Med

5 FINANCIAL COMPARISONS

The estimated financial impact for the three service delivery models A, B and C, were evaluated and compared.

The financial evaluation considered expected changes in overall annual operating expenditures for each service delivery option. Assumptions are noted below³, and in each evaluation.

The evaluations include:

- Model A – Status Quo baseline 2022 budgeted expenditures for current state
- Model B - overall estimated operating costs related to the City assuming all Operating Authority responsibilities for water, wastewater, and storm services.
- Model C - overall estimated operating costs related to PUC/COPHI assuming Operating Authority responsibilities for water, wastewater, and storm services.

5.1 MODEL A – STATUS QUO

The overall water, wastewater, and storm services budgets from PUC (including the Riverview Park and Zoo, which is funded from water revenues) and the City of Peterborough are summarized below as the status Quo costs.

\$36,864,075

This amount includes all direct and indirect costs associated with delivering the water, wastewater, and storm services. This does not include the annual capital costs incurred to maintain the assets in a state of good repair. This amount serves as a control total for the other service delivery model comparisons.

5.2 MODEL B – WATER ASSETS TRANSFERRED TO THE CITY

Using data supplied by PUC and the City and making the assumptions noted below, the estimated combined operating expenditures for the City to manage the water, wastewater, and storm assets and provide those services to the community is:

\$34,035,184

Compared to the Status Quo, this amounts to an annual operating cost savings of \$2,828,891 or approximately 7.7%.

³ The financial models were developed based on 2022 budgeted amounts that were supplied by PUC and the City. Estimates are based on consultation, staffing estimates, current state analysis results, and consulting team experience. Specific Model assumptions are noted in each Model evaluation.

Assumptions

- All of the City's direct and indirect costs were included in Model B.
- All of PUC's direct and indirect costs were included in Model B except those costs eliminated below.
- Senior management costs of \$195,000 for the oversight of operations was eliminated as the City currently has a Commissioner of Infrastructure and Planning Services. All other operations management staff such as managers and supervisors were carried forward.
- One half of the \$434,000 related to Customer Service labour or \$217,000 was eliminated as the City has extensive customer service resources. The remaining \$217,000 was carried forward as a conservative estimate of the effort that may be required, however, after further analysis this may also be reduced.
- All of the \$413,000 labour costs for operational support were eliminated as the City has extensive resources for operational support.
- IT costs of \$206,000 related to PUG specific needs was eliminated as these costs will be borne by PUG not the City.
- All costs for meter reading, mailing and billing were carried forward in Model B
- The costs that the City currently incurs to support wastewater and storm services for such things as HR, Purchasing, Finance, etc. is approximately 2.7%. This percentage was applied to the direct costs for the water operations that would be transferred to the City.
- A report that was commissioned by PUC identified an approximate 8% efficiency factor could be achieved if the water and wastewater were merged together. Our team applied a more conservative efficiency factor of 5%.

5.3 MODEL C – WASTEWATER AND STORM ASSETS TRANSFERRED TO PUC/COPHI

Using data supplied by PUC and the City, and making the assumptions noted below, the estimated combined operating expenditures for PUC to manage the water, wastewater, and storm assets and provide those service to the community is:

\$ 35,539,481

Compared to the Status Quo, this amounts to an annual operating cost savings of \$1,324,594 or approximately 3.2%.

Assumptions

- All of PUC's direct and indirect costs were included in Model C.
- All of the City's direct and indirect costs were included in Model C except approximately \$637,000 of support costs that the City incurs to support wastewater and storm services.

- From the limited information supplied by PUC it was estimated that the costs that PUC currently incurs to support water services for such things as HR, Purchasing, Finance, etc. is approximately 11%. It was estimated that if PUC were to take over wastewater and storm services additional support resources would be required, but that they could find additional efficiencies in their support costs going forward. A conservative estimate of 5% was applied to the direct costs for the wastewater and storm water operations that would be transferred to PUC.
- A report that was commissioned by PUC identified an approximate 8% efficiency factor could be achieved if the water and wastewater were merged together. Our team applied a more conservative efficiency factor of 5%.

5.4 SUMMARY OF FINANCIALS

The summary of the estimated operating expenditures of the three models is listed below in Table 7-1 Below.

Table 5-1 Summary of Operating Costs of Financial Models

Model A – Status Quo	\$36,864,075	Status Quo
Model B – City	\$34,035,184	\$2,828,891 p.a. saving (7.7%)
Model C – PUC	\$35,539,481	\$1,324,594 p.a. saving (3.2%)

6 CONCLUSIONS AND RECOMMENDATION

6.1 OBSERVATIONS AND CONCLUSIONS

The financial estimate favors Model B (transfer of services to the City) ahead of Model C (transfer of services to PUC/COPHI), and both options provide savings compared to Model A (the status quo). However, the financial estimate was not a comprehensive analysis based on access to a detailed breakdown of historical cost information and verification of overhead costs for either PUC/COPHI or the City. The evaluation was based on high-level cost information provided by each organization and includes a variety of assumptions as noted in the report.

The difference in estimated annual savings between Model B and Model C is less than 5%. The outcome could change if any of the assumptions change or if more detailed financial information was analyzed and verified. Cost alone, therefore, does not provide sufficient separation between Model B and Model C to give a clear recommendation.

It is necessary to consider the non-financial aspects (as reported in section 4), to determine the qualitative value for each model in addition to the quantitative estimate for cost savings.

The non-financial benefits also favor Model B over Model C and the main influences for this include:

- Economy of size for the City which is expected to provide several benefits for management of services, reduced overheads, and ability to respond to changing circumstances and peak demand
- Better coordination across multiple service areas within the City, particularly between roads and water services for both construction projects and for better integration on long-term planning
- Greater visibility of asset information, ongoing tracking and understanding of the state of the assets, better financial preparedness for the future, and greater adaptability and resiliency to manage risks, protect the environment, and pursue long-term sustainability for all service delivery
- Transparency of decision-making, more direct accountability to the community, and flexibility to consider changing community needs as they arise and adapt decision-making process and priorities to achieve the best holistic community outcomes.

6.2 RECOMMENDATION

In our opinion, **Model B** offers the most advantages and least number of disadvantages and risks to the City and its citizens. It is recommended that Model B be further pursued as the preferred model for management and delivery of water, wastewater, and storm services in the City of Peterborough.

In Model B the City of Peterborough assumes full operating authority and responsibility for the water assets and service delivery and continues the current role for management of wastewater and storm assets and provision of wastewater and storm services.

7 NEXT STEPS

If staff and Council adopt WSP's recommendations, the following implementation steps should be planned and considered:

1. **Set up a transition team.** This transition team should include staff from the following areas in the City:
 - Senior Management
 - Operational management staff
 - Human resources staff
 - Finance staff
 - Legal staff or consultation
 - Communications staff

Representation from PUC including Senior Management and support staff as needed from operations, billing services, finance, and human resources.

2. **Develop a Project Charter** that includes the values that are to be followed and the overall objectives and responsibilities of the parties. Clearly define the key stakeholders and each of their responsibilities.
3. **Develop a Communications Strategy** that clearly identifies the key stakeholders and the messaging to each group. This should go down to the tactical level and identify who will be discussing what. Stakeholder should include Council, CAOs, unions, staff, the Public, the MECP, etc.
4. **Develop a Change Management Plan** to ensure that the objectives and values set up front are being adhered to and accomplished while minimizing disruption. A change management plan helps manage the change process, and also ensures control in budget, schedule, scope, communication, and resources. The change management plan will minimize the impact a change can have on the organizations involved, employees, customers, and other important stakeholders.
5. **Explore asset considerations** including fleet, facilities and equipment that will be required, and any stranded assets in PUC that may be transferred or purchased by the City.
6. **Review the Collective Agreements** to ensure commitments are met and issues such as potential successor rights are explored and resolved.
7. **Identify and address other legal and administrative issues** such as Operating Authority administrative changes under the Municipal Drinking Water License, new staff reporting relationships and organization changes, and so on.

