Request for Decision

Biosolids Management Plan Update & Finalization of Procurement Model

Presented To:	Policy Committee
Presented:	Wednesday, Jan 19, 2011
Report Date	Friday, Jan 14, 2011
Type:	Presentations

Recommendation

WHEREAS, the odour issues at the Sudbury Waste Water Treatment Plant and at the Vale tailings ponds in Lively cannot continue, and;

WHEREAS, the City of Greater Sudbury is required to cease the practice of disposing of sewage sludge in the Vale tailings ponds by December 31, 2012, and;

WHEREAS, it has been established that a Biosolids treatment facility is required, and;

WHEREAS, the best value for money is achieved under a Design, Build, Finance, Operate, and Maintain (DBFOM) procurement model, and;

WHEREAS, Council approval of the DBFOM procurement model is required, by PPP Canada for the project to be eligible for funding, and;

WHEREAS, it is anticipated that a portion of the eligible project capital costs will be funded by PPP Canada, subject to its terms and conditions, thereby providing significant value for the taxpayers of the City of Greater Sudbury;

THEREFORE BE IT RESOLVED THAT Council accepts the report and authorizes Staff to proceed with the issuance of the Request for Proposal and procurement of the Biosolids Management Project using the recommended procurement model of Design, Build, Finance, Operate, and Maintain with a twenty year concession period;

AND THAT staff be authorized to enter into an agreement with PPP Canada, outlining the terms for financial support.

Signed By

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Finance Implications

It is estimated that the Wastewater Budget will increase by approximately $1 million for the operating and maintenance costs of the Biosolids facility, net of the reduction in haulage costs. The estimated increase on the overall water and wastewater rates in 2013 is 2%.

The unfunded capital portion will be debt financed, and the estimated debt repayments range from $1.8 million to $2.4 million. The actual payments will be determined when the contract is awarded and the project agreement is finalized. It is recommended that the annual debt repayments be funded from the Wastewater capital envelopes, commencing in 2013.

Background

Council has had the opportunity to receive project updates and approve project direction on five occasions over the past two years. These activities are summarized below:

- February 18, 2009 Priorities Committee - Biosolids Master Plan Update
- May 27, 2009 Council Meeting - Biosolids Master Plan Technical Working Group Update
- October 28, 2009 Council Meeting - Tender Award Contract ISD09-43 - Engineering Consultant for the Implementation of a Biosolids Management Plan
- April 28, 2010 Council Meeting - Biosolids Management Plan Update
- December 8, 2010 Council Meeting - Biosolids Management Plan Project Update

The background of the Biosolids Management Project has been well documented in each of these reports to Council.

Recap and Status Update

As Council is aware, the City must discontinue the use of the tailing areas for sludge disposal. In 2007, the City undertook an environmental assessment that considered different options with respect to the location of the biosolids facility as well as the type of treatment technology to be utilized. Biosolids treatment processes are viewed, for the most part, as new technologies and as such, a variety of options are available to the City. The environmental assessment also recommended that the City adopt a design-build approach, with the option of private sector operating and/or financing of the new facility and this recommendation was approved by Council.

Following the completion of the environmental assessment in March 2009, the City commenced work on the selection of a preferred technology and proponent. Work undertaken to date includes the following:

- The completion of a statement of interest process intended to solicit additional technologies or service providers that were not identified during the environmental assessment process, as well as to provide a high level indication of the capital and operating costs associated with the various available technologies. The statement of interest process closed February 9, 2010 and based on the evaluation, four technologies were identified as being suitable for the City's purposes.

- The completion of an expression of interest process intended to pre-qualify consortia for the design, construction and potential operation and financing of the facility. The expression of interest process closed July 6, 2010 and identified four consortia (one per technology) that were qualified to proceed to the request for proposal stage.

- The submission of an application for project funding to PPP Canada, a Federal Crown corporation that could fund up to 25% of eligible capital costs for the DBFOM model, as well as an application for funding of planning and advisory costs.

- The completion of a value-for-money analysis that evaluated the various procurement options available to the City. The value-for-money analysis commenced in September and considered the

following options:

- Design-build
- Design-build-operate-maintain (5 year operating and maintenance period)
- Design-build-operate-maintain (20 year operating and maintenance period)
- Design-build-finance-operate-maintain (20 year operating and maintenance period)

Recommended Procurement Approach

Based on the results of the value-for-money analysis and as outlined in KPMG's report (see Appendix A attached), staff recommend that the City adopt a design-build-finance-operate-maintain procurement model, whereby the selected consortium would finance the entire project cost during construction and provide a portion of the long-term (20 year) project financing. The consortium would also be responsible for the operation and maintenance of the biosolids facility over a 20-year period.

The selection of a design-build-finance-operate-maintain procurement model optimizes the benefits to the City:

- It represents the lowest cost to the City on a net present value basis after consideration of retained risks
- It provides a measure of stability for wastewater costs (and rates) as costs associated with the biosolids facility would increase based on a defined measure (e.g. inflation)
- It maximizes the potential for PPP Canada funding (estimated to be as much as $10 million for capital costs) by including both operate-maintain and financing
- It reduces operational risks associated with biosolids processing as a result of the proprietary nature of the technology, the City's lack of experience in operating biosolids treatment processes and the potential issues associated with end product disposal
- It contributes to sustainable capital asset management by establishing maintenance funding and programs for the biosolids treatment facility

Procurement Time Lines

February 9, 2010 – Statement of Interest Closed
July 6, 2010 – Expression of Interest Closed
January 05, 2011 - Pre-Request for Proposals Meeting Completed
January 19, 2011 – Recommend Procurement Approach – Report and Recommendation
January 26, 2011 – Council Decision
March 14, 2011 – Release of Request for Proposals to Proponents
June 15, 2011 – Deadline for Proponent Technical and Financial Submissions
Summer, 2011 – Council approval to enter final negotiations with the Preferred Proponent, and award contract
Summer 2011 – Council approval to enter into a Financial Agreement with PPP Canada

September 1, 2011 – Contract Commencement
December 31, 2012 – Facility Operational

Federal Government Funding

In early June 2010, the City became aware of a potential funding opportunity through PPP Canada, a Federal agency. PPP Canada is a Crown Corporation established to support the development of public-private partnerships (P3) and facilitate the development of the Canadian P3 market. The Government of Canada established a $1.2 billion fund that is managed by PPP Canada to support P3 infrastructure projects.

PPP Canada advised the City that this project may be eligible for up to 25 percent of the project's eligible capital costs In response to possible PPP Canada funding, City Staff, in conjunction with R.V. Anderson Associates and KPMG, submitted an application.

For this project, the best value-for-money is achieved with a model that includes Design, Build, Finance, and Operate/Maintain.

The City has been participating in a rigorous, multi-staged application process with PPP Canada. Recent discussions with PPP Canada senior officials have indicated that if Council approves the recommended procurement strategy, as a DBFOM, it is anticipated that CGS will be eligible for 25% capital funding from PPP Canada.

Financial Implications

	Financial Plan (including PPP Canada funding)
Estimated Project Budget	$30 to $40 Million
Less: Potential PPP Canada Funding	25% of Eligible Capital Costs
Unfunded Balance	$22.5 to $30 Million

In addition to PPP Canada funding, staff are investigating opportunities for Provincial and/or other funding for this project. If CGS is unable to secure additional revenue sources, the balance of $22 to $30 million would be externally debt financed.

Based on $30 million of debt financing, amortized over 20 years, the annual debt repayments would be approximately $2.4 million.

The following are the estimated financial implications in 2013:

	With 25% Federal funding from PPP Canada	Without Funding from PPP Canada
Estimated Annual Debt Repayments	$2.4 million (*represents approx. 4.6% WWW rate increase)*	$ 3.4 million (*represents approx. 6.3% WWW rate increase*)

Estimated operating and maintenance costs of Biosolids Plant (net of cost savings for reduced haulage and chemicals)	$1.0 million (*represents approx. 2% WWW rate increase)*	$1.0 million (*represents approx. 2% WWW rate increase*)
Annual Budget impact	$3.4 million (*represents approx. 6.6% WWW rate increase*)	$4.4 million *(represents approx. 8.3% WWW rate increase)*

To minimize the increase to Water and Wastewater rates, staff are recommending that the annual debt repayments of approximately $2.4 million be funded by the Wastewater capital envelopes. This will minimize the increase to Water and Wastewater user fees for the capital portion. Staff are also working to determine the growth related component of the facility, and these costs will be added to the 2014 Development Charges Study. Any future development charges revenues will be used as a source of funding for this project. Also, staff will continue to investigate revenue opportunities with other municipalities or entities to utilize any excess capacity of the facility.

This capital commitment for 20 years will create significant financial pressures on this area of operation, considering there is over $2 billion of WWW assets at replacement value, many of which are past their useful lives. Current levels of capital spending fall well short the funding levels required to be sustainable. Staff are in the process of developing a 10 year financial plan for WWW, as required by the Ministry of the Environment, which will illustrate the operating and capital requirements to be sustainable over a longer term horizon.

This plan will be presented to Council during 2011 Budget deliberations, and with the benefit of the overall financial picture of the WWW Division, Council will be provided financial options to continue to address the infrastructure shortfalls that exist.

Recommendation

That Council accepts the report and recommendations and authorizes Staff to proceed with the issuance of the RFP and procurement of the Biosolids Management Project using the procurement model of Design, Build, Finance, Operate, and Maintain with a twenty year maintenance and operating period, (also known as concession period). Also, that staff be authorized to enter into an agreement with PPP Canada outlining the terms for financial support.

KPMG

City of Greater Sudbury

Biosolids Management Strategy Analysis of Procurement Options and Recommendations

Final Report

January 14th, 2011

ADVISORY

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I Executive Summary

The City of Greater Sudbury (the "City") is currently in the process of implementing a long-term strategy for the management of sludge, a residual product of its wastewater treatment plants. While the City has typically disposed of its untreated sludge at Vale's tailing areas, Vale has indicated this option will no longer be available after December 31, 2012, requiring an alternate solution to be put in place. In addition, the Ministry of the Environment ("MOE") has strongly recommended that the City introduce some form of stabilization (i.e. treatment).

As a result of the environmental assessment and biosolids management plan undertaken in connection with the sludge issue, the City has decided to construct a new biosolids facility to be located on the site of the Sudbury Wastewater Treatment Plant ("SWWTP"). The current direction of City Council is to proceed with the project under a design-build approach ("DB"), which is intended to minimize the time required to complete the project so as to meet the December 31, 2012 deadline. The initial approval provided by Council also allows for the consideration of options for private sector involvement in the operation, maintenance and financing of the facility, if sufficient justification exists.

The process for the establishment of a new biosolids facility has reached the stage where a formal request for proposal document is under development and will be issued in early 2011. As part of the request for proposal process, the City will be required to select its preferred procurement approach (i.e. decide whether operating, maintenance and financing will be included in the procurement approach), recognizing that going forward to the marketplace with options is neither recommended nor reflective of best practices. This report has been prepared to assist the City with the selection of a preferred procurement model.

As discussed in more detail within our report, our analysis indicates that the preferred procurement approach would involve a 20-year design-build-finance-operate-maintain ("DBFOM") arrangement. Under this model, the successful bidder would be responsible for:

- The design and construction of the necessary infrastructure, ownership of which will remain with the City
- The operation and maintenance of the biosolids treatment and end product storage facilities
- The distribution of the end product under a revenue sharing arrangement with the City
- The provision of project financing during the construction period, as well as longer-term financing for a portion of project costs over the 20-year operating period.

The use of a DBFOM model is expected to provide a net financial benefit to the City of as much as $20 million over the DB model, obtained through:

- The avoidance of potential costs through the transfer of risks to the private sector, which could provide a net cost avoidance of as much as $10 million. The emphasis on the transfer of risks associated with the project is particularly important given the tight timeframes for project completion and the lack of existing City experience with biosolids treatment processes.
- Funding from PPP Canada of approximately $10 million, which would not be available under the DB model

The remainder of this report is organized under the following chapters:

- Project Overview – This chapter provides an overview of the biosolids projects and risk considerations
- Overview of Alternative Procurement – This chapter provides general information on alternative procurement and its usage in Canada
- Recommendations – Our analysis on various transaction models and our recommendations are summarized in this chapter
- Overall Conclusions – This chapter summarizes our overall conclusions

II Project Overview

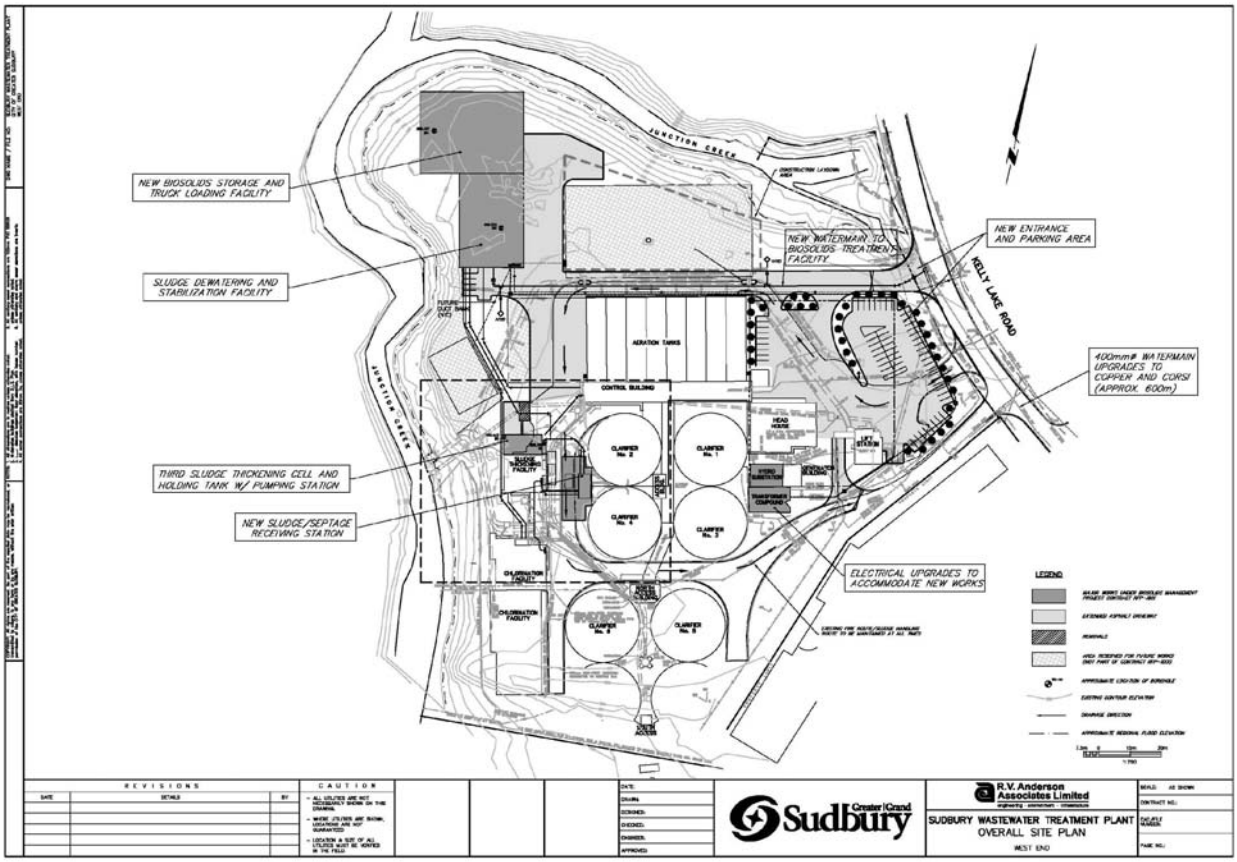
2.1 Background

For more than 30 years, the City has disposed of its sludge in the Vale tailings area ponds. However, a combination of factors has required the City to develop an alternative management strategy:

- Vale has indicated that its tailing areas will not be available for sludge disposal after December 31, 2012
- The MOE has recommended that sludge originating from the City's wastewater treatment plants should be stabilized (treated)
- Since 2005, the frequency of complaints relating to odour caused by sludge disposal has increased, prompting calls for an alternative management approach

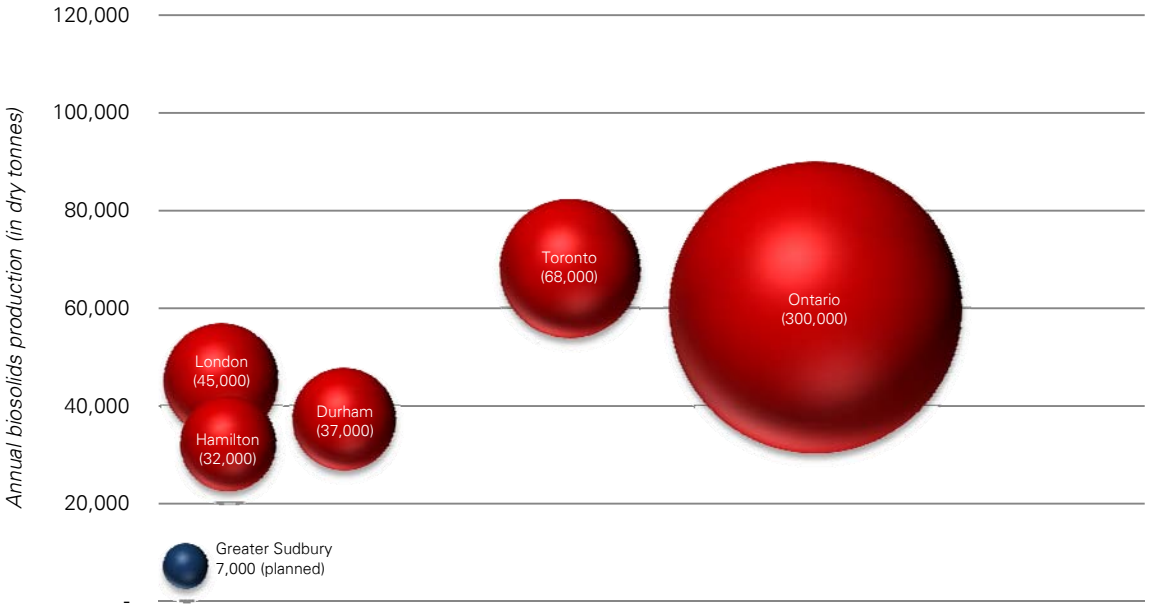
In response to these issues, the City has completed a comprehensive biosolids management master plan and environmental assessment to evaluate options, with the recommended solution being the construction of a biosolids processing facility on the site of the SWWTP.

Proposed location of the biosolids processing facility



At the present time, the City appears to be an exception to the general trend for sludge management in Ontario – most if not all municipalities of its size have some form of sludge stabilization incorporated into their wastewater processing facilities.

Biosolids production for Ontario and selected communities[1]



The absence of sludge stabilization in Sudbury reflects the City's ability to dispose of untreated sludge in the Vale tailing areas, a low-cost alternative to the construction and operation of a sludge stabilization facility. With this approach no longer available to the City after December 31, 2012, the City is now required to implement a sludge management strategy.

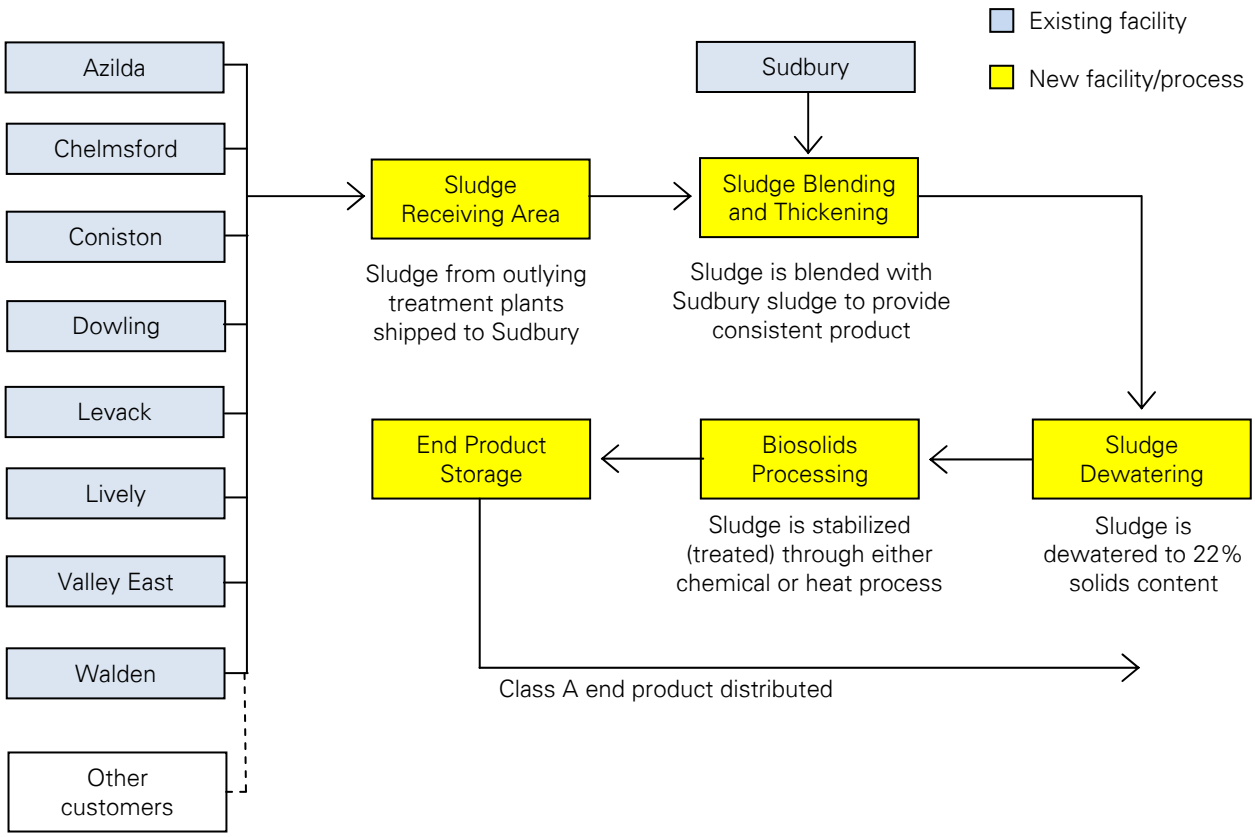
2.2 Project scope

Under the biosolids management strategy, sludge from the City's eight outlying wastewater treatment facilities will be shipped to a sludge receiving facility to be constructed on the site of the SWWTP. Upon receiving, the sludge will be blended with sludge from the SWWTP and polymer to provide for a consistent quality (in terms of liquid content, metals content, etc.).

After blending, the sludge will be dewatered to approximately 22% solids content, which is the optimal level for biosolids processing. The dewatered sludge will then be transferred to the biosolids treatment facility where it will be stabilized using either a chemical or heat process or combination thereof (dependent on the successful technology provider).

[1] Analysis provided by RV Anderson.

Biosolids management strategy



The end product of the process will meet the standards for Class A biosolids products, which are pathogen free and have no restrictions on end use. This differs from Class B biosolids, which are not considered to be pathogen free and as such, can only be used for limited purposes.

2.3 Project-specific risks

While the City has extensive experience in the management of water and wastewater treatment facilities, there are a number of factors specific to this project that elevate its overall level of risk:

- Unlike other projects that can accommodate construction and commissioning delays, there is a clearly established deadline for the City to establish an alternative to its existing sludge management strategy. In the event that the City is unable to complete the facility by December 31, 2012, alternative disposal methods (including the shipment of sludge to other processing facilities) have high associated costs.

- The relatively tight timeframe also leaves minimal time for the commissioning of the biosolids treatment facility and the training of staff. This is particular significant given the City does not currently process biosolids and biosolids processing involves proprietary technologies that are unique and not as widespread as more traditional water and wastewater treatment processes.
- The end result of the biosolids process is a marketable product that could be sold to commercial and residential customers. However, the City has no experience in the distribution of biosolids end products.

Given these specific issues, as well as generic risks that are present in any capital project, the level of risk retained by the City under a conventional procurement approach will likely be significant. Accordingly, the consideration of alternative procurement approaches given the ability to shift risk from the City to the private sector is appropriate.

III Overview of Alternative Procurement

3.1 Alternative procurement defined

Historically, major capital projects undertaken by public sector organizations such as the City have typically involved what is referred to as a "design-bid-build" approach ("DBB") to procurement, whereby the project is fully designed, then tendered and then constructed under a contract that establishes a fixed price for designed scope of work.

In any project involving the construction and operation of a major capital facility, there are a number of risks that could potentially materialize:

- The initial design of the facility could contain oversights and/or discrepancies, resulting in additional costs through the need for change orders
- The time required to complete the facility may be longer than expected, requiring alternative solutions to be put in place until such time as the facility is finished or higher capital costs due to the extension of the project schedule
- The facility may not perform as expected, resulting in higher operating and maintenance costs, lower performance outputs or modifications subsequent to commissioning
- Ongoing escalations in operating and maintenance costs may be greater than expected, placing pressures on operating budgets and user fees

Under the traditional DBB approach, the majority of these risks remain with the public sector organization, which ultimately bears the cost if they materialize.

Given the magnitude of risks that are present under traditional procurement approaches, a number of public sector organizations have adopted alternative procurement strategies. Simply put, alternative procurement, which includes private-public-partnerships and alternative finance and procurement, is a delivery model that encompasses a higher level of risk transfer than conventional approaches, achieved by increasing the involvement of the private sector in capital projects.

3.2 Types of alternative procurement approaches

For the most part, alternative procurement approaches involve some combination of private sector involvement in the following activities:

- Design (D)
- Building (B)
- Operating (O)
- Maintenance (M)
- Financing (F)

The level of risk transferred from the public sector to the private sector typically increases in relation to the level of private sector involvement.

Examples of risks transferred to private sector under alternative procurement approaches

	Traditional Approach	DB	DBO	DBOM
• Construction costs are higher than expected	✓	✓	✓	✓
• Costs associated with construction delays	✓	✓	✓	✓
• Costs associated with design errors		✓	✓	✓
• Facility performance is less than expected			✓	✓
• Operating costs increase faster than expected			✓	✓
• Maintenance costs are higher than expected				✓
• Facility useful life is less than expected				✓

3.3 Private sector financing in alternative procurement

In addition to involving the private sector in the operation and maintenance of facilities, alternative procurement can also include private sector financing. To a certain extent, the inclusion of financing enhances the degree of risk transferred to the private sector by increasing the level of scrutiny for the project as investors and lenders will undertake their own due diligence. However, the major benefit of private sector financing is its ability to anchor the transfer of risk by placing private sector money at risk in the event of a problem. In the absence of "skin in the game", the private sector may choose to abandon unprofitable projects, thereby shifting risk back to the public sector. The requirement for private sector financing discourages this as the private sector risks losing its investment, consisting of that portion of the financing not yet repaid.

3.4 The rationale for alternative procurement

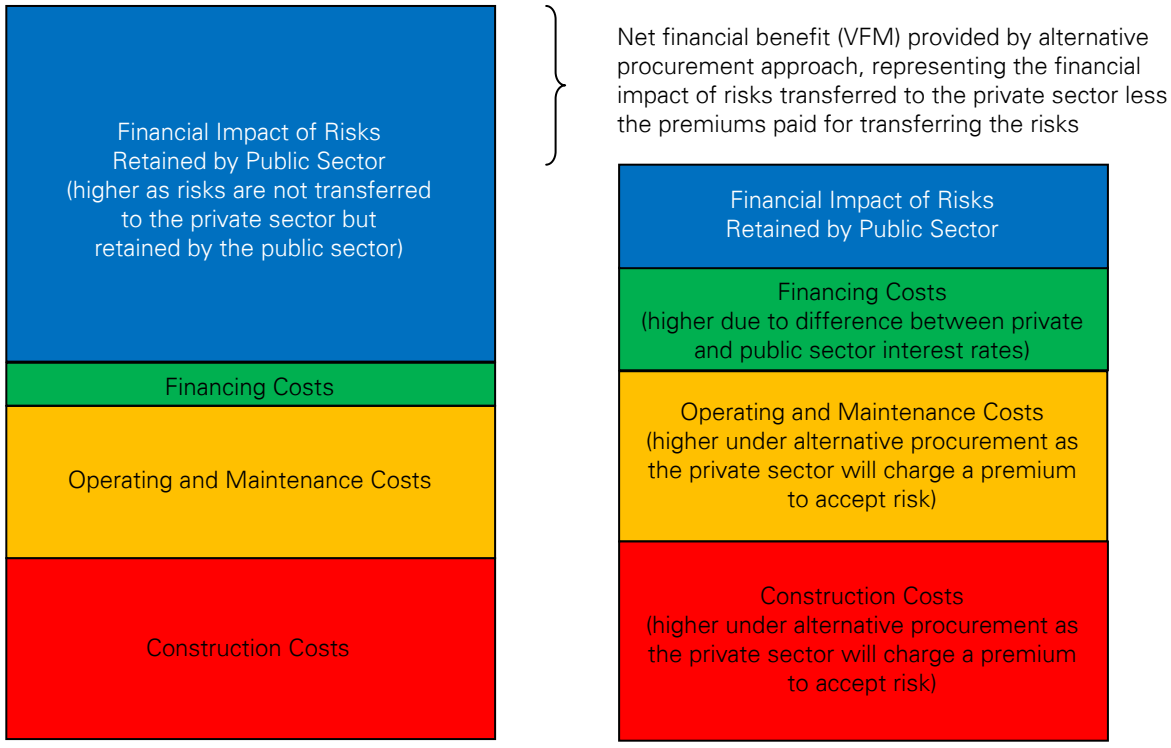
Best practices for alternative procurement strategies include the completion of a value-for-money business case ("VFM") that is intended to demonstrate the financial justification for the proposed approach. The completion of a VFM is particularly important as the direct costs (i.e. immediate costs that are readily

identifiable) associated with alternative procurement are generally higher than those under a traditional approach for a number of reasons:

- While the private sector will accept risk from the public sector, it will also include a premium in its bid price for accepting this risk, resulting in higher construction and/or operating and/or maintenance costs depending on the model selected
- As the level of private sector involvement increases, so does the complexity of the underlying contractual documents. This leads to higher ancillary costs as the private sector will pass along its costs associated with legal agreements, financing arrangements, etc.
- Where private sector financing is included in the procurement model, the project will have a higher borrowing cost than using public sector financing. The difference in borrowing rates reflects the fact that public sector lending is viewed as essentially risk-free to lenders (as the likelihood of a municipal bankruptcy is remote), whereby the same view is not held for private sector financing. The risk-free categorization of public sector financing also implies that the public sector retains all of the risk associated with the lending, with no explicit risk premium charged to the project.

Notwithstanding the higher direct costs associated with alternative procurement approaches, the ability to transfer risk to the private sector often provides a greater financial benefit. Essentially, alternative procurement is akin to insurance – the public sector pays a premium (in the form of higher direct costs) in order to avoid the cost of risks materializing. Where the premium paid is less than the risk transferred, alternative procurement provides a net benefit to the public sector.

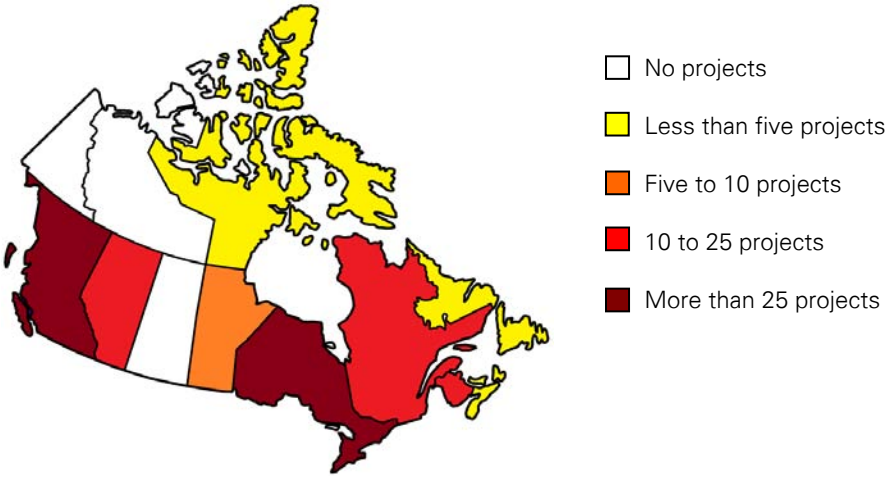
Total project costs under traditional and alternative procurement approaches



3.5 Prevalence of alternative procurement in Canada[2]

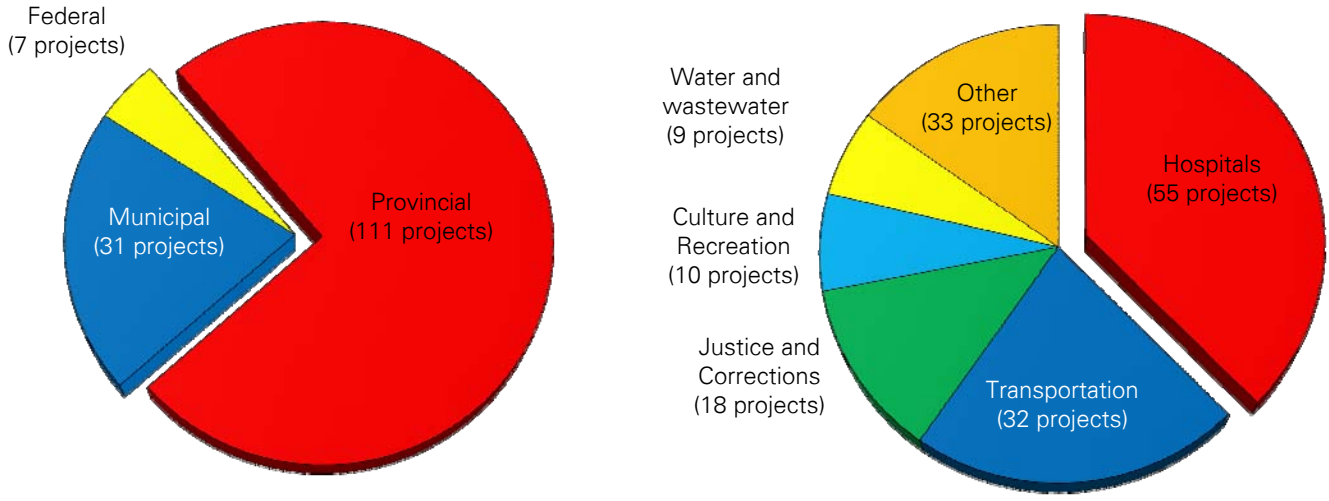
Across Canada, there are approximately 145 projects that have been undertaken through alternative procurement approaches, the majority of which (70%) are located in Ontario (73 projects) and British Columbia (28 projects). The prevalence of alternative procurement in these provinces reflects the Provincial focus to undertake major capital projects through alternative procurement strategies, with dedicated agencies established to support the process (Infrastructure Ontario, Partnerships BC).

Alternative procurement projects by Province



Many of the alternative procurement projects undertaken to date have involved hospitals, correctional facilities and major transportation infrastructure and are undertaken by Provincial governments. However, the Federal and municipal governments are also active in alternative procurement projects.

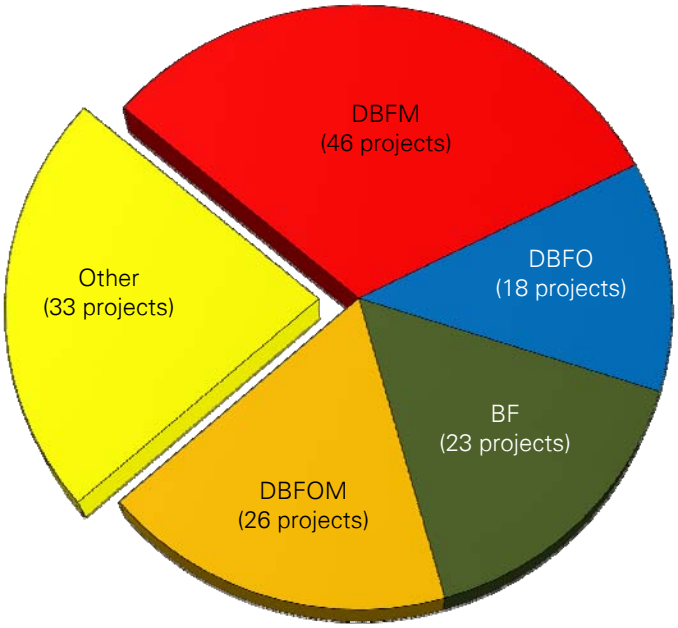
Alternative procurement projects by level of government and type of infrastructure



[2] The information presented in this section of our report is based on the Canadian PPP database maintained by the Canadian Council for Public-Private Partnerships.

While variations exist in terms of the extent of private sector involvement, the majority of alternative procurements (77%) involve some form of private sector financing.

Alternative procurement projects by type



IV Recommendations

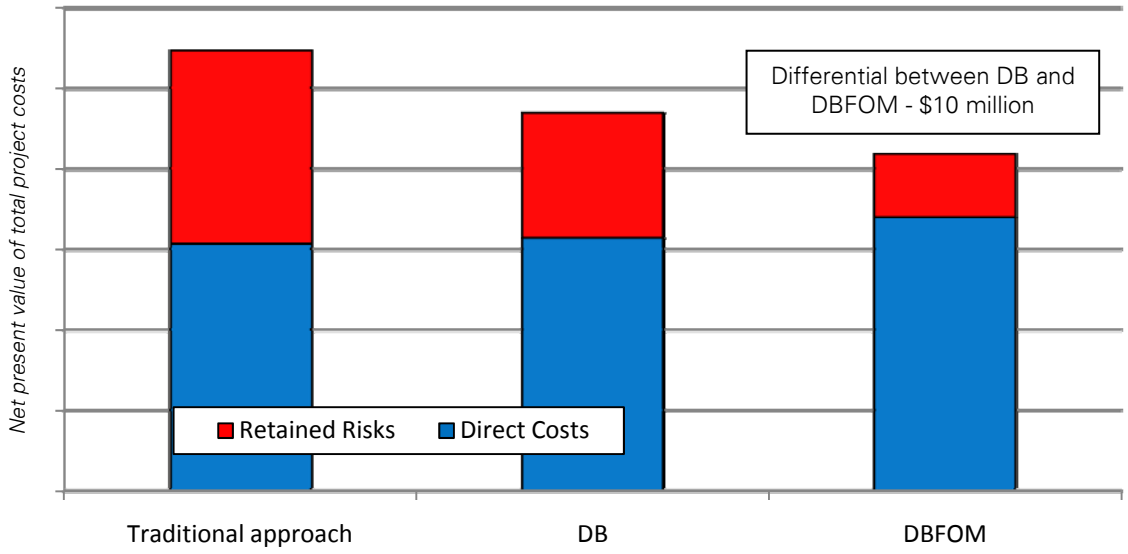
4.1 Value-for-money conclusions

In order to assess the merits of the potential procurement options available to the City (e.g. DB, DBOM, DBFOM), a VFM analysis was conducted that considered the direct costs and project risks associated with different procurement options. The VFM analysis was based on the approach adopted by Infrastructure Ontario for alternative procurement projects, adjusted for the specific circumstances associated with this project.

The results of the VFM analysis indicate that the approach providing the overall lowest cost to the City would be a 20-year design-build-finance-operate-maintain ("DBFOM") whereby the successful bidder would be responsible for:

- The design and construction of the necessary infrastructure
- The operation and maintenance of the biosolids treatment and end product storage facilities
- The distribution of the end product under a revenue sharing arrangement with the City
- The provision of project financing during the construction period, as well as longer-term financing for a portion of project costs over the 20-year operating period. The purpose of the financing requirement is to suitably anchor the transfer of risk from the City to the private sector, including a disincentive for the private sector to abandon the project during the course of the operating period.

Value-for-money conclusions under differing procurement approaches



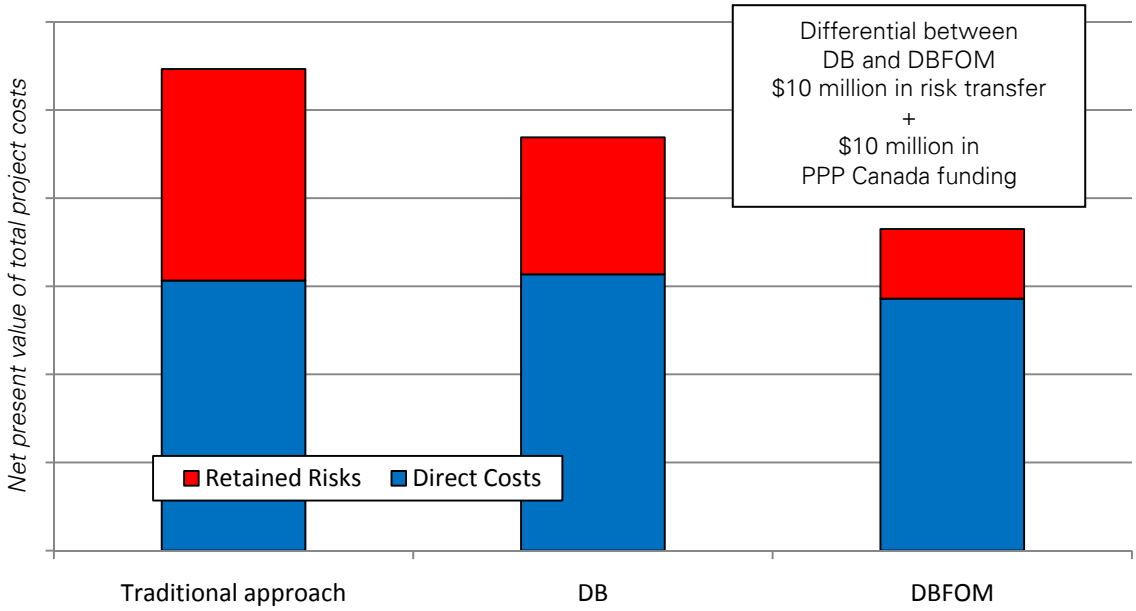
The results of the VFM analysis were validated through a comparison of the conclusions to other projects involving water and wastewater projects, as well as guidance provided by Infrastructure Ontario relating to the quantum of risks transferred under alternative procurements.

Consistent with other projects undertaken through alternative procurement, it is anticipated that the direct costs associated with the DBFOM approach will be higher than the design-build approach currently approved by Council. However, the cost avoidance resulting from the transfer of risk to the private sector is expected to be as much as three times the amount of the risk premium, thereby providing a $10 million net cost avoidance to the City.

4.2 Financial assistance

Currently, the City is in negotiations with PPP Canada, a Federal crown corporation established to support the development of alternative procurement, with respect to funding for the biosolids project. Funding from PPP Canada can be as much as 25% of eligible capital costs, with additional funding available for planning and advisory costs. In order to qualify for PPP Canada funding, alternative procurement projects must include a design-build component as well as an operating or financing component as well. The current Council direction for a DB model will not entitle the City to PPP Canada funding as it lacks an operating or maintain component. However, the adoption of a DBFOM will meet the eligibility requirements for funding from PPP Canada, providing for as much as $10 million in funding for the City and increasing the net financial benefit resulting from the adoption of the DBFOM model.

Value-for-money conclusions under differing procurement options considering PPP Canada funding



4.3 Recommended transaction model

Based on an analysis of the quantitative (i.e. financial) and qualitative factors associated with the project, we recommend that Council approve the use of a DBFOM for the procurement of the proposed biosolids facility. In addition to providing an estimated net financial benefit of as much as $20 million over a DB ($10 million in net cost avoidance plus $10 million in PPP Canada funding), the use of a DBFOM should allow the City to appropriately manage aspects of operational risk associated with the project. While admittedly more complicated than a DB approach, the City has established a strategy for managing this so-called procurement risk through the establishment of an experienced project team and "market sounding" of the proposed model with the short-listed proponents.

As summarized below, the selection of a DBFOM model is intended to provide the City with a combination of financial and non-financial benefits.

Factors supporting selection of DBFOM model

	DB	DBFOM
Likelihood of completion within available timeframe	✓	✓
Maximum net cost avoidance		✓
Eligible for PPP Canada funding		✓
Lowest procurement complexity and risk	✓	
Manages operational risks associated with the project		✓
Provides stability for operating and maintenance costs		✓
Proponent acceptance	✓	✓

4.4 Recommended transaction details

The contractual arrangements between the City and its private sector partner will be laid out in a document known as a project agreement, which defines the overall project scope, transaction model, risks assumed by the private sector, risks retained by the City, performance specifications for the facility and the payment mechanism (i.e. formula for calculating payments by the City to the private sector).

As part of the procurement process, the City has presented a high level overview of the proposed transaction structure to the shortlisted proponents (four in total) in order to ascertain their interest in submitting proposals under the DBFOM model. All proponents indicated their continuing interest in the project, with some questions surrounding the proposed risk transfers, requirement for long-term financing and overall transaction structure.

It is typical for alternative procurement approaches to involve a degree of negotiation with the private sector to finalize the terms of the project agreement, which are typically undertaken through confidential bidders' meetings. The procurement strategy for this project envisions two rounds of confidential bidders' meetings during which time the terms of the proposed project agreement will be reviewed and refined, recognizing that some risks may not be transferred to the private sector. Accordingly, the value-for-money conclusions presented in this report will be updated to reflect the final distribution of risks between the City and the private sector upon the execution of the final project agreement.

While subject to negotiation, the City is suggesting that the initial project agreement reflect the following:

4.4.1 Scope of construction services

Under the terms of the project agreement, the private sector will be expected to construct the following:

- the sludge and septage[3] receiving facility
- the blending and thickening facility
- the sludge dewatering facility
- holding tanks for the dewatered sludge
- the biosolids treatment facility
- the end product storage facility

The contract will also include the installation of odour control equipment for the biosolids facility, improved odour control systems for the SWWTP and site works that will ensure that the operation of the biosolids facility will not adversely impact traffic flows or employee health and safety at the SWWTP.

4.4.2 Scope of operating and maintenance services

In addition to the construction of the above-noted elements, the project agreement is also expected to involve the private sector in the ongoing operation and maintenance of the following:

- the sludge dewatering facility, including holding tanks
- the biosolids treatment facility
- the end product storage facility
- odour control systems related to the above components

[3] Septage is sewage generated by septic tanks and delivered by private contractors for treatment at the SWWTP. The City intends to charge for septage based on metered volumes received at the plant.

Operation and maintenance of the sludge and septage receiving facility and blending and thickening facility will be the responsibility of the City. In addition, the operation and maintenance of odour control systems relating to the SWWTP, the sludge and septage receiving facility and the blending and thickening facility will also be the responsibility of the City.

The private sector is also anticipated to be responsible for the distribution of the end product under a revenue sharing agreement with the City, the terms of which are subject to negotiations.

Notwithstanding private sector involvement in the project, all facilities and equipment will be owned by the City, with the project agreement granting the private sector a license for the construction, operation and maintenance services. In addition, it is expected that the project agreement will require the private sector to comply with the relevant terms of the City's collective bargaining agreement and applicable labour regulations, including health and safety.

V Overall Conclusions

While the City has very little experience with the undertaking of alternative procurement, the construction of the proposed biosolids facility represents a unique opportunity to consider such an approach. A number of factors specific to the project – tight completion timeframes, significant consequences resulting from project delay, sizeable operational risks and the opportunity to access senior government funding – make the biosolids facility particularly well suited to alternative procurement. In addition, procurement-related risks are also mitigated through the development of a suitable governance structure for both the construction period and ongoing operating period. The governance model envisioned by the City includes not only internal technical and financial resources, but also external consultants with experience in alternative procurement and PPP Canada.

As demonstrated in our analysis, the adoption of a DBFOM procurement model is expected to provide the City with the highest net financial benefit, recognizing that the ultimate benefit will rest on the final project agreement. In order to maximize the potential benefit to the City, we believe that the City requires a definitive direction, an appropriately efficient decision-making process and sufficiently detailed documentation concerning the contractual arrangements with its private sector partner.

VI Restrictions

KPMG understands that our report is intended to assist the City of Greater Sudbury (the City) in evaluating its options with respect to the construction, financing, operation and maintenance of a proposed biosolids facility. We consent to such use of our presentation, but will not assume any responsibility or liability for any costs, damages, losses, liabilities or expenses suffered by the City or any other party as a result of circulation, publication, reproduction, use of or reliance upon our presentation contrary to the provisions of this section. Comments in our presentation are not intended, nor should they be interpreted to be, legal advice or opinion.

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This presentation, including the attached appendices, must be considered in its entirety by the reader.