



CITY OF HAMILTON

PUBLIC WORKS DEPARTMENT
Hamilton Water Division
and
CORPORATE SERVICES DEPARTMENT
Financial Planning and Policy Division

TO: Mayor and Members General Issues Committee	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: February 6, 2013	
SUBJECT/REPORT NO: Biosolids Management Project - Approval to Amend P3 Canada Funding Business Plan - (PW11098b/FCS11112b) - (City Wide)	
SUBMITTED BY: Gerry Davis, CMA General Manager Public Works Department Mike Zegarac Acting General Manager Finance and Corporate Services	PREPARED BY: Dan McKinnon (905) 546-2424, Extension 5941 Dan Chauvin (905) 546-2424, Extension 5988 John Savoia (905) 546-2424, Extension 7298
SIGNATURE:	

RECOMMENDATION

- (a) That the General Manager, Public Works be authorized and directed to amend the Public-Private Partnership Canada ('P3 Canada') Business Case as approved by Council through Report PW11098a/FCS11112a in support of receiving funding towards the City's Biosolids Management Project, as to comply with the requirements established by P3 Canada as outlined in Appendix A as follows,
 - (i) Identify Woodward Avenue Wastewater Treatment Plant, located at 700 Woodward Avenue North in Hamilton as the sole location for the Biosolids Management Project;

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- (ii) Increase the accuracy of the cost estimate for the capital component of the project to a +/- 15% level accuracy;
 - (iii) Amend the weighting of the proposed evaluation criteria for the future Request for Proposal from 50% Technical and 50% Financial to 25% Technical and 75% Financial,
- (b) That the General Manager, Public Works be authorized and directed to proceed with establishing a not-to-exceed financial threshold ('Affordability Cap') for the Biosolids Management Project of \$111 Million Net Present Value ('NPV');
- (c) That the General Manager, Public Works be authorized and directed to expand Purchase Order No. 63473 to CH2M Hill Canada Limited by an estimated \$50,000 from account 5160966910 Biosolids MP Implementation, to address Recommendation (a) Subsection (ii);
- (d) That the General Manager, Public Works be authorized and directed to expand Purchase Order No. 64971 to Deloitte & Touche LLP by an estimated \$20,000 from account 5160966910 Biosolids MP Implementation, for effort required to amend the City's Business Case resulting from Recommendations (a) and (b).

EXECUTIVE SUMMARY

The main purpose of Report PW11098b/FCS11112b is to seek Council approval to amend the City's Business Case as approved by Council in Report PW11098a/FCS11112a, and subsequently submitted to Public-Private Partnerships Canada ('P3 Canada'). Amendments are required to the Business Case to comply with the requirements established by P3 Canada as outlined in Appendix A.

As a result of P3 Canada's review of the City's Business Case, three main issues remain a concern which must be addressed by the City in order for the Business Case to remain compliant with P3 Canada's conditions. The City received a formal letter from P3 Canada on November 1, 2012, attached hereto as Appendix A, outlining each issue with an associated rationale. The issues are summarized as follows:

1. RFP bid Submission on external sites
2. Level of Accuracy for the Public Sector Comparator
3. RFP Evaluation – Points Assigned to Technical vs. Financial Requirements

In addition, staff is bringing forward a recommendation to establish a not-to-exceed financial threshold ('Affordability Cap') for the project as summarized in this Report.

With Council's direction on each issue, staff will amend the Business Case and re-submit to P3 Canada. Staff will report back to Council with P3 Canada's final decision, and prior to proceeding with Phase 2 of the Workplan which was previously approved by Council, updated (milestone dates only) and attached as Appendix B.

Alternatives for Consideration - See Page 8

FINANCIAL / STAFFING / LEGAL IMPLICATIONS

Financial: There are there main financial implications related to the Recommendations of this Report.

Proceeding with recommendation a(i) will require an expansion of an existing purchase order by an estimated \$50,000 to have the technical consulting team (CH2M Hill Canada Limited) provide the higher level cost accuracy as required by P3 Canada. Sufficient budget exist in the project account 5160966910 Biosolids MP Implementation to undertake this increased scope, the approved recommendation will provide the authority to staff to undertake the associated Expanded Works following the City's Purchasing Policy.

Proceeding with recommendations (a) through (b) will require an expansion of an existing purchase order by \$20,000 to have the prime consulting team (Deloitte & Touche LLP) revise the Business Case and re-submit to P3 Canada. Sufficient budget exist in the project account 5160966910 Biosolids MP Implementation to undertake this increased scope, the approved recommendation will provide the authority to staff to undertake the associated Expanded Works following the City's Purchasing Policy.

Proceeding with recommendations (b), commits the City to establishing a project Affordability Cap of \$111 million. This safeguard will ensure that the project will be within the City's budgetary and financial constraints and it also provides greater certainty to P3 Canada since this threshold will establish a funding limit. Awarding the project within this threshold will provide the City the assurances of having a sustainable Biosolids program for 30 years with a stable financing model.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

The recommendations contained within this Report have City wide implications.

The Report titled Biosolids Management Project - P3 Canada Funding Business Plan Approval (PW11098a/FCS11112a) was presented to the General Issues Committee on May 11, 2012, for which the recommendations were as follows:

- (a) That the General Manager, Public Works be authorized and directed to submit the Business Case attached as Appendix "A" to Report PW11098a/FCS11112a to Public-Private Partnerships Canada ('P3 Canada') requesting funding approval for either the Enhanced Treatment and/or Thermal Reduction alternatives for the City's long-term Biosolids Management Solution;*
- (b) That staff report back to Council with an update subsequent to receiving a response from P3 Canada, and prior to proceeding with Phase 2 of the approved Workplan, attached as Appendix "B".*

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As directed through Report PW11098a/FCS11112a, staff formally submitted the approved Business Case to P3 Canada as application for funding towards the City's Biosolids Management Project. The process within P3 Canada is structured such that the Business Case is first reviewed by their Business Development Group. Once the Business Case is deemed to meet P3 Canada standards, it is then forwarded to their Investment Group who then validates the financial assumptions within the Business Case. Once approved by both groups, a recommendation is then made to the P3 Canada Board for project approval. An overall workplan with key timelines was developed and approved by Council which was subsequently updated (milestones only) and attached as Appendix B for reference.

As a result of P3 Canada's review of the City's Business Case, three issues were identified which must be addressed by the City in order for the Business Case to comply with P3 Canada's conditions and funding eligibility. The City received a formal letter from P3 Canada on November 1, 2012, as included in Appendix A, outlining each issue with an associated rationale. This Report summarizes each issue for Council's consideration.

Once Council provides direction for each issue, staff will respond to P3 Canada accordingly. Staff will then report back to Council upon receiving P3 Canada's final decision, and prior to proceeding with Phase 2 of the Workplan attached as Appendix B.

POLICY IMPLICATIONS

The Public Works Business Plan, Innovate Now - The recommendations from this Report will assist in meeting the Public Works key goal *to be recognized as the centre of environmental and innovative excellence in Canada*. In addition, implementing the Recommendations will also assist Public Works in building on Strategic Vision Drivers as follows:

- **Communities (Services our communities connect with and trust) -**

Proceeding with the Recommendations allows the City to undertake a selection process for a long-term sustainable biosolids management strategy that services the community for a period of at least 30 years.

- **People (Skilled teams, ready for any situation) -**

Proceeding with the Recommendations allows staff to be exposed to the process of analyzing complex business decisions in consultation with external government funding agencies thereby positioning the City to secure the existing funding application as well as pursue future P3 Canada funding opportunities.

- **Process (Smart processes to match our needs) -**

Proceeding with the Recommendations allows the City to select a sustainable long-term biosolids management option through an innovative process that promotes open and transparent technology selection and a procurement strategy which allows all key decision variables to be considered simultaneously.

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○ **Finances (Sound finance management for the long haul) -**

Proceeding with the Recommendations allows the City to select a long-term biosolids management strategy through an open market procurement process that accounts for a more holistic life cycle costing strategy over that of a lowest capital price which may have higher long-term operating and maintenance costs.

RELEVANT CONSULTATION

Corporate Services Department - Staff from the Corporate Services Department are part of the Project Team and assisted in developing this Report and associated Recommendations.

ANALYSIS / RATIONALE FOR RECOMMENDATION

The issues presented in this Report result from a letter the City received from P3 Canada on November 1, 2012, as included in Appendix A, which outline three issues of concern with the City's Business Case for which the City is being asked to comply with. A fourth issue pertaining to the development of a project affordability cap is also being brought forward by staff for Council's consideration. Staff's analysis of each is summarized as follows;

1. RFP bid Submission on external sites – P3 Canada

Issue: As per the letter submitted by P3 Canada and included in Appendix A...*"PPP Canada submits that the Hamilton P3 transaction already has a level of complexity that will diminish competition from the bidding community and the City's opportunity to realize best value at the lowest cost. Adding external sites to this already complex project will cause additional challenges that are inherently related to closing or transferring privately owned land to the public sector, e.g. potential for contamination and municipal and provincial EA requirements, possible heritage and archeological restrictions, potential rezoning requirements and OMB appeals, budget and fiscal impacts on the municipality if the preferred site is to be acquired."*

Analysis: Through numerous discussions with P3 Canada representatives, it was made clear that this issue must be complied with in order for the City's Business Case to remain eligible for P3 Canada funding. Staff is of the opinion that compliance with this request would require the City to identify the Woodward Avenue Wastewater Treatment Plant ('Woodward WWTP') located at 700 Woodward Avenue, as the sole acceptable location for this project. The risk in the City accepting this condition is that all bids not proposing Woodward as the preferred site will be disqualified, limiting what could otherwise be qualified bids. It should be noted however that through the market sounding exercise undertaken when developing the Business Case as to gauge interested from qualified vendors, it was concluded that sufficient interest from the vendor community remains strong in support a competitive process should the City proceed with limiting the site to the Woodward WWTP.

2. Level of Accuracy for the Public Sector Comparator – P3 Canada

Issue: As per the letter submitted by P3 Canada...*“PPP Canada has reviewed the methodology that was used to establish the Class 4 level of estimate for the biosolids project. The challenge of refining the estimate given the range of providers and their proprietary technology is acknowledged. However prior to an investment consideration for the Hamilton facility, a cost estimate with +/- 15% level of accuracy will be required only for the facility and its treatment technology used in the Public Sector Comparator (PSC).”*

Analysis: The capital costs represented in the City’s Business Case was predicated on the work completed during the Master Plan which includes a cost estimate defined as Level 4 according to the American Association of Cost Estimators (AACE) and represents a -20% and + 30% level of accuracy typical for projects at this stage of development. The P3 Canada requirement is for cost estimating accuracy to be within +/- 15%, a condition which was communicated to the City for the first time during the review process, and formalized through their correspondence of November 1, 2012. Through subsequent discussions with P3 Canada representatives, it was recognized that although this was a new condition imposed on the project team, it was made clear that this issue must be complied with in order for the City’s Business Case to be forwarded for approval to the P3 Canada Board.

The cost to have the consulting team provide the higher level cost accuracy is estimated to be \$75,000 of which the City has \$25,000 remaining as project contingency requiring an additional \$50,000 to complete the assignment. P3 Canada has indicated they would be willing to contribute up to 25% of this cost (or \$17,500) should the cost incurred be deemed to meet their eligibility criteria, leaving a balance of \$32,500 as City cost. It is suggested however that should the City agree to undertake this additional effort, that the full \$50,000 be approved, for which sufficient funds remain in the project account 5160966910 Biosolids MP Implementation.

3. RFP Evaluation – Points Assigned to Technical vs. Financial Requirements – P3 Canada

Issue: As per the letter submitted by P3 Canada...*“PPP Canada believes that preferred construction and operating practices that demonstrate integration with the existing facilities on the Woodward site can be captured as output specifications that must meet the Technical Compliance gate. Requirements for bidders to demonstrate innovative and synergistic practices with existing operations can be incented with 25% of the potential points being assigned to the technical requirements. This will give Hamilton the ability to assign 75% of the points to the RFP bid with the lowest NPV cost per ton of processed biosolids and the financial plan with the highest quality.”*

Analysis: Considering the proposed procurement process has a technical pre-qualification phase planned for which proponents must pass prior to bidding the Request for Proposal (RFP), adjusting the weighted average for technical and financial

criteria for the RFP as proposed by P3 Canada is reasonable and staff are comfortable agreeing to this request.

4. Setting of an Affordability Cap – Staff

Issue: As documented throughout the Biosolids Master Plan, the guiding principle for the long term Biosolids Management Project is to seek an alternative biosolids management program that is more sustainable than the current practice, carries less risk and is financially affordable. As a result of regulatory changes that occurred in 2011 as well as improved biosolids processing, the current practice of land application is believed to carry less risk than when the Master Plan was completed, however logistical issues remain a concern as it relates to number of local contractors qualified to manage the volume of the City's biosolids including sufficient storage to accommodate biosolids volumes that cannot be land applied during winter and periods of wet weather. The current project however, continues to maintain the original objective of pursuing greater sustainability with less risk. Council requested that any additional cost be justified and that the project not move forward at "any cost".

Analysis: To satisfy the above concern and to ensure overall financial sustainability is achieved for the project, as well as to strengthen and bring assurance to the overall procurement process, Staff propose establishing a financial safeguard for the project by developing and including a project financial threshold referred to as an Affordability Cap. This mechanism will ensure that the project falls within the City's budgetary and financial constraints as well as provide greater clarity to the bidding community which is a fundamental concern expressed by P3 Canada.

This approach provides benefit to bidders as the intent is to advise them of the project Affordability Cap early in the procurement process. This allows bidders to compare their proposal to the Affordability Cap and thereby determine early on whether or not to invest significant resources on proposals which may not be economically viable for the City. The Affordability Cap is intended to add structure and certainty to both the City and P3 Canada as well as to the bidders during the procurement phases of the project.

In summary, the Affordability Cap was developed by calculating the cost of the current biosolids land application program inflated over the 30 year term (\$82.8 million), plus a cost representing an initial capital investment needed to make the program more sustainable over the same term. Recommended capital cost include upgrades to the existing biosolids loading and odour control facility at the Woodward WWTP, as well as an indicative cost representing sustainable biosolids storage equal to 45-60 days for periods of wet weather and winter months when biosolids cannot be applied directly to land (\$28-\$40 million). Based on this assessment, the proposed Affordability Cap equals \$111M over 30 years and is what is being suggested as the project financial threshold. Awarding the project within this threshold will provide the City the assurances of having a sustainable Biosolids program for 30 years with a stable financing model.

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ALTERNATIVES FOR CONSIDERATION:

Should Council choose to not accept P3 Canada's requirements for updates to the City's Business Case and desire to pursue alternatives the following may be considered;

- 1- Direct staff to only submit those conditions for which Council are willing to approve with the understanding that not fully complying with P3 Canada request may result in a rejection of the funding application,
- 2- Cancel P3 Canada application, continue with the current biosolids land contract which expires in 2016, and re-tender the service contract at that time to include enhanced treatment providers with a term that allows the City time to update the Biosolids Master Plan,
- 3- Continue with an independent procurement strategy similar to that of P3 Canada (a 30 year Design, Build, Finance, Operate and Maintain contract) without P3 partnership to allow for the full range of technology and service providers to respond to an RFP.

CORPORATE STRATEGIC PLAN

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Skilled, Innovative and Respectful Organization

- ◆ More innovation, greater teamwork, better client focus.
- ◆ Undertaking a P3 Canada approach to infrastructure procurement allows the City to achieve innovation in selecting appropriate technology.

Financial Sustainability

- ◆ Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative, and cost-effective manner.
- ◆ Undertaking a P3 Canada approach to infrastructure procurement allows the City to achieve innovation in selecting appropriate technology.

APPENDICES / SCHEDULES

- Appendix A: November 1, 2012 letter received from P3 Canada
Appendix B: PPP Canada Biosolids Management Project Workplan



November 1, 2012

Mr. Chris Murray
City Manager, City of Hamilton
700 Woodward Avenue
Hamilton, ON L8H 6P4

Re: Hamilton Biosolids Facility, PPP Canada Round 4 Application

Dear Mr. Murray,

As follow-up to our discussion on October 8, 2012, I would like to take this opportunity to clarify the three issues we have identified with the Hamilton Biosolids Facility business case.

PPP Canada has a multi-stage process for reviewing all applications that have been submitted for funding under the P3 Canada Fund. On September 27, 2012, John McBride, the CEO of PPP Canada, sent a letter to Dan Chauvin indicating that the Hamilton Biosolids Facility project reapplication under Round Four of the P3 Canada Fund was successfully screened in. The next stage of the review process included a detailed analysis of the P3 business case that was submitted as part of your Round Three application.

This review, which included an analysis of the technical memos released to PPP Canada in response to our August 31, 2012 email, has identified three issues that need to be resolved before moving to the investment stage.

The three issues where we require a positive resolution from Hamilton are identified below:

1. RFP bid submissions on external sites

The Hamilton procurement plan proposes that an RFP be released that will seek submissions across two technology alternatives with multiple vendor owned technology solutions. As well, the plan allows for these technologies to be proposed for the City owned Woodward site and on external sites including submissions from existing biosolids facilities in Southern Ontario.

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PPP Canada supports the need for Hamilton to develop a procurement process that establishes best value for the lowest cost per ton of processed biosolids. To achieve this goal Hamilton will consider bids from multiple vendor technologies that can meet their output specifications and be competitive under the City's affordability threshold. PPP Canada supports this approach but believes that too much complexity and a potential for delay will result if the bid submissions are not restricted to the City owned Woodward site alone.

Recent changes to the P3 business case to mitigate this concern now require that all external sites be acquired by the City at Financial Close of the P3 procurement transaction rather than at the end of the concession period. PPP Canada submits that the Hamilton P3 transaction already has a level of complexity that will diminish competition from the bidding community and the City's opportunity to realize best value at the lowest cost. Adding external sites to this already complex project will cause additional challenges that are inherently related to closing or transferring privately owned land to the public sector, e.g. potential for contamination and municipal and provincial EA requirements, possible heritage and archeological restrictions, potential rezoning requirements and OMB appeals, budget and fiscal impacts on the municipality if the preferred site is to be acquired.

RFP bid submissions from existing biosolids facilities will not align with a P3 approach and are considered an outsourcing arrangement that will not be eligible for P3 Canada Funding. Hamilton can instead contract directly with these facilities to have their biosolids processed. Rather the City should ensure the MOE approval for the Enhanced Treatment alternative is secured on the Woodward site and avoid what will be a complex matrix approach in choosing an external site and technology for the biosolids facility.

2. Level of Accuracy for the Public Sector Comparator

PPP Canada has reviewed the methodology that was used to establish the Class 4 level of estimate for the biosolids project. The challenge of refining the estimate given the range of providers and their proprietary technology is acknowledged. However prior to an investment consideration for the Hamilton facility, a cost estimate with +/- 15% level of accuracy will be required only for the facility and its treatment technology used in the Public Sector Comparator (PSC).

Embedded in the P3 business case is the baseline cost of the facility and the treatment technology that Hamilton would use, should it proceed with a traditional form of procurement to deliver the project such as a Design Bid Build. This cost analysis is called a PSC. When the PSC is higher than the costs of the preferred P3 delivery approach, the difference is called Value for Money (VFM). Positive VFM is a requirement for an investment from the P3 Canada Fund and must be accurately measured and reported to the PPP Canada Board of Directors and the Minister of Finance.

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PPP Canada's experience to date demonstrates that without a +/- 15% level of accuracy in the cost estimate, RFP bid submissions can miss the business case estimates and affordability thresholds resulting in under scoped projects and cancelled procurement processes. As announcements of P3 Canada Fund investments, by the Minister of Finance occur before the P3 procurement process is concluded, supplemental funding for under scoped projects will not be supported should this occur.

PPP Canada wants to continue to work with Hamilton staff to ensure positive outcomes for the biosolids facility such as a measured P3 Canada Fund investment with positive Value for Money, a successful procurement process, and a partnership that is sustainable over its concession period. These outcomes are directly linked to the accuracy of the cost estimate and business case and cannot be realized by an imprecise cost estimate or P3 Canada limiting its investment exposure to an affordability cap.

PPP Canada has considerable experience in working with consultants and reviewing Statements of Work (SOW) for consultancy services. A standing offer list with preferred rates across five different categories of P3 consultancy services has been negotiated by the corporation and used by municipalities over the last two years across the country. This Standing Offer list is available to the City and PPP Canada would like to review the methodology, the SOW, and proposals that are submitted for the PSC cost estimate before the work is undertaken.

3. RFP Evaluation – Points Assigned to Technical vs. Financial Requirements

PPP Canada does not support the allocation of 50% of the potential points to the Technical Quality requirements of the short listed bid submissions at the RFP stage. Our understanding of why Hamilton has proposed this level of weighting for the Technical Quality Requirements is as follows:

- A. Hamilton wants to ensure that sufficient detail is provided on the design and method under which the new biosolids facility integrates onto the Woodward site.
- B. The City wants to ensure that they receive operating plans that demonstrate possible innovations and synergies with existing City operations.

These requirements are in addition to the RFQ requirements that will ensure bidders have a track record and experience with delivering and operating biosolids facilities. According to the P3 business case, technologies as well must be proven and meet the City's output specifications before they are "Technically Compliant" and can be included in a proposal at the RFP stage.

PPP Canada believes that preferred construction and operating practices that demonstrate integration with the existing facilities on the Woodward site can be captured as output specifications that must meet the Technical Compliance gate. Requirements for bidders to demonstrate innovative and synergistic practices with existing operations can be incented with 25% of the potential points being assigned to the technical requirements. This will give Hamilton the ability to assign 75% of the points to the RFP bid with the lowest NPV cost per ton of processed biosolids and the financial plan with the highest quality.

PPP Canada remains optimistic about Hamilton's process to build a successful biosolids facility using a P3 approach. However, we require that the City amend the procurement process and commission the cost estimate referenced above before the investment stage review of the business case can begin. In order to maximize the opportunity for your application to be considered for an investment by the Board, a positive response for undertaking these activities will be required by November 22, 2012.

If you have any questions or require further clarification, please do not hesitate to contact me at (613) 992-5577 or via email at carol.beaulieu@p3canada.ca.

Sincerely,



Carol Beaulieu
Vice President, Project Development

Business Case Process Flow

