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Hamilton Water Division**

Providing services that bring our City to life!

**Biosolids Management Project – PPP Canada
Funding (PW11098e/FCS11112e) - (City Wide)**

Presentation to General Issues Committee

January 18, 2017



- Community
- People
- Processes
- Finance



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Objectives

Purpose of today's presentation to GIC is to provide details on:

1. Overview of Biosolids Management Program
2. PPP Canada General Overview and Project Delivery Model
3. Overview of the Procurement Process and RFP Evaluation Process
4. Biosolids Processing Solution
5. Environmental, Social & Economic Benefits
6. Financial Submission and Contract Securities
7. Next Steps
8. Obtain approval from Council on recommendations as per report "*Biosolids Management Project – PPP Canada Funding (PW11098e/FCS11112e) - (City Wide)*".



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BIOSOLIDS MANAGEMENT PROGRAM GENERAL OVERVIEW

What are Biosolids?

- § Biosolids is an organic residual from wastewater treatment with soil-amending attributes;
 - Nutrient value (N and P);
 - ~ 25% solids; and
 - ~80g /person/day.

- § Parameters of concern:
 - 11 Metals from industrial and domestic sources;
 - Trace pathogens, pharmaceuticals; and
 - Odours.

- § Must be managed.





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Past and Current Practices

- § City Incinerated to 1996, using older Multiple Hearth technology, until significant capital was required for upgrades.
- § City been practicing Land Application since 1996:
 - Biosolids are dewatered at plant;
 - Contract Land Application (Terratec); and
 - Storage at Power Grow Systems (Niagara Region).
- § Landfill Contingency:
 - Seasonal/Climatic Limitations with Land Application.
- § \$3.5 M annual cost on average.





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Biosolids Management - Existing Program

Current “Class B” Land Application Program

§ Positives:

- Goal of beneficial reuse to agricultural lands remains the goal;
- Biosolids quality improvement;
- Regulatory changes permit higher application rate (more tons / acres); and
- Low cost solution.

§ Negatives:

- Storage risk and potential for Class B biosolids to go to landfill or ‘non-beneficial’ end-use;
- Limited contractors available to manage land application program; and
- City indirectly retains secondary market risk.

§ Current Operations:

- Land application program continues without storage and biosolids are applied to agricultural land in approved;
- During inclement weather and offseason, stabilized Class B biosolids are sent to landfill or mine reclamation;
- Since January of 2014 approximately 51% of the 90,000 tonnes processed at Woodward has gone to landfill which is inconsistent with best environmental practice and the spirit of the 2007 Master Plan; and
- Current interim contract closed with 3 bids and only 1 vendor passed the minimum qualification threshold.

Summary of Alternatives

§ Alternatives can be classified into three main categories as follows:

1. Land Application:

- Low capital (\$0 - \$15M), high O&M cost.
- Current method used by City.
- Concerns about long-term sustainability.



2. Enhanced Treatment:

- Medium capital (\$20-\$55M), lower O&M.
- Commercial risks due to sale of end product – can be transferred to private sector.

3. Thermal Reduction (Incineration):

- High capital cost (\$35-\$80M), lower O&M.
- Can generate revenues from electricity for sale to City's wastewater treatment or for sale under FiT program (eligibility a concern).
- Was previously recommended as City's preferred option (Biosolids Master Plan), but this plan is over 5 years old now and didn't consider ability to transfer commercial risks under P3.
- In the 2012 Water, Wastewater and Storm Rate budget, \$73 Million was carried for 2015-2021.



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Program Drivers – Master Plan

- § A Biosolids Master Plan was completed in August 2007 with Thermal Reduction identified as the preferred strategy. The Drivers for the Master Plan were as follows:
1. Increased Regulatory Requirements governing the practice of Land Application came into effect (as a result of Walkerton):
 - Regulation 347, Nutrient Management Act, Clean Water Act, Source Water Protection Act.
 2. Logistics:
 - Storage needs, land restrictions; and
 - Rising costs, lack of land application contractors.
 3. Emerging Concerns such as: odour, pharmaceuticals, metals, willing farmers – (volunteers bases), Not In My Back Yard (NIMBY).
 4. Future Growth (increased Volumes):
 - Places To Grow, GRIDS, WWMP;
 - Current 30,000 wet Tonnes; and
 - Future 60,000 wet Tonnes.

Biosolids Management Project – Key Milestones

P3 Canada Project Activities

Biosolids Master Plan

Risk Mitigation to Address:

- Seasonal storage
- Legislation (Nutrient Management Act)
- Poor Biosolids quality
- Volunteer farm base
- Increased volumes (growth)

Conclusion:

- Thermal reduction is preferred solution

Environmental Assessment

Risk Mitigation to address:

- Provincial Approval
- Minister Part II “Bump-up”
- Human Health Impact Study completed

Liberty Energy

Unsolicited Proposal:

- Liberty Energy proposal received August 2009
- Peer review completed in 2010
- Second peer review completed in 2011

Conclusion:

- P3 Canada funding announced - City elects to pursue this option (P3 Canada style procurement to achieve risk transfer and increase value for money potential)

P3 Canada Submission:

- Program expanded to include Enhanced Treatment (Unique feature of this procurement)
- DBFOM model selected to let market dictate appropriate technology
- Program screened in for P3 funding in November 2011
- Business case approved by P3 Canada in May 2012
- Conditional Financing Agreement approved in December 2013

Biosolids Management Project Activities:

- Transaction Advisors retained September 2014
- MP Addendum (to include ET) issued Feb 27, 2015 for 30 day review
- RFQ to shortlist of Proponents completed April 2015
- RFP issued to shortlisted Proponents in February 2016

2005

2007

2009

2011

Today



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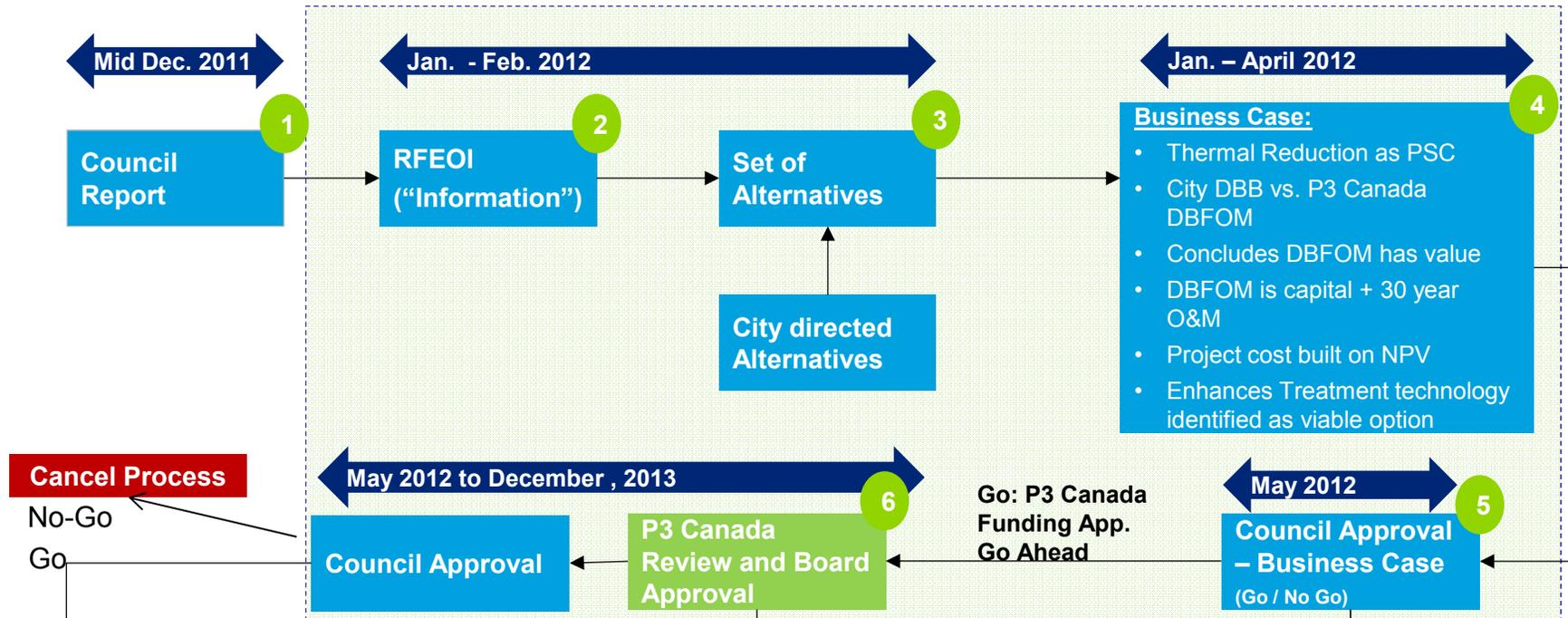
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Schedule Highlights – Work Completed To Date

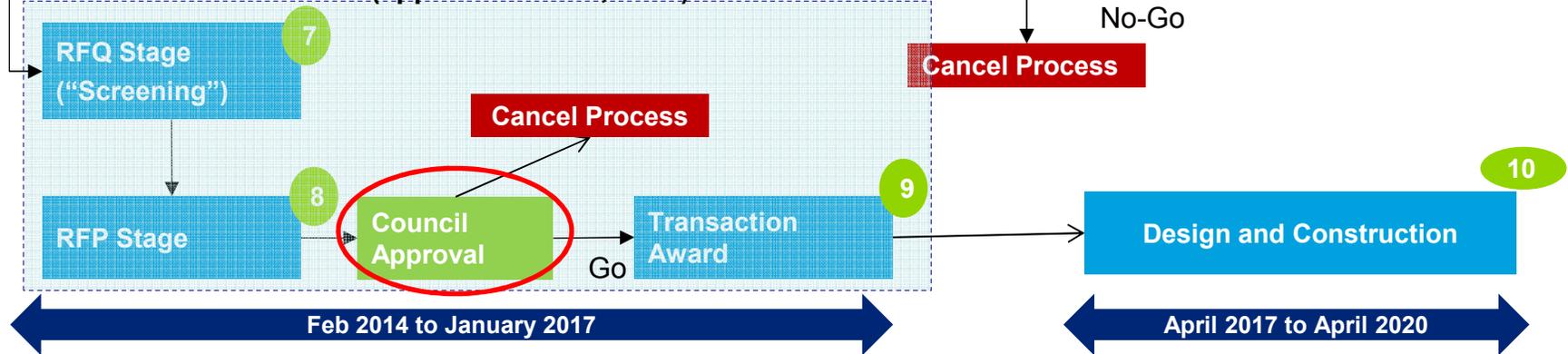
Item	Date
RFQ Issued (7 submissions received)	30-Apr-15
Notification of Short Listed Proponents (3 Proponents)	18-Dec-15
RFP Issuance (Version 1.0)	04-Feb-16
First round of Commercially Confidential Meetings on the RFP & Project Agreement	March 22, 2016 – March 24, 2016
Date of issuance of revised Project Agreement (RFP Version 2.0)	14-Apr-16
Second round of Commercially Confidential Meetings on the Project Agreement	May 24, 2016 – June 3, 2016
Council Meeting (In-Camera)	22-Jun-16
Date of issuance of revised Project Agreement (RFP Version 3.0)	30-Jun-16
Ad Hoc Commercially Confidential Meetings	May 4th, July 21st, August 9-10th, September 13th and October 5th, 2016
Date of issuance of revised Project Agreement (RFP Version 4.0)	19-Aug-16
RFP Technical Submission Deadline	07-Oct-16
RFP Financial Submission Deadline	15-Nov-16
Steering Committee Approval of 1 st Ranked Proponent	Nov 28, 2016

Biosolids Management Project – Process Overview

Phase 1: Business Case Phase



Phase 2: Transaction Phase (approval Feb 19, 2014)





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PPP CANADA GENERAL OVERVIEW & PROJECT DELIVERY MODEL



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PPP Canada Opportunity

- § The City's key Objectives are to:
 - Obtain a long-term (30 year) Biosolids Management Program that provides cost and performance certainty, transfers appropriate risk; and
 - Ensuring environmental and social sustainability.
- § Additional benefits include:
 - The PPP structure provides a contractual structure ('DBFOM') that can lock-in long term costs while maintaining performance, with City risks that can be transferred and anchored by private capital invested in the project; and
 - PPP Funding of up to 25% of eligible capital costs, reducing cost to the City in meeting these objectives.

PPP Canada Process Overview



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Project Screening Phase

- Project Screening Phase
 - Public Infrastructure, Eligible Applicant & Category
- Business Case Development Phase
 - Project description & Need
 - Market Analysis
 - Technology Alternatives
 - Triple Bottom Line Analysis
 - Project Delivery Models (DBFOM)
 - Risk Analysis and Quantification
 - Value for Money Analysis
 - Recommended Procurement Approach and Strategy
 - Market Sounding and Project Implementation Plan
 - Funding Request

Business Case Development Phase

Condition Financial Agreement (CFA)

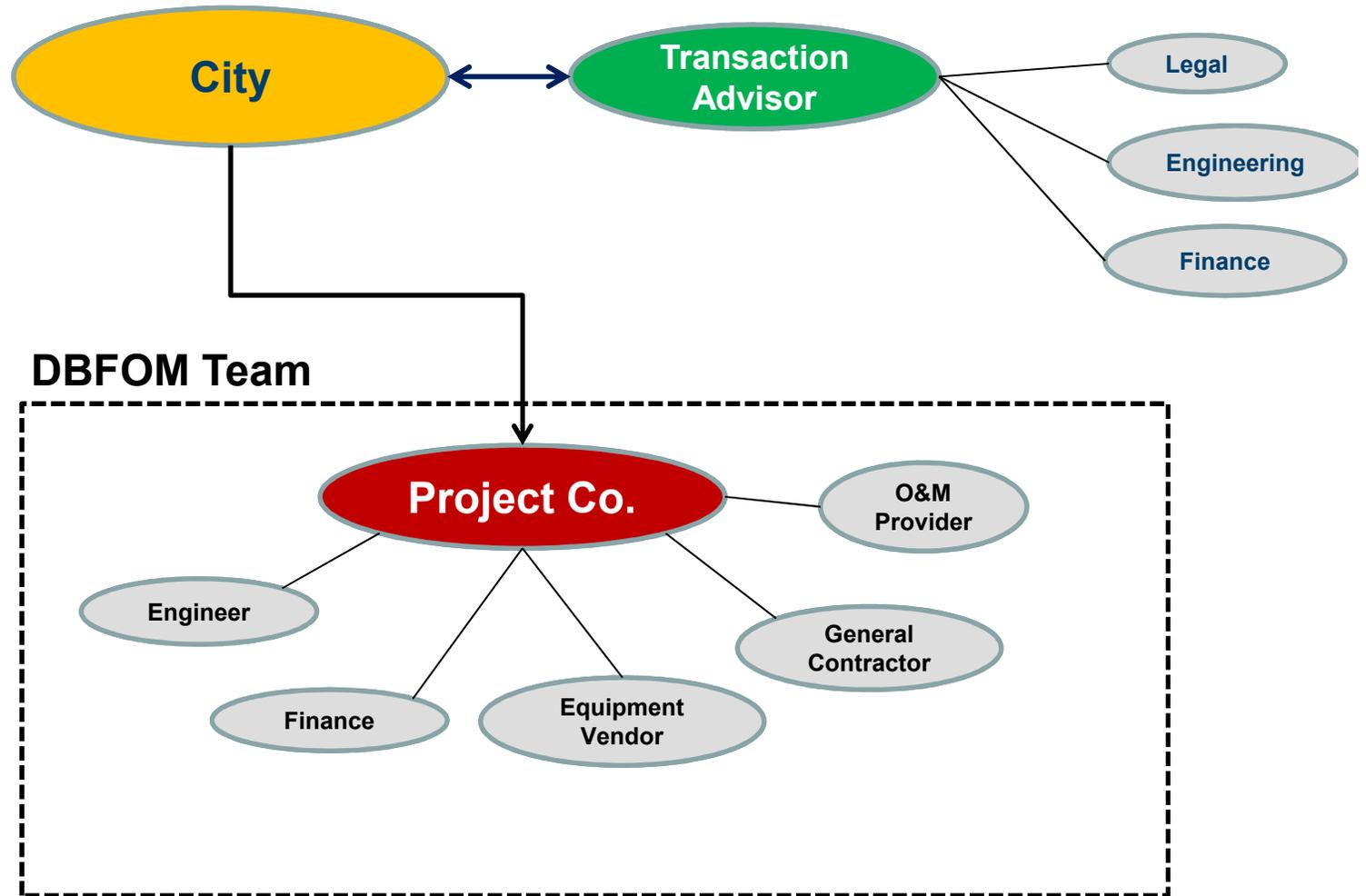
- Conditional Financial Agreement (CFA)
 - Engagement with PPP during the RFQ & RFP/PA development & procurement phases

Financial Agreement

- Financial Agreement (FA)
 - FA obligations (management committee, reporting criteria, payment etc.)

Project Delivery Model Overview

Design-Build-Finance-Operate-Maintain (DBFOM)





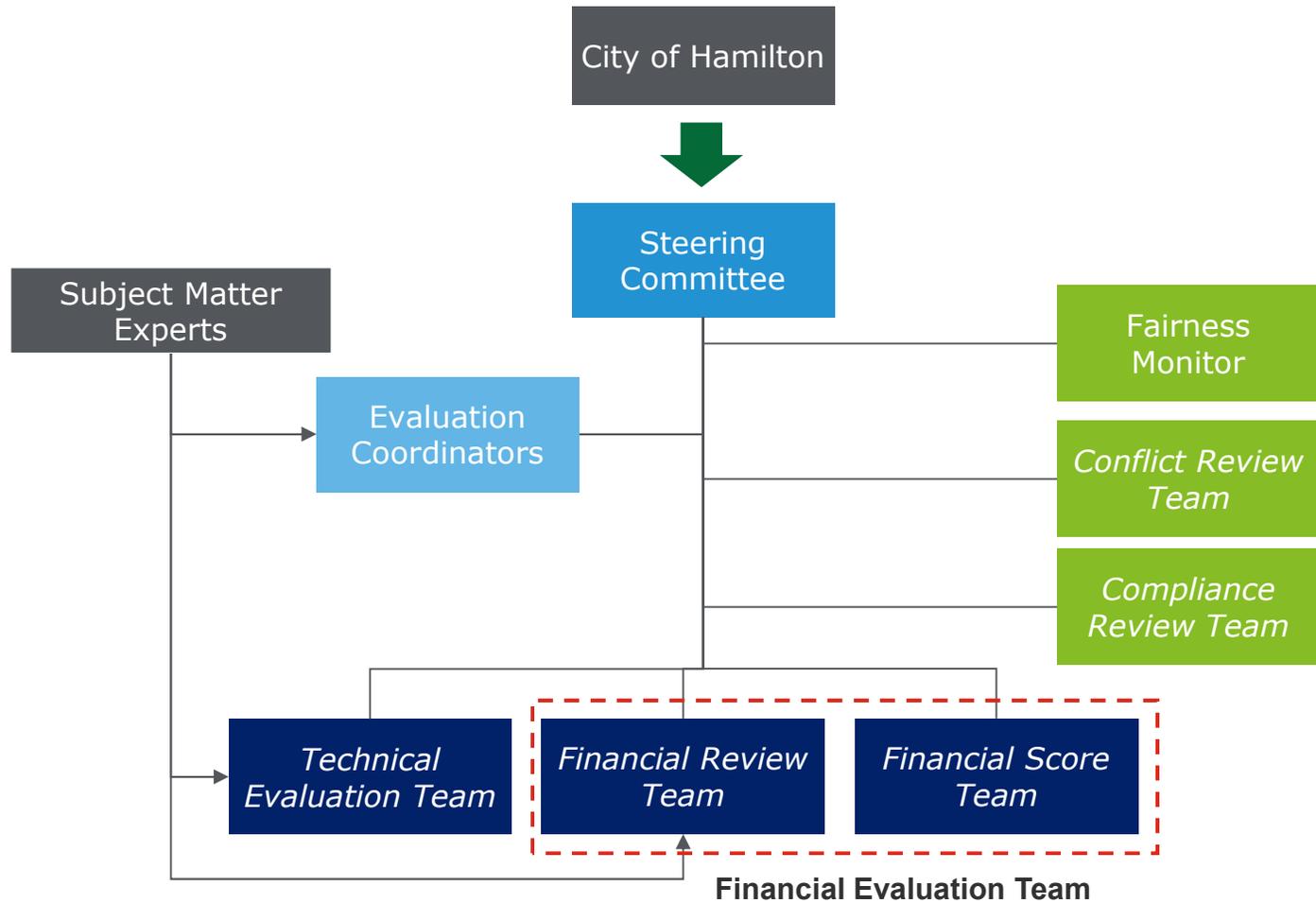
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OVERVIEW OF PROCUREMENT PROCESS

RFQ/RFP Evaluation Governance



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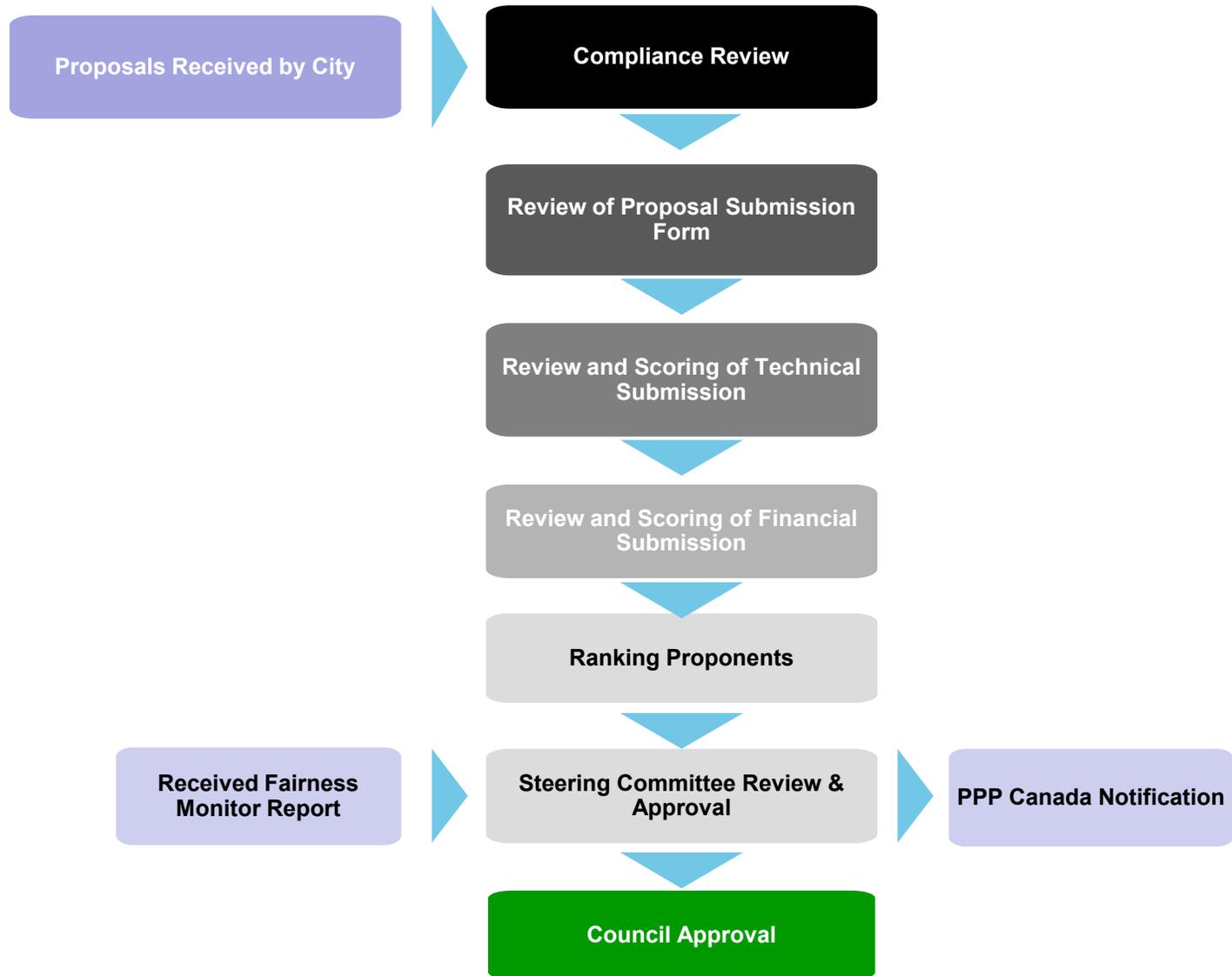


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Proposal Evaluation Process Flow



Procurement Highlights



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RFQ Phase

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RFQ Phase

- Technology driven RFQ to account for a financially driven RFP
- Development of a project term sheet
- Hold Commercial Confidential Meetings (CCMs)
- Respond to Requests for Information
- Issue Addenda's and revisions to the RFQ
- Development of an RFQ Evaluation Framework & training
- Evaluation of submissions (includes compliance & confidentiality reviews, Technical and Financial evaluations)
- Present results to the Steering Committee for approval
- Shortlist Prequalified Applicants

RFP/PA Phase

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RFP/PA Phase

- Development of the RFP and PA
- Hold Commercial Confidential Meetings (CCMs)
- Respond to Requests for Information
- Hold Applicant Site Visits
- Issue Addenda's and revisions to the RFP & PA
- Development of an RFP Evaluation Framework & training
- Evaluation of submissions (includes compliance & confidentiality reviews, Technical and Financial evaluations)
- Present results to the Steering Committee for approval
- Identify 1st Ranked Negotiations Proponent
- Present recommendations to Council for approval
- Complete closing process to reach Commercial and Financial close

Project DBFOM Implementation Phase



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RFQ Process

- § RFQ Issued in late April 2015
 - Interest in market was high – 100+ participants at bidders meeting and 8 formal teams identified through CCM's.
- § RFQ Submissions in September 2015 with evaluations completed in December 2015. The short list was as follows:

Biosolids Process Partners (BPP)	Harbour City Solutions (HCS)	Hamilton Biosolids Partners (HBP)
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- § Each RFQ respondent was evaluated based on its financial capacity to undertake its respective role for the Project, and its track record with developing, financing, and operating biosolids or water/wastewater projects similar in size and scope to the Project.



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Request for Proposals

- § In contrast to the Request for Qualifications, the RFP/PA is distributed only to the three Prequalified Parties that have been prequalified through the RFQ (“Proponents”), which was released February 4, 2016.
- § The goal of the RFP is to select a “Preferred Proponent” who will enter into the Project Agreement with the City.
- § The RFP focuses on each Proponent’s project-specific plans, financing solution and price.
- § RFP Documents:

Main body of RFP	
Schedule 1	RFP Data Sheet
Schedule 2	Design Consultation Process
Schedule 3	Submission Requirements and Evaluation Criteria Part 1 – Proposal Format and Evaluation Requirements Part 2 – Technical Submission Requirements Part 3 – Financial Submission Requirements
Schedule 4	Proposal Submission Form
Schedule 5	Proponent Team Member Declaration
Schedule 6	Price Submission Form
Schedule 7	Proposal Security
Schedule 8	Letter of Credit
Schedule 9	Affordability and Re-scoping
Schedule 10	Form of Project Agreement *

* Refer to Appendix B of Council Report for an overview of the Project Agreement



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RFP EVALUATION PROCESS



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Overview of RFP Process

- § Versions of the RFP:
 - RFP Ver. 1 issued February 4, 2016;
 - RFP Ver. 2 issued April 14, 2016;
 - RFP Ver. 3 issued June 30, 2016; and
 - RFP Ver. 4 issued August 19, 2016
- § Confidential Commercial Meetings (CCMs) - held two full rounds:
 - March 22-24, 2016; and
 - May 24-June 3, 2016
- § Ad Hoc CCMs - held additional topic specific CCMs as required:
 - May 4, 2016;
 - July 21, 2016;
 - August 9-10, 2016;
 - September 13, 2016; and
 - October 5, 2016
- § Submission Deadlines:
 - Technical: October 7, 2016; and
 - Financial: November 15, 2016
- § Proposals received:
 - 3



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Fairness Monitor Attestation

§ The Fairness Monitor, P1 Consulting Inc., has provided attestation that:

“As the Fairness Monitor following the evaluation consensus stage of the Biosolids RFP, we certify that, at this point in time, in our opinion, the evaluation process was conducted in a fair, open and transparent manner, consistent with City of Hamilton procurement policy, Evaluation Framework and with the process described in the RFP.”



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RFP Evaluations – Overview

§ Evaluation of Proposals:

Criteria	Score (max)	Weight	Total
1. Financial			
Proposal Price	1000 [A]	75% [B]	[C] = [A x B]
2. Technical			
Technical Score	1000 [D]	25% [E]	[F] = [D x E]
Total Score			[C] + [F]

§ Proponent with the highest Total Score is identified as the First Ranked Negotiations Proponent.



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RFP Evaluations – Technical Evaluations

§ Technical Evaluation Criteria:

1. Technical Pass / Fail Categories
 - Compliance with the Proponent's Biosolids Processing Solution as submitted in response to the RFQ.
 - Design Plan.
 - Construction Management Plan.
 - Operations and Maintenance Plan.
 - Annual Facility Availability.
2. Technical Rated Categories
 - Redundancy Provisions.
 - Description of Annual Feedstock Management; and
 - Description of Expected Annual Planned Maintenance Activities
 - Reliability Provisions.
 - Beneficial Product, By-Product, Process Additive and Feedstock Diversion Management.

RFP Evaluations – Technical Evaluations



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§ Technical Evaluation Score:

- Each Technical Submission that meets the “pass” thresholds for Technical Pass / Fail Categories will be scored using the criteria in the Technical Rated Categories.
- The “Total Ranked Score of Technical Submission for Technical Rated Categories” will be evaluated such that the Proponent with the highest “Total Weighted Score of Technical Submission for Technical Rated Categories” shall be awarded the maximum points available for the Technical Submission (1000 points), as per the following formula:

$$\text{Total Ranked Score of Technical Submission of the Technical Rated Categories} = 1000 \times \frac{\text{Total Weighted Score of Technical Submission for Technical Rated Categories}}{\text{Total Weighted Score of Technical Submission for Technical Rated Categories with the highest score}}$$

- The “Technical Score” shall be determined by multiplying the “Total Ranked Score of Technical Submission for Technical Rated Categories” by 25%.

RFP Evaluations – Financial Evaluations

§ Financial Evaluation Criteria Categories:

1. Financial Summary - outlined major elements of their Financial Submission:
 - Proposal Price, Affordability price, Substantial Completion Payment, and Monthly Payments; and
 - Total Capitalized Costs with breakdown.

2. Financing Plan - included:
 - Third Party Financing requirements;
 - Proposed financing structure: Debt and Equity;
 - Amount and timing of investment;
 - Risk assessment on achieving Financial Close; and
 - Approvals and parental guarantees / performance security.



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RFP Evaluations – Financial Evaluations cont'd

§ Financial Evaluation Criteria Categories: cont'd

3. Affordability Review – included:
 - Reviewed by the Financial Scoring Team;
 - Each bid is reviewed for Affordability and placed in Affordability Bands; and
 - Proponents in the lowest Affordability Band move onto Step 4.

4. Determine Proposal Price Score – included:
 - Proponent with the lowest Proposal Price will be awarded the maximum points for Financial Submission = 1,000.

Calculation of Proposal Price Score:	$1,000 * (\text{Lowest Proposal Price} / \text{Proponent Proposal Price})$
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Affordability Review



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AFFORDABILITY BANDS	Affordability Price Range (Millions)		HCS	HBP	BPP
	Low	High			
Affordability Band 1	\$0	\$109M	\$106.5M	-	-
Affordability Band 2	\$109M + 1	\$114M			
Affordability Band 3	\$114M +1	\$119M			
Affordability Band 4	\$119M+ 1	\$124M			
Affordability Band 5	\$124M + 1	\$129M			
Affordability Band 6	\$129M +1	\$134M			
Affordability Band 7	\$134M + 1	\$139M			
Outside of Affordability Bands	\$139M +1				
Moving forward to Proposal Price Score (Yes or No)			YES	NO	NO

§ As to incentivize lowest bid price, the RFP was structured whereby only those Financial Submission(s) in the lowest Affordability Band will have their Proposal Price scored.



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HARBOUR CITY SOLUTIONS (HCS) BIOSOLIDS PROCESSING SOLUTION



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Harbour City Solution

§ Overview of Team and Technology:

Proponent	Technology	Product/ By-Product	End Use	Developer	Design- Build Contractor	Design	Construction	OMR
Harbour City Solutions (HCS)	Dryer - Andritz (Direct) Rotary Drum Dryer	Product - Terrapearl Pellets (92-94% dry)	Horticulture, fuel, remediation and reclamation	<ul style="list-style-type: none"> • Synagro • Bird Capital • Maple Reinders 	<ul style="list-style-type: none"> • Maple • Bird 	<ul style="list-style-type: none"> • Andritz • Cole Engineering 	<ul style="list-style-type: none"> • Maple • Bird 	<ul style="list-style-type: none"> • Aim • Synagro



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Woodward Site



Woodward Site



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Architectural Renderings

§ The following is a preliminary design of the architectural rendering to be further development by HCS during the Design Phase:



EXTERIOR VIEW

Architectural Renderings

- § The following is a preliminary design of the architectural rendering to be further development by HCS during the Design Phase:



SOUTHEAST AERIAL VIEW

Typical Interior View



Dryer Drum

Elevation View



Thermal Dryer Process Overview



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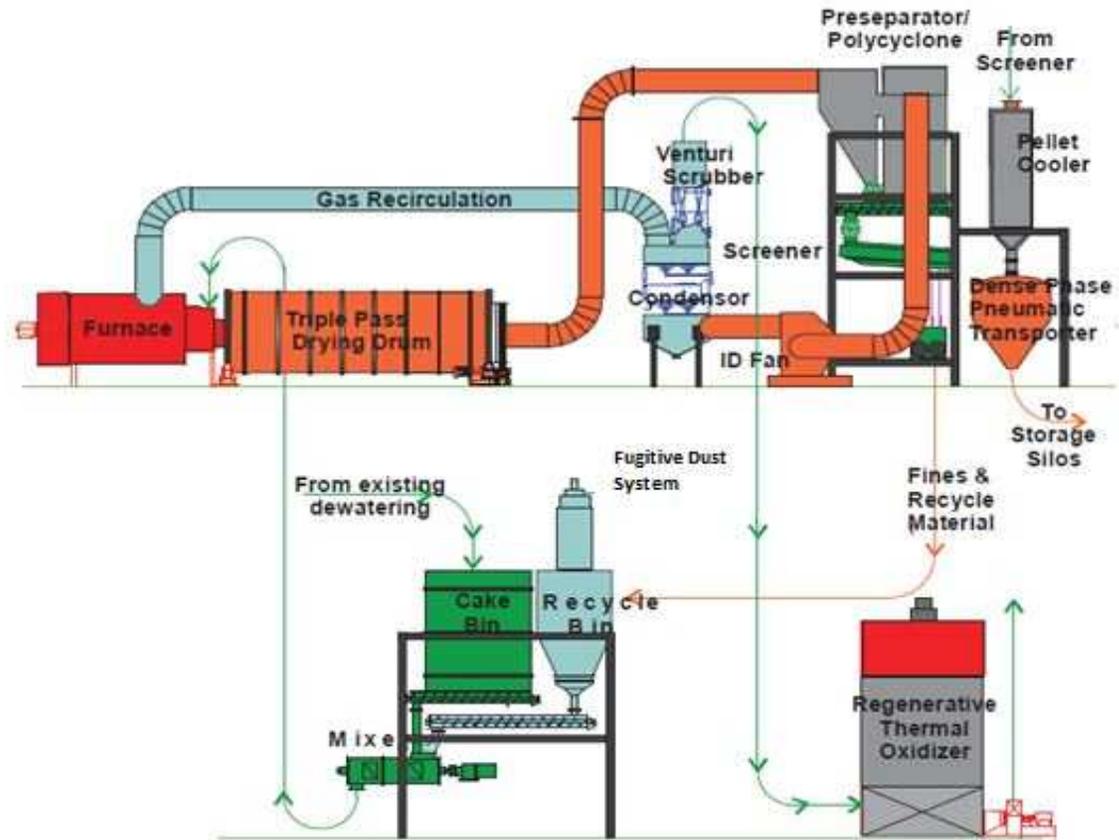


FIGURE 1.1-1: OVERALL SYSTEM DIAGRAM

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A Sample of HCS's Biosolids Expertise

§ During the RFQ process, HCS and Synagro were evaluated to demonstrate a track-record and expertise to meet the requirements of the Project – a sample of this expertise is provided below:

Philadelphia, PA	Two Drying Trains ~ 220,000 wt/a
Sacramento, CA	Single Drying Train ~ 36,000 wt/a
Pinellas County, FL	Single Drying Train ~ 32,000 wt/a
Baltimore Patapsco, MD	Two Drying Trains ~ 20,000 wt/a
Baltimore Back-River, MD	Three Drying Trains ~ 20,000 wt/a
Honolulu, HI	Single Drying Train ~ 10,000 wt/a

Note: wt/a = wet tonnes per annum. City's facility will be designed for 60,000 wt/a



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Product Quality

- § Generates a beneficial product.
- § Product will be sold as Fertilizer regulated under the Canadian Food Inspection Agency (CFIA).
- § Must meet Fertilizer Act (FA) criteria:
 - Safety with respect to human, plant and animal health and the environment;
 - Have value for the intended purpose; and
 - Proper labeling.
- § Product name – Terrapearl.
- § Product Quality:
 - 93% dry;
 - Chemical profile – N: 4.3%, P: 2.7%, and K: 0.2%; and.
 - Organic Matter.



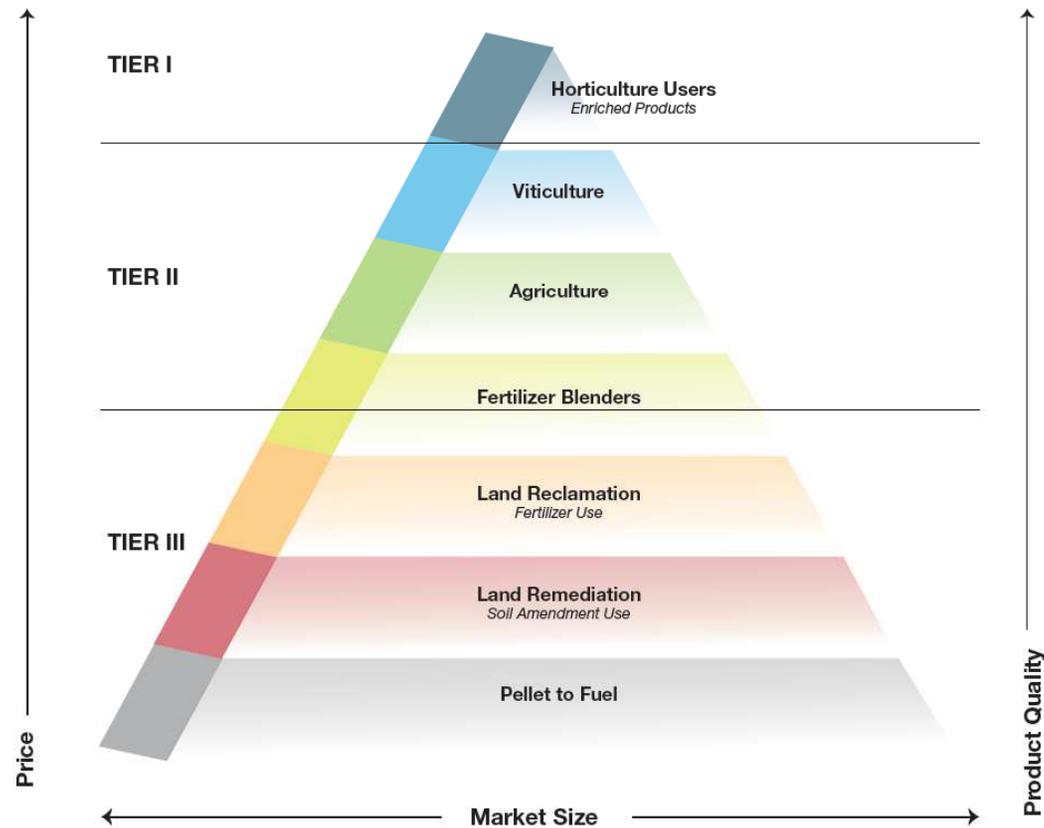
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Marketing Plan

§ Synagro is the subcontractor responsible for operations and maintenance and has sub-contracted marketing to AIM to leverage AIM's local presence in the execution of the Multi-Tier Marketing Strategy.





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Marketing Plan

§ 5 year marketing Plan

TERRAPEARL PROJECTED ANNUAL VOLUMES (IN TONNES) PER MARKET SECTOR - BENEFICIAL PRODUCT BY HCS					
SECTOR/ TIMELINE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Bagged Retail	120	130	150	340	360
Top Spread and Landscapers	120	260	450	680	900
Fertilizer Blenders	600	650	750	850	900
Viticulture	600	650	750	850	900
Cash Croppers	4,800	5,200	6,000	6,800	7,200
Soil Remediation and Land Reclamation	2,160	2,210	2,400	2,380	2,340
Fuel Use	3,600	3,900	4,500	5,100	5,400
Total	12,000	13,000	15,000	17,000	18,000



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ENVIRONMENT, SOCIAL & ECONOMICAL BENEFITS



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Environmental Benefits

§ Enhancements over current Biosolids Program:

1. Thermal Drying reduces biosolids volume by approximately 75% resulting in:
 - 40,000 WT of biosolids is equivalent to 10,430 tonnes of Product.
 - Lowers truck traffic versus current land application program
 - 6 truck loads/week versus 20 truck loads/week with current program.
 - Reduces land application handling.
2. Thermal Drying produces a low odour, pathogen-free product with uniform fertilizer characteristics.

§ Maintains environmental benefits of current Biosolids Program by:

- Protecting water quality by regulating agronomic plant uptake of nutrients, unlike chemical fertilizers.
- Improving soil health and crop productivity when used in agriculture, due to organic matter returned to the soil.



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Environmental Benefits cont'd

Mitigating Impacts from Emissions

- § The City's Woodward Ave WWTP is governed by a site-wide air, odour and noise emissions as issued by the MOECC through an Environmental Compliance Approval ("ECA").
- § As required in the Project Agreement, HCS will be required to obtain their own ECA from the MOECC, which must meet compliance with the established site air, odour and noise limits. HCS will then be required to comply with the terms of the ECA.
- § The HCS design has the following features to ensure that any emission impacts will be mitigated:
 - A thermal dryer with exhaust process gases to the atmosphere through a stack, and is equipped with a high efficiency wet scrubber and a regenerative thermal oxidizer which controls air emissions and odours to well below any provincial standard;
 - An odour scrubber is included to further eliminate this impact; and
 - Equipment is located indoors to mitigate noise impacts.
- § The Facility will also reduce truck traffic into and from the site, further reducing air emissions, odour and noise impacts to the community.

Social Benefits

- § Recycling and beneficial use fits within the City's expressed goals and values.
- § Social acceptance of biosolid Product & end-use:
 - Product resembles commercial fertilizers, nutrient value, odour and pathogen reduction.
- § Health and Safety of Public:
 - Less trucks on the road.
- § Environmental benefits have trickle down social benefits through health and well-being improvements (reduced odours, noise, truck emissions).
- § Beneficial Product use helps lower operating cost to local family farmers.
- § Eliminates seasonal dewatered Biosolids off-site storage to be sited in the user communities.
- § Visual Appearance:
 - New Biosolid's Processing Facility.
- § City's profile improves overall as a leader in Municipal Biosolids Management and Resource Recovery:
 - Generates electricity and recovers heat from Biogas cogeneration;
 - Purification of Biogas to grid; and
 - Fertilizer Product from Biosolids.



Class 'B'
Biosolids



Product



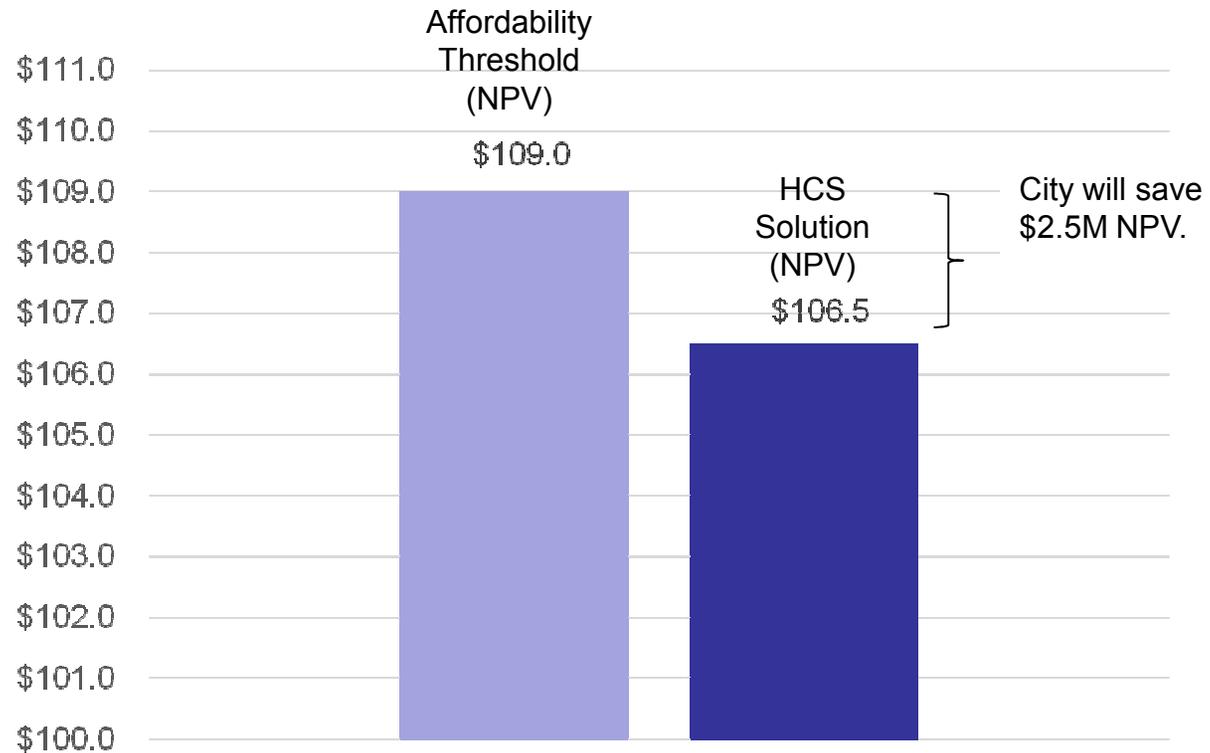
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Economic Benefits

- § Provides greater cost certainty over the 30-year term,
- § Greater transfer of risk to the private sector,
- § Enhanced Product with greater market diversity,
- § The City established an Affordability Threshold of \$109M (NPV, net of HST) based on its current practice of land application,
- § A comparison of Costs to the City is made based on the City's Affordability Threshold:





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HARBOUR CITY SOLUTIONS (HCS) FINANCIAL SUBMISSION



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Snap Shot of Payments During Operations

§ Payments during first 5 years of Operations:

<i>(Amounts in \$M)</i>	2020*	2021	2022	2023	2024
Capital Payments	\$1.72M	\$2.57M	\$2.57M	\$2.57M	\$2.57M
OMR Payments	\$1.65M	\$2.52M	\$2.57M	\$2.62M	\$2.67M
Total Operating Period Payments (To HCS)	\$3.37M	\$5.09M	\$5.14M	\$5.19M	\$5.24M
Estimated Utility (City Direct Payments)	\$0.78M	\$1.20M	\$1.23M	\$1.26M	\$1.31M
Total City Annual Payments	\$4.15M	\$6.29M	\$6.37M	\$6.45M	\$6.54M

*Note: *2020 is year of substantial completion, therefore costs reflects a partial year of Operations*



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Implications to the City Budget

- § The City had developed a Capital and Operating Budget based on cost profiles using the \$109M NPV Affordability Threshold.
- § Comparison to approved 2017 Rates Budget:

Item	Budget	HCS Financial Submission	Difference
City Share of Substantial Completion Payment	\$19.5M	\$13.0M	+\$6.5M
Costs to City During Operations (30 Year Period) (Nominal) ^[1]			
Total Capital Payments	\$73.2M	\$77.2M	-\$4.0M
Total OMR Payments	\$161.6M ^[2]	\$100.2M	+\$61.4M
Total OMR Payments	\$234.8M	\$177.4M	+\$57.4M
Utilities' Costs to the City ^[3]	-	\$55.7M	-\$55.7M
Total Costs to City	\$234.8M	\$233.1M	+\$1.7M

Notes:

[1] The City's current budget is forecasted up to 2026 only. However, the cost comparison is shown for the full 30 year operating term of the Project.

[2] Includes cost of Utilities.

[3] Refer to Slide 51 for details.



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Implications to the City Budget cont'd

- § Costs for electricity and natural gas are being managed on a site-wide basis and paid for within the City's utilities' budget (HCS assumes consumption efficiency risk).
 - Consumption will vary depending upon the amount of tonnage processed and is estimated to be \$55.7M over the 30-year operating period.
 - The savings from the Total Operating Period Payments of \$57.4M can be applied to effectively manage these costs as part of the City's annual utilities budgeting process.
- § The savings from the City Share of the Substantial Completion Payment of \$6.5M is recommended to be applied towards the Project's contingency during the construction period. Refer to Recommendation g) ii.

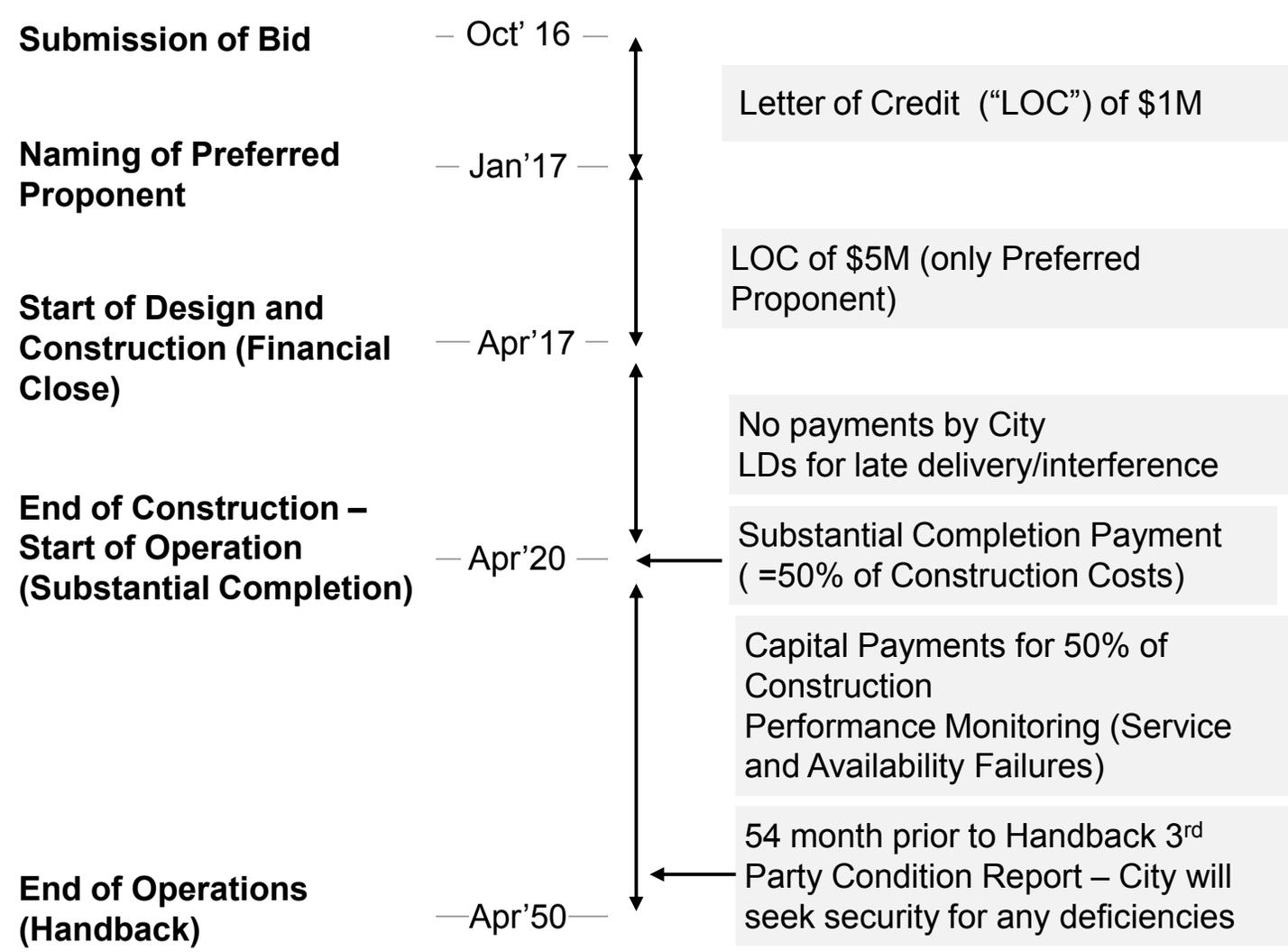


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Summary of Security to City





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Payment Performance - Summary

- § Project is structured as a DBFOM, 50% of the capital costs are to be repaid to HCS by the City over the 30-year operating term.
- § The City's security during the operations period are the monthly payments outstanding, which includes the repayment of capital outstanding.
- § The Project Agreement applies a Payment Mechanism during the 30-year operating period of the Project through which monthly and annual deductions are applied to HCS payments by the City for poor performance (Availability and Service Failure deductions).
 - **Service Failures:** Assessed on a monthly basis with deductions applied to HCS's monthly payment. There are 38 Service Failure Performance Indicators in total, examples include;
 - Disposal of Feedstock or Product in landfill = \$30K each event
 - Processing of external Feedstock = \$40K each event.
 - Late Monthly/Annual Reports = \$1K, plus \$400 each day thereafter
 - Compliance with ECA = \$1K, plus \$300 per week thereafter, plus any Ministry imposed penalties
 - **Availability Failures:** Deductions will be applied should facility availability be less than 90% annually as described in the next slide.



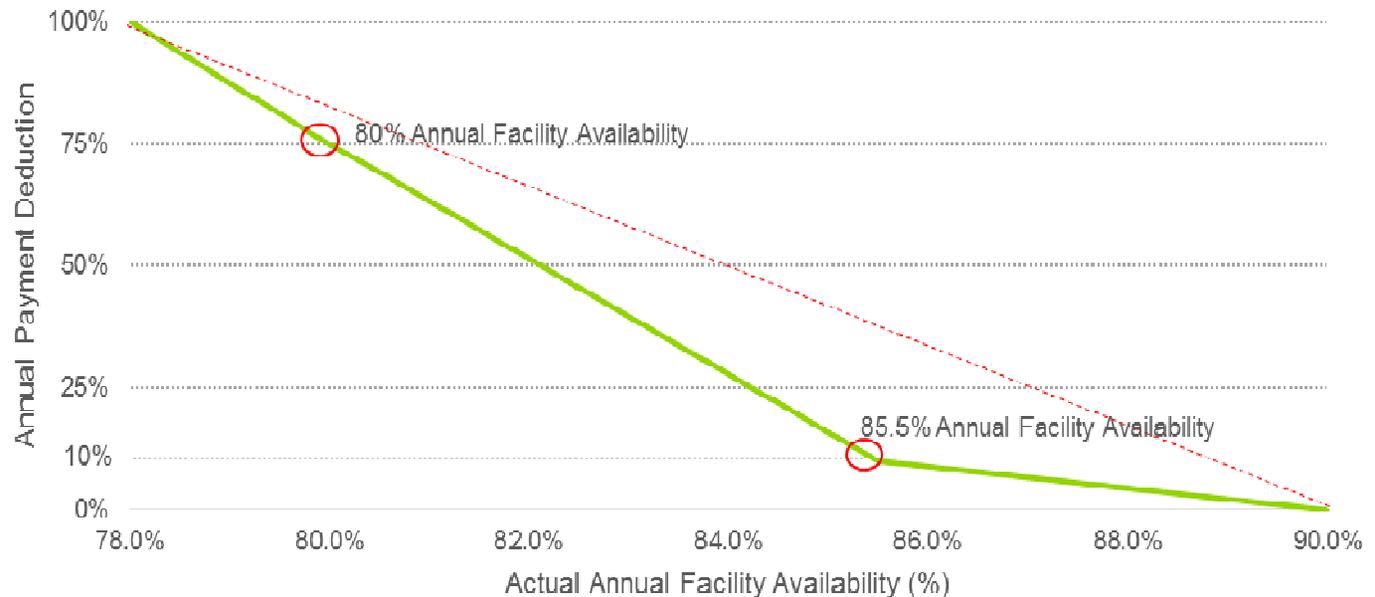
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Payment Performance - Availability

- § A primary performance metric is Availability – HCS incurs payment deductions in an accelerated manner as the Facility becomes unavailable.
- § Availability Failures are assessed on an annual basis and applied as a percentage of the total annual payment to Project Co by the City.





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Labour Matters

- § HCS and all of its subcontractors must comply with and must ensure the City's compliance with any provision of the City of Hamilton's fair wage policy and fair wage schedule approved by Council on June 12, 2013.
- § The Project Agreement provides that HCS must comply with the City's obligations pursuant to the Carpenters' Provincial Collective Agreement and the Joint Venture Memorandum of Local Amendment.



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Labour Matters cont'd

- § During the operating period, HCS will be subject to financial deductions caused by any non-availability of the Facility and poor performance on the KPIs, including any events resulting from labor disruptions caused by the Facility's employees.
- § During the contract term and the operating period, the only labour relations relief provided to HCS is in relation to;
 - (i) any official or unofficial strike, lockout, work to rule or other labour-related action generally affecting the construction industry in the Province of Ontario, or
 - (ii) any official or unofficial strike, lockout, work to rule or other labour-related action involving employees of the City or any subcontractor of the City.



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NEXT STEPS



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Summary of Next Steps

RFP/ Project Agreement Closing Process

- § Council approval of Preferred Proponent – January 25, 2017
- § Preferred Proponent Notification – January 26, 2017
- § Notify Unsuccessful Proponents – January 26, 2017
- § Joint procurement with Preferred Proponent of Independent Certifier
- § Commercial Close – (Target) March 28, 2017
- § Financial Close – (Target) March 29, 2017
- § Execution of Financial Agreement ('FA') with PPP Canada*

} Contract
Execution with
Preferred
Proponent

* PPP Canada practice is to execute the FA after Commercial/Financial Close



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Summary of Next Steps

RFP/PA Implementation

- § Commence Design-Build Phase
 - City Oversight through establishment of formal Works Committee
 - City review of Design Plans, Submittals, etc.
 - Independent Certifier (IC)

- § Substantial Completion - Issue 50% Capital Payment
 - 25% funded by the City, 25% funded by PPP Canada
 - Funds accounted for in the 2017 – 2041 Capital Budget (anticipated payment 2019/2020)

- § Commence 30-year Operation and Maintenance Period
 - Funds accounted for in the 2017 – 2026 Operating Budget (anticipate payments to commence 2020)
 - City Oversight through formal Facility Management Committee
 - City monitoring of Service Failure Performance Indicators and Availability Failures



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RECOMMENDATIONS



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Recommendations

- a) That Harbour City Solutions be approved as the Preferred Proponent for contract C11-03-16 Biosolids Management Project;
- b) That the General Manager of Public Works be authorized and directed to negotiate with Harbour City Solutions the Biosolids Management Project DBFOM Project Agreement and any ancillary documents required to give effect thereto in a form satisfactory to the General Manager of Finance & Corporate Services and the City Solicitor;
- c) That the General Manager of Public Works be authorized and directed to negotiate with PPP Canada Incorporated ('PPP Canada') the Financial Agreement ('FA') and any ancillary documents required to give effect thereto in a form satisfactory to the General Manager of Finance & Corporate Services and the City Solicitor;
- d) That the Mayor and City Clerk be authorized and directed to execute the Financial Agreement with PPP Canada including any ancillary documents required to give effect thereto in a form satisfactory to the General Manager of Public Works, the General Manager of Finance & Corporate Services and the City Solicitor;
- e) That subject to recommendations (b) and (c) being satisfied, the Mayor and City Clerk be authorized and directed to award and execute C-11-03-16 Biosolids Management Project including the DBFOM Project Agreement and any ancillary documents required to give effect thereto with Harbour City Solutions in a form satisfactory to the General Manager of Public Works, the General Manager of Finance & Corporate Services and the City Solicitor;



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Recommendations

- f) That subject to recommendation (e) being satisfied, the General Manager of Public Works be authorized and directed to deliver and perform C-11-03-16 Biosolids Management Project including the DBFOM Project Agreement and any ancillary documents required to give effect thereto with Harbour City Solutions;
- g) That payments be made in accordance with contract C11-03-16 Biosolids Management Project from the Water, Wastewater and Storm Rate Budget as follows;
 - i. The required Substantial Completion Payment be made to Harbour City Solutions in accordance with the Project Agreement, and that funds be directed from Capital Project ID 5160966910 WWTP Biosolids Management Facility;
 - ii. Any favorable balance resulting from the Substantial Completion Payment in Capital Project ID 5160966910 WWTP Biosolids Management Facility be rededicated and approved as project contingency towards the construction phase of the Project;
 - iii. PPP Canada's funding contribution be deposited in Capital Project ID 5160966910 WWTP Biosolids Management Facility;
 - iv. The monthly capital payment during the Operations and Maintenance term be funded from Capital Project ID 5160966910 WWTP Biosolids Management Facility as per the terms of the Project Agreement;
 - v. The monthly operating payment during the Operations and Maintenance term be funded from operating account 55952-510310 as per the term of the contract;



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Recommendations

- h) That Council receive the Fairness Monitor Report as per Appendix C which certifies that the Request for Proposal procurement process for the Biosolids Management Project (the 'RFP') undertaken by the City that resulted in the selection of the proposed Preferred Proponent was completed in an open and fair manner with no concerns raised that impaired the process;
- i) That the Outstanding Business List item related to 'Biosolids Management Project - PPP Canada Funding' be identified as complete and removed from the list.



Questions?

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