LESSONS LEARNED USING A P3 PROCUREMENT MODEL IN A MUNICIPAL CONTEXT: CITY OF REGINA'S WASTEWATER TREATMENT PLANT

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LESSONS LEARNED
USING A P3 PROCUREMENT MODEL IN A MUNICIPAL CONTEXT: CITY OF REGINA'S WASTEWATER TREATMENT PLANT

I. INTRODUCTION

The City of Regina (the "City") has one wastewater treatment plant that has been nearing the end of its life. The original wastewater treatment plant dates back to 1956 when the lagoons were put into service. There were upgrades and treatment improvements in the 1960s to 1990s. The current treatment technology is dated and the facility is nearing capacity.

With recent and projected growth in the City and more stringent regulatory requirements taking effect at the end of 2016, the City undertook a comprehensive review of its wastewater treatment processes and planned a major wastewater upgrade program. Between now and the year 2035, which is the planning horizon for the wastewater upgrade program, the population in Regina is expected to grow significantly from approximately 200,000 to 258,000.

In addition to the significant population growth projected for the City of Regina, specific motivating factors for the project included the need to:

- Meet new wastewater effluent quality standards mandated by the Saskatchewan Ministry of Environment prior to the end of 2016;
- Rectify deficiencies in the existing wastewater treatment plant by replacing/refurbishing infrastructure, some of which was well beyond its normal service life;
- Improve energy efficiency of the wastewater treatment plant in order to reduce energy consumption and GHG emissions; and,
- Improve water quality in Wascana Creek and the Qu'Appelle River and lake system.

The most significant objective of the City in pursuing this project was to meet the new wastewater effluent quality standards mandated by the Saskatchewan Ministry of Environment for the end of 2016. In addition to this overriding objective, the City wanted to ensure appropriate risk transfer and achieve good value for money.

A. PRE-PROCUREMENT PHASE

1. Research

Like all major projects a public private partnership ("P3") project requires extensive and thorough upfront planning. The more planning that can be done before the report goes to city council for approval to proceed with the project the better the public meetings, reports, planning sessions, procurement process, construction phase and ultimately the whole project will go.

(a) P3 Policy

The City developed a P3 Policy based largely on the City of Calgary's P3 policy and City Council passed the policy as part of the City's administration bylaw[1]. The policy provided the public with an opportunity to speak to the issue of P3s with City Council and provided a useful checklist of the steps the City's administration must follow in order to determine whether a P3 procurement model was appropriate for the particular project.

(b) Multidisciplinary Internal Resources

Large projects require sufficient internal resources to be able to do the work necessary to drive the project forward. For the wastewater treatment plant there was a core group of approximately 6 to 7 people who spent all or significant portions of their work time on this wastewater treatment plant upgrade project (the "Project"). The strength of the group came from the multiple disciplines: engineering, wastewater treatment plant operations, procurement, legal, communications, human resources and finance. Each group member brought the knowledge and insights from their respective areas right from the initial stages of the Project. Each discipline had an equal voice and input into the process throughout the Project. As the Project extended over several years there was some change in personnel but largely the group remained intact. It was helpful to have an administrative support person dedicated to the Project as well who could arrange meetings, take minutes, and arrange meeting space.

It is important to have a sufficient number of internal people but not too many that the group becomes unwieldy. Another key component of a Project team is to have people who are able and willing to express opinions even when the opinion is not popular. It is also necessary to be willing to listen to people who are challenging the assumptions, or proposed path. We found through this process of challenging each other that we arrived at a more thoughtful, complete solution to problems, better understanding of the Project overall and everyone developed better understanding of all the documents. It was important for people to let go of their egos and ask questions when they did not understand an issue or a contract provision. Project team members also needed to be able and willing to look at another side of an issue. As a Project team, we tried to reach consensus on most issues, especially big issues but each member had to compromise on some items at some points. The Project team reached consensus on all of the major issues and matters.

(c) External Resources

Since municipalities do not undertake massive, industrial construction work as part of its core services it is essential to have external consultants to provide technical, financial, business and legal support. The City publically procured AECOM Canada Ltd. ("AECOM") early in the process to design upgrades to the wastewater treatment plant ("WWTP"). In the course of the Project the City wanted to examine alternative procurement models and a possible P3 project. The City modified AECOM's role to assist with this new direction as AECOM had significant experience in P3 projects. With this experience AECOM was able to adapt to its new role of technical advisor rather than

[1] See Part VI of Schedule D to *The Regina Administration Bylaw*, No. 2003-69 which is available at http://www.regina.ca/residents/bylaw/browse-most-requested-bylaws/.

design engineer. Had AECOM not had so much P3 experience the City may have had to consider publically procuring a new engineering firm to provide technical assistance.

Following City Council's decision on February 25, 2013[2], the City publically procured Deloitte LLP ("Deloitte") as its financial advisors. In hindsight, the City should have conducted the public procurement for the financial advisor at the same time as it ran the procurement for the technical advisor to ensure continuity throughout the Project. At this same time, as it engaged Deloitte, the City also conducted a public procurement process to engage a fairness advisor, J.D. Campbell & Associates. The fairness advisor provided oversight at the request for qualification ("RFQ") stage, the request for proposal ("RFP") stage, all commercially confidential meetings with proponents in reviewing various requests for information ("RFI"), and in all evaluation processes to ensure that all proponents were treated fairly and had equal access to information.

In late 2012, the City publically procured legal services prior to doing the value for money assessment and awarded the procurement to Torys LLP ("Torys"). Bringing external legal counsel on at this stage in the process was extremely helpful. Torys had experience in speaking with city councils about P3 procurements and Torys was able to provide some training to City Council on how P3 contracts work and safeguards within the P3 contract format to protect the City and taxpayers. This training provided comfort to Regina's City Council and helped them in their decision making process.

(d) Screening Assessment

The City's P3 Policy required the City's administration to conduct a screening assessment as the first step in discerning whether a P3 procurement model suited the upgrade of the City's wastewater treatment plant. The screening assessment involved the internal City team as well as the City's external consultants from AECOM and Deloitte. The sessions involved an in-depth look at numerous procurement models, strengths and weaknesses of each model, discussion of key requirements that the new WWTP would need to meet based on the City's permit to operate a wastewater treatment plant (the "Permit") issued by the regulator, the Water Security Agency ("WSA"). Some of the key requirements for the selected procurement model was that the model had to:

- retain City ownership of the WWTP;
- result in the WWTP meeting permits on the time line set by WSA;
- avoid as much construction cost escalation as possible;
- be a method for which the City had suitable capacity and human resources to deliver;
- provide cost certainty for capital costs;
- provide an opportunity for funding from other levels of government;
- provide operation and maintenance cost certainty over at least a 20 year period;

[2] See Report CR13-26, February 25, 2013 which is available on the City of Regina website at http://www.regina.ca/residents/council-committees/

- minimize whole life cycle costs over the life of the WWTP;
- have flexibility for changing regulatory and population requirements over time; and
- ensure all costs of the WWTP are funded.

WSA had set a requirement in the Permit that the City's WWTP meet new, more stringent effluent standards by January 1, 2016. Beginning this procurement process in the spring of 2012 left a short period of time to procure and construct this upgraded WWTP.

Based on the risk assessment analysis and the time restrictions the City eliminated some procurement models as desirable options for this project, namely divestiture and design bid build. The two models that appeared at this first analysis to meet the City's requirements were:

- construction manager at risk; and
- design build finance operate and maintain.

(e) Strategic Assessment

Following the screening assessment the same group met for an extensive workshop where we closely analyzed the key risks of each phase of the Project, namely procurement phase, construction phase, commissioning phase, operations and maintenance phase, and end of life cycle phase, and how each of the remaining procurement models would deal with the risk. This assessment was referred to as the strategic assessment.

There were numerous risks within each of the large categories noted above. The Project team considered whether the risk would be retained, transferred or shared for each model and the probability of the risk actually occurring. This analysis was a time consuming exercise but worthwhile as it highlighted key risks both in terms of severity (cost/time/reputation) on the outcome of the Project if the risk materialized and failings in the City's current operations. AECOM then, using professional cost estimating techniques, assessed a dollar value to quantify the value of these risks in the event they actually occurred.

Knowing all of the "warts" on the Project provided the Project team with better knowledge of the Project and kept the Project team alert to design and contract provisions to deal with these risk factors.

At the end of the risk assessment workshop it was clear that the traditional design, bid build procurement method was ill suited for a project of this magnitude, scope and complexity. Construction manager at risk with design build and design build finance operate and maintain emerged as the preferred approaches as they both had mechanisms within the procurement model that alleviated or reduced the known risks the most significantly.

(f) Value for Money Assessment

As required by the City P3 Policy and following the strategic assessment which identified a P3 model as a potentially desirable procurement model for the Project, the City then undertook a value for money assessment to determine which procurement model would provide the most required and desired WWTP features for the least amount of money. AECOM proceeded to advance the proposed design for the updated WWTP to 30 percent completion. This level of completion allowed AECOM to then accurately cost the construction of the updated plant with a fairly high degree of accuracy.

AECOM based its costing for procuring the WWTP upgrade using the traditional design bid build procurement model. Using a number of assumptions based on past projects and knowledge of the market Deloitte was able to estimate the cost of building the same WWTP upgrade using other procurement models. Using the value for money analysis the design build finance operate and maintain ("DBFOM") procurement model showed an approximately 15 percent savings over a design bid build model. The 15 percent included the receiving money from PPP Canada Ltd. through the P3 Canada Fund.

2. City Council Approvals

Upon completing the three levels of assessment required in the City's P3 Policy the City's Administration was then in a position to recommend a procurement model to City Council.

(a) Training for City Council

Prior to bringing forward a report to City Council seeking City Council's approval to proceed with a DBFOM procurement the City's Administration did provide training for City Council on tendering law, trade treaties, advantages and disadvantages of various procurement models and description of how a P3 contract works (with contract between the City and P3 entity and subcontracts between the P3 entity and its contractor, operator and financial intuitions). This training assisted City Council in understanding the issues and implications of the Administration's public report seeking approval to proceed with a DBFOM procurement model on February 25, 2013.

(b) Comprehensive One Time City Council Approval

On February 25, 2013, the Administration brought forward a comprehensive report to City Council seeking approval for the DBFOM procurement model for the Project[3]. The report was detailed and set out:

- the history of the project;
- the need for the project;
- the advantages and disadvantages of various procurement models;
- the recommendation of a DBFOM procurement model;
- the recommendation for a 30 year term, substantial completion by early 2017, that the project would not include the City's key pumping station

[3] See Report CR13-26, February 25, 2013 which is available on the City of Regina website at http://www.regina.ca/residents/council-committees/

and that the design would need to demonstrate compliance with the Permit;
- an estimate for the capital cost of the project;
- an estimate of the total project cost over the 30 year term;
- an identification of the sources of funding;
- the delegation of authority to the Deputy City Manager of City Operations (the "DCM") to initiate and release the Request for Qualifications ("RFQ") process;
- the delegation of authority to the DCM to award and determine the three highest ranking proponents from the RFQ to move onto the Request for Proposals Phase ("RFP");
- the delegation of authority to the DCM to prepare and release an RFP to the highest ranking proponents from the RFQ process;
- the delegation of authority to the DCM to award the Project to the proponent with the lowest net present value on the RFP so long as the proponent's proposal was consistent with the City's capital cost estimate and consistent with the City's estimate for the total project costs;
- the authority to submit a business case to PPP Canada Ltd. for possible funding for the Project from the P3 Canada Fund; and
- the authority to enter into funding agreements with PPP Canada Ltd.

The report also stated that the DCM could not issue the RFP until PPP Canada Ltd. confirmed funding for the Project, or the report also stated that the DCM could not award the RFP, if the costs in the successful proponent's proposal exceeded the estimate the Administration had shown in the report. If such costs exceeded the estimate then the Administration would need to come back to City Council for further consideration.

City Council voted unanimously in favour of the Administration's recommendations and granted the Administration all of the delegated authorities noted above. The City's Administration recommended and City Council approve the DBFOM procurement model for both its strategic benefits and anticipated cost advantages over the originally- planned traditional design-bid-build procurement model. Key considerations for selection of DBFOM over other models included:

- Maximizing the potential to meet the regulator's deadline to meet the new effluent limits;
- Ensuring the long term maintenance needs of the plant are addressed throughout its lifecycle;
- Transferring operating risks (i.e. new technology, more automation, staff recruitment and retention challenges) to the private sector;
- Addressing internal capacity constraints (human resource availability, expertise and processes) to effectively manage the delivery of a project of this size, scope and complexity;
- Cost certainty, both capital and operating;

- The amount of debt the City would need to issue (related to minimizing capital costs and maximizing external funding opportunities) in addition to the timing of City debt issuance; and;
- Maximizing the opportunity for innovation and competition.

Obtaining a comprehensive approval from City Council to proceed with the key aspects of the Project at one time was beneficial to the Project for a number of reasons. First, it was efficient as the procedure for getting a report before City Council can take a number of weeks and with the Project being on a very tight timeline, delays in getting approvals to take the next step could delay the Project and increase the cost of the Project through the construction cost escalations. Further, having all of the approvals necessary to take the Project through to financial close eliminated a risk factor for proponents, namely that City Council would change its mind part way through the Project. Eliminating this risk helped to reduce the risk cost for the Project that proponents would factor into their proposal prices.

Ideally, the recommendation should have included a further authorization for the DCM to negotiate, approve, award, and amend other ancillary documents necessary to give effect to the agreement between the City and the P3 contractor (known as the "Project Agreement") because as it turned out there were some other documents, such as an early works agreement that the City needed to enter into as part of the Project. The Administration realized this oversight and obtained this additional authority from City Council on October 13, 2013 in the report to Council updating Council on the outcome of the referendum on the Project.[4]

Following the main report on February 25, 2013, the Administration also brought forward a report requesting City Council approval to issue requests for proposals for key consulting roles in the project, namely: financial advisor, fairness advisor; and amendments to the technical advisor's existing contract to change the scope of the work to reflect a P3 procurement model.[5] City Council authorized the Administration to issue these proposals and make the necessary changes to AECOM's existing contract.

3. Resolve Key Factors

A key step in any successful project but especially for this Project was that the City resolved many of its own internal issues prior to issuing P3 procurement documents.

(a) Develop and Implement a P3 Policy

As discussed above, the City developed and passed as part of *The Regina Administration Bylaw* a P3 Policy that set out a clear legislative framework for a P3 procurement process. This process provided the Project team with guidance, provided PPP Canada Ltd. with comfort that there was a clear procedural path for the Project within the City,

[4] See Report CM13-12, October 12, 2014 which is available at which is available on the City of Regina website at http://www.regina.ca/residents/council-committees/

[5] See Report CR13-27, February 25, 2013 which is available at which is available on the City of Regina website at http://www.regina.ca/residents/council-committees.

and provided City Council an education opportunity that enabled them to understand a P3 procurement. In particular, the P3 Policy clarified that a P3 procurement model would not be used for every procurement and that there was rigorous analysis behind a recommendation for a P3 procurement model.

(b) Own the Land

It is critical that the City owned the land for the Project. In this case, the City already owned the land on which the existing WWTP was located as well as surrounding the WWTP which meant that there were no land constraints on the Project. Owning considerable land around the proposed Project site also affords the City significant expansion opportunities in the future if needed. Further, owning the land surrounding the WWTP provides a buffer zone between industrial processes, which may have odour issues from time to time, and surrounding residents and business. With a buffer zone the chance of complaints and issues from neighbours is reduced thereby reducing risk and cost to the Project.

(c) Ensure Land is Within City Limits – Annex if Necessary

While the City owned the land, the land was located outside City limits, and therefore, governed by the surrounding rural municipality. Having another municipality responsible for issuing building permits and other approvals posed additional risk to the Project and so the City was able to successful negotiate annexing the WWTP lands into the City limits prior to issuing the RFQ. This annexation of land into the City limits proved to be a significant risk reduction step as now the City controlled the applicable permit processes as well as was the property tax assessment authority. It is critical to own the land and be responsible for permits and taxation as a mechanism to reducing risk, and thereby reducing cost, reducing potential for delays, reducing future taxes on City assets for proponents and the City itself.

(d) Conduct Extensive Site Investigations

The City undertook extensive geotechnical investigations of the lands prior to issuing the RFQ in order to provide proponents details on the nature of the soils, contamination issues, flora and fauna and indigenous artifacts all of which play a significant role in developing a design for the WWTP, required permits and construction schedule. In addition, the City undertook extensive inspections of equipment, systems, concrete structures and other facets of the existing WWTP to provide the proponents with as much information about the status of the existing WWTP as possible. The City subscribed to the understanding that if proponents did not feel they had full knowledge about each aspect of an item then the proponent would assume some problem with the asset and price in contingency, thereby increasing the overall cost of the Project. As part of these investigations the City did discover some asbestos and took steps to have the asbestos removed prior to awarding the RFP. An unknown risk of asbestos contamination is a significant risk factor for which proponents include a significant price premium.

(e) Communicate Often and Clearly with the Regulators

A key stakeholder in the Project is the WSA who is the provincial regulatory body that issues the permits to operate the WWTP and any permits to do construction at the

WWTP. The City's WWTP was at the end of its useful life, and therefore, WSA wanted to ensure that the City upgraded the WWTP and so it added provisions in the Permit that required the WWTP to meet new, higher effluent standards by January 1, 2017.

The technical members of the WWTP Project team spent considerable time and effort updating WSA on how the Project is progressing, the City's plan to proceed by way of a P3 procurement model, training on how the P3 procurement model works and key timelines in the procurement process. A significant risk factor was a potential delay of having WSA review the successful proponent's design, construction and operating plans for the WWTP to check for compliance with the Permit. There was potential that if there was delay in the review of the plans or if the plans needed significant modifications in order to meet WSA's requirements that the Project would be delayed. As a result, WSA agreed to review each of the proponents' proposals (three proposals and plans) during the RFP submission period. Having previously developed a strong working relationship with the regulator facilitated timely and constructive review of the plans for all proponents which meant that upon award the permit for early works and construction were able to be processed very quickly.

In addition, the City worked with the Ministry of Environment for Saskatchewan to set out the scope of the WWTP upgrade project and was able to obtain a certification from the Ministry that no environmental assessment was needed for the Project so long as the Project remained within the scope the City had previously set out. Again, having the proponents know that environmental assessment risk was no longer present allowed for that risk to be eliminated and consequently lower pricing.

To date, the Project has not experienced any delays as a result of regulatory approval requirements.

(f) Work with Labour Unions to Facilitate Employee Transition

For the WWTP Project, the City employees who do work at the WWTP are part of the Canadian Union of Public Employees, Local 21 (the "Union"). As the successful proponent was to become the operator and maintainer of the WWTP under the P3 DBFOM model, these employees would cease to be City employees. *The Saskatchewan Employment Act* contains successor employer provisions which meant that the successful proponent was required under law to assume these employees as its own employees and required to comply with the existing collective bargaining agreement.

As part of City Council's deliberations in February of 2013 on whether to proceed with the P3 DBFOM model or not, City Council wanted to ensure that the WWTP employees would not lose their jobs and would have an opportunity to "test drive" the new employer. As the collective bargaining agreement did not contain provisions for a "test drive" and a reversion right back to a City position, the City's Administration and the Union representatives met to discuss a process that would allow for this "test drive" opportunity. The Union and City Administration were able to reach agreement on this mechanism prior to the final submission date for the RFP, which we documented in letters of understanding to the collective agreement.

In addition, the Union and the City Administration jointly negotiated to have the individuals on long term disability from work at the WWTP removed from the WWTP work group and to ensure that they remained City employees. This step was taken to ensure continuing of benefits for those employees. Further, the Union and the City Administration jointly negotiated the ability for the successful proponent to bring some non-Union staff onto the WWTP site during a transition period to ensure that there were qualified personnel available to operate the WWTP until staffing reversion periods (under the collective bargaining agreements and respective letters of understanding) had worked themselves through.

Having some certainty on how the labour component would sort itself out prior to the financial submission phase of the RFP provided significant comfort to proponents and again helped reduce risk pricing on the labour component of the cost.

(g) Have a Plan for Septage and Source Control

The City was in the process of undertaking rehabilitation of its main wastewater pumping station in 2010 to 2013 which meant that septage, liquid waste material hauled in trucks from sources such as septic tanks was being deposited in the lagoons at the wastewater treatment plant rather than at the pumping station. In addition, waste from the hydrovacing process was also being deposited in the wastewater treatment plant lagoons. Lagoons for wastewater treatment plant projects is very old technology and no longer suitable for a city the size of Regina. Therefore, the technical specifications for the new WWTP contained a requirement that a lagoon based solution would not be acceptable. This requirement also meant that the lagoons would no longer be available for septage or hydrovac waste. Part way through the RFP process the City's Administration determined that a future solution to handling septage would not form part of the WWTP P3 procurement process as septage handling had not formed part of the initial pricing and budget for the Project. Ideally, the City would have realized this septage issue earlier in the process and included a septage solution as part of the WWTP P3 procurement. The City is now undertaking the construction of a new septage receiving station using a design bid build procurement model. The new septage receiving station is expected to be complete in late 2016 and be operational when the WWTP upgrade is complete.

It is also essential to have robust methods for controlling substances that will end up in the sewer system and eventually in the WWTP. Ideally, the City would have modernized its sewer service bylaw, improved its monitoring of potential generators of harmful sewer waste and had rigorous enforcement processes and procedures in place prior to beginning the Project. This modern sewer management practice was not in place prior to this Project and so, has meant considerable work to be done in a relatively short period of time to ensure that the influent quality into the new WWTP will be within the acceptable parameters set out in the Project Agreement.

(h) Expect opposition to P3 Project and plan for it

There are groups that do not support the P3 procurement model for a number of reasons. The Canadian Union of Public Employees ("CUPE") expressed opposition to P3 procurement models when City Council passed its P3 Policy and again when City

Council voted unanimously in favour of the DBFOM procurement model in February of 2013. Following the City Council decision CUPE and another group called Water Watch began the process of gathering names on a petition with the goal of forcing a referendum on the issue of what is the proper procurement method for upgrading the WWTP.

As part of the procurement process the City did engage a communication consultant to assist in how to message information about a DBFOM procurement model. Most citizens are unfamiliar with tendering and procurement so it was challenging to develop messages that are clear and helpful to citizens in understanding public procurements, P3 models and the benefits and drawbacks of various models. While the City did have a communication plan the City was slow in implementing the strategy which allowed opponents to the P3 procurement model to build momentum to block the Project. As a lesson learned, it is important to expect opposition to the P3 Project. Knowing there will be opposition then requires that a municipality have strong, objective evidence as to why the P3 procurement model is the best model for the particular project. Information from the screening assessment, strategic assessment and value for money assessment conducted earlier in the process provide helpful information in explaining to politicians and citizens as to why the P3 procurement model is the correct choice for the project.

4. Set a Firm, Realistic Schedule (and Stick to It)

The City's regulator, WSA set a firm deadline for completion of the Project when in included a requirement to meet new, higher effluent standards by January 1, 2016. Therefore, immediately following City Council's decision to proceed with a DBFOM procurement the City's internal Project team along with the City's consultants met to map out a timeline for the procurement. Having consultants with experience in P3 procurement processes was invaluable in this exercise as they helped the City set a timeline that was very tight but achievable. The timeline was set against a hard backstop of the regulator's requirement in the Permit and we worked back from there.

The timeline was tight which meant there was no slack time from the moment City Council made the decision to proceed with the DBFOM procurement model. In many ways this tight timeline served us well as we maintained focus and momentum. Every meeting had to be productive resolving issues.

Knowing there was no extra time available the City kept very close to its original schedule (with the exception of the 3 month delay caused by the referendum). The ten months from issuing the RFP to financial close was exceptionally busy, especially for the technical people on the team who were reviewing volumous technical submissions from the three proponents.

5. Easy to Understand Budget (set it up in anticipation of it being easy to understand for media and citizens)

One of the key components of the any project is the cost and the funding sources to cover the cost. One lesson learned from the WWTP Project was to think about how to present the costing and funding in a clear way before ever presenting any numeric values to City Council or the public. When presenting the initial numbers clearly indicate whether the

costs are in current dollars or future dollars. Be sure the initial number is inclusive of all the costs (capital costs, consulting expenses, procurement costs, interest, financing costs, etc.). It is important to think beyond the initial presentation and to consider how you want to be able to show the cost of the P3 model cost estimate as against the traditional design bid build's estimate as against the actual cost so it is important to keep the same line items for each scenario so that comparison across the procurement models is easy and does not require complicated explanations. Complicated explanations are fodder that opponents use to challenge the procurement process and make it challenging for City officials and politicians to explain the costing to others outside the Project team.

B PROCUREMENT PHASE

1. Request for Qualifications

(a) Alberta Model

The Project used the Alberta P3 procurement documents (the "Alberta Model") as a model in developing the procurement documents for this Project in large part because the Province of Alberta had used the Alberta Model for its Evan Thomas water and wastewater project in the Kananaskis region. The City felt the industry would be familiar with the Alberta Model for this kind of project and so would be more likely to respond and participate in this process. The Alberta Model consisted of a RFQ followed by a RFP from three shortlisted Proponents. Subject to a compliant technical proposal, the preferred proponent was selected on the basis of offering the lowest net present value contract cost to the City. The City received ten responses to the RFQ, which was shortlisted to three proponents for the RFP phase. [6]

(b) Timing

The City issued its Request for Qualifications on May 14, 2013.[7] The submission deadline was June 25, 2013 with the plan to announce the three shortlisted proponents by the end of July 2013. However, with the referendum on the issue of the procurement model to use, the City halted the RFQ process and did not notify the three short listed proponents until after the referendum results showed community support for the P3 model. The City communicated with all proponents during the referendum period to let them know what was happening and seeing if they still wanted to remain part of the procurement process. All of the teams wanted to remain part of the process. The City notified the three shortlisted proponents on October 16, 2013.

(c) City Reorganization

The Deputy City Manager originally responsible for this Project left the City in August of 2013. Since the February 25, 2013 report authorizing the project delegated a number of authorities to this position the City's Administration brought a report on October 15,

[6] See Key documents at http://www.regina.ca/residents/open-government/open-information/waste-water-treatment-plant-information/

[7] A copy of the Request for Qualifications can be seen at http://www.regina.ca/residents/open-government/open-information/waste-water-treatment-plant-information/

2014 requesting City Council revise the authority to be the City Manager so as to avoid any further personnel changes.[8]

(d) Document Sharing Site

The City posted a number of key documents about the City's WWTP, the draft design for the new WWTP, geotechnical information and other background documents in electronic form on AECOM's document sharing site (the "Data Room"). The purpose of the Data Room was to provide proponents with access to key documents and drawings (many of which were large and bulky) for proponents to review in order to better understand the scope of the Project and the types of organizations and individuals they would need as part of their working group in order to carry out the Project. This information was very helpful to proponents. Ideally, this information would have been hosted on a City of Regina FTP site, but the City did not have a site available within the time needed. AECOM's site worked well.

2. Request for Proposals

Following the referendum and the naming of the three highest ranked proponents from the RFQ process the City released its "RFP" on October 16, 2014.[9] The form of RFP followed the City's general form for RFP but was more robust. There were some new provisions that the City has tried to incorporate into its non-P3 RFP template. A couple of the key new sections were:

(a) Ineligible Participants

Over the course of preparing for a new WWTP the City engaged a number of consultants to assist the City and these consultants (technical, financial, legal, fairness) were then listed as ineligible to be part of a consortium who would be bidding on the Project. One lesson learned was to expand the list of consultants to include the advisors who had provided insurance and pension advice to the City. Through the RFP process the City learned that the proponents were interested in gathering advice from the same consultants. As there are not many firms that provide pension and insurance advice of the nature required by this project the City did permit the proponents to use the same national firms that the City used but not the same local office that the City used. The City required the national firm and the proponents to ensure appropriate safeguards were in place so that the local offices were insulated from each other thereby ensuring the City's confidential information was not provided directly or indirectly to a proponent. This compromise seemed to work well.

(b) Request for Information ("RFI") Process

The RFP process also included a request for information process whereby proponents could submit questions to the City as either confidential or non-confidential.

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[8] See Report CM13-12, October 12, 2014 which is available at which is available on the City of Regina website at http://www.regina.ca/residents/council-committees/

[9] A copy of the Request for Proposals and the addenda to it can be seen at http://www.regina.ca/residents/open-government/open-information/waste-water-treatment-plant-information/

Confidential responses would only be provided to the proponent asking the question whereas non-confidential responses were provided to all three proponents. At times there were questions posed as confidential questions that seem generic in nature and so under the terms of the RFI provisions in the RFP the City requested that the proponent submitting the question either re-submit the question as non-confidential or retract the question. Usually proponents would resubmit the question as non-confidential and the City would provide the response to all proponents.

There were hundreds of RFIs over the course of the RFP period. It is essential to have an efficient system for receiving, tracking, preparing responses to the RFIs, responding to the RFI's and keeping a record of the responses. In the City's case, all RFI's came in through the City's Purchasing Branch. Purchasing then distributed the request to AECOM who tracked the response. As most of the RFI's related to technical understanding of the technical requirements the City's operational people along with AECOM prepared responses to most of the RFIs. RFIs relating to other issues were circulated to the appropriate areas within the City's project team for a response. AECOM collated the responses and Purchasing then provided the response to the applicable proponent(s). This system worked well but it was a lot of work.

(c) Site Access, Technical Meetings and Facilitated Meetings with the Regulator

Through the RFP process the City provided each of the proponents with numerous opportunities for site visits and to do investigations of the existing WWTP. The proponents used these opportunities to learn as much as they could about the physical assets at the existing WWTP. While there was extensive technical information in the Data Room for the proponents to use, all of the proponents felt that physically seeing, measuring and examining the WWTP assets was critical. Since the successful proponent would be doing greenfield construction, brownfield construction and operating the current WWTP shortly after achieving financial close on the deal all proponents made the most of each of the site visit opportunities.

As part of the Project, the City required the successful proponent to take-over and operate the exiting WWTP, and because the specifications permitted existing infrastructure to be incorporated into the new upgraded infrastructure, the RFP included eight multi-day site visit opportunities for each proponent. The City also held three rounds of technical meetings.

The City facilitated direct contact between proponents and WSA, from which the preferred proponent would need to secure permits to construct. WSA was included in the initial technical meeting round and the City facilitated a conference call between WSA and each proponent later in the process as well. These opportunities allowed WSA to become familiar with each proponent's intended design, with the intent of accelerating the eventual permit approval process. Further, this approach allowed each proponent to receive input on the permitting process directly from the permitting agency to maintain the City's intended risk transfer vis-à-vis permitting. The City and the proponents greatly appreciated WSA's participation during the procurement process.

The City, with significant assistance from its technical advisor, reviewed each proponent's design and construction schedule, as well as 28 management plans, including plans for construction, operation, asset management, permitting, and safety. Again, this was a labour intensive process that required numerous technical specialists to review to ensure compliance with the technical requirements in the RFP.

(d) Commercially Confidential Meetings

Throughout the seven month RFP phase the City conducted three rounds of meetings to discuss the terms and conditions in the Project Agreement with each of the three proponents. Two of the three meetings were in person meetings and the final meeting was done by conference call. Prior to the meeting the City requested comments on the current draft of the Project Agreement from each of the proponents. The WWTP Project team worked through each question or suggestion from each proponent determining the City's response and whether the City thought an amendment to the Project Agreement would be warranted.

These meetings were tightly controlled with only people who were integral to the procurement process there for either the City or the proponent. The City's fairness advisor made it clear at the outset of each meeting that information from one meeting would be shared with other proponents on general information. The City was very conscious to ensure the information it provided to one proponent was also provided to the other two proponents. The fairness advisor also informed the parties that the only changes that were binding were those that the City inserted into the next version of the Project Agreement.

The commercially confidential meetings were an excellent opportunity for the City to obtain feedback from proponents on the areas of the business terms and conditions that were problematic for them and feedback on how certain technical requirements were impacting the proponent's business approach to the deal. It was essential to be well prepared for these meetings in terms of knowing the City's position on each of the questions that each proponent raised so that as much as possible the City was able to advise proponents as to whether the City would consider the proponent's requested change or not and provide some explanation for the City's position. Overall, the commercially confidential meetings forced the City to consider and re-consider important concepts, processes and potential problems which ultimately lead to a better understanding of the Project for everyone and a better, more comprehensive Project Agreement.

(e) Procurement Schedule

As WSA had imposed a hard deadline to meet new effluent standards in the City's Permit it was essential that the procurement process stayed on the stated schedule. The procurement schedule was very tight and seven months was not a lot of time for the proponents to do all of the research and design for a WWTP of this magnitude. However, since the new WWTP had to be meeting the new effluent standards by January 1, 2017 it was essential to make the most of the 2014 construction season as the procurement phase needed to finish in the spring of 2014. Proponents were concerned about the tight

timeline and requested an extension to the substantial completion date and the procurement process but the City was unable to extend deadlines because to do so would risk the already tight time to meet the January 1, 2017 Permit requirements.

The referendum on the P3 procurement model interrupted the procurement process after submission of RFQ responses which introduced almost three months of delay to this time-sensitive schedule. The schedule for the RFP phase was revised accordingly, but without adjusting the end-date, in an effort to protect the 2014 construction season. The City met the procurement schedule published with the RFP, with financial close reached well prior to the RFP's deadline.

Key dates in the Project schedule were:

Description	Date
Council approves P3	February 24, 2013
RFQ issued	May 14, 2013
PPP Canada announces funding	June 14, 2013
Originally-scheduled shortlisting	July 10, 2013
Referendum result favours P3	September 25, 2013
Shortlist announced	October 16, 2013
RFP issued	October 16, 2013
Final proposals received	May 22, 2014
Preferred proponent announced	May 30, 2014
Early works agreement signed	June 23, 2014
Site works commence	June 23, 2014
Financial close	July 3, 2014
EWPI takes over treatment plant operations	August 1, 2014
City staff transfer to the employ of EWPI	January 1, 2015

(f) Technical Requirements

In many ways the contract with the successful proponent is largely dependent on the quality of the technical specifications. On the Project AECOM developed performance based technical requirements. With a wastewater treatment plant, unlike a sports stadium, there is little in aesthetic qualities that really matter. The WWTP is an industrial plant and the City's only real concerns were functionality and regulatory compliance. The technical requirements are a description of the performance expectations that the City has for a variety of elements of the wastewater treatment plant with very few restrictions that certain things must be done in certain ways. One exception is that there was old lagoon technology that the City did not want proponents to use in the upgraded facility.

On the City's sports stadium design build finance P3 project, the aesthetic quality of the building was an important part of the project and so the technical specifications were more prescriptive and less "output" based.

It was invaluable to have technical experts take the first cut at drafting the technical requirements but also extremely helpful to have the legal team review the technical requirements for terminology compliance with the remainder of the Project Agreement.

C. FINANCIAL CLOSE PHASE

1. Final Evaluation of Proposals

The City's P3 procurement process followed the Alberta model with four separate submissions: a SR1 submission which confirmed much of the information from the RFQ phase, a SR2 submission which contained the technical detail in terms of preliminary design and operational plans, a SR2B submission which clarified the SR2 submission and a SR3 submission which was the financial submission.

For the SR2 submission, the City and its consultants carefully reviewed the proponents' technical submissions and raised questions to ensure the technical submissions met the technical requirements that the City had set in Schedule 18 Technical Requirements to the Project Agreement. The proponents were then able to submit update technical submissions called SR2B submissions. The SR2B submissions were restricted to only clarifying areas of the proponent's technical submission in relation to questions the City had posed in relation to compliance with Schedule 18. The City then evaluated each proponent's technical submission on a pass/fail basis. If a proponent passed the technical requirements then the proponent was entitled to submit a SR3 submission which was the financial submission. All three proponents passed the technical SR2B submission and all three proponents submitted a SR3 financial submission.

The City and its consultants evaluated each financial submission and awarded the contract to EPCOR Water Prairies Inc. ("EWPI") because EWPI had the lowest net present value for the WWTP Project.

All of the proposals were close and all were within the City's estimate. Since the EWPI's submission was within the financial model the Administration had presented to City Council in February 25, 2013 (CR13-26) the Administration was able to award the contract to EWPI without going back to City Council for any further approvals.

2. The Project Agreement

A draft of the Project Agreement, which contained the business terms and conditions as well as all of the technical requirements, was attached to the RFP document. Through the course of the technical meetings and commercially confidential business meetings the Project Agreement evolved. In the end, the risk apportionment between the City and the EWPI was as follows:

Risk	Risk Borne By	
	City	EWPI
Failure to meet permit		√
Failure to meet technical requirements		√
Latent defects in existing plant	√	√
Access to land	√	
Design		√
Construction		√
Finance		√
Operate		√
Maintain		√
Commodity consumption efficiency		√
Commodity price	√	
Transfer of Employees		√
Existing Lagoons	√	
Pension/LTD	√	√

There were only minor changes to the Project Agreement upon selection of the successful Proponent because prior to submitting their SR3 submissions the City had issued the final form of the Project Agreement and all proponents were instructed to base their pricing on this final form of agreement. This process worked cleanly as there was no negotiation.

3. Closing Process

Financial close went very smoothly on this Project. EWPI did most of their legal work for the financial close internally but did engage external counsel for some review. Torys continued to assist the City and generally marshalled all of the closing documents and ensured appropriate circulation and review. The City Solicitor's Office gave the enforceability opinion. The City Solicitor's Office felt that it was best qualified to give such an opinion due to its knowledge and involvement with Saskatchewan law, Municipal law and the operations of the City of Regina overall. EWPI was satisfied with receiving an enforceability opinion from the City Solicitor's Office. I also note that on the City's design build finance project for the new stadium the contractor for that project also accepted an enforceability opinion from the City Solicitor's Office.

This Project had relatively few closing documents and the parties were able to do an electronic closing. We had arranged for documents to be signed prior to the date of financial close and couriered to Torys' office. Torys assembled the closing books and provided both parties with closing books.

4. Early Works Agreement

With a fixed deadline for complying with new effluent standards of January 1, 2017 the City knew the procurement and construction schedule were extremely tight. The Project team discussed the concept of providing the successful proponent with the right to enter onto the City lands to do some preliminary work prior to achieving financial close. There

were concerns with giving access to the lands for early works on the off chance the successful proponent would not be able to achieve financial close. The City's legal advisors also noted that in its experience that even where an early works arrangement is available most often the successful proponent does not actually use it and instead achieves financial close more quickly than the deadline in the RFP for achieving financial close. Further, since the successful proponent would likely not yet be a legal entity there were concerns and complications on how the entities on site would be insured. Based on these concerns and the fact that it was a relatively short period of time (60 days) in which to achieve financial close initially the City decided to not offer an early works option.

The City did agree to provide the successful proponent with a letter that the successful proponent would be able to talk to WSA in order to initiate the preliminary permit to construct process. Through the course of the commercially confidential meetings the proponents expressed concern about the constrained timeline for construction, the desire to make the most of the 2014 construction season and asked for the opportunity for an early works arrangement.

In light of these requests the City prepared an early works agreement [10]as part of an amended draft of the Project Agreement.[11] Upon naming EWPI as the successful proponent and prior to financial close the City did sign the early works agreement. However, EWPI did not actually do construction work under the early works agreement because the parties were able to achieve financial close quickly and prior to EWPI mobilizing for construction activity.

5. Borrowing Bylaw and Project Financing

The Cities Act contains requirements that the City must meet when the City incurs debt.[12] One of these requirements is to have the Saskatchewan Municipal Board set the City's debt limit. In anticipation of this Project, as well as other City projects the City had obtained approval for a $450,000,000.00 debt limit.

The statutory provisions in *The Cities Act* are not designed to deal with the financing arrangements associated with P3 projects. Prior to signing the Project Agreement the City needed to be able to demonstrate that it had all of the money needed to fund the Project in place. This requirement was a challenge as the City did not have definite costing in place until the proponents submitted their financial submissions in May 2014 and the legislation requires that any borrowing bylaw contain very specific details about the borrowing.

In addition, the applicable legislation and accounting principles are not that clear as to what constitutes debt in a P3 situation. The City took a conservative view on the

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[10] A copy of the Early Works Agreement can be seen at http://www.regina.ca/residents/open-government/open-information/waste-water-treatment-plant-information/

[11] A copy of the redacted Project Agreement can be seen at http://www.regina.ca/residents/open-government/open-information/waste-water-treatment-plant-information

[12] See sections 101, 133(1) and 134 of *The Cities Act*, report EX14-21 and *The Regina Wastewater Treatment Plant Borrowing Bylaw, 2014*, No. 2014-48. The report and bylaw are available at http://regina.siretechnologies.com/sirepub2/mtgviewer.aspx?meetid=678&doctype=MINUTES

definition of debt for this Project. The City felt it was unable to do a generic borrowing bylaw without the specific details of EWPI's submission and then amend the bylaw to include specific information after financial close. Therefore, upon receiving the financial submissions, determining the proponent with the lowest net present value the City's Administration brought a report to City Council, EX14-21[13] detailing the financial information needed to prepare the borrowing bylaw.

The name "borrowing bylaw" is somewhat confusing as the City was not physically borrowing money from EWPI, but rather using up specified dollars in the City's total borrowing limit. Detailing this financial information in a public forum prior to financial close was not desirable because in the event that the parties were unable to achieve financial close there would be proprietary information from the successful proponent available publically. However, there was no way for the City to be able to agree to the covenants to pay under the Project Agreement without the borrowing bylaw in place.

Therefore, after naming EWPI as preferred proponent but prior to achieving financial close the City brought the borrowing bylaw forward to City Council and City Council passed the bylaw. As a result, the City and EWPI were able to achieve financial close without incident.

The payment structure for the Project is availability-based, with partial payment for completion of construction in the form of one milestone payment and a substantial completion payment, followed by monthly payments consisting of a capital, operations and maintenance, and a renewal component. In addition, because EWPI takes over operation of the existing treatment plant upon financial close, monthly payments for operation and maintenance of the existing plant are made during the construction period. Payments during both the operations period and construction period are subject to adjustments should performance standards established in the agreement not be met.

The City retains all rights to any revenue opportunities, such as sale of access to treated effluent, so there is no revenue sharing. The Project does, however, include savings-sharing. Should EWPI achieve higher efficiency in its use of natural gas and electricity than estimated in its financial offer, the savings are shared 50:50 with the City.

The City's monthly payments to EWPI are subject to adjustments if performance does not meet the technical requirements. Major categories of adjustments include failure to meet the effluent standards (both existing and future), and failure to receive wastewater flow from the City. The Project Agreement contains two significant holdback provisions. First is a $25 million holdback from the substantial completion payment should the full performance of the upgraded WWTP not yet be proven by the prescribed testing. Second is a holdback of amounts from the monthly payments should the final handback condition appear to be in question.

[13] A copy of Report EX14-32 can be seen at http://www.regina.ca/residents/open-government/open-information/waste-water-treatment-plant-information/

D. POST-CLOSING PHASE

1. Updating City Council on the Value for Money of the Project

On October 14, 2014, the Administration brought a value for money report forward to City Council with details about the financial details of the Project.[14] As noted in report IR14-15 the total value for money savings resulting from the use of a DBFOM procurement model including funding from PPP Canada Ltd. is $138.1 million or 29.3% over the design bid build ("DBB") model.

The value for money report which is attached as Appendix B to report IR14-15 calculates net present value (NPV), which is the present value of expected future cash flows and expenses to the cost of initial investment. The NPV for the Project is then evaluated against the estimates for a comparator project using conventional procurement. In simplest terms, the difference represents the value for money for the P3 procurement method. When the Project Agreement with EWPI, as well as the City's costs, were evaluated against the City's comparator project, a savings of $94.6 million NPV or 20.1% was achieved. The above figures do not take into account the benefit to the City associated with $48.2 million in funding from PPP Canada Ltd. The total savings including funding from PPP Canada Ltd. are $138.1 million, or 29.3% over the conventional procurement model

2. Construction

(a) Security

In February of 2013 when City Council was making its decision of whether to proceed with a DBFOM procurement model or not one of the key concerns City Council had with the P3 procurement model was protecting the City and its taxpayers in the event the P3 contractor failed to perform. P3 detractors highlighted several projects where P3 contractors failed to perform and the results were catastrophic for project owners. The Project Agreement contains a number of security measures to ensure EWPI, the P3 contractor, meets its contractual obligations.

(i) Letters of Credit

The first security requirement was to provide the City with a letter of credit in the amount of $1 million dollars at the time of submitting its SR3 financial submission. This $1 million letter of credit was to ensure the successful proponent achieved financial close or else forfeited $1 million. This $1 million dollar letter of credit was replaced with a $10 million dollar Financing and Initial Performance Letter of Credit ("FIPLOC") for the successful proponent as a requirement to achieve financial close on the Project. The purpose of the FIPLOC was to ensure that the successful proponent commenced construction quickly. The City held the FIPLOC until EWPI provided the City with evidence that it had completed $10 million dollars in work. The City did not include design, financing, mobilization or costs associated with the existing operations and maintenance as part of the $10 million dollars in work. Upon achieving financial close

[14] See report IR14-15 at http://regina.siretechnologies.com/sirepub2/mtgviewer.aspx?meetid=770&doctype=AGENDA

with EWPI and receiving the appropriate releases from the unsuccessful proponents the City then released the $1 million dollar letters of credit to the other proponents.

(ii) Independent Certifier

Secondly, the Project Agreement requires the City and EWPI jointly procure an independent certifier which provides the City with an expert third party to supervise construction and monitor the commissioning of the work to ensure the City is getting the wastewater treatment plant that it contracted for.

(iii) Engineering Support

Thirdly, in addition, the City retained AECOM's technical services to assist in the design review process set out in the Project Agreement. This technical oversight provides the technical knowledge that the City does not possess internally and is ensuring EWPI's compliance with technical requirements set out in the Project Agreement.

(iv) Milestone, Substantial Completion and 30-day Performance Test Payments

Fourth, the City is not paying EWPI on monthly progress payments like in a traditional design bid build. EWPI's first payment will be a milestone payment after 40% of the work is complete or January 1, 2016, whichever occurs later. The earliest the milestone payment will be made will be after almost two full years of construction. This payment structure means that the contractor carries the cost of construction over this period of time which does result in an expense for the City but also provides tremendous motivation to hit the milestone as early as possible. The milestone payment is $30,000,00.00.

The next payment is the substantial completion payment. Schedule 8 to the Project Agreement sets out the criteria for meeting substantial completion which includes meeting substantial performance under *The Builders' Lien Act* as well as commissioning and a number of performance tests. The City's substantial completion payment is $49,739,000.00. Again this large payment provides considerable financial leverage for the City to insist on compliance with the Project Agreement.

The Project Agreement contains the right for the City to retain a $25,000,000 holdback if the contractor does not perform the 30-day performance test during the substantial completion test. The 30-day performance test is a challenging test to perform on a newly commissioned plant because it pushes the plant to the plant's maximum output (i.e. demonstrating the plant is capable of achieving the full capacity that the City is paying for). This test is made even more challenging if this test is performed in the cold months of November and December (just prior to the substantial completion target date of December 31, 2016). Therefore, the City provided the contractor with the option to do the 30 day performance test in the warmer weather of the spring of 2017. If the contractor fails to meet the 30 day performance test in the spring of 2017 then the City will retain the $25 million holdback reflecting the buy down in plant capacity. EWPI has indicated to the City that as of April of 2015 that it is EWPI's intention to do the 30 day performance test as part of the substantial completion process, prior to December 31, 2016.

(v) Operations and Maintenance

Fifth, having the operations and maintenance as part of the design, build, finance of a P3 means that the contractor has to operate and maintain what it builds. The contractor bids a fixed price for the operations and maintenance thereby ensuring that the contractor is motivated to ensure smooth, compliant operations and maintenance that maintains the plant in an operational condition at a cost that is included in its overall SR3 price. The City pays the contractor a monthly fee for operations and maintenance to operate the existing facilities and after substantial completion the monthly operations and maintenance payment includes a payment for the capital cost of the Project.

(vi) Insurance

Sixth, during the term of the Project Agreement, the contractor is required to maintain an extensive portfolio of insurance coverage. Schedule 11 of the Project Agreement sets out the details of the insurance requirements. The key insurance provisions included project specific general liability wrap-up insurance covering a wide range of possible losses, project specific pollution liability insurance, builders'' risk insurance, professional errors and omissions insurance during construction, general liability insurance during the operating period, and machinery breakdown insurance. Since the City had operated the wastewater treatment plant previously the building, equipment and risks had been insured through the City's overall insurance program without specific allocations in favour of particular City assets. It was challenging as part of the Project Agreement drafting process to then estimate the insurance costs that the proponents would be allocated in their pricing. The City wanted to know how much more insurance to ask for without pricing the whole Project too high. It was also challenging to determine an appropriate dollar levels of insurance for various types of insurance. Ultimately the City looked at its loss history, other P3 projects and considered inputs from insurance experts to determine the insurance levels.

(vii) Handback Requirements and Handback Holdback

Seventh, the Project Agreement sets out that certain pieces of equipment or structures must be in a prescribed condition at the end of the term of the Project Agreement. This handback procedure starts seven years before the end of the term to ensure the wastewater treatment plant is in acceptable condition for handback, allows the City to transition to the next phase of wastewater treatment and for EWPI to complete the necessary capital work to meet the handback requirements. The City is able to holdback from the monthly payments an amount equal to the cost of the handback deficiencies until those deficiencies are remedied to meet the handback requirements.

(viii) Payment Adjustments

Eighth, the Project Agreement contains provisions for numerous payment adjustments in the event EWPI breaches various requirements in the Project Agreement. These payments for non-compliance can be set off against the City's monthly operation and maintenance payments that the City is paying to EWPI during the construction period and

later as part of the operations/maintenance/capital payment made after substantial completion.

(b) Construction Management

Managing a P3 contract requires the municipality's project manager as well as other municipal employees to adjust how to approach the project. Unlike a design, bid, build contract where the municipality has selected every component of the design and is watching each move of the contractor the approach with a P3 contract is different. The municipality has a Project Agreement with the P3 entity who may or may not be the actual construction contractor or the entity doing the actual operations and maintenance work. In the City's case, EWPI has engaged a joint venture to do the construction and is self-performing the operations and maintenance.

It is essential for the municipal project manager to know the Project Agreement and in particular to know whose job is whose. For example, peripheral work that the municipality may have traditionally done at the site such as lawn mowing, yard maintenance, garbage removal may all be work that the P3 contractor is required under the Project Agreement to do. As a result, the P3 contractor's price already includes money for doing such work so having the municipality do it itself means paying for the work twice and moreover, doing the work yourself may cause an interference with the P3 contractor's ability to do the P3 project.

The Project Agreement contains relief events which are events, which if they occur, provide the P3 contractor relief, in the form of time or money or both. Having a City contractor do work that interferes with the P3 contractor's ability to do the work is a relief event. It is helpful to notify managers in a wide variety of areas within the municipality early after financial close that the municipality is now in a "new world" where procedures done prior to the P3 project need to be examined prior to doing any work that may impact the Project.

(c) Employee Transition

Employee transition can be a more challenging component of a P3 project. It can be challenging for proponents to price the cost of labour, pension plans, and number of employees who will actually transition. The City also then had to deal with the administrative requirements to transition employees from one employer to another, including bylaw amendments to ensure the P3 contractor is a participating employer in the pension and long term disability plans.

The process for the transfer of the unionized employees from the City to EWPI is an innovative feature of this Project. In order to allow for the continued operation of the existing wastewater treatment plant and to accommodate certain union procedures, the current wastewater treatment plant staff initially remained City employees. EWPI was responsible for the management, supervision and direction of the employees. During this time, EWPI became a participating employer under the City's pension plan. On January 1, 2015, the transfer was completed and the employees became employees of EWPI.

Once the transition occurs there are still a number of employee related issues as the new employer gets to know the employees that it inherited. Following the transfer, the Project Agreement contains an employee adjustment provision under which an adjustment will be made to the monthly operations and maintenance payment in order to account for any increase or decrease in the salary, wages or benefits of the employees that occurred during the period between closing of the transaction and December 31, 2015. This true up mechanism helps reduce the risk to proponents and thereby helps reduce the overall cost of the Project.

In addition to the true up mechanism, the Project Agreement also contains a pension deficit provision. In the City's case, the existing pension plan was in a deficit position. As part of the Project Agreement the City agreed to accept the liability for a pension deficit attributable to employees who transitioned to EWPI for service prior to the January 1, 2015 transfer date. EWPI makes all employee remittances to the pension plan, but the City makes a pension deficit payment flow through payment to EWPI in the amount equal to the pension deficit repayment cost portion of the employee remittances.

It is essential for both the City and EWPI to work cooperatively to try to work through some unusual and unforeseeable employee situations in order to not disrupt individual employees' lives due to a business decision.

(d) Transition the "Little Stuff"

There are also a number of contracts, vehicles, information technology and data that needs to be transitioned to the new entity in a P3 project. The City tried to provide a comprehensive list of items such as furniture, vehicles and chemicals that would be remaining at the WWTP upon financial close as a Schedule to the Project Agreement. The Project Agreement required EWPI to provide the other items that were not on the list.

In this case, EWPI was not able to have its vehicles on site in the relatively short period of time between the date of financial close and the date EWPI was to take over managing the WWTP. Therefore, the City and EWPI worked out an arrangement for EWPI's use of City vehicles for a short period of time until EWPI could arrange for its vehicles on site. The cost of the vehicles is forming part of an informal true up process for non-employee transition items and will be incorporated by an addendum into the Project Agreement.

EWPI also required some data that had not been placed in the Data Room. The City conducted a review of the material to determine if it was information that EWPI needed to operate the WWTP and if so the City's Access to Information Officer reviewed the material to ensure there were no privacy concerns. Finally, the City provided the information to EWPI under the cover of an agreement that set out the terms and conditions of use of the information.

The City had a number of contracts for chemicals and other consumables for use at the WWTP. Most of these contracts were annual in nature and so when they were renewed

the City tried to align the terms so that there would be stock on hand at the WWTP for the date EWPI took over operations of the WWTP and that the contract would remain in place for a short period of time thereafter. The City provided information to all proponents on the contracts related to the purchase of various chemicals and consumables.

Again, there were just numerous items that you do not really think about until you are trying to draft a contract to deal with these items or when you are actually turning over operations to a new entity. Cooperation between the parties to arrive at a mutually acceptable solution is a must.

E. WASTEWATER TREATMENT PLANT CHALLENGES

Some of the most significant challenges in the Project have already been discussed, namely obtaining City Council approval to proceed with a P3 procurement model, obtaining community support for the P3 procurement model through a referendum process, and transitioning employees from one employer to another employer. There were other challenges as well which are discussed below.

1. Greenfield and Brownfield

This WWTP is the City's only WWTP, and therefore, the WWTP must remain fully operational throughout construction. The WWTP upgrade requires new processes and equipment which forms the greenfield portion of the Project. The WWTP upgrade also reuses some large process tanks and other infrastructure which forms the brownfield portion of the Project. Early in the City's analysis of the Project the City realized that there is a significant integration risk in bringing the greenfield and brownfield components together. This integration risk is one of the reasons the Project Agreement requires EWPI to take over operations and maintenance shortly after financial close and during construction so that EWPI would be best placed to manage integration with ongoing operations.

2. Latent Defect Risk Sharing

An innovative feature of this Project is the sharing of risk with respect to certain latent defects in the existing WWTP. While the majority of latent defect risk related to the existing wastewater treatment plant will transfer to EWPI, the City did retain certain risks in order to ensure value for money was achieved. There were some risks relating to existing structures that were going to be reused in the upgraded WWTP. The City had site condition reports for most of these structures indicating they were in relatively good condition, however proponents were concerned about failure during construction and before the components could be taken off-line, inspected, rehabilitated (if necessary) and put into service in the upgraded WWTP. The City was concerned that proponents would price this risk high and so the City agreed to accept the risk of these possible failures during construction and only if the failure was $500,000 or larger. While proponents would have preferred the City to take all latent defect risk the proponents accepted this shared approach and pricing for the Project still resulted in a high value for money.

3. LAFOIP Requests

During the procurement phase of the Project, it was necessary to keep information confidential in order to ensure that the City would be able to negotiate a contract that provided good value to the community and ensured the integrity of the procurement process.

Throughout the Project the City received numerous requests for information both informally and formally through the process set out in *The Local Authority Freedom of Information and Protection of Privacy Act* ("LAFOIP"). The City included as much information as it could in its report to City Council of February 25, 2013 (CR14-226) without compromising the City's ability to obtain the best pricing possible during the procurement process. As a result of the risks associated with disclosing too much of the City's analysis prior to financial close of the procurement process the City either provided redacted documents or refused to disclose documents until after the close of the procurement process. The requesting parties did not agree with the City's analysis and application of LAFOIP to their respective requests, however, Saskatchewan's Information and Privacy Commissioner did uphold the City's LAFOIP analysis and the City's right to keep those documents or portions of those documents confidential until after the close of the procurement phase of the Project.

Once the procurement process concluded, the City then released a number of documents through its Open Government website, allowing public access to this information.[15] Appendix C to report IR14-15 provided a summary of the documents that were made available on Open Government, including a redacted version of the Project Agreement.

It is important and useful to anticipate that as a municipality you will receive numerous access to information requests in relation to a P3 project. Knowing these requests will be coming it is then essential to have a process to deal with such requests in a timely way and staff skilled in both the technical aspects of the project and with access request law available to deal with such requests. At certain times during the Project, dealing with access requests for the Project was a full time job for some people at the City. Having an open government website and posting documents that had been approved for disclosure helped reduce the workload because the City's call centre was able to direct people directly to the website.

4. Odour

Not surprisingly, wastewater treatment plants can be odorous, and as such performance requirements for odour are included in the Project Agreement. However, continual monitoring of the atmosphere for odour is expensive and labour–intensive. An innovative approach for control of odour was developed that requires EWPI to complete odour

[15] See various documents relating to the Project at http://www.regina.ca/residents/open-government/open-information/waste-water-treatment-plant-information/

dispersion modelling to demonstrate compliance with the performance requirements. Short-term field-testing is then to be carried out to demonstrate that the dispersion modelling is accurate and representative of real conditions. EWPI is also required to produce an odour management plan. Payment adjustments are made if the nuisance odours occur and the management plan is not being followed. This innovative approach to odour control provides the City with the assurance that the design and operation of the facility will meet the odour performance requirements, without EWPI having to incur significant costs for continuous monitoring.

II. CONCLUSION

While the P3 procurement model is not the perfect model for all projects, to date, the DBFOM model is working well in the intricate construction of greenfield and brownfield sites while operating a complex, industrial facility like the City's WWTP. A P3 takes a lot of front end planning which is not always a municipality's strength but with the improved planning does come a better project that delivers improved value for money for the municipality over the traditional design bid build model.