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Wastewater Treatment Project

May 31, 2017

City of Victoria 1 Centennial Square Victoria, BC V8W 1P6

Attn: Mayor Helps

Dear Mayor Helps:

RE: RESOLUTIONS FROM THE CITY OF VICTORIA

On behalf of the Core Area Wastewater Treatment Project Board (the Project Board), I am writing to you regarding resolutions from the City of Victoria's April 13 and May 11, 2017 meetings.

In addition to the City of Victoria's April 13th resolutions, the Project Board received similar resolutions from the Core Area Liquid Waste Management Committee's (the CALWMC) April 12th meeting. For completeness and consistency we have prepared one response which we believe addresses the City of Victoria's and the CALWMC's resolutions. The Project Board's responses are below.

BE IT RESOLVED THAT Council requests that the Core Area Wastewater Treatment Project Board:

1. Negotiate a Change Order with Harbour Resource Partners to ensure that enforceable Performance Standards are in place upon completion of the McLoughlin Point wastewater treatment plant to ensure that odour levels do not to exceed 2 Odour Units.

The Project Board reviewed this request in detail and discussed it at its May 2, 2017, open Project Board meeting. At the conclusion of the discussion, the Project Board voted unanimously in favour of the staff recommendation to not explore a Change Order with Harbour Resource Partners (HRP).

The guiding principle for the design of the McLoughlin Point Wastewater Treatment Plant is that there will be no detectable odour by residents. The contract specifies that:

- a) All process tankage must be covered, which will result in one of the highest levels of odour capture and treatment in the industry;
- b) The plant include a robust and reliable treatment strategy consisting of a two stage odour control system utilizing a bioscrubber followed by activated carbon, that is capable of treating all odorous air streams;
- c) Back-up odour control equipment and back-up power generators be installed, which will reduce the possibility of odour escaping the plant in the unlikely event there is an equipment or power failure; and,
- d) A 24 hour odour control monitoring system be installed, which will ensure that odour requirements are met or exceeded.

WWTP-1302841000-106 C:\Users\BlachurasM\AppData\Local\Microsoft\W ResolutionsfromtheCityofVictoria-JBird.docx Under normal operating conditions, atmospheric odour modelling predicts that the odour at the plant's property line will be approximately two odour units. The performance standard within the contract of up to five odour units provides a margin to deal with an extraordinary event such as an equipment or power failure. The Capital Regional District (CRD) will maintain the facility in accordance with an asset management plan that will mitigate the risk of any such failures.

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The scope of the contract with HRP includes the design, build and finance of the McLoughlin Point Wastewater Treatment Plant. The contract is structured such that third party debt capital is at risk until HRP can demonstrate that the plant has satisfactorily achieved operational capability, including compliance with contract odour specifications. Such performance will have to be demonstrated continuously over a 90-day acceptance period for HRP (and their lenders) to receive full payment. In determining whether to put their capital at risk, third party lenders satisfied themselves that HRP's designs are capable of meeting the contract specifications; including the odour specifications.

In addition, HRP must demonstrate that the plant can meet the contract standards with respect to odour performance during a two-year performance period after achieving operational capability. If the odour specifications are not met over this two-year performance period, HRP will be obliged to upgrade the plant as required to meet the standards. HRP are therefore incentivized to design and build the plant so that it can be operated well below the performance standard.

Re-opening the contract to establish the odour performance limit at two odour units is therefore unnecessary to achieve the guiding principle (that there be no detectable odour by residents) and would also have significant impacts to both schedule and budget.

2. Report back to the Core Area Liquid Waste Management Committee and the public on the advisability and cost of reducing operating Noise levels when measured at the McLoughlin Point property line to 55 Decibels.

The Project Board reviewed this request in detail and discussed it at the May 2, 2017 open Project Board meeting. At the conclusion of the discussion, the Project Board voted unanimously in favour of the staff recommendation to not explore a Change Order with Harbour Resource Partners (HRP).

The guiding principle for the design of the McLoughlin Point Wastewater Treatment Plant is that operating noise levels are within reasonable levels for all residents. The reference point is noise bylaws and agreements with the Township of Esquimalt and City of Victoria.

The contract specifies that:

- a) Noise enclosures are required for equipment which generates high levels of noise, such as air blowers and generators;
- b) Acoustic baffles will be installed on the intake and exhaust louvers;
- c) Accoustic insulation of walls, doors and roofs as necessary to meet noise control bylaws; and
- d) Noise levels at receptors must be in compliance with municipal bylaws.

The contract specifies that operational noise from the McLoughlin Point Wastewater Treatment Plant must not exceed 60 decibels at the plant's property line. Under normal operating conditions noise modelling shows that the predicted decibel levels in James Bay (the closest location to the plant site in the City of Victoria) and other surrounding areas in the City of Victoria, will not exceed 35 decibels. This is 5 decibels below the most stringent limit in the City of Victoria's bylaw.

The noise modelling was undertaken assuming a "worst case scenario" of 60 decibels everywhere along the McLoughlin Point Wastewater Treatment Plant site's property line. However, actual noise levels from the treatment facility, once operational, are anticipated to be lower.

The scope of the contract with HRP includes the design, build and finance of the McLoughlin Point Wastewater Treatment Plant. The contract is structured such that third party debt capital is at risk until HRP can demonstrate that the plant has satisfactorily achieved operational capability, including compliance with contract noise specifications. Such performance will have to be demonstrated continuously over a 90-day acceptance period for HRP (and their lenders) to receive full payment. In determining whether to put their capital at risk, third party lenders satisfied themselves that HRP's designs are capable of meeting the contract specifications.

Re-opening the contract to establish the operating noise limit at 55 decibels is therefore unnecessary to achieve reasonable levels of noise for all residents and would have significant impacts to both schedule and budget.

3. Continue and improve consultation with James Bay, Victoria West, Fairfield and Downtown residents on mitigation of construction and long-term impacts from conveyancing infrastructure, the McLoughlin Point wastewater treatment and the Clover Point Pump Station.

The Project Board reviewed this request in detail and discussed it at the May 2, 2017 open Project Board meeting. At the conclusion of the discussion, the Project Board voted unanimously in favour of the staff recommendation outlined below, which is in agreement with the request.

The Project Team will continue to look for ways to build relationships and expand their communications tools in order to provide timely information about construction planning and to hear questions and concerns. As the Project moves into the construction phase, it is expected that the level of engagement will increase as the Project Team will have more information to share with potentially impacted communities. The Project Team's communications will follow the linear nature of the construction of the Project, which starts in Esquimalt and James Bay, moves into Fairfield Gonzales in the fall and Saanich in 2018. For each phase of the Project, the Project Team will communicate with communities to provide information and hear questions and concerns. The Project Team will continue to use all the communications tools described in the Project's Communications and Engagement plan, which include a 24/7 phone line, web updates, residential mail updates, email updates, construction bulletins, community liaison meetings, community information meetings, and where appropriate, door-to-door visits.

4. Closely monitor geotechnical issues along the Dallas Road waterfront and advise the public and Core Area Liquid Waste Management Committee of any issues that arise and solutions.

Of note, since the City of Victoria passed the above resolution at its April 13th meeting, the following resolution was passed at its May 11th meeting:

That Victoria Council request that the Project Board put in place risk mitigation measures to protect the Dallas Road Bluffs during construction including but not limited to:

- a. Assembling an interdisciplinary team to study and address the protection of the bluffs.
- b. As part of the detailed design of the conveyancing, include a plan for the preservation of the bluffs.

That the Victoria City Council request the Project Board to report out to the public at one of their regular community meetings, to the JBNA and to Victoria City Council on the measures.

The following response captures the direction of the Project Board to Resolution 4 from the City of Victoria's April 13th meeting and elaborates on the Project Team's plans in order to address the related resolution from the City of Victoria's May 11th meeting.

Geotechnical investigations and monitoring will take place along Dallas Road with an enhanced focus on the shoreline and bluffs prior to, during and after the construction of the Clover Point Forcemain and related pipework. The geotechnical investigations will include a series of test holes drilled along the pipe alignment to establish existing geological conditions and to collect samples for laboratory testing and use in establishing geotechnical design parameters for the pipe and bluff stability analysis. The geotechnical monitoring will include the installation of instruments near the bluffs and along the pipe alignment. Recordings from these instruments will be used to monitor conditions during the construction and post construction phase of the project.

The design process for the conveyance system from Ogden Point to Clover Point (the Clover Point Forcemain) has begun. It includes the development of an indicative design and a final design. Stantec, as the owner's engineer, will undertake the indicative design. Another qualified engineering firm (the 'Second Engineering Firm') will review the indicative design and prepare the final design. Both firms will have input into the undertaking of, and access to, the outcome of geotechnical investigations and monitoring outlined above.

Specifically, the Project Team will competitively procure the Second Engineering Firm to review the indicative design and prepare the final design. This firm will have expertise in the fields of geotechnical, terrain analysis, environmental and civil engineering. The firm will be provided with the indicative design and the results of the geotechnical investigations undertaken to date, and will be responsible for reviewing that work as part of developing the final design. They will also be responsible for fulfilling the duties of Engineer of Record as defined by the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC). Professional members of the firm, and their qualifications, will be noted as part of their work.

As part of their scope of work, the Second Engineering Firm will prepare a plan to mitigate any impacts on the bluffs during construction. As noted, this plan will include post construction monitoring for 12 months following completion of construction.

Reports detailing the results of the geotechnical investigations and the indicative alignment will be complete in the fall of 2017. The Project Team will report on these to the public at one of their regular community information meetings, to the James Bay Neighbourhood Association and to Victoria City Council. Results will also be posted on the Project website.

THAT Council requests that the Core Area Wastewater Treatment Project Board: Seek Green Shores Certification of the Clover Point Pump Station, reflecting

- a) proximity of the site to the marine shoreline;
- b) opportunities for marine and terrestrial ecological restoration arising from several decades of use of the site and seabed for wastewater conveyancing, and
- c) the mandate of the federal land grant to the City of Victoria emphasizing use of the land for parks and greenspace purpose .

AND THAT Council directs staff to pursue Green Shores Certification in discussions with the CRD relating to design of the Clover Point Pump Station and associated works.

The Project Board reviewed this request and discussed it at the May 2, 2017, open Project Board meeting. At the conclusion of the discussion, the Project Board voted unanimously in favour of the staff recommendation outlined below, which is in agreement with the request.

The Project Team will review the Green Shores certification process and determine whether the certification might be appropriate for the Clover Point Pump Station, and identify any impacts to cost and schedule for pursuing the certification.

I trust that the above information provides useful background to the Project Board's decisions.

Sincerely,

Jane Bird, Chair Core Area Wastewater Treatment Project Board

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