

Ministry of Community, Sport and Cultural Development

BRIEFING NOTE FOR MINISTER

Ref #: 153697

FOR MEETING

Date: July 19, 2013

Title: CRD Sewage – Township of Esquimalt Compensation

Issue:

The Township of Esquimalt has requested a meeting to discuss its concerns with the Capital Regional District's (CRD) approach to planning to locate the new wastewater treatment plant at McLoughlin Point in Esquimalt.

Background:

- Since 1979, provincial legislation has required sewage treatment.
-
- s13, s16
- In 2006, the Environment Minister ordered the CRD to develop a plan to implement wastewater treatment in the Core Area. Later that year, and again in 2007, Premier Gordon Campbell promised provincial funding to support implementation of the plan.
- In 2007 the CRD identified McLoughlin Point as the preferred wastewater treatment plant (WWTP) site, in part due to the Township of Esquimalt not wanting the WWTP at Macaulay Point (see Appendix 1 and 2 for a map of locations).
- In 2010, the Minister of Environment authorized the Liquid Waste Management Plan (LWMP) that identified the Project, including a wastewater treatment plant at McLoughlin Point.
- Since 2010, the CRD has invested significant resources towards the purchase, from Imperial Oil, of the previously contaminated McLoughlin Point site, and to establish access to the site through Department of National Defense property.
- In 2012, the federal government enacted new wastewater regulation which clarified the federal requirement for communities like the core area of the CRD to provide secondary treatment for sewage discharges to the ocean.
- To meet the federal regulations, this project must be operational by 2020.
- In early 2013, the funding Contribution Agreement (CA) between the Province (MCSCD) and the CRD was signed.
- Design work on the conveyance (pump stations and piping) and on the wastewater treatment plant aspects of the project are already underway.
- Local taxpayers are responsible for only one-third of the capital costs of the project because the provincial and federal governments are each contributing approximately one-third of the nearly three-quarters of a billion dollar capital cost.

Mandate Considerations:

- Delaying the project will increase costs, which may be expected to be borne by the Province.
Cancelling the project will defer significant capital and environmental costs to future generations.

First Nations Considerations:

- First Nations generally support the project, which improves environmental protection and thus supports healthy shellfish harvesting.

Discussion:

- In their letters dated July 17, 2013, the Mayor and CAO of Esquimalt identified their dissatisfaction with the process and approach used by the CRD to press upon Esquimalt the expectation that the wastewater treatment plant will be located at McLoughlin Point.
- The Township of Esquimalt requested that the Province do the following:

s13, s16, s17

Page 3 redacted for the following reason:

s13, s16, s17

Recommended Response:

s13, s16, s17

Contact: Liam Edwards
Telephone: 250-356-0218

i:\services_infra_div\briefing notes\2013\esquimalt crd sewage meeting note.docx \ Cliff #
Last update:19/07/2013 - cweidman

Ministry of Community, Sport and Cultural Development
BRIEFING NOTE FOR MINISTER

Ref #: 153877

FOR INFORMATION

Date: August 12, 2013

Title: Capital Regional District (CRD) Wastewater Project:

- (1) Motion August 14, 2013, being brought to CRD Board.
- (2) Update on zoning dispute negotiations between the CRD and Esquimalt.

Issues:

- (1) A controversial motion has been tabled to the Capital Regional District (CRD) Board meeting on August 14, 2013, by Saanich Councillor and CRD Board member, Mr. Vic Derman.
- (2) The CRD and Township of Esquimalt (Esquimalt) have met and will meet again to discuss compensation for Esquimalt to accept that the wastewater treatment plant for the CRD Core Area be located within its boundaries at McLoughlin Point.

Background:

Motion

- The motion seeks another extensive review of the approved CRD Core Area Wastewater Treatment Project and issuance of another Request for Expression of Interest for sewage treatment.
- To date, the CRD has spent about \$68 million dollars on planning for the project, of which the Province and Federal governments each provided approximately \$3 Million.
- The Core Area Liquid Waste Management Plan (Plan) which outlines the current wastewater treatment project, with the treatment plant at McLoughlin Point and the Biosolids Energy Centre at Hartland, was approved by the provincial Minister of Environment in 2010.
- Canada and British Columbia have committed about \$501 Million, in total, to assist the CRD with implementing the sewage treatment project.
- The provincial Contribution Agreement was signed with the CRD in March, 2013, after which work on the project began in earnest.

Zoning Dispute

- In June, 2013, Esquimalt publically denounced the use of McLoughlin Point for the Core Area wastewater treatment plant.
- In July 2013, Esquimalt passed a bylaw identifying numerous requirements to be met by the CRD as compensation for locating the treatment plant at McLoughlin Point.

- Esquimalt agreed to meet with the CRD to discuss compensation; the second meeting was held August 8, 2013; further meetings are planned.
- Senior staff members from the Ministry attended as observers at the request of the CRD and Esquimalt.

Mandate Considerations:

-

s13, s16, s17

- The current timeline of the project is incorporated into the funding Contribution Agreement signed between the Province and the CRD and is included in the provincial budget.

-

s13, s16, s17

First Nations Considerations:

- In general, First Nations support the project as it improves environmental protection for the marine environment.

Discussion:

s13, s16, s17

Speaking Points:

s13, s16, s17

Contact: Catriona Weidman, Senior Infrastructure Resource Officer
Local Government Infrastructure and Finance Branch
Telephone: 250-952-6517

\\volcano\s33003\services_infra_div\briefing
notes\2013\cliff_153877_information_note_for_crd_wastewater_treatment_vicderman_motion_summary.
docx \ Cliff #153877
Last update:12/08/2013 - cweidman



Making a difference...together

**REPORT TO THE CAPITAL REGIONAL DISTRICT BOARD
MEETING OF WEDNESDAY, AUGUST 14, 2013**

**SUBJECT NOTICE OF MOTION CORE AREA LIQUID WASTE SEWAGE TREATMENT
PROJECT**

ISSUE

At the July 10, 2013 Capital Regional District Board meeting, Director Derman gave notice of the following motion:

WHEREAS the currently proposed Core Area Liquid Waste sewage treatment project may provide only limited environmental gains and, in particular, appears to be a considerably less than optimal response to climate change mitigation challenges that are rapidly becoming the imperative of our time:

WHEREAS the City of Colwood and the Township of Esquimalt have brought forward approaches to the sewage project that hold the promise of greater environmental benefits and a better financial outcome, and given that other such opportunities likely exist within the core area:

WHEREAS the CRD approach to these initiatives and potentially others, has appeared to be inconsistent with a spirit of cooperation, a major CRD goal, and has, instead, likely fostered division:

WHEREAS in general, but especially in recent times, the conduct of the core area sewage treatment project has likely served to lessen public confidence in the capability and viability of regional government:

BE IT RESOLVED that the Capital Regional District Board request the Core Area Liquid Waste Committee to:

1. *Initiate an extensive, independent review of the current project with the intention of insuring that the approach taken to sewage treatment:*
 - a. *Optimally responds to global and local environmental issues particularly those involved in climate change.*
 - b. *Within environmental imperatives, accomplishes the best possible financial outcome and contributes to a sustainable financial environment for regional, provincial and federal taxpayers.*
 - c. *Is characterized by an approach that fosters a spirit of cooperation between regional government and member municipalities.*

- d. *Serves to restore citizens' confidence in the capability and viability of regional government.*
2. *Initiate, in parallel, a new Request for Expressions of Interest that would allow any group to bring forward progressive approaches such as those suggested by the Township of Esquimalt.*

BE IT FURTHER RESOLVED that the Capital Regional District Board commit to working with the Core Area Liquid Waste Committee to approach provincial and federal officials both at the staff and political level in order to insure that time for such a review and expression of interest process is available without putting provincial and federal financial contributions in jeopardy.

BACKGROUND

In June 2010 the Capital Regional District (CRD) Board approved the current amendment to the Core Area Liquid Waste Management Plan (the Plan). The Plan was subsequently approved by the Minister of the Environment (MOE) in August of 2010. The Plan meets the MOE and the Federal discharge regulations. Canada and British Columbia have committed \$501 million to assist the CRD with implementation of the Plan. In his letter of August 25, 2010 the Minister stated:

"Ministry staff believe that the current strategy provides a practical, cost effective system that incorporates current resource recovery opportunities (with the generation of offsetting revenues) and facilitates future resource recovery opportunities. Examples include your commitment to produce biogas and fuels from sludge, to recover phosphorus from biosolids and to recover heat in the treatment process. Please ensure that the Resource Recovery and Use Plan is developed to optimize the further recovery of resources from wastes."

Based on the approval of the Plan, the Program Management Office has been established and advisory consultants were retained. The request for qualifications (RFQ) process has been completed and a request for proposals (RFP) for McLoughlin wastewater treatment plant was issued to three teams selected from the RFQ received.

IMPLICATIONS

CLIMATE CHANGE MITIGATION

The motion suggests that the current plan appears to be a considerably less than optimal response to climate change mitigation challenges. Climate change mitigation will be achieved by recovering and/or reusing the resources in sewage to reduce the Core Area Wastewater Treatment Program's (the Program) carbon footprint. The resources available from sewage are heat, which can be recovered regardless of the number of treatment plants constructed, biogas and phosphorus from the sludge digestion process, and potentially the product of biosolids and water reuse.

The carbon footprint of the Program is made up of carbon emissions during construction, carbon emissions during operation of the facilities which will depend on the treatment technology employed and carbon offsets as a result of resource recovery. The Plan has a negative carbon footprint of 5,385 tonnes CO₂e per year with the cement kiln option for disposal of the biosolids or negative 3,643 tonnes without the cement kiln option. Additional carbon sequestration would occur if land application of biosolids was approved. Carbon offsets are also achieved through the recovery of phosphorous equal to 2,700 CO₂e/yr tonnes compared to conventional fertilizer manufacturing. There will be a one-time increase in emissions during construction of 6,224 tonnes. In addition there are opportunities to include processing of the current surplus landfill gas, digestion of fats, oils, grease and food wastes to increase gas production. Alternative technologies for disposing of sludge such as fluidized bed combustion has a positive carbon footprint 1,470 tonnes or negative 135 tonnes with digested biosolids.

Should a distributed system be considered using membrane technology, the one-time carbon emissions would be greater during construction, the carbon emissions during operation would also be greater as the carbon footprint of membrane technology is more than double that of the biological aerated filter technology used in the indicative design. In both cases, anaerobic digestion of biosolids is assumed. In the case of membrane technology, sludge production would be up to 20% higher due to the higher quality of effluent produced.

In both cases, additional reductions in the carbon emissions could be achieved by recovering heat from the sewage and the treated effluent; however, incentives would be necessary to implement heat recovery beyond the needs of the treatment plant. In 2009, the Peer Review Team questioned the economics of heat recovery from sewage in the mild Victoria climate, citing the willingness of purchasers to pay for the necessary infrastructure to utilize the heat effectively, the price they are willing to pay for the heat given the infrastructure costs for making use of the heat compared to alternative energy sources and the need to provide a standby heat source to account for anticipated service interruptions. Subsequent studies by the CRD have confirmed that subsidies will be required to make an economic case for heat recovery. This has been recently demonstrated by the new Oak Bay high school. Without a grant from British Columbia, the School Board decided not to use heat recovered from the nearby trunk sewer. To recover heat from sewage it is not necessary to build a distributed treatment system. In False Creek in Vancouver, heat was extracted from the sewer system at a pump station to provide heat to the Olympic Village, although the cost will be higher than from treated effluent. In the Victoria area heat pumps that extract heat from air are common without any cost associated with the heat source i.e., the air is free. Such systems produce three to four units of energy output for each unit of energy input.

As part of the planning process extensive work was undertaken to identify and evaluate resource recovery opportunities including identifying existing heating boiler demands, mapping energy demands and estimating sewer heat energy supply potential. (Discussion Paper - Identification and Evaluation of Resource Recovery Opportunities 036-DP-1 available on the Wastewater Made Clear web page). That led to development of a Discussion Paper on 'Development of Distributed Wastewater Management Strategies' (036-DP-2). Subsequent cost estimates for a distributed system were as high as \$2 billion, excluding the cost of the infrastructure necessary to distribute heat energy to potential customers. As noted in the Integrated Resource Management (IRM) Report commissioned by British Columbia, 'Building owners will have to be convinced of the benefits of converting heat pump energy.'

The Plan currently includes a district energy system in Esquimalt that would use recovered heat from the McLoughlin Wastewater Treatment Plant effluent.

1) ALTERNATIVE APPROACHES

It has been suggested that alternative approaches to the current Plan would hold the promise of greater environmental benefits and a better financial outcome. These approaches typically involve a distributed system, with multiple small plants. Also, the approaches are primarily applicable to new, high density developments where heat recovery and water reuse can be designed into the developments, for example, the Capital City Development in Colwood. However, adapting these approaches to existing low density developments is problematic and would require significant expenditures on district heating infrastructure and retrofitting buildings to take advantage of the recovered resources such as heat and water.

It has also been clearly established that multiple distributed plants will require significantly more capital to construct and will have much higher operating costs if membrane technology is used (see Attachment 1). The cost per cubic metre of wastewater treatment capacity at Dockside Green, for example, is approximately \$20,000, compared to approximately \$2,000 per cubic metre for the McLoughlin treatment facility excluding the cost of treating the sludge in both cases. Dockside Green disposes of the screenings at Hartland landfill via SPL and the sludge is sent to SPL and transported up island for composting. As noted previously, a membrane (tertiary) treatment facility will produce approximately 20% more sludge than the current plan with secondary treatment. Each facility will require redundancies that include back-up power, as well as treatment processes that include screenings, grit removal, primary treatment prior to membrane treatment and effluent disposal. Membranes have a lifecycle of 7-10 years before needing to be replaced, resulting in a higher lifecycle cost than the current Plan. The resulting screenings and grit will have to be transported to the landfill for disposal and the sludge would be trucked to a centralized treatment facility as outlined in the Integrated Resource Management report. These activities will add to the carbon emissions of a distributed system. The current plan does not preclude the construction of other Dockside Green developments within the core area provided that the MOE requirements can be met. In the case of Dockside Green, one of the MOE requirements was a backup discharge point specifically, the City of Victoria sewer. This requirement would need to be met for all plants in the proposed distributed system. Construction of development specific treatment systems have the advantages of confining the capital and operating costs to the purchasers of the units within the development and of reducing the growth related loading on a centralized treatment plant thus deferring the need for additional capacity.

A distributed system would also present significant challenges from a land use and community perspective as the siting of facilities is inevitably met with high levels of local community opposition.

2) FINANCIAL

Should the motion be successful there will be significant financial implications for the CRD as a result of a delay in implementing the sewage treatment. Construction inflation costs are low at present (1-2%) but are expected to increase in 2015 and beyond (2-4%). This will potentially add \$15 to \$30 million per year to the cost of the Program. The cost of the peer review, a new

planning process and public consultation will add an additional \$1 to \$2 million. In addition to the cost of the peer review is consideration of additional resources to conduct the review as all resources are currently fully deployed.

If a distributed system was ultimately adopted, significant land acquisition costs would be incurred as facilities would inevitably be located in neighbourhoods with high land values. Previous analysis has estimated that a distributed system would substantially increase the capital cost of the Program. For example, Amendment No. 7 to the Plan consisted of tertiary plants in Saanich East and on the Westshore and secondary treatment followed by tertiary treatment of part of the effluent. This estimated cost of the tertiary treatment was an additional capital cost of \$160 million and \$4.5 million in annual operating costs. Also, Option 2, a distributed system with seven tertiary treatment plants, was estimated to cost \$1.6 billion and the Option 3, a distributed system with 11 tertiary treatment plants, was estimated to cost \$2 billion.

SCHEDULE

In 2009 the CRD commissioned an independent peer review of the Plan that took approximately four months after the appointment of the peer review team. An extensive, independent peer review of the current project would likely take a minimum of six months from initiation to implementation of recommendations. If the current plan was changed as a result of the review, for example, a distributed system implemented, there would likely be a further delay of at least a year as candidate sites were identified as it would be unrealistic to expect the private sector to find sites. The public would need to be consulted, the sites acquired, indicative designs prepared, RFQ's issued, proponents shortlisted and an RFP issued.

THE CURRENT PROPOSAL CALL

Should the CRD initiate, in parallel, a new Request for Expressions of Interest (RFEI) to allow any group to bring forward progressive approaches, it will have to abandon the RFP that is currently in progress. The three teams selected to prepare proposals are currently actively working on their proposals with the expectation of there being a contract award at the end of the process. At the introductory meeting on August 1, 2013, 39 representatives from the three teams attended. Collectively, the team will spend several million dollars preparing their proposals. Should the CRD Board approve the motion, the credibility and integrity of the proposal call will be undermined as will the credibility of the CRD, and the Core Area Wastewater Treatment Program Commission. This will send a very negative message to the marketplace, and may in fact result in legal action by the proponent teams to recover the costs incurred to date in preparing proposals. Such an action will ultimately result in increased costs to the CRD to pay for the peer review, construction inflation costs, and the higher risk perceived in the market place by potential bidders on a revised plan.

The preparation and design of a new RFEI would need to be based on the results of the independent review and it would therefore be premature to consider an additional RFEI at this

stage. Preparation of a new RFEI, time for responses and evaluation will require at least an additional six months following completion of the review.

FUNDING AGREEMENTS

The current Plan has been approved by British Columbia, and has approved funding by Canada under the Building Canada Fund, the Green Infrastructure Fund, Public Private Partnerships Canada and British Columbia. Under the agreement with British Columbia dated March 13, 2013, the CRD has agreed to commence the Project in a manner acceptable to the Province by September 13, 2013. If the CRD fails to do so and unless the Agreement is renegotiated, the Province may terminate the agreement.

The British Columbia agreement sets out that no payments will be made by the Province after March 31, 2020. The Green Infrastructure Fund and Building Canada Fund agreements have a time limit to claim reimbursement by January 31, 2019 at the latest. In the case of PPP Canada, the CRD must select a preferred proponent for the biosolids facility and enter into a definitive Financial Agreement with PPP Canada by March 31, 2015.

Should the actions contemplated in the motion be implemented, the CRD will be challenged to meet its obligation to commence the Project by September 13, 2013, pursuant to its agreement with the Province. A new Waste Management Plan will likely be drafted, along with a new definition of the "Project". As such, all of the funding agreements will likely have to be re-negotiated, which will take four to six months after the new plan is approved.

Under the Federal Regulations the CRD is required to have secondary sewage treatment operational by December 31, 2020. As recently illustrated in Metro Vancouver, the Federal Ministry of the Environment will file charges under the Fisheries Act for violations of the Act.

THE CORE AREA WASTEWATER TREATMENT PROGRAM COMMISSION

Bylaw No. 3851 established the Core Area Wastewater Treatment Program Commission and delegated the authority to implement the Program, a requirement of the Province as a condition of providing its funding. Following a review of the terms of the RFQ/RFP and approval of the principles of evaluation of the RFP by the CRD Board in accordance with the bylaw, the Commission issued the RFP for the McLoughlin wastewater treatment plant in keeping with the approved Plan. Should the motion be approved by the CRD Board, the delegated authority of the Commission will be put into question and the Commission bylaw would need to be amended. Such action would lead to a breach of the Provincial funding agreement putting the agreement and the funding at risk. This will again increase uncertainty in the market place and be perceived as additional risk.

CONCLUSION

The Minister of Environment approved amendments to the Core Area Liquid Waste Management Plan (the Plan) in August of 2010 at the request of the CRD Board. The Plan meets the MOE and the Federal discharge regulations. Canada and British Columbia have committed \$501 million to assist the CRD with implementation of the Plan,

The Board approved the terms of the RFP and authorized the Commission to issue the RFP for the McLoughlin wastewater treatment plant in accordance with the approved Plan. Undertaking an independent review of the project along with a new Request for Expressions of Interest will significantly jeopardize the timing, cost and funding of the Core Area Wastewater Treatment Program.

RECOMMENDATION

That the Capital Regional District receive the report for information.

J. A. (Jack) Hull, P.Eng, MBA
Interim Program Director
Core Area Wastewater Treatment Program

Robert Lapham, MCIP, RPP
Chief Administrative Officer
Concurrence

JH:hr

Attachment: 1

APPENDIX TITLE

SUMMARY OF CRD-ESQUIMALT (TE) McLOUGHLIN POINT SECOND DISPUTE MEETING

Meeting Date/Time: August 8th 2013 1pm-3pm

Meeting Location: CRD Head Office

IN ATTENDANCE:

Bob Lapham(CRD CAO)

Laurie Hurst (TE CAO)

Jack Hull (CRD)

Bill Brown (TE)

Dean Strongitharm (CRD consultant)

Lois-Leah Goodwin (CSCD – Observer)

Liam Edwards (CSCD – Observer)

s13, s16

The discussion was focused on the appropriate issue – achieving acceptable terms and conditions to allow for the treatment plant to be sited and zoned appropriately at McLoughlin Pt. No out of scope issues were raised (e.g. alternative siting, project delays, project budget, etc).

SUGGESTED PROCESS AND TIMELINE TO REACH RESOLUTION

- Parties agreed early-mid October is likely earliest possible time for resolution.
- Agreed not all items can be addressed through the zoning bylaw.
- Agreed best solution to address all issues is a package of three approaches:
 1. Amended zoning bylaw with new agreed upon requirements;
 2. Additional items to be included in a separate “amenity agreement” (for lack of a better term); and
 3. A list of items/concessions to be addressed through addendums to the RFP procurement process.

Key actions and proposed timeline

Date/time	Action	Responsibility
August 14	Circulate to group the following: <ul style="list-style-type: none"> • Draft amended bylaw 2805 • Draft “amenity agreement” • Draft addendums to RFP 	CRD
August 21	CRD/TE meeting to discuss draft documents CSCD to attend as observers	All
Sept 9	TE committee of the whole meeting – possible to set up adjoining special council meeting for first and second reading of amended bylaw 2805	TE
Oct 7,8 or 9	Possible public hearing and third reading	TE

MEETING CONTENT

- The CRD presented an alternative package/bundle of amenities, which addressed the majority of TE's concerns.
- CRD addressed each item/amenity identified in TE's zoning bylaw (bylaw) and stated whether or not it could/would be met.
- There were approximately 25 items identified in TE's zoning bylaw.
- Of these CRD agreed to undertake/directly address at least 19 items.
- Of the remaining items the CRD claims they:
 - will indirectly address another 3 items;
 - will partly address 1 item; and
 - cannot/will not address 2 items:
 - reclaimed water use beyond internal wastewater treatment process because treatment level at this time is inadequate for re-use; and
 - install permanent dock for inner harbour ferry service because of onerous Canadian Environmental Assessment requirements.
- Full list of items will follow with minutes from CRD.
- Two items worth highlighting at this time are:
 - TE stated their greatest concerns are around impacts during construction.
 - CRD willing to barge during heavy construction period including but not limited to excavation, filling and large concrete pours for foundations.
 - CRD willing to do all the originally proposed street upgrades including bike paths recognizing there will still be construction impacts.
 - TE's concern about not enough innovation, resource recovery and TE's requirement for an annual contribution of \$55,000.
 - CRD offered to construct a distribution heating loop (loop) from the wastewater treatment plant (WWTP) to the Esquimalt village centre and recreation facilities.
 - The loop brings excess heat from the WWTP for use at any facility TE would like to connect – TE responsible for connection fees.
 - TE is proposing significant re-development of its village centre, and thus this is an opportunity to develop a low cost district heating system.
 - This would offset significant heating costs for TE facilities, replacing the \$55,000 annual contribution requested by TE.
 - Additionally, TE could create an energy utility along with Development Permit Areas whereby all new development would be required to connect to the system resulting in significant revenue opportunities.
 - This is an opportunity for TE to become a leader in the region for resource recovery and sustainable energy alternatives.
 - Estimated cost of the loop to the CRD is approximately \$3 million.

Ministry of Community, Sport and Cultural Development
BRIEFING NOTE FOR MINISTER

Ref #: 153880

FOR INFORMATION

Date: August 12, 2013

Title: Capital Regional District (CRD) Wastewater Project:

- (1) Motion August 14, 2013, being brought to CRD Board.
- (2) Update on zoning dispute negotiations between the CRD and Esquimalt.

Issues:

- (1) s13 motion has been tabled to the Capital Regional District (CRD) Board meeting on August 14, 2013, by Saanich Councillor and CRD Board member, Mr. Vic Derman. The motion seeks another review of the approved CRD Core Area Wastewater Treatment Project and issuance of another Request for Expression of Interest for sewage treatment. s13, s16, s17

s13, s16, s17

- (2) The CRD and Township of Esquimalt (Esquimalt) have met and will meet again to discuss compensation for Esquimalt to accept that the wastewater treatment plant for the CRD Core Area be located within its boundaries at McLoughlin Point.

Background:

(1) Motion

- The motion seeks another review of the approved CRD Core Area Wastewater Treatment Project and issuance of another Request for Expression of Interest for sewage treatment.
- To date, the CRD has spent about \$68 million dollars on planning for the project, of which the Province and Federal governments each provided approximately \$3 Million.
- Extensive reviews of the project rationale and potential solutions, including exploration of a wide variety of treatment options, were undertaken between 2007 and 2010. Considerations included:
 - Comparison of one centralized treatment plant versus several decentralized plants, including consideration of many of the assessment criteria identified in the motion; and,
 - Peer review of the current approach and project.
- Work has begun on the project, including:
 - Establishment of the Commission that will manage the project to completion.

- The Province required that an independent body, such as a Project Corporation, be established to manage the project without political intervention. The Province accepted the CRD's proposal that a Commission established by bylaw would meet this requirement.
- Completion of a request for qualifications (RFQ) process for the McLoughlin wastewater treatment plant.
- Issuance of the RFP to three teams selected from the RFQ. The multi-million dollar cost of completing the RFP requires a limitation on the number of proponents.
- In June 2010, the Capital Regional District (CRD) Board approved the current amendment to the Core Area Liquid Waste Management Plan (Plan) which outlines the current wastewater treatment project with the treatment plant at McLoughlin Point and the Biosolids Energy Centre at Hartland and meets the provincial and the federal regulations for wastewater discharge.
- Between 2010 and 2012, a comprehensive Business Case on the project and its procurement possibilities was developed by the CRD. Considerations included capital and operating costs and revenue potential from resource recovery.
- Canada and British Columbia have committed about \$501 Million, in total, to assist the CRD with implementing the sewage treatment project.
- The provincial Contribution Agreement was signed with the CRD in March, 2013, after which work on the project began in earnest.

(2) Zoning Dispute

- In June, 2013, Esquimalt publically denounced the use of McLoughlin Point for the Core Area wastewater treatment plant.
- In July 2013, Esquimalt passed a bylaw identifying approximately twenty-five requirements to be met by the CRD as compensation for locating the treatment plant at McLoughlin Point, the most important of which are:
 - Minimizing the impacts of the construction period using methods such as the use of barges to reduce truck traffic on local roadways;
 - Incorporating more innovation and resource recovery in the project; and,
 - An annual contribution of \$55,000 per year.
- Esquimalt agreed to meet with the CRD to discuss compensation.
- The second meeting was held August 8, 2013, between the CAO's and senior staff members of the CRD and Esquimalt. Senior staff members from the Ministry attended as observers.
- Further meetings are planned.

Mandate Considerations:

-

s13, s16, s17

- The current timeline of the project is incorporated into the funding Contribution Agreement signed between the Province and the CRD and is included in the provincial budget.
-
-

s13, s16, s17

First Nations Considerations:

- In general, First Nations supports the project as it improves environmental protection for the marine environment.

Discussion:

s13, s16, s17

Page 21 redacted for the following reason:

s13, s16, s17

s13, s16, s17

Attachments:

Appendix A: CRD Report to the CRD Board Meeting of Wednesday, August 14, 2013.

Appendix B: Summary of CRD-Esquimalt McLoughlin Point Second Dispute Meeting

Contact: Catriona Weidman, Senior Infrastructure Resource Officer
Local Government Infrastructure and Finance Branch
Telephone: 250-952-6517

\\volcano\s33003\services_infra_div\briefing
notes\2013\cliff_153880_information_note_for_crd_wastewater_treatment_vicderman_motion.docx \ Cliff
#153880
Last update:12/08/2013 - cweidman

Ministry of Community, Sport and Cultural Development
BRIEFING NOTE FOR MINISTER

Ref #: 155125

FOR MEETING

Date: February 21, 2014

Title: CRD Sewage the apparent public opposition of MLA Andrew Weaver to the existing CRD plan.

Issue:

MLA Andrew Weaver has requested a meeting to discuss his ideas about sewage treatment in the Capital Regional District's (CRD) Core Area.

Background:

- Since 1979, provincial legislation has required sewage treatment.

s13

- In 2006, the Environment Minister ordered the CRD to develop a plan to implement wastewater treatment in the Core Area. Later that year, and again in 2007, Premier Gordon Campbell promised provincial funding to support implementation of the plan.
- Over almost four years, the CRD worked to develop an amendment to the Core Area Liquid Waste Management Plan (LWMP). Numerous possibilities were considered, including different the types and locations of treatment facilities, and many public consultative activities were undertaken.
- In 2010, the Minister of Environment authorized the CRD's LWMP identifying the current Project, of a wastewater treatment plant at McLoughlin Point and an Energy Centre at the Hartland Landfill.
- Since 2010, the CRD has invested significant resources towards the purchase, from Imperial Oil, of the previously contaminated McLoughlin Point site, and to establish access to the site through Department of National Defense property.
- In early 2013, the Provincial (MCSCD) Contribution Agreement (CA) with the CRD was signed.
- Local taxpayers are responsible for only one-third of the capital costs of the project because the provincial and federal governments are each contributing approximately one-third of the nearly three-quarters of a billion dollar capital cost.
- Design and construction on the conveyance (pumping and piping) work is now well underway as is design on the wastewater treatment plant.
- To meet the federal regulations, this project must be operational by 2020.

Mandate Considerations:

- This project supports sustainable community development, while at the same time supporting local and regional economic activity, resulting in over 8,000 direct and indirect jobs over the life of the project.

Liquefied Natural Gas Considerations:

- There are no direct considerations for LNG with this project, however, the project will result in biogas production (from anaerobic digestion of sludge to create methane gas this gas will be used on site and "scrubbed" and injected into the Fortis Natural Gas distribution network.

Fiscal Considerations:

-
- s13, s16, s17

Discussion:

- MLA Weaver has participated, as a speaker, in two recent public information events held to oppose the CRD wastewater treatment project that is currently underway in the core area. Two main concerns raised at these events are stated to be the cost and affordability of the infrastructure and alternative ideas presented by others.
- s13 (<http://www.andrewweavermia.ca>), MLA Weaver has documented his opinion about sewage treatment in the region, and states his position as follows:
 - *"I would like to see municipal, provincial and federal governments agree to a 2020 deadline for implementation of sewage treatment."*
 - *"I would want to see an integrated liquid and solid waste management strategy put in place that includes a thorough examination of distributed systems, exploration of public-private partnerships, and industry led solutions."*
- Additional issues raised on his webpage include the following:
 - Project schedule
 - Oak Bay sewage overflows
 - No need for secondary treatment tertiary or nothing
- s13, s16
-

s13, s16, s17

- As part of the funding application process, and as required for provincial funding of more than \$50 million, opportunities for Public Private Partnership (P3) were fully evaluated. Partnerships BC was engaged to review, participate, and advise the Ministry in the development of the Business Case for funding the CRD project resulting in the project going ahead with two P3 components.
- Provincial and Federal funding arrangements with the CRD are based upon the two major components of the project being P3 projects, each with a significant private investment, as follows:
 - The wastewater treatment plant will be a Design-Build-Finance project; and,
 - The Energy Centre will be a Design-Build-Finance-Operate project.
- To oversee and manage the project through the tender and construction phases, an independent Commission was established. The commission is comprised of experts from across North America and is responsible to ensure a successful project that delivers outcomes on time and in budget.
- Through deliberation with a broad representation of industry, the two treatment components were identified as the portions of the project of value for industry to bring innovation and P3 investment. By separately tendering each component, industry specialists will provide their innovation, expertise, and capital, and the province, CRD, and taxpayers will gain from the maximum bidding competition with the lowest-risk outcome.
- The schedule is established by the CRD according to the design, tender, construction and commissioning work required for each component of the project.

- The Uplands area of Oak Bay relies on a “combined sewer” collection system that collects surface runoff from rainfall as well as household sewage. This type of sewer is no longer built because of its tendency to overflow during rain events, and increased treatment costs for greater flows.
 - By upgrading this system to collect rainfall runoff separately from sewage, the problem of sewage overflow on local beaches would be resolved.
 - Oak Bay Village rejected provincial funding towards separating these sewers.
 - In the CRD, local collection systems, such as the one in the Uplands, are the responsibility of each municipality while the CRD is responsible for the major “trunk mains” that convey sewage from the municipal collection system to the treatment plant and marine outfalls.
 - The project will result in secondary treatment of liquid waste and a Class A (highest rated remediated soil/solid classification) residual biosolid product from the sludge process.
 - Secondary treatment, removal of solids, results in significant contaminate removal from the liquid waste, greatly reducing the amount of heavy metals and other contaminants of concern.
 - The project is also designed to accommodate tertiary treatment in the future as needed.
 -
 -
 -
- s13, s16, s17
- Legislated requirements for wastewater treatment are established by provincial and federal Ministers of the Environment based on significant work undertaken by experts.

Recommended Response:

Contact: Liam Edwards, Director, Infrastructure and Engineering
Telephone: 250 356-0218

i:\services_infra_div\briefing notes\2014\155125 meeting note for crd sewage mla weaver.docx \ Cliff
#155125

Last update:21/02/2014 Weidman, Catriona CSCD:EX

Ministry of Community, Sport and Cultural Development
BRIEFING NOTE FOR MINISTER

Ref #: 155265

FOR INFORMATION

Date: March 17, 2014

Title: Capital Regional District (CRD) Core Area Liquid Waste Management Plan (CALWMP) and the CRD Wastewater Treatment Project.

Issue: Through the CALWMP (approved by the Minister of Environment), the CRD has committed to provide sewage treatment for the seven communities in the Core Area. The treatment facilities will include a wastewater treatment plant, a biosolids treatment facility, in the form of a resource recovery centre, and improvements to the sewage conveyance system (pumps and pipes.) The capital cost of the project is estimated at about \$750 Million, and federal and provincial governments are sharing these costs with the CRD in a one-third each (approximately), trilateral arrangement. The Ministry of Community, Sport and Cultural Development (MCSCD) is the lead Ministry for this project and the Minister is the signatory for the funding Contribution Agreement.

Background:

CRD Core Area Wastewater Treatment Project and the Liquid Waste Management Plan

- The CRD Core Area consists of the seven communities of: the Cities of Victoria, Langford and Colwood, the Districts of Oak Bay and Saanich, the Township of Esquimalt and the Town of View Royal.
- Currently, the CRD collects sewage from the core area and discharges raw, screened sewage to the ocean. This practice does not meet federal or provincial environmental regulations which require secondary wastewater treatment and management of the residual semi-solids (biosolids.)
- In 2006, the Minister of Environment ordered the CRD to develop a plan for the Core Area that will provide wastewater treatment as required by regulation.
- In accordance with that order, the CRD developed the Core Area Liquid Waste Management Plan (CALWMP). Development of the CALWMP included broad stakeholder communications including public forums and discussion with local First Nations.
- In 2010, the CRD received provincial approval from the Minister of Environment for the CALWMP, implementation of which includes the following project components:
 - A wastewater treatment plant at McLoughlin Point in Esquimalt;
 - A biosolids resource recovery facility at the Hartland Landfill in Saanich; and,
 - Improvements to the conveyance system, including pump station upgrades, pipe installations, and a storage tank.
- Work on the project is underway.
 - Construction began in 2013 on some components of the conveyance system upgrade.
 - Preliminary design work has been awarded to three constructors who will compete for the construction contract for the wastewater treatment plant.

Provincial Funding for the Project:

- The Province publically committed to funding one-third of the best, lowest-cost solution (subject to P3 consideration) at the UBCM Convention in 2006 and in the 2007 Throne Speech.
- To be eligible for provincial funding of over \$50 Million, the CRD was required to develop a Business Case that considered the benefits of a Public-Private-Partnership (P3) approach to the project.
- The resulting Business Case, which was reviewed by Partnerships BC, supported use of a P3 for two project components: the wastewater treatment plant and the biosolids resource recovery centre.
 - The wastewater treatment plant will be procured as a Design-Build-Finance (DBF) P3.
 - The resource recovery centre will be procured as a Design-Build-Finance-Operate (DBFO) P3.
 - The conveyance system improvements will be procured using the more traditional approaches of Design-Build and Design-Bid-Build.
- The Business Case (2010) estimate for the capital cost of the project was \$743 Million; one-third of that cost is about \$248 million.
- In 2012, the Province signed a contribution agreement with the CRD for one-third of the eligible costs, up to a maximum of \$248 Million, dependent on completion of all project components.
- The Federal government has committed to funding \$253 Million towards the project, as follows:
 - \$83.4 Million from the P3 Canada Fund to the biosolids centre;
 - \$120 Million, approximately, from the Building Canada Fund to wastewater treatment; and,
 - \$50 Million from the Green Infrastructure Fund to the conveyance system improvements.
- The provincial funding contribution will be made at substantial completion and after final commissioning of the entire wastewater system, which is a normal approach with projects of this complexity.
- With two-thirds senior government funding, the CRD has estimated a cost to residents of about \$300, on average. Municipalities will determine the financial recovery mechanism within their own communities (for example: parcel tax, user fee, or a combination.)

s13, s16, s17

Liquefied Natural Gas Considerations: n/a

Fiscal Considerations:

- Provincial payment is expected to occur in fiscal 2017/18 and fiscal 2018/19 and is included in the provincial budget.

Discussion:

- s13, s16, s17
- Since 2006, the CRD Board has voted on numerous project issues as the CALWMP was developed.
 - The representatives of the following three communities consistently voted against proceeding with the project: Esquimalt, View Royal, and Colwood.
- The key issues of controversy, each of which is discussed below, are as follows:
 - Dispute over the science requiring sewage treatment prior to ocean discharge;
 - Esquimalt location of the Wastewater Treatment Plant;
 - Sludge pipeline from the wastewater treatment plant to the biosolids centre at the Hartland Landfill in Saanich; and,
 - Sewage treatment in Colwood and on the Westshore.

The Science Requiring Sewage Treatment:

- The science requiring treatment has been reviewed by provincial and federal authorities who have confirmed, through environmental regulation, the need for sewage treatment for all discharges to water from communities across Canada, including the Core Area of Victoria.
- Federal and provincial regulations require a secondary, or better, level of wastewater treatment.

Esquimalt Location for the Wastewater Treatment Plant:

- The CALWMP, which was approved in 2010 after significant public engagement, identifies McLoughlin Point, in Esquimalt, as the location for the wastewater treatment plant.
- Over the last several years, the CRD worked closely with the Department of National Defence to secure access to the McLoughlin Point site and with Imperial Oil (Esso) to purchase the land and to have the cleanup of contaminated soils completed. That work is complete and was required because the site was previously an oil tank farm.
- Although the current zoning of the site would allow for a wastewater treatment plant, the CRD requested a bylaw amendment to relax some restrictions, including the marine setback.
 - During the recent bylaw review process, Esquimalt rekindled public outcry against the project by opening the floor to public dissenters.
 - Esquimalt council is expected to vote on the bylaw amendment in early April, 2014.
- Early this year (2014), Minister Coralee Oakes and Minister Mary Polak directed Esquimalt and the CRD to resolve the zoning issue themselves and in good faith and to develop an amenity package suitable to both parties. This package forms part of the CRD's request for bylaw amendment.

Sludge pipeline from Esquimalt to the Hartland Landfill:

-
- s13, s16
- The sludge pipe will likely follow the route of an existing pipeline that currently carries leachate from the Hartland Landfill to Macaulay Point in Esquimalt for discharge to the ocean with the raw sewage.
- This leachate will soon be directed into the wastewater treatment plant and treated before discharge a benefit of the treatment plan that few members of the public recognize.

Sewage treatment in Colwood:

- The current, approved CALWMP includes a wastewater treatment plant in Colwood but delays its construction until population growth requires additional treatment capacity above that provided by the McLoughlin Point plant estimated to occur in about 2030.
 - Between now and 2030, sewerred areas in Colwood would be served by the McLoughlin Point treatment plant in Esquimalt.
- Recently, Colwood requested the CRD allow them an opportunity, within the CALWMP, to investigate suggestions from some lobbyists that a small treatment plant could be constructed immediately in Colwood at a significant savings over sewage service at McLoughlin Point.
- The CRD has approved the request in principle, allowing Colwood until the end of 2014 to further investigate the suggestion of a separate treatment plant in Colwood.
- Colwood is seeking its own wastewater treatment solution with the purpose of reducing the cost of sewage treatment to its residents.
- Whichever the outcome, the estimated cost to residents of the Core Area is expected to remain similar to the cost already estimated by the CRD (about \$300 per household on average.)
- If, after the investigation is complete, the CRD and Colwood decide to support building a small plant in Colwood immediately, the provincial funding Contribution Agreement may need to be amended to clarify the communities to be served by the treatment plant in Esquimalt.

-
- s13, s16, s17
-

Contact: Catriona Weidman, Senior Infrastructure Resource Officer
 Local Government Infrastructure and Finance Branch
 Telephone: 250-952-6517