



Making a difference...together

CORE AREA WASTEWATER TREATMENT PROJECT BOARD

Notice of Meeting on **Thursday, August 4, 2016 @ 9:30 am**

6th Floor Boardroom*, 625 Fisgard Street, Victoria, BC

Jane Bird (Chair)
David Howe

Don Fairbairn (Vice Chair)
Bob Lapham

Jim Burke
Colin Smith

Brenda Eaton

AGENDA

1. Approval of Agenda and Statement of No Conflict
2. Approval of Minutes – July 7, 2016 Meeting
3. Report of the Chair
4. Presentations/Delegations
5. Business Case Development – Update & Budget
6. Due Diligence Panel – Terms of Reference and Related Process
7. Correspondence – July 2016
8. New Business
9. Motion to close the meeting in accordance with the *Community Charter*, Part 4, Division 3, 90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the regional district or another position appointed by the regional district; (c) labour relations or other employee relations; (e) the acquisition, disposition or expropriation of land or improvements, if the regional district considers that disclosure could reasonably be expected to harm the interests of the regional district; (m) a matter that, under another enactment, is such that the public may be excluded from the meeting; and 90((2)(b) the consideration of information received and held in confidence relating to negotiations between the regional district and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.
10. Adjournment

*Meeting room for the open meeting has been changed. Please see above.

To ensure quorum, advise Sonia Santarossa 250.360.3129 if you are unable to attend.

EXEC-184034712-46



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ITEM 2

Minutes of a Meeting of the Core Area Wastewater Treatment Project Board Held Thursday, July 07, 2016, in Room 488, 625 Fisgard St., Victoria, BC

Present: **Members:** J. Bird (Chair), D. Fairbairn (Vice Chair), J. Burke, D. Howe, R. Lapham, C. Smith
CRD Staff: B. Reems, Corporate Officer; R. Sharma, A/Chief Financial Officer; A. Orr, Senior Manager Corporate Communications; D. Telford, Senior Manager, Environmental Engineering; S. Santarossa, Manager Legislative & Corporate Initiatives (recorder)
Absent: B. Eaton

The meeting was called to order at 9:00 a.m.

1. Approval of Agenda and Statement of No Conflict

MOVED by D. Howe, **SECONDED** by B. Lapham,
That the agenda be approved as circulated.

CARRIED

The members stated they did not have a conflict of interest with any of the agenda items.

2. Approval of Minutes – June 20, 2016

MOVED by C. Smith, **SECONDED** by B. Lapham,
That the minutes of the meeting held June 20, 2016 be approved.

CARRIED

3. Report of the Chair

The Chair reported that work is ongoing and that she has been working with D. Fairbairn, J. Burke and the consultants to review materials in preparation for the development of the Business Case.

The Chair also reported that the first report of the Project Board will be presented to the CRD Board in open session on July 13. A draft will be circulated prior to finalization and will include updates in the following three areas:

1. The Project Board has reviewed the CRD Board Procedures Bylaw with staff and will follow the CRD protocols including receiving delegations and presentations.
2. The Project Board is engaging in a review of all the work done to date including public consultation.
3. Review of the Project timetable that would support the Business Case.

The Chair presented the proposed establishment of a peer review panel of 2-3 individuals with expertise in sewage treatment that have not been involved in the process to date. It is expected that the panel would engage with the Project Board to advise whether a reasonable process was undertaken and whether the recommendation is acceptable.

4. Presentations/Delegations

There were none.

5. Project Budget – Business Case Development

It was clarified that the Project Budget for the Business Case Development will be approved by the Project Board and will form part of the monthly budget reporting to the CRD Board.

Discussion ensued relative to the proposed budget as presented and staff was requested to provide further analysis in the Communications, Property and Miscellaneous and Legal budget areas. It was also recommended that a Business Case Review budget item for \$100,000 be added.

MOVED by B. Lapham, **SECONDED** by D. Fairbairn,
That the Project Budget – Business Case Development be referred back to staff for further review.

CARRIED

6. Scope of Services – Communications Advisor

The Chair reported that Kirk & Company has been retained by Stantec to review the public comment received to date regarding the sewage treatment project to identify key themes and areas of concern. The need for a communications advisor for the Business Case Development phase has also been identified and an RFP was recently issued. A. Orr noted that there has been some interest in the RFP and staff are determining how the consultant will report to the Project Board.

Staff was requested to:

- forward the communications plan referenced in the attached Scope of Services (Appendix A) to the next Project Board meeting for consideration; and
- prepare a communications protocol for consideration at the next meeting.

Staff was requested to amend the “Available Budget” section in the Scope of Services to clarify that the budget is \$65,000 and not “up to \$65,000”.

7. New Business: There was no new business.

8. Motion to Close the Meeting

MOVED by D. Howe, **SECONDED** by D. Fairbairn,

That the Committee close the meeting in accordance with the *Community Charter* Part 4, Division 3, Section 90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the regional district or another position appointed by the regional district; (c) labour relations or other employee relations; (e) the acquisition, disposition or expropriation of land or improvements, if the regional district considers that disclosure could reasonably be expected to harm the interests of the regional district; (m) a matter that, under another enactment, is such that the public may be excluded from the meeting; and 90(2)(b) the consideration of information received and held in confidence relating to negotiations between the regional district and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.

CARRIED

The Committee moved to the closed session at 10:09 a.m.

The Committee rose from the closed session at 12:00 p.m. without report.

9. Adjournment

By consent, the Project Board adjourned the meeting at 12:00 p.m. on July 7, 2016 until continuation of the closed session on July 10 and 11, 2016.

CHAIR

RECORDER



**REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF THURSDAY, AUGUST 4, 2016**

SUBJECT **Business Case Development – Budget**

ISSUE

To provide the Core Area Wastewater Treatment Project Board (Project Board) with a revised budget for developing the business case and provide a monthly budget update.

BACKGROUND

At its July 7, 2016 meeting, the Project Board was presented with a proposed Project Budget for the Business Case Development. The Project Board made recommendations to the proposed budget and referred the budget back to staff for further review. The revised budget is attached as Appendix A.

FINANCIAL IMPLICATIONS

Funding for the development of the business case is being drawn from the Core Area Wastewater Treatment capital budget, of which \$741,609,000 remains as of June 30, 2016.

CONCLUSION

Due to the accelerated pace of work on the business case, invoicing received from some of the suppliers and consultants may lag over the course of the summer. An updated budget with actual expenses and outstanding commitments to June 30, 2016 is provided to the Project Board as summarized in Appendix A.

RECOMMENDATION

That the Core Area Wastewater Treatment Project Board receive this budget update for information.

Submitted by:	Larisa Hutcheson, P.Eng., Interim Project Director
Concurrence:	Rajat Sharma, B.Eng., MBA, CPA, CMA, Senior Manager, Finance

LH:cl

Attachment: Appendix A – Business Case Budget

CORE AREA LIQUID WASTE MANAGEMENT PROJECT
Business Case Development
as at June 30, 2016

	PROPOSED BUDGET	ACTUAL	COMMITTED	TOTAL	REMAINING
Project Oversight (Project Board)	450,000	2,870	-	2,870	447,130
Communications	105,000	-	-	-	105,000
Feasibility and Costing Analysis	450,000	-	-	-	450,000
Business Case review	100,000	-	-	-	100,000
Partnerships BC	345,000	-	-	-	345,000
Project Management (Staff and Wages)	275,000	-	-	-	275,000
Miscellaneous and Legal	300,000	-	-	-	300,000
CALWMP Total	2,025,000	2,870	-	2,870	2,022,130



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**REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF THURSDAY, AUGUST 4, 2016**

SUBJECT **Due Diligence Panel – Terms of Reference and Related Process**

ISSUE

To establish the terms of reference and process to retain the Due Diligence Panel (the “DDP”).

BACKGROUND

At its meeting held July 13, 2016, the CRD Board was advised that a Due Diligence Panel would be established by the Project Board to review the development of the Business Case. Specifically, the DDP will review the development and application of the screening and ranking criteria and assess whether the process has been performed to an appropriate standard of quality.

Terms of Reference for the DDP have been drafted and are attached as Appendix A. In addition, the CRD Board Chair and Vice Chair, along with the Project Board Chair and Vice Chair, determined a process for creation of the DDP attached as Appendix B.

The DDP review is intended to provide feedback to the Project Board on document clarifications, improvements and any revisions that may be required. It is expected that the DDP will conduct its work at arm’s length from the Project Board and the CRD Board. The recommendations of the DDP are not binding; however, any recommendations accepted by the Project Board would be addressed in the Business Case prior to its submission to the CRD Board.

To ensure an independent review, the members of the DDP should be independent from the Project Board and the CRD Board. Any candidates with a real or perceived conflict of interest based on past or current work including a contract associated with the project or a financial interest in common with a potential proponent of wastewater treatment equipment and technology suppliers, will not be eligible for the DDP.

The DDP is expected to carry out their work over a period of approximately one month, August to early September. Given the time available and the logistics to retain panel members, the DDP will be retained by the Project Board and will consist of three members: one member to be recommended by the Project Board, one recommended by the CRD Board and one recommended by those two members. The CRD Board will consider candidates at a closed meeting on August 10 while the Project Board will consider candidates at a closed portion of this meeting.

ALTERNATIVES

Alternative 1:

That the terms of reference and process to establish the Due Diligence Panel, attached as Appendix A and B respectively, be approved and forwarded to the Capital Regional District Board for information.

Alternative 2:

That the process and terms of reference to establish the Due Diligence Panel be referred back to staff.

IMPLICATIONS

Members of the DDP will be compensated for their work. A budget of \$100,000 has been established to carry out this work and is included in the overall budget for development of the Business Case.

CONCLUSION

A Due Diligence Panel is required to review the work associated with developing the Business Case. The terms of reference and process to establish the DDP are before the Project Board for consideration.

RECOMMENDATION

That the terms of reference and process to establish the Due Diligence Panel, attached as Appendix A and B respectively, be approved and forwarded to the Capital Regional District Board for information.

Submitted by:	Brent Reems, MA, LLB, Senior Manager Legislative & Information Services
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BR:ss

Attachment: Appendix A – Due Diligence Panel - Terms of Reference
Appendix B – Due Diligence Panel – Process

CORE AREA WASTEWATER TREATMENT PROJECT BOARD

**DUE DILIGENCE PANEL
TERMS OF REFERENCE**

The Due Diligence Panel (“DDP”) will be responsible for reviewing the development and application of the screening and ranking criteria, assessing whether the screening and ranking process has been performed to an appropriate standard of quality and identifying potential problems, inconsistencies, errors of logic or discrepancies.

The review of the screening and the ranking criteria will test that:

- They reflect the project’s objectives and the project board’s terms of reference;
- There are no gaps and minimal overlaps among the criteria;
- The criteria are reasonable and can be applied in a clear and consistent manner;
- The screening and ranking methodology is appropriate;
- The screening and ranking methodology has been applied reasonably, consistently and fairly; and
- The process is likely to determine the best proposal.

The review is intended to provide feedback to the Project Board on document clarifications, improvements and revisions that may be required.

The DDP will be provided access to all project documentation directly related to the screening and ranking process.

The DDP is expected to ask questions of the Project Board members and to test the consistency of the logic that has been applied in the screening and ranking process. It is the responsibility of the Project Board to resolve issues and it is the responsibility of the DDP to satisfy itself that all issues have been resolved and that the work has been conducted diligently.

The feedback provided by the DDP is for consideration by the Project Board. The assessments and recommendations arising from the screening and ranking process are ultimately those of the project board; and not those of the DDP.

It is important that the DDP conduct its work at arm’s length from the Project Board, and the CRD Board. The review conducted by the DDP allows its suggestions and comments to be considered by the Project Board. However, the DDP suggestions and comments are not binding and discretion will be exercised by the Project Board in considering the DDP recommendations, provided such discretion is exercised transparently.

To ensure an independent perspective of the work being reviewed, it is important that the members of the DDP are independent from the Project Board and CRD Board. The DDP members should declare any potential conflict that they may have that could undermine the objectivity (real and perceived) of their work.

The DDP will provide a written summary report of its findings to the project board and to the CRD Board.

Proposed Process for Due Diligence Panel

1. CRD Board Chair and Vice Chair and the Project Board Chair and Vice Chair have agreed that the Due Diligence Panel will:
 - a. be retained by the Project Board;
 - b. have Terms of Reference, the terms of which will be submitted for consideration by the Project Board;
 - c. have three members, one recommended by the CRD Board, one recommended by the Project Board and one recommended by those two members;
2. A pool of candidates with appropriate experience has been assembled by the Project Board Chair and Vice Chair;
3. The Chair of the CRD Board will invite members of the CRD Board who wish to do so to suggest names (including a CV) to the CRD Corporate Officer to be added to the pool of candidates by close of business on Tuesday, August 2, 2016;
4. Between August 2 and August 5 Bull Housser and Tupper (BHT) will contact each person in the pool of proposed candidates to confirm whether:
 - a. they are willing to have their name stand as a candidate to be retained by the Project Board for a three-member Due Diligence Panel (the Terms of Reference for which will be described or e-mailed by BHT as applicable for each candidate);
 - b. they are available to carry out the work envisioned by the draft Terms of Reference over a period of approximately one month from August to early September; and
 - c. they do not have a conflict of interest; and would not be perceived by others to have a conflict of interest (including a conflict based on their past or current work – e.g. active contracts with CRD members; past or current consulting work on the project) - or a financial interest in a vendor of waste water treatment equipment;
5. BHT will provide a list of potential candidates who have confirmed 4. a through c, above (the Pool);
6. From the Pool, the Project Board Chair and Vice Chair will identify a first, second and third choice candidate for the Due Diligence Panel to be approved by the Project Board;
7. A Report will be considered at the Project Board open meeting of August 4 recommending for approval:
 - a. Terms of Reference; and
 - b. Process for appointing a candidate to be retained for Due Diligence Panel;
8. A Report from the Project Board Chair and Vice Chair will be considered at the Project Board closed meeting of August 4 recommending for a candidate for the Due Diligence Panel.

9. A Report from the Project Board to be considered at the CRD Board open meeting of August 10 for information:
 - a. Terms of Reference; and
 - b. Process for appointing a candidate to be retained for DD Panel.
10. From the Pool, the CRD Board Chair and Vice Chair will work with the Board to identify a nominee for the Due Diligence Panel;
11. Candidates will be contacted by BHT and advised that they have been selected, and asked to enter into confidentiality and conflict agreements; they will be asked to nominate a third member of the DD Panel from the Pool, who BHT will also ask to complete confidentiality and conflict agreements;
12. Retained candidates select a third member of the Due Diligence Panel from the Pool.

From: brmorrison.associates@telus.net
To: [cawtpb](#)
Subject: Contact Us - Submission
Date: Tuesday, July 05, 2016 2:43:12 PM

The following message was received through the form at 'https://www.crd.bc.ca/contact-us?r=wwproject-board'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Bruce R. Morrison, P.Eng. (retired)

Your Email Address:

brmorrison.associates@telus.net

Message:

Hello,

- To introduce myself, I am a semi-retired mechanical engineer by trade, and have worked on many capital project management as a career. Projects have always been my delight, and the Lower Vancouver Island sewage treatment project has been a focal point for me for many years. I have lived in Colwood for the past 9 years and have developed a deep appreciation of the City Government's focus on the environment. Solar Colwood, the Heat Pump Initiative and the Electric Car charging stations are all items that we, as Colwood residents, can hold our heads high and proclaim our City's commitment to helping to improve the world!

- However, I have been deeply disappointed due to the apparent lack of proper focus by the CRD on this sewage initiative. Early on, I saw the Seaterra plans as a disaster and was really extremely pleased when Esquimalt shot that idea down in flames. The countless failed initiatives and poorly thought-out acquisitions have caused a huge drain of precious funds from tax-payers' pockets. I cite the Craigflower sewage booster pump station near the 4-Mile Pub as a tremendous waste of those funds for two reasons:

1. The beautification is very nice, but is a hugely unnecessary extra cost especially to a potentially
2. Unneeded facility if the plan to have a plant stationed anywhere in the Westshore is realized

I am a resident of the City of Colwood and as such sent a presentation to the 20th June 2016 Council Meeting regarding the over-whelming power of the CRD over its member municipalities per attached. I will let that document speak for itself.

- I have worked on an initiative that looks at the City of Colwood having a sewage treatment plant not unlike the very successful new one in Sechelt. If the City of Colwood was the sole user of a new plant, I project that its capacity would actually be less than is currently installed at Sechelt and cost no more than \$25million. It could be installed anywhere, but the Park-and-Ride lot at the corner of Ocean Boulevard and the Old Island Highway would be ideal. It is centrally located to be able to possibly pick up Langford's and View Royal's waste streams also. It is also close to facilities that could make good use of some of the non-potable effluent stream, including the Royal Colwood Golf Course and the revitalized Capital City Centre at Colwood Corners, as irrigation and toilet flushing non-potable water, reducing the cost of very expensive CRD water.

- I would like to meet with the Board that has been appointed to make recommendations on what the new sewage treatment system would look like for the CRD member municipalities.
- I have developed an Alliance Partnership with two companies who would be fully capable of designing and building a new plants or two for the CRD. Knowing of course that the award of such a contract would require a public Request for Proposal, I am confident that with the extremely narrow schedule available to complete the project, this Partnership would be a stellar performer by being able to get the job done, on time, on schedule and exceed the benefits asked for.
- A good project starts with a good foundation of sound ideas and innovative thinking and I know that this group is fully capable of doing that normally impossible task of designing and building works worth tens of millions in less than the 27 months available when the Provincially appointed board completes their recommendations at the end of September this year, the deadline being the end of 2020, the date set for the successful acquisition of Senior Government grants for this work.
- I am available most any time and could meet wherever is best suited to you and the panel. Please give my idea some thought and facilitate a meeting to discuss this further. If you or the members of the panel have not visited the Sechelt plant while it is in operation, then I would suggest that Sechelt might be an ideal location to meet after a plant tour.
- I have also attached a printout of my LinkedIn recommendation for your information.

Sincerely,

Bruce R. Morrison, P.Eng. (retired)

Senior Project Manager

B.R.Morrison & Associates – Project Managers

Colwood, BC

Mobile +1 (250) 208-4771

Linked In Recommendations for Bruce R. Morrison, Senior Project Manager

Bill Clarke, Independent Management Consulting Professional

Bruce is an experienced and competent project manager, who has significant technical skills and in-depth experience in the pulp and paper industry."

December 12, 2014, Bill managed Bruce R. indirectly at Catalyst Paper

Rick Percy, Manager Production

A talented project manager. Able to handle large multi faceted projects with a positive outcome December 9, 2014, Rick managed Bruce R. at B.R.Morrison & Associates

Dave Fox, Area & Plant Manager at BC Hydro Power Generation

Bruce is an experienced and competent project manager, who has significant technical skills and in-depth experience in the pulp and paper industry.

September 29, 2014, Dave was a consultant or contractor to Bruce R. at B.R.Morrison & Associates

Steve Mjoen, Reliability Supervisor at Catalyst Paper

Bruce was an excellent colleague to work with, a great mentor and passionate about the projects that he was involved with. Bruce is successful due to his analytics, attention to detail and his ability to think outside the box, this allows him to work side by side with clients to successfully execute projects time after time. September 27, 2014, Steve worked directly with Bruce R. at B.R.Morrison & Associates

Kevin McPetrie, Industrial Electrician, Communications Specialist. Catalyst Paper

I have worked alongside Bruce both directly and indirectly and always appreciated his professionalism and attention to achieving the best results on the projects we collaborated on. Excellent colleague to work with and for.

September 16, 2014, Kevin worked with Bruce R. at B.R.Morrison & Associates

Rob Lapsley, Owner, Cook, Gardener at Stone Wood Bed and Breakfast

Bruce does extremely detailed work, making sure all the "T"s are crossed and the "I"s dotted. He develops meaningful budgets and pays attention to the bottom line at all times. He is an excellent project manager, gets along well with his peers and develops efficient working relations with his subordinates.

I highly recommend Bruce.

September 15, 2014, Rob worked directly with Bruce R. at B.R.Morrison & Associates

Kelly Olsen, Owner, Kel-Tech Safety Services (colleague)

"Bruce is a very detailed Manager that runs his jobs with precision. Bruce is very professional and pleasant and I enjoyed working for him. His scheduling was well planned and he ensured his projects were completed safely, on time and on budget. I would recommend Bruce for any project large or small because he never compromises safety and he gets the job done!" August 27, 2014

Hugh Gallinger, Quality Control Engineer, Catalyst Paper (colleague)

"Bruce's crowning achievement while I worked with him was the \$10 million dollar Split Mill Project implemented between in 1998 and 2000. This project gave Crofton a 70 ton/day production increase and achieved the primary goal of significantly reducing product variability going to customers. Bruce is a hard working pleasant individual that has an uplifting positive impact on any work environment. I would welcome working with Bruce at any time." August 23, 2014

Dale Shimell Maintenance Superintendent, FCCL hired Bruce as a Project Manager in 2007 and hired him more than once (client)

Dale's comment on his top qualities: Personable, On Time, Creative

"Bruce is very knowledgeable. He integrates well with the regular work force and becomes part of the team easily. Bruce is very capable of adapting to change as necessary." August 21, 2014

Brian Gallagher Director - Chemical Pulping, GL&V (business partner)

"I've known Bruce for 30-something years. He has a long experience in the pulp industry, and has a great personality to work with. I think he would be a considerable asset on any project." August 21, 2014

Rod Mitchell Senior Business Analyst Operation Specialist, Catalyst Paper (colleague)

"Bruce was a very detailed oriented manager. No item was too small to warrant his attention. Managed each and every project with the same dedication, and prided himself on ensuring the work was done to high level of workmanship and was on budget." August 23, 2014

Ross Davis Manager, Purchasing and Millstores, Catalyst Paper (colleague)

"Bruce was a very capable Engineer that was able to handle significant projects being aware of fiscal and time restraints to complete projects. Able to think outside the box to move issues forward in a timely manner." August 21, 2014

Doug Turlock Red Seal Industrial Electrician, Catalyst Paper (colleague)

"I have worked with Bruce for many years and have enjoyed every minute. Bruce has always shown a high degree of excellence in the projects he has taken on. Bruce has always been a personable guy with a good sense of humor and always open to listening to new ideas. Being very organized Bruce's projects are planned out well and come in on time and on budget. If the opportunity ever arose I would not hesitate to work for Bruce on one of his projects. I highly recommend him." August 21, 2014

Kim Pedersen Director of Operations, Catalyst Paper (colleague)

"As a project manager Bruce comes highly recommended. He is details oriented and very knowledgeable about both process and equipment. He strives to deliver a project not only on time and on budget but also exceeding the expectations in terms of the quality of the deliverables." August 24, 2014

Paul Francisty Steam Plant / Recovery Shift Supervisor, Catalyst Paper Crofton Division (colleague) "I have worked on number of projects with Bruce Morrison and he is very task oriented, pays attention to details and keeps projects and budgets on time." August 29, 2014

Fred Mason Kraft Mill Shift Supervisor, Catalyst Paper Crofton Division (colleague)

"I worked with Bruce at both the MacKenzie and Crofton Pulp Mills. I found him very knowledgeable in Engineering and the daily operation of the mill. Bruce was quite accessible with a sharp sense of humour." August 19, 2014

Lyle Evans Corporate Controller, Catalyst Paper (colleague)

"As the Mill Controller, I worked with Bruce on many projects from hundred thousand dollar projects to hundred million dollar projects. I found Bruce managed his projects extremely well, always had a handle on his project costs and managed his budget and timelines well. With Bruce there were no surprises. I would recommend Bruce without hesitation." August 19, 2014

Ken Dennis Principal Engineer - Mechanical/Piping, Allnorth Consultants Limited (colleague)

"I worked with Bruce on the Steel Pacific Recycle Project where he provided Owner's Engineer Project Management Services. Bruce is a very competent Project Manager with a wealth of knowledge that he gained during his engineering career." August 19, 2014

Derwyn Lea Project Manager, BCFP / FCCL / HA Simons (colleague)

"I recommend Bruce Morrison as Project Manager in the industrial and process sectors."
August 19, 2014

Submitted at: 7/5/2016 2:43:10 PM

Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>

User Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko

User Host Address: 50.92.251.24

From: hans@yourhealthbase.com
To: [cawtpb](#)
Subject: Contact Us - Submission
Date: Monday, July 04, 2016 12:25:24 PM

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Hans R. Larsen

Your Email Address:

hans@yourhealthbase.com

Message:

On April 18, 2016 the Mayor of Esquimalt submitted a letter to Robert Lapham, CRD Chief Administrative Officer on the subject of Land Use Approvals. In her letter the Mayor stated that the council of the Township of Esquimalt had unanimously passed the following resolution on April 13, 2016:

(6) That the Township of Esquimalt will not support the placement of a centralized wastewater treatment facility in Esquimalt.

Does this mean that a centralized plant in Esquimalt is "off the table"? It seems unfair to me that the new Project Board has their hands tied even before they start considering their options. After all, a centralized plant at McLoughlin Point was deemed the most logical and cost-effective option by the CRD Commission dealing with the matter in 2012 and the land needed for the plant was subsequently purchased by the CRD.

If indeed Esquimalt is "off limits" due to the intransigence of the Mayor and Council, has consideration been given to initiate expropriation of a 200-500 meter zone around the abandoned tank farm at McLoughlin Point so as to provide room for a regional wastewater treatment plant as well as the Biosolids Energy Centre currently envisioned for the Hartland landfill site?

Finally, it is my understanding that the design and construction of the Biosolids Centre have received conditional approval for an \$83.4 million P3 grant from the Federal Government. The grant specifies that the private sector will be responsible for designing, building, financing, operating and maintaining the Biosolids Centre for 25 years. Am I correct in assuming that the design, construction and operation of the wastewater treatment plant itself is not subject to the conditions (private-public partnership and an innovative approach) specified in the P3 grant portion of the Federal funding?

Yours truly

Hans R. Larsen, PEng

Submitted at: 7/4/2016 12:25:23 PM
Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>
User Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:47.0) Gecko/20100101 Firefox/47.0
User Host Address: 207.6.183.61

From: chelseavanda@gmail.com
To: [cawtpb](#)
Subject: Contact Us - Submission
Date: Sunday, July 03, 2016 9:43:05 AM

The following message was received through the form at 'https://www.crd.bc.ca/contact-us?r=wwproject-board'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:
Chelsea Vinesen

Your Email Address:
chelseavanda@gmail.com

Message:
Hello, I am a lifelong resident of Vancouver Island. I was born in Nanaimo and have lived in Victoria for 25 years. I currently reside in Fernwood and frequently visit Clover Point on my running route, and on drives to watch the ocean. It has been my understanding that for as long as I've lived here our city has been dumping our screened sewage into the ocean at Clover Point. As high school students we were so grossed out that we would not let our dogs play in the water there, and we would certainly not swim in the waters surrounding Clover Point. As an adult my family understands the need to clean up this area and our practices. We FULLY SUPPORT a sewage treatment plant at Clover Point. We think that it will be a valuable and necessary addition to this area. The residents opposed to this proposal don't seem to like change and will continue to say no to any proposed change, regardless of the benefits to our community as a whole. This also applies Macaulay Point site in Esquimalt.

Thanks for reading

Chelsea Vinesen

Submitted at: 7/3/2016 9:43:03 AM
Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>
User Agent: Mozilla/5.0 (iPhone; CPU iPhone OS 9_3_2 like Mac OS X) AppleWebKit/601.1.46 (KHTML, like Gecko) Mobile/13F69
[FBAN/FBIO; FBAV/57.0.0.41.136; FBBV/31395714; FBRV/0; FBDV/iPhone8,1; FBMD/iPhone; FBSN/iPhone OS; FBSV/9.3.2; FBSS/2; FBCR/Bell; FBID/phone; FBLC/en_US; FBOP/5]
User Host Address: 184.151.118.109

From: apence@uvic.ca
To: [cawtpb](#)
Subject: Contact Us - Submission
Date: Friday, July 01, 2016 8:11:24 PM

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Alan Pence

Your Email Address:

apence@uvic.ca

Message:

Subject: Sewage treatment and sewage treatment location

Dear Project Board Members,

As one of the hundreds who every day delights in the beauty of Dallas Road from Clover Point to Beacon Hill, I am astonished that such a regional treasure could ever have been raised as a possible site for a major sewage treatment plant.

The site is not only beautiful and frequented by visitors from throughout Greater Victoria, and tourists as well, it fronts on a densely populated neighborhood of home owners. Having visited the proposed McLoughlin Point site, population density, home ownership, visitor attraction and established beauty do not apply.

There are many reasons why McLoughlin Point was selected some time ago by engineers and planners as the most appropriate and cost-effective location for a sewage treatment site—those reasons and rationales exist in numerous documents which should serve as the basis for a rational decision. It is indeed unfortunate that politics was allowed to trump reason.

I, and hundreds of others who have spoken at assemblages, planted lawn signs and signed petitions, ask you to review the evidence, visit the locations, and consider the costs—social and financial. In doing so the inappropriateness of Clover Point ever having been considered for a major treatment site will be evident.

Thank you,

Alan Pence

91 Moss Street

Submitted at: 7/1/2016 8:11:22 PM
Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>
User Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; Trident/7.0; rv:11.0) like Gecko
User Host Address: 108.180.144.253

From: mkellerhals@hotmail.com
To: cawtpb
Subject: Contact Us - Submission
Date: Friday, July 01, 2016 4:40:26 PM

The following message was received through the form at 'https://www.crd.bc.ca/contact-us?r=wwproject-board'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Markus Kellerhals

Your Email Address:

mkellerhals@hotmail.com

Message:

Dear Project Board Members

Thank you for taking on the important task of leading the siting and designing of sewage treatment for Greater Victoria.

I believe that proceeding with the previous plan of building a treatment plant at McLoughlin Point is most likely the best plan for the region. A great deal of work has already been done on that plan and it was determined at the time to be the most cost effective plan for the region. Coming up with a totally new plan is likely to take more time than the region has available to meet funding deadlines and to meet the deadline for having treatment in place.

Other possible sites near the existing outfalls such as Macaulay Point, Ogden Point, Beacon Hill Park, and Clover Point Park are all inferior to McLoughlin Point. A plant at McLoughlin Point can have adequate setbacks from surrounding residences, will not disrupt heavily used park areas, and will of course be sited on land already owned by the CRD.

There seems to be no need to build multiple treatment sites at this point in time. Many other cities treat sewage from populations larger than Greater Victoria with only one plant. For example the Annacis Island Plant in the GVRD treats sewage from over one million residents, approximately three times what is required in Greater Victoria. Building multiple plants here is likely to add cost, complexity, and delay for no obvious gain. That said, provision for a future plant on the Westshore where most of the region's population growth is happening, may make sense.

The level of treatment that was proposed at McLoughlin appears to be adequate to meet regulatory requirements and to protect the local marine environment.

In summary, rather than embarking on a lengthy and expensive process to come up with a totally new plan, I hope the project board can leverage all the planning work that has already been done for McLoughlin (plus the treatment of sludge at Hartland).

Thank you.

Markus Kellerhals

1322 Clover Avenue

Victoria, BC

mkellerhals@hotmail.com

Submitted at: 7/1/2016 4:40:25 PM

Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>

User Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:47.0) Gecko/20100101 Firefox/47.0

User Host Address: 50.99.52.172

From: mdurbach@gmail.com
To: cawtpb
Subject: Contact Us - Submission
Date: Friday, July 01, 2016 9:50:00 AM

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Miriam Durbach

Your Email Address:

mdurbach@gmail.com

Message:

Thank you to the new board for taking on this task.

I would like to you to know my concerns regarding the use of Clover Point for massive sewage treatment. First of all, Clover Point is a extremely important park for this area. It is used for many festivals and events and is the most popular park in the city. To dig it up to place an as yet untested system in an area with virtually no buffer zone from dense housing is unwise.

There is already an approved location for this sewage treatment which would save the municipalities thousand if not millions of dollars. I urge you to consider the use f Clover Point very carefully and act responsibly.

Thank you

Miriam Durbach

Submitted at: 7/1/2016 9:49:56 AM
Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>
User Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_4) AppleWebKit/601.5.17 (KHTML, like Gecko) Version/9.1 Safari/601.5.17
User Host Address: 108.180.144.253

From: md0281@telus.net
To: cawtpb
Subject: Contact Us - Submission
Date: Monday, July 25, 2016 7:02:15 PM

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Marilyn Day

Your Email Address:

md0281@telus.net

Message:

As further discussions continue in terms of proposals for locations for a Waste Water Treatment Plant – September 30 is fast approaching... I can appreciate the task at hand in sorting through the issues that have accumulated over the years...

I have written several emails outlining my rationale whereby I believe and continue in this frame of mind that the area known as Macaulay Plain, which is located directly behind or north to the CRD Pump Station and the area just west up the walkway of that location is the area known as historic Macaulay Point and Macaulay Fort.

For more practical consideration, I believe the area of Macaulay Plain is the best location as not only is the piping infrastructure already in place but that piece of property provides the best overall in terms of appropriate ocean setbacks and protection from not only ocean and tidal surges but also better protected from tsunami in the event of an earthquake. The area known as McLoughlin Pt. has none of the above as noted – and the latter is at the entrance to our harbour, it is increasing significantly as a working harbour, could be at risk from accidents from the ever increasing harbour traffic – hard landings have already occurred by not only cruise ships at Ogden Pt. during heavy winds, also the Coho Port Angeles ferry comes very close to that area, float plane traffic and the addition of the super yacht development at Songhees – Provincial guidelines of ocean setbacks is 30m but that of McLoughlin was only 1.5m and the size of the property at that location is too small to obtain the required Provincial setbacks from the ocean tides. Extensive blasting would also have to be done to build a waste water treatment plant and this could compromise the earthquake fault lying just below extending into the surrounding area of southern Vancouver Island.

The area known as Macaulay Plain was previously suggested to be the site of a sewage or waste water treatment plant – and the location was changed to McLoughlin Pt. because of political issues – At this point in time – any area could be open to negotiation – and I have been told that the area is the best overall location as have stated above. Additionally, recovering significant resources during the treatment of waste water is crucial to adopt the best overall green footprint – recovering water for treatment to potable water thereby creating a source of water for the Macaulay area to assist in mitigating the fire risk that exists at this time of year, returning less to the ocean and energy to assist in the operation of the waste water treatment system, which could reduce the operating costs – an example of this is Dockside Green on Harbour Rd. in the Victoria West area and the tertiary treatment system is proven to be the best treatment as compared to secondary as I am

certain you are aware. Further there is little no blasting necessary as part of the construction of the plant and the overall area is generous in terms of size for the appropriate location and size of the treatment system.

Submitted at: 7/25/2016 7:02:12 PM

Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>

User Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko

User Host Address: 154.20.47.27

From: peterjusto@gmail.com
To: cawtpb
Subject: Contact Us - Submission
Date: Wednesday, July 20, 2016 6:54:32 PM

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Peter Justo

Your Email Address:

peterjusto@gmail.com

Message:

GREATER VICTORIA WATER WATCH COALITION

c/o 102-929 Esquimalt Road,

Esquimalt V9A 3M7

July 19th, 2016

Dear Chair and Committee Members, CRD Sewage Treatment Project

The Greater Victoria Water Watch Coalition (GVWWC) is still watching Core Area Liquid Waste Management Committee (CALWMC) proceedings in anticipation of a timely resolution of the sewage treatment issue. We also take this opportunity to introduce ourselves to committee members who were not on this committee from the beginning.

From February 2006, to November 2009, we witnessed public consultations, graphic displays, debates, forums and petitions regarding sewage treatment in Greater Victoria. Eventually, we submitted a plan to the provincial government for a single site at McLoughlin Point.

At the time, the Greater Victoria Water Watch Coalition submitted a petition to the CALWMC demanding public ownership, operation and management of any proposed sewage treatment plant. There are more than 4,000 signatures of concerned citizens on that petition, obtained in face-to-face discussion on the subject, not just by electronic means.

The CALWMC, consisting of politicians elected by the public to heed public concerns, heard us, and the report CALWMC submitted to the provincial government called for a project that would be publicly owned and operated, with private enterprise being engaged mainly in the construction of it.

We continue to urge CALWMC to respect the public desire for public ownership and operation of such an important asset. Do not imperil the common good for the benefit of select groups. Let's get on with it, and always remember the original recommended plan, which clearly calls for maximum possible public ownership, operation, and management.

Cordially,

Peter Justo

for

Greater Victoria Water Watch Coalition

Submitted at: 7/20/2016 6:54:26 PM

Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>

User Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/46.0.2486.0 Safari/537.36 Edge/13.10586

User Host Address: 70.67.47.228

From: alison@engsite.ca
To: [cawtpb](#)
Subject: Contact Us - Submission
Date: Tuesday, July 26, 2016 12:55:29 PM

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Alison Henry

Your Email Address:

alison@engsite.ca

Message:

Hello Jane Bird and members of the board,

My name is Alison Henry, and our company, Engineered Site Products, is looking to supply the waterproofing for the upcoming WWTP in Victoria.

We at Engineered Site Products have been active in western Canada for the past 30 years and have acquired a unique insight into some of the most challenging waterproofing conditions in the world, with particular emphasis on downtown Calgary where we have completed the waterproofing scope of over 125 residential and mixed use towers (Including many Wastewater Treatment Facilities through out Western Canada). We specialize in developing products and solutions uniquely suited to challenging conditions and work with our clients to provide site specific details to align design and construction teams. What makes us unique, is we implement a quality assurance program with design assistance, support and 100% reviews which translates into the only no dollar limit warranty in the industry, effectively resulting in contractual accountability to ensure dry foundations regardless of technical challenges.

Would the board be interested in hearing about our materials in a presentation and how they specifically relate to the needs of this project? We would really appreciate your time to learn more about this WWTP and it's job specific requirements.

For more information on our company you can visit: www.engsite.ca or call Alison Henry @ (604)349-3073. Thank you for your time!

Warm Regards,

Alison Henry, BSc, CTR

Submitted at: 7/26/2016 12:55:24 PM

Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>

User Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/51.0.2704.103 Safari/537.36

User Host Address: 24.71.245.227

From: brmorrison.associates@telus.net
To: [cawtpb](#)
Subject: Contact Us - Submission
Date: Saturday, July 09, 2016 8:09:08 AM

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Bruce Morrison

Your Email Address:

brmorrison.associates@telus.net

Message:

Hello,

I would very much to be considered for the position of Project Director of the CRD Waste Water Project.

I have vast experience in heavy industry project management, primarily in pulp & paper in BC, and believe that I could bring great value to the subject Project.

I would like to submit my credentials and contract proposal to the Board in hopes that I could present myself in person to provide a good idea of what I can offer.

Sincerely,

Bruce Morrison P.Eng. (retired)

Senior Project Manager

B.R.Morrison & Associates - Project Managers

Victoria V9C 3S6

Email: brmorrison.associates@telus.net

Mobile: (250) 208-4771

Submitted at: 7/9/2016 8:09:06 AM
Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>
User Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
User Host Address: 209.52.88.230

From: [Walt Neufeld](#)
To: [Lindsay Taylor](#)
Subject: CRD Sewer Site - Hallowell Road
Date: Friday, July 15, 2016 11:53:36 AM
Attachments: [TCAdvertisement - sewage treatment site - May2016.docx](#)

Lindsay,

I know that the new committee is hard at work and that where to site the sewer treatment & bio solids site is at the top of their list.

I thought it prudent to touch base with you again regarding the site on Hallowell Road. I have attached a copy of the ad which was run in the Times Colonist.

We cited: **CRD Report #EWW 10 -82 ; Land Suitability Study for a Biosolids Energy Center – Core Area Wastewater Treatment Program**

A link to this CRD report, done in Oct. 2010, is below:

<https://www.crd.bc.ca/docs/default-source/crd-document-library/committeedocuments/corearealiquidwastemanagementcommittee/20101013/2010-oct-13-item-06-eww-10-82-land-suitability-study-for-a-biosolids-energy-centre---cawtpR.pdf?sfvrsn=0>

I trust that the committee has reviewed this report, but if not, this should allow them easy access to do so.

The site on Hallowell Road is presently owned by 0848052 BC Ltd.. There is a presently a contract in place for the sale of this property, but **0848052 BC Ltd. is still in a position to negotiate a sale to the CRD if they so desire.**

Please contact me with any questions or comments you may have.

Best Regards,

Walt

Director – 0848052 BC Ltd.

Walt Neufeld

Mortgage Broker / Partner

Great Pacific Mortgage & Investments Ltd.

101 – 835 View St., Victoria, B.C. V8W 3W3

Office: (250) 361-4775 Toll Free: 1 800-667-0440 Cell: (250) 812-9696 Fax. (250) 381-1914

- References: [1] Greater Victoria Sewerage Study, Associated Engineering Services Ltd, June 1966
 [2] Core Area Liquid Waste Management Plan, CRD, July 12th 2000
 [3] CBC News "All Points West" posted Nov 13, 2015

Before we choose the ultimate sewage treatment system[s], for the CRD Core Area Municipalities, we should all be aware of some basic facts: the first of these facts, is that in the 44-year history for Macaulay, and 35-year history for Clover Point, there has never been any scientific evidence of shoreline pollution caused by the operation of their Deep Sea Outfalls.

During this time however, there has been continuing periodic discharges of raw sewage into the relatively shallow waters off our sea and estuarine beaches. Why? -because in most, if not all, Municipal sewage laterals, is a combination of sewage and household stormwater runoff. In periods of heavy rainfall [normally November through March], the hugely increased flow would "overcharge" the sewage trunk lines, necessitating overflow stations discharging to the relatively shallow waters off our sea and estuarine beaches. Because there is not sufficient contact with full strength sea water at these outflows, some of the pathogens, such as e-coli, are not killed off, and we have, or should have, health warnings posted.

This overflow problem was noted in Reference [1], that is ⁵⁰ years ago! See attached copy of page 163 of this reference. It is still a problem today, [see attached copy of CBC Nov 2015 report]! Attached is a map showing the location of the outfalls, [the small sharp arrows]

It should be noted that no matter what type of sewage treatment we eventually select, we will still have this shoreline pollution problem unless we separate the sewage from the household stormwater. To do this, we need separate lines for each.

Surely it only makes sense to retain our "tried and true" Deep Sea Outfall treatment system, and rededicate the Billion or more \$ estimated for Land-Based Sewage Treatment, to separate [twin] all the household sanitary and stormwater drainage.

If we stop dumping raw sewage near our beaches, we could then challenge our American neighbors to show how we could provide more environmentally sound treatment for our sewage!

It might also be noted that twinning sewage and household stormwater drains, could be handled by local engineering and construction firms, keeping the dollars circulating in the community.

John Carson

CRD EXECUTIVE OFFICE
Received
JUL 20 2016

Chair
 CAO
 GM PES, IWS
 For action / resp. by _____
 Corresp. for Board / Committee meeting
 For Information Only
 Copies to P. Telford
5220-20 CAWTP

[Handwritten signature]

Stormwater, sewage lines should be separated

~~Times-Colonist~~ Jun 25, 2016

Re: "Science flushes away sewage-dilution theories," comment, June 21.

Before we choose the ultimate sewage treatment system for the core area, we should be aware that in the 44-year history for Macaulay and 35-year history for Clover Point, there has never been any scientific evidence of shoreline pollution caused by their deep-sea outfalls.

However, there have been periodic discharges of raw sewage near the shore and on beaches. Why? Because most, if not all, municipal sewage laterals combine sewage and household stormwater runoff. In periods of heavy rain, the hugely increased flow would "overcharge" the sewage trunk lines, necessitating overflow stations discharging to relatively shallow waters and estuarine beaches. Because there is not sufficient contact with full-strength sea water at these outflows, some of the pathogens, such as *E. coli*, are not killed and health warnings are posted.

No matter what type of sewage treatment we eventually select, we will still have this shoreline pollution problem unless we separate sewage from the household stormwater. To do this, we need separate lines for each.

It makes sense to retain our tried-and-true deep-sea outfall treatment system, and rededicate the billion or more dollars estimated for land-based sewage treatment to separate all the household sanitary and stormwater drainage.

If we stop dumping raw sewage near our beaches, we could then challenge our American neighbours to show how we could provide more environmentally sound sewage treatment.

Twinning sewage and household stormwater drains could be handled by local engineering and construction firms, keeping the dollars circulating in the community.

John Carson
Victoria

outfall, there is no reasonable alternative to this outfall site.

The present Clover Point trunk and lateral system has a number of points of direct storm water entry. The flow gauging conducted on this trunk indicates that sharp peak flows occur at the outfall chamber approximately 2 hours after the beginning of each rain storm. The magnitudes of the peak flows are difficult to measure as a number of overflows come into operation even after moderate rainfall. No allowance has been made in the design for storm water flows and it is recommended that the City continue its policy of tracing and eliminating storm water entry into this sanitary system.

Primary sewage treatment has been investigated for this location. As in other cases, treatment will permit the outfall to be shortened, but again this solution has been rejected on economic grounds. The added cost of a primary plant, even allowing for the shortened outfall, is estimated at \$1,680,000 for the initial stage and a further \$350,000 for the ultimate stage. In view of this added cost, there is no justification for treatment at this location. Still greater costs would be involved in providing treatment works which would be aesthetically acceptable without destroying the scenic and recreational value of this very attractive waterfront.

It is recommended that the facilities outlined under Plan A, Figure 19:7, including the extension of the Clover Point outfall, be constructed, and that sewage be discharged, following comminution, through the extended outfall.

AREA 4: McMICKING POINT

The McMicking Point sewerage area which covers 5,800 acres is shown on Figure 19:8. This area comprises the Municipality of Oak Bay and portions of the City of Victoria, and the Municipality of Saanich. Most of the area is presently served by the Northeast Trunk sewer which discharges raw sewage just below the low tide mark at McMicking Point. Two smaller trunks discharge at Rutland Road and at Humiber Road, and two minor outfalls are located at Harling Point. These systems are described in Chapter 8 and shown diagrammatically on Figure 8:2. In addition to the foregoing outfalls, small sewers discharge septic tank effluent directly into shoreline waters: two are located north of Gonzales Point and two in Cadboro Bay.

The McMicking Point sewerage area shown on Figure 19:8 includes the area now being served by the outfalls referred to above plus a portion of the "Saanich Panhandle." Sewage from the "Saanich

Panhandle" now flows to the Northwest Trunk. However, it must be pumped a number of times before reaching this trunk sewer and logically the flow should be diverted to the Northeast Trunk which is the natural outlet for the "Panhandle" area.

Although the existing Northeast Trunk sewer is adequate to handle normal infiltration and future domestic flows, field observations indicate that direct storm water entry to the system results in the overflow of storm water and sewage to the shoreline waters at Oak Bay and Turkey Head during periods of even moderate rainfall. The Municipality should make every effort to trace and eliminate these direct storm water connections.

A large section of Oak Bay, approximately 570 acres, has a partially combined sewage collection system in that roof and foundation drains are permitted to discharge to the sanitary sewer. Most of this area drains to the Windsor Park pumping station where the flow is pumped to the Northeast trunk sewer. This station is equipped with an overflow device that discharges to waters off Turkey Head. This overflow functions during periods of moderate to heavy rainfall. Remedial measures capable of preventing wastewater overflows would be costly and extremely difficult to achieve. Such measures would involve the disconnection of roof leaders and foundation drains, and the installation of new storm sewers with new service connections as required. It is unfortunate that storm water has been permitted to enter the sanitary system on a widespread scale and the Municipality of Oak Bay should investigate the installation of a separate storm sewer system. As an alternative solution extension of the existing relief outfalls off Oak Bay and Turkey Head should be investigated.

Several methods of improving the effectiveness of sewage disposal at McMicking Point have been investigated, and the two most reasonable solutions are discussed here.

Plan A

In Plan A as shown on Figure 19:8, the McMicking Point outfall would be extended across Enterprise Channel to the south end of Trial Island, A1. A pumping station, A2, would be required in order to prevent surcharging of the Northeast Trunk sewer. The total length of the outfall would be 6,400 feet of which 1,800 feet would cross the extremely difficult and turbulent waters of Enterprise Channel. The outfall would extend about 700 feet off Trial Island. Bottom conditions and tidal currents which will create difficult construction conditions are discussed in Appendix VIII.

B.C. storm causes sewage overflows in Greater Victoria

Capital Regional District advising people to stay away from several Greater Victoria beaches

By All Points West, CBC News Posted: Nov 13, 2015 5:26 PM PT Last Updated: Nov 14, 2015 9:25 AM PT

The heavy rains that hit B.C. on Thursday have caused the Capital Regional District to advise people to stay away from beaches on southern Vancouver Island, after storm water and sewage combined to create overflows.

The waste water is pumped, raw, into the Strait of Juan de Fuca by the CRD municipalities, and now the CRD has advised the public not to wade along the shorelines or allow their pets into the water in the core area of Greater Victoria.

"There may be a public health risk, so we're working closely with Island Health and the municipalities in the area to post signage along the affected shorelines," said Ted Robbins, the CRD's general manager of Integrated Water Services.

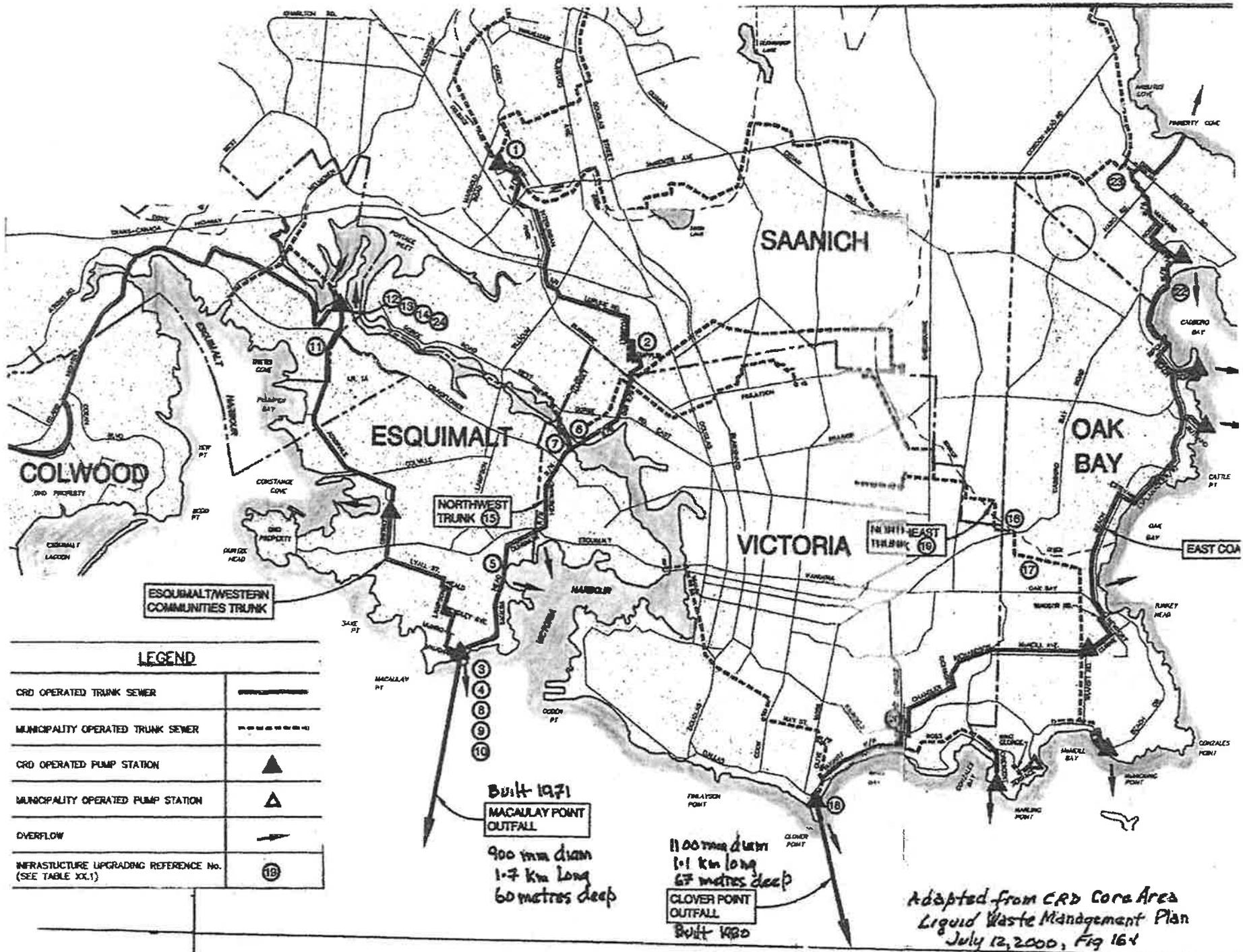
- Victoria sewage woes still cause stink
- Victoria sewage plant potential locations revealed
- Victoria sewage plant won't get provincial push

Robbins said the affected areas go from Arbutus Cove east to Ten Mile Point, Cadboro Point to Clover Point, along Dallas Road, and McLoughlin Point to Saxe Point and Macaulay Point.

Such sewer overflows are not unheard of in the CRD, but Robbins says they usually don't happen outside of peak sewer usage times: early morning and early evening.

He says the late overflow this time was a testament to how much rain came down on Thursday.

Robbins said the advisory will last until at least late on Sunday, when sampling of the water will be carried out after the storm has passed.



LEGEND

CRD OPERATED TRUNK SEWER	
MUNICIPALITY OPERATED TRUNK SEWER	
CRD OPERATED PUMP STATION	
MUNICIPALITY OPERATED PUMP STATION	
OVERFLOW	
INFRASTRUCTURE UPGRADING REFERENCE No. (SEE TABLE XX.1)	

Built 1971
**MACAULAY POINT
 OUTFALL**
 900 mm diam
 1.7 km Long
 60 metres deep

1100 mm diam
 1.1 km long
 67 metres deep
**CLOVER POINT
 OUTFALL**
 Built 1980

Adapted from CRD Core Area
 Liquid Waste Management Plan
 July 12, 2000, Fig 164

CRD EXECUTIVE OFFICE

Received

JUL 20 2016

Core Area Waste Water Treatment Project Board,
CRD, Victoria,
625 Fisgard St, Victoria, BC V8W 1R7

Attention: Chairwoman Jane Bird and Board Members

Chair
 CAO
 GM PES, IWS
 For action / resp. by
 Corresp. for Board / Project Committee meeting
 For Information Only
 Copies to D. Telford Victoria, BC,
5220-20 CAWTP 18 July 2016

Subject: Core Area Wastewater Project Review

Reference: prior correspondence to CRD and panels on Fluidized Sand Bed technology

Madame Chairwoman and Board

This letter follows the nomination of the Project Board, recent write-ups on the mandate of the Board, and past submissions on the matter.

I am a resident of Victoria with a background in Program Management around the world and electrical engineering as a foundation. I also represent Janicki Bioenergy and we have made a number of presentations to the CRD on the advantages and economic benefits of the Fluidized Sandbed Reactor S200 Processor to handle sewage sludge and other bio-waste streams.

I realize and appreciate the main intent of the Board to consider state of the art, and existing technology in arriving at a lowest cost, efficient, working and practical solution to address the 'core area' sewage that is currently being disposed of in the Strait of Juan de Fuca.

To this end, the Board is encourage to review all submissions to the CRD on the S200 Processor which would result in low cost, and profit to the Communities. The S200 is an effective waste processing plant using a Fluidized Sand Bed Reactor/Boiler in combination with dryers, steam plant, generator, water purification unit, waste feed units, cyclone and ash-bagging unit. The plant can be scaled and configured to waste streams. The plant output consists of water, electricity, steam, and fly-ash (for use in soil remediation or the cement industry) and thereby at a profit to the Communities. Attached is a summary data sheet on the plant for your review and consideration.

The CRD has been invited in the past to visit a model of the plant in operation nearby in Sedro-Woolley, Washington. Should the Board wish to observe the plant in operation, a visit can be arranged, and feel free to contact the undersigned for this purpose.

Sincerely,



P. Vallee, L&M GLOBAL SERVICES.

Waste Processing Unit Overview for sewage sludge and other biomass Janicki Bioenergy, Processor S200

The purpose of this document is to provide a summary overview of the requirements and performance of the waste processing plant using a **Fluidized Sand Bed Reactor/Boiler** in combination with dryers, steam plant, generator, water purification unit, waste feed units, cyclone and ash-bagging unit. The plant can be scaled and configured to waste streams

Plant capacity: 85 tons/day of fecal sludge and other biomass waste

Output: Up to 80,000 liters/day of pure water, pathogen free, WHO standards
Up to 250 kW/hour of surplus electricity
Up to 58 GJ/day in heat
Up to 1 cubic meter of fly-ash for soil amendment or concrete additive

Water treatment: distillation process, followed by multi-stage filtering

Start-up: propane / natural gas until fluidize sand bed boiler reaches 300C degrees

Population served: in the range of 100,000 – 200,000 population

Certification: Meets US EPA and WHO potable water standards

Emissions: Meets all applicable EPA requirements

Pathogens: None – 100% destroyed

Manpower: 2 people per shift

Footprint: overall unit – 11.5 m x 25 m

Revenue stream: to be calculate based on rates: tipping fees, heat, water, electricity, ash

Technical support: ongoing, 24 hrs /day included in maintenance contract

Cost: \$5 - \$6 million USD predicated on options and services

Return on Investment: estimated based on market conditions – 2 to 4 years

Warranty: fully guarantee for performance of technology

Lifespan: approximately 20 years

Standards: Plant meets WHO, EPA, ASME standards

Design: patented

Civil works requirement: concrete slab, drain, conduits as needed

Other emissions: no odors, very low noise lever, no air pollution

Received

JUL 25 2016

LGAO Communications
 JGM PES IWS July 22, 2016
 For action (resp. by) J. Bird, CANTP Project Board
 Corresp. for Board / Committee meeting
 For Information Only
 Copies to S. Sawarosa
D. Telford
5220-20 CANTP

Dear Ms. Bird,

I am sending to you and your fellow committee members these three cards in an attempt to appeal to you to take into account the very real human trauma that you would inflict upon the citizens of my neighbourhood should you decide to place a sewage plant in Clover Point Park. On the front of this card I have marked with a red X our own little house. I would urge you all to try and imagine your own reaction should you be told that such a thing was to occur within sight and (possibly) smell of your own home. Like the people in the houses portrayed in these paintings, you would be so upset that you would lose many hours of sleep and you would try your best to persuade those in charge that such a facility belongs in an industrial rather than a residential location.

Thank you for your consideration of my plea,
Civian Hutchison

BARBARA WEAVER-BOSSON

After graduating in 1974 from The Alberta College of Art (Calgary), Barbara settled in Victoria, B.C. and began a series of works that were records and impressions of her surroundings. Barbara's first one woman show was in the family home of artist Emily Carr (Emily Carr Arts Centre, 1978) and from that point on, Barbara continued to exhibit and win awards in numerous juried exhibitions. Weaver-Bosson's reputation for creating fresh and exciting works of art grew steadily as she participated in important solo and group shows.



THE NEIGHBOURHOOD SERIES

Barbara's very popular NEIGHBOURHOOD SERIES made its debut in 1986 at the Art Gallery of Greater Victoria's Massey Gallery. Her paintings offered an original point of view, emphasizing a unique and colourful interpretation of her favourite neighbourhoods. This important one woman show sparked great public interest and in 1989 she was honoured by an invitation to exhibit her NEIGHBOURHOOD SERIES in Victoria's sister city, Morioka, Japan.

To meet the ever increasing demand for her rooftop paintings, Weaver-Bosson has released a number of limited edition prints, many of which have sold out. These delightful neighbourhood images detail the multicoloured rooftops, chimney pots, blossom trees and the rows of character houses that face the spectacular view of the ocean and the mountains. Collectors of Weaver-Bosson's limited edition prints and

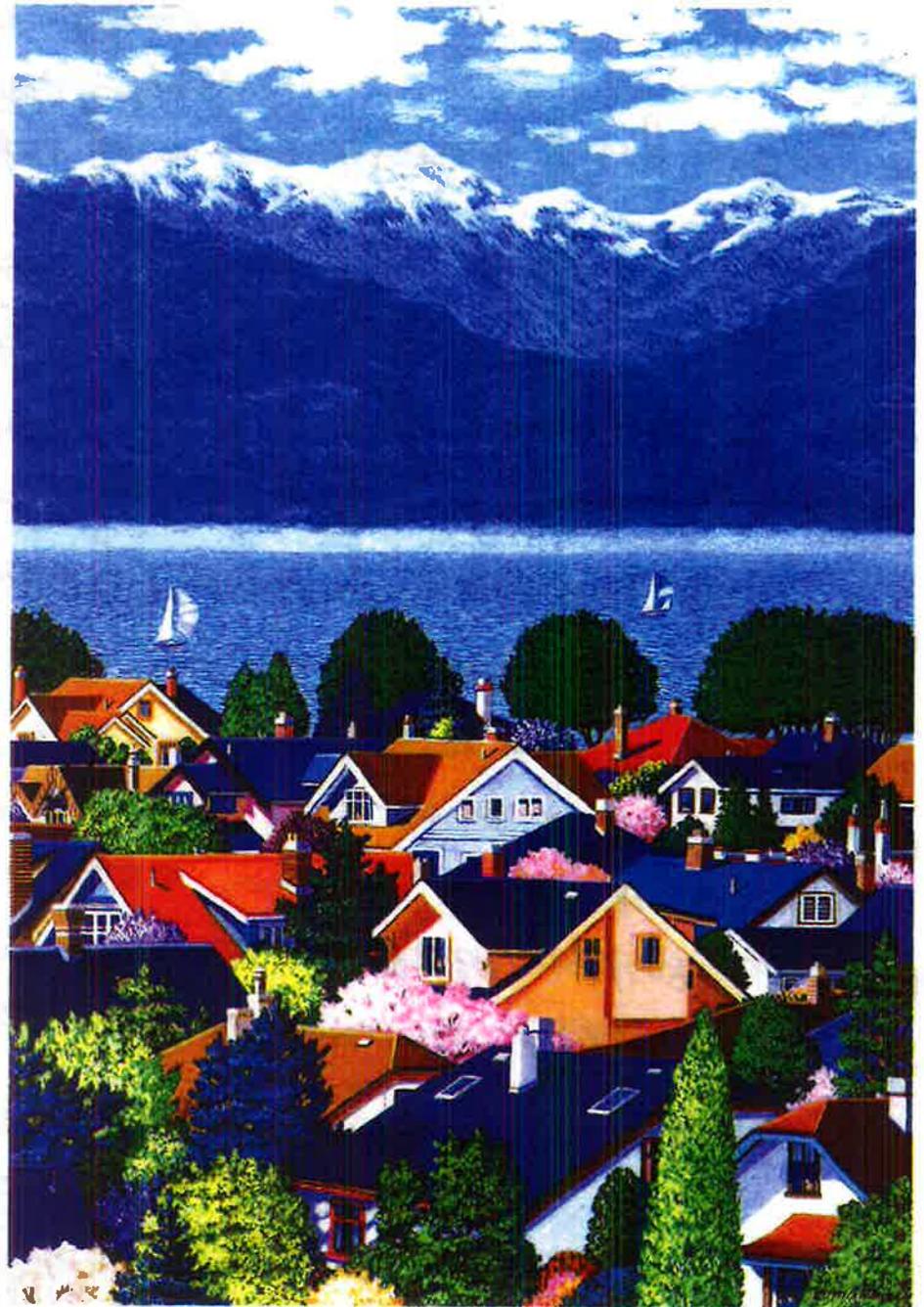
paintings enjoy her distinctive point of view, invigorating colour, playful realism and community spirit. Weaver-Bosson's paintings and limited edition prints are in numerous collections worldwide.

ROOFTOPS—MOSS AND HOWE STREET

Acrylic painting 16.5 x 12 inches

© 1997 Barbara Weaver-Bosson

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BARBARA WEAVER-BOSSON

Barbara Weaver-Bosson was born in Calgary, Alberta and her interest in art began at a very early age. After graduation from the Alberta College of Art (ACAD) Barbara settled in Victoria B.C. in 1975 and began a series of impressionistic paintings of the coastal moods and views near her home on Canada's west coast. Weaver-Bosson's first solo exhibition was in 1978 in the family home of renowned Canadian painter and writer Emily Carr. Barbara's exhibition at Victoria's Emily Carr Arts Centre, was titled "Where the Earth, the Sky and the Water Meet" and displayed her vibrant expressive works of B.C. coastal images and island views. Barbara continued to exhibit in several galleries, received awards in juried art exhibitions and became a member of the Island Illustrators Society in 1986. By 1985, Barbara's painting style had evolved and her new series featured a structured realistic approach as she began documenting and painting Victoria's character homes and seaside neighbourhoods.

THE NEIGHBOURHOOD SERIES

In 1986, the first of Weaver-Bosson's Neighbourhood Series paintings made their debut during her one woman show in the Art Gallery of Greater Victoria's Massey Gallery. As Weaver-Bosson continued to exhibit in juried shows and galleries, her unique point of view and richly detailed urban paintings created a growing public interest. As her reputation grew, she received numerous public and private commissions and invitations to exhibit in Canada and Japan.

In 1993, to meet the increasing demand for her Neighbourhood paintings, Barbara established and published a series of limited edition prints and art card collections. As her art and print collections became more accessible to the public, Barbara's Neighbourhood Series grew in popularity and continues to this day to be featured in television programs, art columns, life style magazines and newspaper articles.

For over 30 years, Weaver-Bosson has created through her art, a personal vision of her community and her skillful paintings have become important historic visual art documents of one of Canada's most charming west coast cities.

VIEW FROM CLOVER POINT Towards Dallas Road Bluffs

Acrylic painting 20 x 36.75 inches

© 2005 Barbara Weaver-Bosson and ArtLife Editions e-studio@shaw.ca

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ABOUT THE VIEW FROM CLOVER POINT

Barbara Weaver-Bosson painted the **View from Clover Point** in 2005. The artist's viewpoint is from the pathway along the roadside of Clover Point. Revealing her love of colour, Weaver-Bosson's painting explodes with imagination and warm autumn colours, all of which translate the artist's joyful message of the delights of living in Victoria, B.C.

Featured in Barbara's Fairfield neighbourhood painting are many of the character homes along Dallas Road that stretch from Moss Street west to Cook Street. The walkway along Dallas Road Bluffs is a very popular seaside area for jogging, walking the dog, flying a kite, riding a bike or spending a leisurely day wandering along the beach.

For more information and where to find Barbara Weaver-Bosson's Neighbourhood Series paintings and Fine Art prints, please visit her website www.weaver-bossonart.com



BARBARA WEAVER-BOSSON

After graduating in 1974 from The Alberta College of Art (Calgary), Barbara settled in Victoria, B.C. and began a series of works that were records and impressions of her surroundings. Barbara's first one woman show was in the family home of artist Emily Carr (Emily Carr Arts Centre, 1978) and from that point on, Barbara continued to paint and participate in numerous juried and solo exhibitions.



38 ROOFTOPS

Watercolour painting 16 x 9.5 inches

© 1995 Barbara Weaver-Bosson

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Printed in Canada

THE NEIGHBOURHOOD SERIES

Barbara's very popular NEIGHBOURHOOD SERIES made its debut in 1986 at the Art Gallery of Greater Victoria's Mansion Gallery. Her paintings offered a fresh and original point of view, emphasizing a unique and colourful interpretation of her favourite neighbourhoods. This important one woman show sparked great public interest and in 1989 she was honoured by an invitation to exhibit her NEIGHBOURHOOD SERIES in Victoria's sister city, Morioka, Japan.

To meet the ever increasing demand for her rooftop paintings, Weaver-Bosson has released three limited edition prints; *Sunny With A Light Breeze* (sold out), *Fairfield Rooftops - Victoria*, and *A View From The Terrace*. These delightful neighbourhood images detail the multicoloured rooftops, chimney pots, blossom trees and the rows of character houses that face the spectacular view of the ocean and the mountains. Collectors of Weaver-Bosson's limited edition prints and paintings enjoy her distinctive point of view, invigorating colour, playful realism and community spirit.

Weaver-Bosson's paintings and limited edition prints are in numerous collections world wide.

[REDACTED]

July 28, 2016

Ms. Jane Bird, Chairwoman
Core Area Waste Water Treatment Project Board
c/o Capital Regional District Office
Victoria BC

Dear Ms. Bird

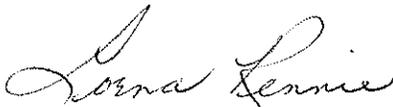
I realize I am remiss in not communicating with you earlier but I must believe it's not too late as I'm reminded of Bertrand Russell's message: "The intellectual thing is, when you are studying any matter...ask yourself *only* what are the facts and what is the truth that the facts bear out. Never let yourself be diverted either by what you wish to believe or by what you think would have beneficent social effects if it were believed. Look only and solely at the facts."

You will see attached the article by David Broadland, Publisher of Focus Magazine, printed in the July/August 2016 issue. I sent previous articles of his to all members of the previous CRD committee working on the sewage treatment issue but this latest one is such a comprehensive compilation of the issue that I feel compelled to give this another try. I believe David Broadland, a person unknown to me other than through his writing, to be the most knowledgeable person in Victoria where history of sewage treatment considerations is concerned. Investigative journalism doesn't get much better than his in my opinion.

I sincerely implore you and your Board to read his article. Indeed it may make your job easier. In any case I remain hopeful that you and your Board, along with the due-diligence panel and the CRD members, will make recommendations/decisions that are for the highest good of all.

Thank you for your consideration.

Sincerely


Lorna Rennie

Attachment

Cc: Jim Burke, Brenda Eaton, Don Fairburn, Dave Howe, Bob Lapham, Colin Smith

Sewage and the politics of contamination

DAVID BROADLAND

Contamination of local politics by a false pretense and a toxic promise requires primary treatment at the ballot box.

Over the next 30 years, Victoria-area households will pay somewhere in the neighbourhood of \$1.2-\$2.2 billion to fund borrowing by the Capital Regional District for land-based sewage treatment. The costs of operating those facilities over that period will add another \$650-\$900 million to the cost of treatment—a service that numerous local marine scientists and health officials have said will provide little or no measureable health or environmental benefit.

Once initial annual costs have been settled, electors will be expected to keep paying for this service in perpetuity. The legal right of Victoria electors to choose by a referendum whether or not they are willing to incur the debt those billions in payments would finance was taken from them in 2006. That right is generally protected by provincial legislation, but in this case the need for consent was overturned by a never-before-used section of the *Environmental Management Act*. That protected right now appears to have been taken under false pretenses.

At the time, the Province claimed an area of the seabed around each of the city's two marine outfalls was so contaminated that they could each be designated a "contaminated site" under BC's Contaminated Sites Regulation. It was widely accepted in the community at the time that the pollution had to be stopped and recalcitrant taxpayers could not be allowed to stand in the way of environmental protection. Then-BC Environment Minister Barry Penner justified this action on the basis of what came to be known as the *MacDonald Report*. That report has since been exposed as fundamentally flawed and its main conclusion just plain wrong.

Commissioned by the Province, environmental scientist Donald MacDonald had analysed four years of data gathered by the CRD about what was in the sediment on the seafloor in the area adjacent to each outfall. Although MacDonald admitted he had "insufficient data" to "thoroughly evaluate sediment quality conditions," he felt he could do "a preliminary investigation." Based on this preliminary evaluation, MacDonald reported that sediments at the outfalls "are sufficiently contaminated to warrant designation...as a contaminated site." His report didn't include an analysis of the source, or sources, of the contamination suggested by the CRD's data. The outfalls were assumed to be the source. MacDonald included in his report a flow chart that showed the five steps in the process of determining whether such a site was "legally contaminated." He noted that the second step had not been completed. To determine whether a site is "legally contaminated" would have required completion of the second step followed by three additional, onerous steps.



Former BC Environment Minister Barry Penner

Penner didn't bother to complete even the second step. MacDonald's report was dated May 2006, but by that July Penner had ordered the CRD to create a plan for treatment. His order was made under Section 24(3) of the *Environmental Management Act*. Its use implied that a significant environmental harm was occurring and suspension of the basic principle of elector assent was therefore justified. This allowed Penner to run around the step-by-step requirements of the *Contaminated Sites Regulation*, and it allowed him to order treatment without having to specify what, precisely, sewage treatment needed to stop.

Penner could have used the Abatement of Municipal Pollution section of the *Environmental Management Act* to order the CRD to address potential contamination, but that section would have limited such work to that "reasonably necessary to control, abate or stop the pollution," or to remediation.

Under that section, the legal requirement for electoral approval would also have been suspended, but the changes that the CRD would be required to make would have been limited to what was "reasonably necessary" to meet provincial regulations. Penner's ministry would have been obligated to detail precisely what was "reasonably necessary." He didn't do that. Instead, he used Section 24 and opened up Pandora's box. In his order to the CRD Penner stated: "To ensure value for taxpayers, I encourage the CRD to consider new technologies and alternative financing and delivery options, including the potential for private sector development."

Given that vague direction, it was perhaps inevitable that, 10 years later, the cost of the CRD's considerations would have mounted to \$70 million and the community would be divided into three camps over what action needed to be taken. But during that time, two facts have emerged that challenge the right of the Province to enable the CRD to proceed any further without seeking elector approval.

First, over the past ten years the CRD has continued to monitor the sediment chemistry at the outfalls. Report after report has shown that, aside from occasional exceedances of permitted levels of a few substances, neither outfall would have qualified as a "contaminated site" under the Provincial regulation.

Specifically, in 2011, environmental scientists with Golder and Associates completed an extensive study that looked at the trend in contamination at the outfalls between 1991 and 2009. They concluded the data "does not provide strong evidence that toxicity or other biological responses are expected."

In 2012, a peer-reviewed scientific study authored by Mark Yunker, Avraël Perreault and Chris Lowe presented information that has explained the presence of unexpectedly high levels of polycyclic

ENVIRONMENT MINISTER BARRY PENNER ordered the CRD to shift to land-based sewage treatment in 2006. His claim that Victoria's outfalls were contaminating the seabed has since been proven untrue. As well, Washington State legislators have provided evidence that Penner's action was prompted by an agreement between then-Premier Gordon Campbell and then-Washington Governor Christine Gregoire. Was the legislated right of Victoria electors to control their own financial resources stripped from them under false pretenses?

aromatic hydrocarbons (PAHs) in sediments to the east of the Macaulay outfall. In a wonderful piece of scientific detective work, their analysis eliminated both Penner's theory—contamination by PAHs from wastewater—and a subsequent theory that the contamination was the result of the sinking of the collier *San Pedro* off Brotchie Ledge in 1891. By analysing the chemical signature of the predominant PAHs in the contaminated sediments, the scientists were able to determine a more likely source: "dredged sediment containing pyrolysed coal waste from a former coal gas plant in Victoria Harbour" that had been dumped there long before the outfall was even built.

At Clover Point, it turns out, there is so little sediment on the rocky bottom to test that reliable samples are difficult for scientists to even obtain. Nevertheless, the data from the last sediment survey conducted there in 2012 showed only a single reading in one location for only one substance—copper—that was above the Province's guidelines. CRD scientist Chris Lowe told *Focus* that the as-yet unpublished data for the 2015 sediment survey showed the latest reading for copper at that location was only one-half of the 2012 reading.

In other words, although there is seabed contamination near the outfalls, the contribution from the outfalls to that contamination is limited and there's no evidence of worsening environmental conditions. This is what local marine scientists have been saying for several years.

The second piece of evidence that has emerged that challenges the Province's removal of the requirement for elector consent originated in Olympia, Washington. A letter written to Victoria Mayor Lisa Helps by Washington State Representative Jeff Morris and signed by 37 other Washington legislators confirmed that Penner's order to the CRD was, in fact, motivated by an unpublicized agreement made between then-BC Premier Gordon Campbell and then-Washington Governor Christine Gregoire in June 2006. Campbell and Gregoire and their respective cabinets had met at that time as part of a process "to enhance trade opportunities and create stronger ties between the two jurisdictions." According to the legislators, during discussions relating to Vancouver's hosting of the 2010 Olympics, Gregoire told Campbell her government was unhappy about promises made about sewage treatment in Victoria that had not been kept. As a result of that, the legislators claim, Penner ordered the CRD "to make good on those promises."

According to Morris, then, Penner's order to Victoria was part of a trade deal. The contamination claimed by the *MacDonald Report* provided Penner with a plausible rationale for ordering Victoria to shift to land-based treatment. Invoking Section 24 ensured that Victoria electors would not be able to stand in the way of Campbell's promise to Gregoire.



Gregoire and Campbell sealed the deal in June 2006

Last edition I wrote about the chemical contamination of Puget Sound by a burgeoning population there and the state's dismal sewage treatment facilities. The cumulative impacts of all those people living and working around a small, constricted inlet threaten Chinook salmon and are pushing endangered southern resident orca to the brink. Washington political figures like Morris have been intent on shifting blame for the continuing deterioration of the Sound to Victoria's outfalls. Slowing rapid population growth, regulating industry and spending billions on higher levels of sewage treatment are politically unpopular; it's much easier to

deflect attention to Victoria. Vancouver-area politicians, perhaps for the same reasons, have been happy to support the Americans' claims.

Although MacDonald's contamination has since been disproven by scientific study, it is still regarded in Victoria as the fundamental rationale for sewage treatment. For example, in a May 26, 2016 story in the *Times Colonist* about a recent development in the issue, a senior reporter noted, "The CRD has been trying to come up with a plan for sewage treatment since 2006, when an environmental assessment of the seabeds around the outfalls found them to be contaminated. As a result, the Province directed the region to put in secondary treatment."

If there is no environmental emergency to warrant removal of elector consent for the imposition of such a heavy financial burden on the community, what else might justify such a draconian measure? Before considering the possibilities, let's go back to the \$2-\$3 billion cost over 30 years mentioned above. Why would there be such a large range in the possible long-term cost? For this, too, Victorians have Penner to thank.

Penner's encouragement to "consider new technologies," coupled with his removal of the requirement of elector consent, has allowed local elected officials to, in effect, go crazy. In response to supposed contamination of the seafloor, "consider new technologies" exploded into schemes for recovering energy, producing drinking water and integrating liquid and solid waste streams. Each of these may be worthy goals, somewhere, but under the umbrella of Penner's Section 24 order, none of these expensive add-ons would be subject to elector approval.

So that \$2-\$3 billion range in long-term cost arises from the difference between a secondary treatment project cost of \$1 billion and a tertiary treatment project cost of up to \$1.5 billion. Since maximum federal and provincial funding has been capped at \$482.5 million (down \$16 million from the original promise), the additional cost for treatment that goes beyond regulatory requirements would have a profound impact on the level of borrowing the CRD would need.

With no plausible environmental emergency as justification, what is the legal basis on which the Province would allow the CRD to proceed with such heavy borrowing without elector consent? BC Ministry of Environment spokesperson David Karn quoted Section 24 of the *Environmental Management Act* as providing the legal basis for proceeding without elector consent. “The legislation provides local governments with the ability to waive elector approval if they have an approved Liquid Waste Management Plan,” Karn said. He confirmed that a “plan” could go beyond current regulatory requirements and include advanced treatment, biosolids treatment, energy recovery and integration of a community’s liquid and solid waste streams through integrated resource management.

What safeguard do electors have against elected representatives sending the minister a plan that goes beyond community requirement? Karn explained, “During the development and/or amendment of a Liquid Waste Management Plan, the public consultation process must provide opportunities for elector participation, and the minister must be satisfied that there has been adequate consultation during the planning process before approving the plan. Once the plan is approved, further consent by electors is not needed.”

The utter inadequacy of the safeguard of “adequate consultation,” though, was demonstrated during the attempt to locate a secondary treatment plant at Esquimalt’s McLoughlin Point. In June, 2010 the CRD board, at an *in camera* meeting, voted to switch the official plan from a four-plant configuration to a single plant at McLoughlin Point in Esquimalt. This was a major change—just look at what has happened since. But at that point the CRD had conducted no consultation with the broad Victoria public on this one-plant configuration and, unbelievably, none about either configuration in the community expected to host the plant, Esquimalt. The CRD had obviously not consulted with the public at all, let alone adequately, yet Penner approved the plan anyways. The CRD then underlined the uselessness of “adequate consultation” as a safeguard by secretly purchasing property on Viewfield Road close to Esquimalt and Victoria West neighbourhoods. It then

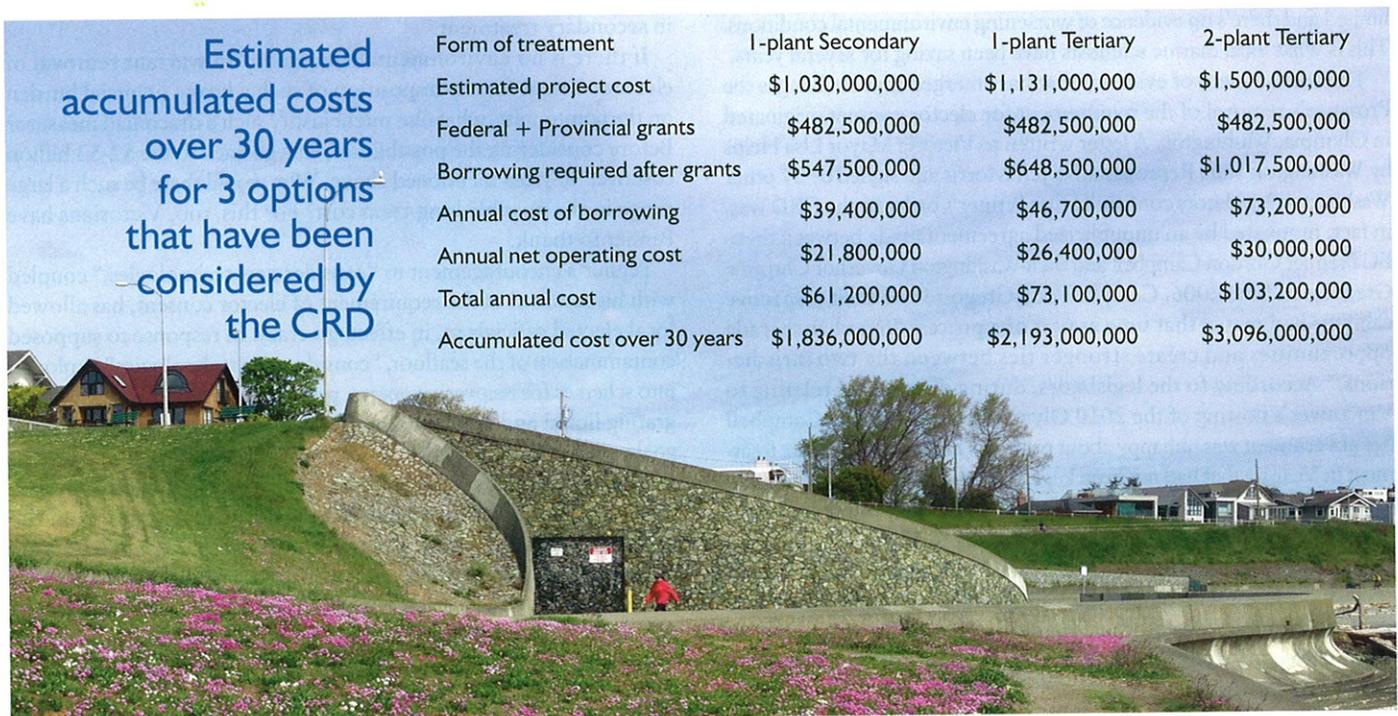
attempted to justify this as a good location for a massive sewage sludge biodigester, infrastructure that is known to be subject to explosion.

The Province is evidently unconcerned about stripping local electors of their legally-enshrined right to reject such arbitrary, unjustified and dangerous actions by elected officials. Are there other overriding issues beyond the “contaminated site” rationale that clearly justify such a stripping away of community control over spending for sewage treatment?

Do health safety issues require removal of elector consent?

It was hot and dry on the south coast of British Columbia in August 2014, the kind of weather that drives thousands to beaches in Vancouver and Victoria to escape the heat. But even as the temperatures peaked and the waters of English Bay and West Vancouver’s coves warmed enough to encourage people to wade or swim, Vancouver public health officials were busily posting warning signs at many saltwater beaches around Vancouver’s shoreline. Starting in late July and running into early September that year, measurement of fecal coliforms and *E coli* in the water showed levels had spiked far above those considered safe for contact with human skin. At Sunset Beach on August 7, 2014, the level of bacteria in the water was nearly seven times the maximum considered safe for human contact. On August 29, the level of fecal coliform and *E coli* in the central part of False Creek was 11 times higher than safe. Beaches along the shoreline of West Vancouver, from Ambleside Beach near the Lions Gate Bridge out to Eagle Harbour near Horseshoe Bay were all found to be two to four times higher than safe.

At the same time, in the surface waters above the Clover Point sewage outfall in Victoria, the data recorded by all 14 floating water-quality monitoring stations showed that levels of fecal coliform and *Enterococci* stayed well below the levels required by the Province for shellfish harvesting—a considerably higher standard than that used for safe contact with human skin. The Capital Regional District’s records, published in its annual report on the Clover Point and Macaulay Point outfalls for 2014, show the surface waters above the Macaulay outfall that summer were even cleaner.



Why were Vancouver swimmers at such high risk of contracting disease from water-borne bacterium in August 2014, yet, at the same time, the surface waters off Victoria, immediately adjacent to its two sewage outfalls, were clean enough, according to the Province's water quality guidelines, that seafood harvested from those waters could be safely eaten?

The source of the bacteria infesting the waters and beaches of Vancouver that summer was undoubtedly human sewage, but no single source was identified by health authorities in Vancouver. The Lions Gate Wastewater Treatment Plant, located beneath the Lions Gate Bridge, discharges 90 million litres a day of primary-level treated effluent at First Narrows. That's the same volume as Victoria's two outfalls, combined, discharge. Hydrographic modelling has shown that an oil spill at First Narrows would slosh back and forth through the Narrows many times before most of it washed up on Vancouver area beaches—the same beaches that were posted by health authorities during the bacteria breakout. Was the Lions Gate plant the culprit?

The source could also have been one of the 11 combined sewer overflows (CSOs) that discharge into Burrard Inlet. During periods of heavy rain, sewage can flow from sewers into storm drains and then to short stormwater outfalls that discharge close to the shoreline. CSOs act as a relief valve to prevent sewage from backing up into homes or overflowing across land during peak rain events. This situation exists throughout North America and is not resolved by building sewage treatment plants. That's because the flow of sewage into storm drains in a CSO event occurs upstream of sewage treatment plants.

Public health authorities for Metro Vancouver carefully avoided—at least publicly—singling out any possible source. If such an event had happened in Victoria, the indignant furor from Washington State would have prompted, at the very least, the threat of a tourism boycott from Seattle and yet another Victoria-uses-international-waters-as-a-toilet editorial from the *Post Intelligencer's* Joel Connelly.

But the long-term experience with Victoria's two deep-water marine outfalls has shown they reliably provide a high level of public health safety. Six past and current public health officers—Dr Richard Stanwick, Dr John Millar, Dr Shaun Peck, Dr Brian Emerson, Dr Brian Allen and Dr Kelly Barnard—have all testified: "There is no measurable public health risk from Victoria's current method of offshore liquid waste disposal."

There is, however, a health risk posed by Victoria's numerous CSOs. A very heavy rain in a summer month—an unusual occurrence in Victoria—could cause CSOs that contaminate Victoria's shoreline at a time when people are also likely to want to be in contact with the water. This source of bacterial contamination is common in fall and winter months when there's more rain. But the CRD's proposed plan for secondary treatment at McLoughlin Point would have had almost no impact on this risk. That plan included construction of an attenuation tank in Gordon Head. That tank would have eliminated the necessity for having an *unscreened* CSO outfall on Saanich's Finnerty Cove, and would have reduced the occurrence of CSOs at some Oak Bay and Victoria stormwater outfalls. But the CSO performance of most of the system's stormwater outfalls would not have been improved.

The Province is responsible for enforcing water quality guidelines with respect to public health safety, and its reliance on the issue of chemical contamination in Victoria is a matter of public record. Simply put, the deep-water outfalls don't pose a public health safety issue that could justify the removal of elector assent for borrowing for sewage treatment.

Gail K. Perkins Inc.



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Photo by Gary Utley

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Do federal regulations override the right of elector consent?

New federal regulations developed by Environment Canada and enforced by the federal Department of Fisheries and Oceans rated Victoria's marine-based treatment system as being at "high risk" to endanger the health of fish and humans who eat those fish. Under the regulations, Victoria is required to treat its sewage effluent to a secondary standard by December 2020. Those regulations don't include any provision to override the right of Victorians to approve or disapprove any long-term borrowing the CRD would need to meet the requirements of the regulations. Do they provide *moral* support for the Province's removal of that right? Is there actual evidence of fish being killed or made unsafe for human consumption by the effluent?

Before I provide information on that, let's consider how the new federal regulations measured risk and why Victoria scored a "high risk" classification. The new regulations assign a point system for assessing risk based on "effluent quality" and the characteristics of the receiving waters.

In terms of effluent quality, four characteristics are assessed by the regulation. Victoria passed on two of those—it was well under benchmarks for the maximum amount of chlorine and ammonia allowed in the undiluted discharge—but failed in terms of the amount of total suspended solids and carbonaceous biochemical oxygen demand. It's important to understand that, other than those four characteristics of effluent quality, the federal regulations make no judgment about the many substances in Victoria's sewage—like dissolved metals—that could be deleterious to the health of fish.

Victoria received the best mark possible in terms of the physical geography of the receiving waters, even though the federal regulations give no consideration to such essential factors as water temperature, salinity, rate of mixing, the amount of naturally occurring dissolved oxygen or the speed of currents. These are all qualities that local marine scientists have identified as providing Victoria with its unique potential for using natural processes to treat its sewage. In spite of all these highly favourable characteristics, the regulation's emphasis on measurements of total suspended solids and oxygen demand *inside the outfalls* pushed Victoria into a high risk classification. Paradoxically, the more successful Victorians are at water conservation, the more dangerous their sewage is judged to be for fish—at least by these regulations.

Local marine scientists have argued that suspended solids and oxygen demand are not an issue in the Strait of Juan de Fuca, but Environment Canada has refused to listen. Remarkably, DFO scientists published a peer-reviewed scientific study in 2015 that concluded secondary treatment would have "negligible effect" on environmental conditions in the Strait of Juan de Fuca. DFO is the federal department charged with enforcing the new effluent regulations.

In communities around Puget Sound, which has much less favourable physical conditions than the Strait of Juan de Fuca for breaking down solids and mitigating oxygen demand, permits have been issued for the discharge of six times as much solids and oxygen demand than Victoria's outfalls discharge.

The federal regulations, then, are demonstrably inadequate at assessing "risk." So let's go back to the question of whether Victoria's effluent is killing fish or making them unsafe for human consumption.

There have been no reported fish kills in marine waters off Victoria, but laboratory testing of the rate of mortality for rainbow trout immersed in effluent at 100 percent concentration for 96 hours, as required by the regulations, has shown Victoria's effluent before discharge to be "acutely toxic." But the usefulness of this test is questionable.

The federal test uses a methodology that has been rejected by the US Environmental Protection Agency. The method amounts to testing the lethality of car engine exhaust for canaries by placing a canary in a sealable container filled with 100 percent car exhaust, closing off the container for 96 hours, and then checking to see how well the bird survived. Don't try this at home.

Is there evidence that fish are being contaminated by the discharge from the outfalls, making them unfit for human consumption? Local residents continue to troll and cast for fish in the area between the outfalls at, for example, Ogden Point Breakwater. But the question of whether those fish are being made unsafe for human consumption by the outfalls' discharge is made moot by the fact that there are so many sources of contamination in the area, most of which are the federal government's responsibility. I'll come back to this point later on, but let's consider, for a moment, the interaction between science and politics around the question of trace contaminants in our local waters.

While local scientists have made the case for several years that the federal regulations fail to assess any real risk to the local marine environment, the federal government's only public response—a comment piece in a local paper written by North Vancouver Liberal MP Jonathan Wilkinson last May—presumed the CRD would build two tertiary-level treatment plants, going well beyond the federal requirement of secondary treatment. As mentioned above, the new federal regulations confine themselves to how much ammonia and chlorine are in the discharge and have nothing to say about such contaminants as heavy metals, persistent organic pollutants, or microplastics. So Wilkinson's pitch for tertiary treatment was as much a condemnation of the inadequacy of the federal regulations as anything else. Moreover, by the time Wilkinson's letter had been published, the CRD had already stumbled over the question of whether one of those tertiary plants could even be sited at Clover Point.

While Wilkinson made it clear the Trudeau government would favour CRD residents spending more of their own money for a higher level of treatment, he wasn't offering any more federal money to support that. The entire burden of a higher level of treatment would fall on local ratepayers, who would have no recourse to approve or disapprove the required borrowing. Yet in Wilkinson's own riding of North Vancouver, federal funding for a new *secondary* treatment plant to replace the existing Lions Gate primary plant was announced in the recent federal budget. Why would secondary treatment be good enough for Wilkinson's constituents but not good enough for Victoria?

In the long community discussion in Victoria about what level of treatment should be built, those advocating the highest level of treatment have focussed on contaminants whose long-term risk is unknown—and in many cases unknowable—simply because those substances are in the Strait of Juan de Fuca at such low concentrations that their presence can't even be detected. But there are more tangible reasons for concern about secondary treatment. Consider the concern about copper entering marine waters through wastewater.

What's wrong with a little more copper in the water? Washington's Department of Ecology notes, "Copper is a special concern. While people may not be harmed by small amounts of copper, even low levels of the chemical are a significant threat to salmon and other fish in Puget Sound. Copper interferes with salmon's sense of smell, which reduces their ability to avoid predators, find their way back to their birthplace to spawn, and find mates." The common assumption is that sewage treatment gets rid of such problematic contaminants as copper. The actual case is more complicated.

Data published by Metro Vancouver for the Annacis Island and Lulu Island secondary treatment plants shows that they produce a *higher* concentration of *dissolved* copper in the effluent coming out of the plants than was in the sewage that went into the plants. The total amount of copper may be reduced, but the amount of dissolved copper increases. This effect is common with sewage treatment plants around the globe. But why does this matter?

Here's what the US Environmental Protection Agency says about the dissolved state of metals: "The primary mechanism for toxicity to organisms that live in the water column is by adsorption to or uptake across the gills; physiological process requires metal to be in dissolved form. This is not to say that particulate metal is nontoxic, only that particulate metal appears to exhibit substantially less toxicity than does dissolved metal."

In other words, the federal government's requirement for secondary treatment—put in place to protect fish—could increase the immediate hazard to fish posed by copper compared with the marine-based treatment system now in place.

The data for the Annacis and Lulu plants show other dissolved metals of concern, including cadmium, increasing in concentration from influent to effluent. Both plants are discharging copper and cadmium in concentrations above the provincial water quality guidelines.

As well, studies done by James Meador in Washington strongly suggest secondary treatment is no panacea for what ails wild salmon. Meador has shown that juvenile Chinook salmon that transit estuaries on which secondary treatment plants are located have a 40 percent higher rate of mortality than those that don't have to transit such estuaries. He has also connected chemical compounds, such as cocaine and ibuprofen, found in the tissue of juvenile salmon in estuaries downstream from secondary treatment plants with the effluent released from those plants.

In Victoria's case this may sound like an obvious argument for tertiary treatment, but there are scientific doubts about whether a higher level of treatment would be effective in reducing these contaminants. UBC engineering professor Dr Don Mavinic, considered one of BC's

top experts on sewage treatment, has told *Focus*, "The fact is that there really isn't any effective technology out there in the marketplace yet to deal with these other contaminants. It's coming, but it isn't there. This is a very young science still. There's a huge amount of research going on globally right now on this subject, including here at UBC, but the jury is still out." So while there may be a strong consensus in Victoria that those contaminants should be removed, there's no scientific consensus that it can actually be done.

Meanwhile, there *is* a huge pool of highly toxic chemicals already contaminating Victoria's near-shore waters. This clouds the issue of whether spending \$3 billion on tertiary treatment over 30 years would make any measureable difference to the health of local waters. And, ironically, this is a situation for which the federal government is solely responsible.

Victoria's 376 Federal Contaminated Sites

In Wilkinson's call-out to Victoria to put the question of sewage treatment behind them, he quoted Ken Ashley, an expert on the effects of wastewater on receiving environments: "Although the receiving water dilutes Victoria's sewage to low concentrations, the marine food web will re-concentrate certain pollutants via food web biomagnification to the point where southern resident orcas are at risk, and classified as toxic waste when dead ones wash up on our beaches."

No reasonable person would question that some contaminants bioaccumulate and biomagnify. But the question is, which sources of those contaminants is most important to address first? Local marine scientists have placed a higher priority on clean-up of near-shore contamination from stormwater runoff and combined sewer overflows than the wastewater going through the outfalls. Yet these two problems in Victoria will remain unimproved by either secondary or tertiary treatment. Near-shore contamination in Victoria is, in fact, an *exceptional* problem. That's largely because Victoria has been the home of Canada's Pacific Coast naval fleet in Esquimalt Harbour for well over a century. Over that time, military-related activity has created a legacy of highly-

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toxic chemical contamination of both marine sediments, soil and groundwater, from Colwood to Victoria Harbour.

Progress on cleaning up the 376 contaminated sites in the Victoria area that are listed on the Federal Contaminated Sites Registry is very slow. Not all the sites are military-related, of course. One non-military case—Site 17348008 on Rock Bay—is in the final stages of remediation of 207,404 cubic meters of contaminated material that contained metals, metalloids and organometallic compounds. The site has been contaminating groundwater for many decades, and that groundwater has been free to leach into Middle Harbour and from there to bioaccumulate and biomagnify in the marine food web.

But Rock Bay is just one of dozens of large, highly-contaminated sites around Victoria Harbour, Esquimalt Harbour, and numerous other bays and coves, that are—or are suspected of—leaching highly toxic substances into near-shore waters. Both Discovery Island and Trial Island are home to contaminated sites. The federal registry indicates there are 2899 cubic metres of soil on Discovery Island contaminated with metals, metalloids, organometallic compounds, polycyclic aromatic hydrocarbons and petroleum hydrocarbons. On the southernmost of the Trial Islands, Site 17330001 contains 3060 cubic metres of soil contaminated with metals, metalloids, organometallic compounds and petroleum hydrocarbons. Both of these are likely contaminating near-shore waters.

But these are small problems compared with some of the many military-related contaminated sites, especially in Esquimalt Harbour. Some of those are large and contain all the scary stuff: Site 17410007, for instance, better known as Esquimalt Graving Dock, has 185,930 cubic meters of sediment that contains everything mentioned in the sites above, but also PCBs, dioxins, furans and pesticides. The federal government has listed many of these as “high priority for action,” but has announced no plan to actually do anything beyond further study. Many other sites are in the preliminary investigation stage, so there’s no comprehensive understanding of the extent of the problem, how long it would take to remediate all these sites, or how much that would cost. The Rock Bay site took 11 years and \$138 million to clean up. It could be a century or more before remediation of all the military-related sites is substantially complete. Meanwhile, contamination of groundwater and near-shore marine waters will continue.

Wilkinson wants Victorians to put behind them the issue of spending \$2-\$3 billion of local money on tertiary treatment that might or might not remove trace contaminants from the water even while the federal government drags its own feet on dealing with its long, long list of highly-contaminated sites. Does this make sense? Would taxpayers get more bang for their dollar from an accelerated clean-up of contaminated sites or from proceeding with secondary treatment that DFO scientists say will have negligible effect on environmental conditions?

Nothing computes

Penner’s politically-motivated haste to condemn both outfalls as contaminated sites obscured an important fact about Victoria’s marine-based treatment system that has been observed by scientists: physical conditions at Clover Point are significantly better at reducing the risk of contamination of the seafloor than at Macaulay Point. The waters off Clover Point have stronger currents to disperse discharged solids and there is a rocky bottom. The bottom near the Macaulay outfall contains much more sediment, which acts like a sponge for such contaminants as polycyclic aromatic hydrocarbons.

Since contamination of seafloor sediments was the only physical rationale given by Penner for ordering Victoria to build land-based treatment facilities, one would have expected that the best location for an outfall would have been a primary concern of engineers charged with planning a new system.

Instead, the location of a central plant at McLoughlin Point was chosen simply because land was available there. That plant’s single outfall would have discharged a volume equivalent to the combined flows of the Clover Point and Macaulay Point outfalls. Since secondary treatment removes only some of the contaminants, an outfall with twice the discharge would still have meant a lot of potential contamination.

In fact, the site where engineers planned to put the diffuser of a new McLoughlin outfall is already contaminated by historical dumping of polycyclic aromatic hydrocarbons, and likely other contaminants. According to the *MacDonald Report*, the location could already be designated a contaminated site under BC’s *Contaminated Sites Regulation*. It’s not hard to imagine what mischief some future politicians could make of that situation: *Victoria’s ancient treatment plant at McLoughlin Point is contaminating the seabed! We must find a new site for a new plant!*

Unlikely? See Campbell, Gregoire, Penner *et al*, 2006.

When a very significant, long-term allocation of community resources is going to be made, it’s obviously unwise to do that for reasons that aren’t connected to some identified and agreed-upon need in the community. In this case, the Liberals’ promised allocation of Victoria’s resources was made because Vancouver politicians desired a successful Olympics. As a consequence, most of the planning that has been done in Victoria—including where a super outfall would be located—makes no sense. Nothing computes.

To the ballot box we must go

The Liberals removed the legislated requirement of elector consent for borrowing for sewage treatment for a good reason. Victorians had already shown they understood the high value of the natural treatment system they have been blessed with, and were unlikely to give that advantage up at the ballot box.

In 1992, Victorians were given the opportunity to choose through a plebiscite whether they wanted to use preliminary treatment, primary treatment, or secondary treatment to regulate the impact of their sewage on the environment. The “preliminary treatment” option came with the proviso that the CRD would develop a source control program to reduce contaminants of concern. That source control program would cost money. At the ballot box, 57 percent chose source control and preliminary treatment. The rest of the vote was evenly split between the other two options. Afterwards, the CRD developed what has become one of the most advanced source-control programs regulating municipal wastewater in North America.

The actual physical impact on the environment of that choice is now evident in the numerous studies conducted by scientists from the CRD, DFO and private companies over the 24 years since. An extensive 2011 study by Golder and Associates on what contaminants were in the wastewater being discharged by the outfalls—a companion to the previously-mentioned Golder study on sediments that examined data gathered between 1991 and 2011—found “evidence of stable or decreasing concentrations and loadings of substances in the wastewater stream.” Golder’s scientists noted, “Source control initiatives appear to have yielded significant benefits in terms of concentrations and loadings of priority contaminants.”

Interestingly, this latter study was not shown to elected officials at the CRD until April 2013, and I can find no evidence that its findings were ever publicized by the CRD or Victoria media. Some of you will recall that in late 2012, Oak Bay Mayor Nils Jensen called for “a full environmental study that will assess the comparative environmental impact of the current process and proposed process for disposing of liquid waste before the CRD plans are finalized.” At the time that Jensen and other elected officials were calling for that study, the CRD was sitting on the Golder research that had found source control was working. Jensen’s bid for that study was unsuccessful.

The obvious takeaway from Golder’s examination is that an expanded source control program would provide increased reductions of contaminants. This course of action would save Victorians billions of dollars over the next 30 years, money that could be spent in areas where a need has actually been proven. But the Province clearly doesn’t want that to happen. They recently removed the last vestige of local control over the issue by ousting elected CRD officials from the process.

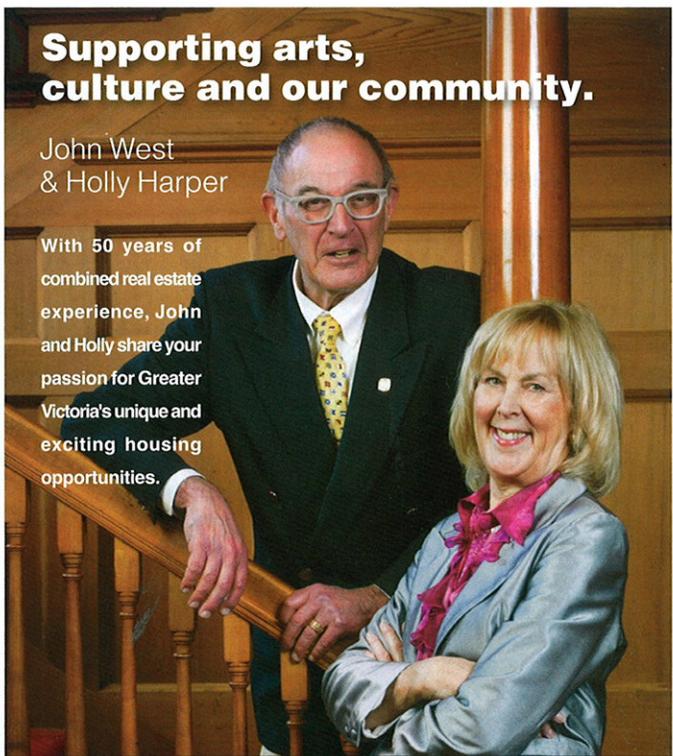
After a year-long search by the CRD for an alternative to McLoughlin Point, the elected directors suddenly found themselves trapped between two unpopular ideas: McLoughlin and Rock Bay. They tried to find their way out of that fix by proposing two plants located immediately upstream of each of the existing outfalls. That move, in turn, prompted a “Save Clover Point” neighbourhood revolt and the project was on the edge of either complete collapse or a return to McLoughlin Point. The Province quickly moved in and threatened the elected officials with the loss of the aforementioned \$482.5 million in provincial and federal funding unless critical decisions about the project were handed over to an appointed board. The elected directors, faced with being held responsible for losing \$482.5 million and knowing that agreement amongst them was unlikely, capitulated. The appointed board will now decide what form of treatment to use and where a plant—or plants—will be located.

The chair of that board, lawyer Jane Bird, is reputed to be a close personal friend of Gordon Campbell. During the time Campbell has been Canadian High Commissioner to the UK in London, Bird received an appointment with Canada’s Department of Foreign Affairs, International Trade and Development as an “Attaché.” An Attaché is a person on the staff of an ambassador with a specific area of responsibility. Under Campbell, Bird served as “Project Manager” for the \$18 million redecoration of Canada House in London. Incidentally, the other main decision-maker involved on that project, besides Campbell, was Noel Best, who is a principal of Stantec’s Vancouver office.

Now Bird is in control of Victoria’s sewage treatment project, a project Campbell ordered and one in which Stantec’s costly involvement has been controversial. The connections between Bird, Stantec and Campbell will do little to assuage the concern in Victoria that taxpayers here are being forced to underwrite debts incurred by Campbell during Vancouver’s Olympic party.

A lot of people think the new board will choose secondary treatment at McLoughlin Point. No matter. At some point, whatever they propose has to come back to the CRD’s elected directors for their approval. With the information that has now emerged about the dubious origins of Penner’s 2006 order, it’s hard to see how those directors would believe they have the moral authority to approve a project without first seeking electors’ consent in a referendum.

David Broadland is the publisher of *Focus*. He believes contamination of democracy by toxic political promises unrelated to a community’s real needs does require primary treatment—at the ballot box.



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From: mackenzielyon@gmail.com
Sent: Sunday, July 10, 2016 10:40 AM
To: Webdesk
Subject: Contact Us - Submission

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.....

Your Name:
Russell Lyon

Your Email Address:
mackenzielyon@gmail.com

Message:
Dear CRD CALWMC Member and Cheif Andy Thomas

Please confirm that you will vote against any treatment project proposed by the project board until a comprehensive cost-benefit analysis has been conducted and published and a full environmental impact analysis of the current process and proposed process has been conducted and published so that evidence-based decisions may prevail.

Thank you

Russell Lyon, CPA, CMA
1191 Maplegrove Place
Saanich

Submitted at: 7/10/2016 10:40:29 AM
Submitted via: <https://www.crd.bc.ca/contact-us>
User Agent: Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/51.0.2704.103 Safari/537.36
User Host Address: 75.157.170.67

From: vanportecologies@gmail.com [<mailto:vanportecologies@gmail.com>]

Sent: Friday, July 29, 2016 11:33 AM

To: cawtpb <cawtpb@crd.bc.ca>

Subject: Contact Us - Submission

The following message was received through the form at 'https://www.crd.bc.ca/contact-us?r=wwproject-board'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Richard Tennant

Your Email Address:

vanportecologies@gmail.com

Message:

Dear CAWTP Board

As you are aware, the 'Fairness and Transparency Advisor for the project has reviewed our complaint (ID no. 398719). The subsequent decision contained a factual error, namely, that our proposal dated to 2010 when, in fact, the original proposal was submitted on June 11, 1990 (CRD Eng file L55-3). Therefore, we respectfully request that inform the FTA of this error.

Further, as anybody searching our company name on your website will be presented with a list of references that have no basis in fact (e.g that our submitted option (including the Associated Engineering Review of it) did not address treatment or economic considerations, and, that our subsequent presentation to the committee was rebuked by the chair for the stated reason) we respectfully request that you act to correct these factual errors, including by considering engaging in the immediate issuance of a Request for Proposals to build the JOR-Vic SRP and to use the results in comparison of its 'cost-effectiveness ' against all other options under consideration.

Regards,

Van-Port Sterilizers Ltd.

Submitted at:7/29/2016 11:32:35 AM

Submitted via:<https://www.crd.bc.ca/contact-us?r=wwproject-board>

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Chrome/51.0.2704.103 Safari/537.36

User Host Address:173.180.79.193

From: dgclippingdale@shaw.ca [<mailto:dgclippingdale@shaw.ca>]
Sent: Friday, July 29, 2016 11:33 AM
To: cawtpb <cawtpb@crd.bc.ca>
Subject: Contact Us - Submission

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.....

Your Name:
Dorothy Clippingdale

Your Email Address:
dgclippingdale@shaw.ca

Message:
RE: Core Area Wastewater Treatment Project - Coordinating Committee Meeting, August 4, 2016.

Dear Ms Jane Bird, Chair:

In 2005 I agreed to head a Council of Canadians' Water Committee. Wastewater became our focus. Our initiative resulted in the formation of Greater Victoria Water Watch Coalition (GVWWC), to bring to the public the issue of keeping wastewater treatment publicly owned and operated. We did not expect opposition to wastewater treatment, something so obviously needed and Government mandated.

Over the years the Coalition sponsored many public forums and other activities on water and wastewater issues, several on the importance of using wastewater as a resource (as did Victoria Council). GVWWC members attended and sometimes participated in the CRD's many Public Meetings, Open Houses and CRD Council Open Meetings on wastewater. A petition, signed by thousands, was presented to the CRD Wastewater Committee. At the CRD Council's Open Meeting on funding, where dozens spoke, every one spoke in favour of keeping wastewater treatment in public control, not a P3 -privatized contract. What surprised me at that meeting was the large number of speakers not known to the Coalition.

This is a very important issue. Profits for the corporation mean higher prices for the public and these contracts often end just when infrastructure requires some repairs or replacement. Where will the needed funds come from? Please do not let your citizens down by ignoring their voices for publicly owned and managed wastewater treatment.

Sincerely,

Dorothy Clippingdale

Submitted at:7/29/2016 11:32:40 AM
Submitted via:<https://www.crd.bc.ca/contact-us?r=wwproject-board>
User Agent:Mozilla/5.0 (Windows NT 6.1; WOW64; rv:47.0) Gecko/20100101 Firefox/47.0
User Host Address:184.151.114.243

From: shenrich@shaw.ca [<mailto:shenrich@shaw.ca>]
Sent: Friday, July 29, 2016 1:49 PM
To: cawtpb <cawtpb@crd.bc.ca>
Subject: Contact Us - Submission

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.....

Your Name:
Soren Henrich

Your Email Address:
shenrich@shaw.ca

Message:
To the CRD Sewage Treatment Project Board Members:

What we know so far:

The volume of storm water discharges and combined sewer overflows with high rates of inflow and infiltration to near shore waters from the core area municipalities is about the same order of magnitude as the sewage discharges from Clover and Macaulay on an annual basis. There are many discharge points and they are all close to the shoreline, hence their impact on public health is much greater.

'No-treatment' advocates maintain there is no scientific rationale for higher levels of treatment. Secondary treatment has little or no environmental benefit, given the present effectiveness of Victoria's oxygenated, cold, saltwater tidal flows for eliminating bacteria, the lack of heavy industry pollution and the CRD's source-point pollution control program.

Secondary effluent dumped in the ocean still contains pollution, pcbs, flame retardants, toxins, heavy metals, micro-fibres, micro-plastics, and an indeterminate list of substances of emerging concern. Puget Sound neighbours and Salish Sea polluters attempted a hypocritical, politically-motivated shaming and diversion of blame onto Victoria.

Minimum effluent quality regulations, discharge permit compliance neither assure environmental health benefit, nor justify the expenditure for secondary treatment, and is but legislative wrangling of the fact of ongoing pollution.

Sludges – so-called 'biosolids' and their classification, regulation, conditions for best application, etc. do not mitigate the fact of applying pollution to land, forests, watersheds and creeks that lead into the ocean – with the attendant health hazards a treatment system is meant to solve. 'Beneficial use of biosolids' is an oxymoron – unless they are gasified.

Other sewage treatment advocates realize we are past 'no-treatment' and need to consider higher levels of treatment, or risk incurring substantial fines until we conform. We look for a system that has environmental and human health benefit, and justifies taxpayer debt for it.

The RITE Plan Coalition represents CRD taxpayers who want to see their tax dollars spent wisely on sewage treatment – or not spent at all. The Coalition base consists of 500 provincial petition signatories who remain supportive of a RITE Plan.

Share the Responsibility for Sewage

A retreat from siting decision will serve to disarm reactionary opposition and gain time to earn social license by reframing the issue to: 'Share the Responsibility for Sewage'. Eastside and Westside must each do their part simply because it is the lowest cost with the highest environmental benefit. Distributed tertiary enables the most cost-effective approach. Deferring siting decision will also serve to ensure that sites are selected for their capacity to optimize the most cost-effective technologies over the 50-year project life cycle.

Reframing the issue for public acceptance is going to take time before procurement can begin. Too long the CRD has kept attention fixated on sites; while comparative systems and technologies remained marginalized in the discussion. The CRD Technical Oversight Panel summarily dismissed distributed tertiary, without analysis or explanation. Only at the eleventh hour did the TOP Chair acknowledge that a Clover/McLoughlin/Macaulay distributed system would be desirable.

Multiple, smaller tertiary treatment plants take the maximum advantage of existing infrastructure and minimizes the cost of new pumps and pipes, avoiding construction disturbance, cost and economic disruption to the city. Multiple sites answer the requirement for redundancy – excess flows from one plant needing to be shut down for major repair can be retained at upstream plants or diverted to downstream plants to compensate.

Apply IRM principles and use proven technologies in innovative ways to recover materials from sewage and solid wastes to mitigate environmental impacts and to generate revenue.

Buy Time

High risk classification was in error. Will the CRD request a corrected classification for low risk, to extend the government deadline for treatment? This will gain the time needed for a competitive dialogue approach to procurement which is the best way to ensure the lowest life cycle costs with highest environmental benefits.

If the deadline for sewage treatment were postponed, and funds were invested in I&I repair / storm water infrastructure first; and all the source control mechanisms diligently enforced, then the results of these initiatives could be monitored and a new baseline of the condition of our marine waters determined. After that, the appropriateness of the existing marine-based treatment versus land-based treatment could be re-evaluated.

It will take time to secure land rights. Securing low-risk classification will allow time to negotiate land grants or leaseholds at Macaulay and Clover Point for underground tertiary treatment plants. Clover Point is due to be excavated for a scheduled pump station upgrade regardless.

Earn Social License

The Project Board remains responsible to the taxpayers. Consider engaging the public once there are 2 or 3 fully-costed and guaranteed proposals – complete with site requirements, environmental benefits, life cycle costs, etc. The taxpayers are the customers, and will either approve the capital expenditure and debt – or not.

Public participation to date might be described as haphazard. Some vocal individuals and groups with a narrow purview express their misplaced fear and ignorance, and have stirred up public opposition on the basis of nonsense. Unfortunately, some political decision-makers don't know the difference and apparently have considered such protest as equally valid to informed response and participation. Categorical thinking and rating criteria are needed.

The Project Board needs time to gain public trust, acceptance, social license and support. The

issue needs artful handling and integration of myriad influences and positions: industry, labour, federal and provincial governments, CRD and the taxpaying public. A fresh approach is needed. I have hopes the Project Board will provide this.

It is my sincere hope, the CRD Project Board will seriously consider a renewed position on the issue and recommend more time be allowed by insisting on a low-risk classification.

I also hope the Project Board will recommend the CRD raise the standard for informed public participation. IAP2 provides a framework for public engagement worth exercising (see appended IAP2 Core Values).

Respectfully,



Soren Henrich,

Victoria resident and taxpayer,

RITE Plan Coalition member

Submitted at:7/29/2016 1:48:46 PM

Submitted via:<https://www.crd.bc.ca/contact-us?r=wwproject-board>

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Respectfully,



Soren Henrich,
Victoria resident and taxpayer,
RITE Plan Coalition member

IAP2 Core Values

As an international leader in public participation, IAP2 has developed the "IAP2 Core Values for Public Participation" for use in the development and implementation of public participation processes. These core values were developed over a two year period with broad international input to identify those aspects of public participation which cross national, cultural, and religious boundaries. The purpose of these core values is to help make better decisions which reflect the interests and concerns of potentially affected people and entities.

Core Values for the Practice of Public Participation

1. Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
2. Public participation includes the promise that the public's contribution will influence the decision.
3. Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.
4. Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
5. Public participation seeks input from participants in designing how they participate.
6. Public participation provides participants with the information they need to participate in a meaningful way.
7. Public participation communicates to participants how their input affected the decision.

From: allancrowfishing@gmail.com [<mailto:allancrowfishing@gmail.com>]
Sent: Sunday, July 31, 2016 9:00 PM
To: cawtpb <cawtpb@crd.bc.ca>
Subject: Contact Us - Submission

The following message was received through the form at 'https://www.crd.bc.ca/contact-us?r=wwproject-board'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Allan Crow

Your Email Address:

allancrowfishing@gmail.com

Message:

Dear Project Board Chair and Directors

Thank you for your continuing efforts to get to the finish line...no easy task...I wish you all the best of luck.

My understanding is that in 2006 Minister Penner relied on three relevant scientific reports in coming to a decision to order the CRD to implement secondary sewage treatment.

The MacDonald report on sediment contamination near the outfalls, the Society of Toxicology and Environmental Chemistry (SETAC) report, a blue ribbon panel of internationally accredited experts in the field of marine science and toxicology, and Environment Canada's 2002 Wilson Report.

The Wilson Report made a number of recommendations on how the CRD could expand its marine monitoring program to include a sediment deposition study, expanded shellfish monitoring and increasing the number of secondary reference stations.

All worthwhile things....none of which appeared to have been rigorously followed up.

Secondly, monitoring surface and beach waters is largely public health -and not marine health oriented. Making conclusions regarding marine health based on surface water sampling can be very misleading.

Fecal coliforms are effectively irradiated on and near the surface waters by UV light. Low levels of fecal coliforms (fc) in surface waters are to be expected.

While stormwater crossovers are the main culprit contributing to sporadic local beach contamination during the rainy season, the deep water outfalls -belching out over 6.8 million kgs (dried weight) of solids every year are fouling the local seabed and marine life in the most insidious way...out of sight and out of mind to the vast majority of citizens. At present we are using the seabed of the Victoria Bight and Oak Bay as a primary clarifier.

What is not well known is that beyond 10m of depth of seawater the attenuation of the UV is 90% and fecal coliform levels increase dramatically. Coliform levels at depth and in the seabed sediments can be 10 to more than a 1000 times the levels of overlaying 10m of water. The CRD's own sampling data collaborates this fact.

The sediments can transport with currents expanding the contamination. Deeper dwelling shellfish such as Swimming Scallops and Geoducks are extremely susceptible to this contamination, hence a rather expansive 'shellfish sanitary closure' affecting the entire deep seabed inside a line between the tip of Albert Head and the south tip of Trial Island. These shellfish are just a few of a large diversity of marine organisms that filter feed in waters affected by the CRD's chemical and microbe laden sewage discharges.

Thirdly, It is unlikely that microplastics can be phased or source controlled out of the wastewater stream anytime some... or ever. Some manufacturers might be phasing out plastic micro beads from their health and beauty products but petroleum based clothing fibres from laundry discharge will remain a major source of microplastic and flame retardants entering our local marine environment. Both are legacy contaminants with known food chain interactions. Secondary treatment removes clothing and other fibres from the effluent.

Last time I heard, the original publicly owned and operated McLoughlin Point plan, which included chemical tertiary treatment(advanced oxidation), was to cost

\$748 million. With an adjustment for inflation is that \$800 million today? Less? Now it's becoming a \$1.2 to \$ 3 billion project?

Mike Harcourt could have got sewage treatment done in 1994 for \$400 million, sadly, the obstructionism prevailed.

It would have been paid for by now and the marine environment would have been two decades into recovery.

Instead we have the ever increasing social, financial and environmental costs.(see attachment "Why our sewage treatment is long overdue" T/C March 26,2016)

sincerely, Allan Crow, East Sooke

6500 East Sooke rd.

East Sooke BC V9Z-1A4

(250) 642-2588

allancrowfishing@gmail.com

op/ed.tiff

Submitted at:7/31/2016 8:59:46 PM

Submitted via:https://www.crd.bc.ca/contact-us?r=wwproject-board

User Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_5) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/51.0.2704.106 Safari/537.36

User Host Address:24.108.207.208

CRDBoard

From: Juhree Zimmerman [REDACTED]
Sent: Thursday, July 28, 2016 1:08 PM
To: CRDBoard
Subject: Clover Point Park Sewage Plant Proposal--NO!!!!

Hello- as a resident of Fairfield Gonzales and a daily user of Clover Point Park and Dallas Road dog walk, my husband and I are hopeful that the newly appointed Board will find a more suitable place than Clover Point for sewage treatment. This is one of Victoria's most beautiful areas and a magnet for tourism. Please put the treatment plant elsewhere, as the disruption of construction (for years) and ongoing maintenance when things go wrong (forever) belongs in an industrial area, not on one of our brightest assets.

Thank you,

Juhree Zimmerman R.N., B.Sc.N., M.Ed., C.P.C.C., O.R.S.C.C.
Master Certified Coach

[REDACTED]
www.strategyforsynergy.ca

...coaching leaders and relationships



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