



Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Supplementary Meeting Agenda Electoral Area Services Committee

Wednesday, January 20, 2016

1:35 PM

Room 107

COMMITTEE MEMBERS:

DIRECTORS: M. Hicks (Chair), W. McIntyre (Vice-Chair) D. Howe, B. Desjardins (Board Chair, ex-officio)

5.6. Burgoyne Bay Septage Facility Project - Action Plan Update

16-101 Burgoyne Bay Septage Facility Project - Action Plan Update

Recommendation: That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with direct consultant management to complete the Burgoyne Bay Septage Facility Project and terminate the current project consulting services contract with Worley Parsons

Attachments: [BurgoyneBaySeptageReceivingStationProgressPlan.pdf](#)
[AppendixA.pdf](#)

5.7. 2016 Operating and Capital Budget for Salt Spring Island Liquid Waste Disposal

16-102 Salt Spring Island Liquid Waste Disposal 2016 Operating and Capital Budget

Recommendation: That the Electoral Services Committee recommends that the Capital Regional District Board:

1. Approve the 2016 operating and capital budget for the Salt Spring Island Liquid Waste Disposal Local Service as presented; and
2. Approve the 2016 Parcel Tax of \$52.10 and the tipping fee of \$0.40 per lGal for both septage and sewage sludge; and
3. Balance the 2015 actual revenue and expense on the 2015 transfer to capital reserve fund.

Attachments: [SSILW2016BudgetReport.pdf](#)
[2016 Budget](#)

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**REPORT TO ELECTORAL AREA SERVICES COMMITTEE
MEETING OF WEDNESDAY, JANUARY 20, 2016**

SUBJECT BURGOYNE BAY SEPTAGE FACILITY PROJECT – ACTION PLAN UPDATE

ISSUE

The Salt Spring Island Liquid Waste Disposal Service (SSILWDS), Burgoyne Bay Septage Facility Project is facing schedule and budget issues. An update to the new project action plan to deliver the project has been prepared.

BACKGROUND

At the October 21, 2015 Electoral Area Services Committee meeting, staff presented the Burgoyne Bay Septage Facility Project – Action Plan report (attached as Appendix 1). The report was deferred for further review and so this report is an update to the action plan based upon new information.

In November 2008, the Capital Regional District (CRD) received approval of the electors of Salt Spring Island (SSI) to borrow up to \$2.1 million to undertake capital improvements to the existing Liquid Waste Treatment and Disposal facility and to create a composting facility. In 2009, Opus Dayton & Knight (ODK) was retained by the CRD to design the improvements. When ODK completed the design, their pre-tender cost estimate to upgrade the treatment facility was \$3.35 million not including the composting facility. In 2011, as a result of the budget shortfall and ongoing operational and financial challenges, the SSILWDS Commission directed staff to shut down the dewatering, treatment and disposal processes at the facility and enter into a contract with SPL to transfer the liquid waste from SSI to their septage treatment facility in Langford. This revised operational plan reduced the risk of ongoing equipment failure, service interruptions, emergency expenditures, and has resulted in operational budget surpluses ever since.

Therefore, in October 2013, WorleyParsons (WP) was retained to review the previous design work completed by ODK and to complete the design of a liquid waste receiving station only. It was recognized that a receiving station is essential no matter what decision is made in the future to treat and dispose of the liquid and solid waste. When WP reached the 50% design completion milestone, a Class C cost estimate was completed and it appeared that the project was within budget. However, when the 95% design drawings were completed in April 2015, WP's new Total Indicative Cost (TIC) was greater than the project budget. As a result, the design work was paused in order to re-evaluate why the TIC was so high.

Since the last report on October 21, 2015, WP and CRD staff have re-evaluated the design and through a value engineering process, were able to lower the TIC for the septage receiving facility to \$1.37 million (including a 25% contingency). The following items were revised in order to lower the TIC:

- Right-sizing and reconfiguration of the septage storage tank size;
- Reuse of existing pumping equipment at Burgoyne;
- Utilize the existing electrical service building;

- Reuse of some existing electrical equipment; and
- Reduce equipment slab thickness through re-evaluation of the structural requirements.

In addition, there may be some other possible small cost savings by re-evaluating other equipment and changing the procurement delivery (by implementing direct consultant management and potentially utilizing on-island resources). This is described in a bit more detail as Alternative 4 in this staff report. The following three Alternatives are similar to what was presented in the staff report in Appendix 1 with some updated information.

Generally, each of the alternatives requires a bit more up-front effort in order to realize the identified value engineering savings on the TIC.

ALTERNATIVES

Alternative 1:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-bid-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

The action plan, utilizing a **design-bid-build** project delivery approach, is as follows:

1. Enhanced Project Management Team
 - a. WorleyParsons to assign their best staff to the project to the satisfaction of the CRD and utilize on-island consulting resources (retained by Worley Parsons) where possible and available throughout project delivery
 - b. Establish a Project Steering Committee to oversee the project
2. TIC Review
 - a. Update the design to incorporate the value engineering savings and have the design peer reviewed (by third party quantity surveyor or contractor) to see if the TIC will be within budget.
 - b. Confirm with Committee whether to proceed and address variances, if any.
3. If approved, then finalize the Design, Tendering and Construction Services. Construction is anticipated to commence in the Summer of 2016 and take 4-6 months to complete.
4. Consultants and CRD Project Administration Budgets
The Electoral Area Services Committee to approve the following budgets:
 - a. The consultant's budget to remain at \$81,730 as per approved contract and scope of work, plus an additional \$46,000 for value engineering updates and enhanced project management; and \$103,035 to complete the value engineering design and construction management to the end of the project.
 - b. Retain a quantity surveyor to estimate the TIC: \$10,000.
 - c. CRD staff support through design and construction: allocate \$50,000 for project management and operation support and \$10,000 for "in-house" value engineering changes.
 - d. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$300,765

Alternative 2:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

The action plan, utilizing a **design-build** project delivery approach, is as follows:

1. Enhanced Project Management Team
 - a. WorleyParsons to assign their best design-build staff to the project to the satisfaction of the CRD
 - b. Establish a Project Steering Committee to oversee the project.
2. Next Steps utilizing a Design-Build approach with estimated timelines
 - a. WorleyParsons to be the Owner's Representative
 - i. Revise scope of services.
 - b. CRD to retain the Process Consultant to prepare documents
 - i. Define scope of services.
 - ii. Approve Terms of Reference (TOR) and budget.
3. Project status review
 - a. WorleyParsons to update the plans and provide an updated cost estimate, or total indicative cost (TIC).
4. Next steps for the Design, Tendering, Construction Services with estimated timeline
 - a. WorleyParsons to prepare the Request for Qualification (RFQ and Request for Proposal) RFP to retain a design-build consortium.
 - b. Award to selected proponent.
 - c. Anticipated design and construction to commence in the Fall of 2016 and be complete in the Spring of 2017.
5. Consultants and CRD Project Administration Budgets
The Electoral Area Services Committee to approve the following budgets:
 - a. WorleyParsons' revised budget to be \$50,000 (incurred to date) plus \$180,000 (new scope) for a total of \$230,000.
Work includes:
 - i. Prepare indicative design to 30%, modifying performance specifications, tendering and construction services
 - ii. WorleyParsons approval final design, inspect and certify project meets the performance criteria, etc.
 - iii. to start construction services scope in Fall of 2016
 - b. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - c. Legal to review contracts and associated agreements budget of \$20,000
 - d. Stipend of \$15,000 to each of the two short-listed design/build consortiums: \$30,000
 - e. CRD staff support through design and construction: allocate \$60,000
 - f. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$350,000

Alternative 3:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with a design-build project delivery approach to complete the Burgoyne Bay Septage Facility Project and terminate the current project consulting services contract with Worley Parsons.

The action plan, utilizing a **design-build** project delivery approach with a new consultant is as follows:

1. Terminate the 'Salt Spring Island Liquid Waste Receiving Station and Storage Tanks Project' consulting services contract with Worley Parsons.

2. Direct staff to undertake an alternative project delivery approach for the project and the appropriate request for proposals to retain a new design and construction services consultant for the project.
3. Enhanced Project Management Team
 - a. Establish a Project Steering Committee to oversee the project.
 - b. Retain new consultant and establish TOR.
4. Project status review
 - a. Consultant to prepare indicative design and coordinate a value engineering review/workshop of the project with the aim of reducing the TIC.
 - b. Consultant to update the plans and provide an updated TIC estimate.
5. TIC Review/Next Steps
 - a. Peer review (by third party quantity surveyor or contractor) the TIC to determine if cost estimate is realistic and determine variances to understand the rationale and to determine how to reduce the TIC cost if required.
 - b. Confirm with Committee whether to proceed.
 - c. Proceed with RFQ and RFP.
 - d. Design Build consortium to finalize design and construction.
6. Consultants and CRD Staff Budgets
The Electoral Area Services Committee would be required to approve the following budgets:
 - a. New Consultant – use WorleyParsons’ anticipated cost \$225,000 plus an additional \$30,000 for confirmation of previous design work for a total of \$255,000
 - b. Lost value of investment already made on WorleyParsons original contract: \$50,000
 - c. Value Engineering Exercise: \$10,000
 - d. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - e. Stipend of \$15,000 to each of the two short-listed design/build consortiums: \$30,000
 - f. CRD staff support through pre-design, design and construction: allocate \$70,000
 - g. Amend total consultants and CRD project administration budget allowances to \$425,000

Alternative 4:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with direct consultant management to complete the Burgoyne Bay Septage Facility Project and terminate the current project consulting services contract with Worley Parsons.

The action plan, utilizing an **alternative** project delivery approach is as follows:

1. Terminate the ‘Salt Spring Island Liquid Waste Receiving Station and Storage Tanks Project’ consulting services contract with Worley Parsons.
2. Direct staff to undertake a direct consultant management and project delivery approach to retain new local consultants and for the CRD to undertake “in-house” engineering for design and construction services.
3. SSI Project Management Team
 - a. Utilize on-island resources to manage the project.
 - b. Retain new local consultants
4. Project status review
 - a. SSI project management team to initiate the new value engineering design
5. TIC Review/Next Steps
 - a. Peer review (by third party quantity surveyor or contractor) of the TIC to determine if cost estimate is within budget.
 - b. Confirm with Committee whether to proceed.

- c. Proceed with tender.
- d. Award construction contract.
6. Consultants and CRD Staff Budgets
The Electoral Area Services Committee would be required to approve the following budgets:
 - a. New consultants for geotechnical, structural, and electrical disciplines combined with “in-house” engineering – anticipated cost of \$50,000 for consultants plus \$40,000 for “in-house” engineering for a total of \$90,000
 - b. Lost value of investment already made on WorleyParsons original contract: \$50,000
 - c. Value Engineering Exercise: \$10,000
 - d. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - e. SSI project management support through pre-design, design and construction: allocate \$70,000
 - f. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$230,000

IMPLICATIONS

Alternative 1: Proceed with Design-Bid-Build Action Plan.

Pros:

- Commitment of WorleyParsons design team
- Project Steering Committee oversight to ensure project stays on track
- Easy to complete value engineering changes of potential TIC savings
- Peer review provides further assurance of design/cost estimate.
- Provisional items allows ability to further reduce cost estimate closer to the project budget.
- Construction can start by Summer 2016.

Cons:

- Still requires redesign of many aspects of project based on value engineering exercise.
- No guarantee that the revised cost estimate will be within original project budget and may result in future phases of the project to be delayed or postponed.

Alternative 2: Proceed with the Design Build modified Action Plan

Pros:

- Commitment of WorleyParsons design team.
- Project Steering Committee oversight to ensure project stays on track.
- Establish an indicative design (30%) and affordability ceiling (budget, including contingency).
- Peer review provides further assurance of design/cost estimate.
- During RFQ, request proponents to provide early indication of preliminary project budget.
- Design-Build Consortium to assess innovation and constructability opportunities in order to deliver the project within affordability ceiling.

Cons:

- Still requires some redesign (up to 30%) of many aspects of project based on value engineering exercise.
- Changing from a Design-Bid-Build to a Design Build incurs additional costs.

- Scalability, the facility will be designed to meet the specifications provided today, and will not necessarily have any room for future expansion unless additional details are put into the specifications and the overall construction managed carefully, requiring additional project management on the part of the owners' engineers.
- The community would have little input into the final design, as the contractor will select materials, equipment and aesthetics based on a performance specification.
- Requires additional project management on the part of the owners' engineer.
- Have to pay stipends up to \$30,000 to the unsuccessful proponents.
- No guarantee that the revised cost estimate will be within original project budget and may result in future phases of the project to be delayed or postponed.
- Construction likely will not start until late Fall 2016.

Alternative 3: Terminate current contract with WorleyParsons proceed to Design-Build

Pros:

- Project Steering Committee oversight to ensure project stays on track
- Establish an indicative design (30%) and affordability ceiling (budget, including contingency)
- Peer review provides further assurance of design/cost estimate
- During RFQ, request proponents to provide early indication of preliminary project budget
- Design-Build Consortiums to assess innovation and constructability opportunities in order to deliver the project within affordability ceiling

Cons:

- Significantly higher cost of \$425,000.
- Still requires some redesign (up to 30%) of many aspects of project based on value engineering exercise
- Changing from a Design-Bid-Build to a Design Build incurs additional costs
- Scalability, the facility will be designed to meet the specifications provided today and will not necessarily have any room for future expansion, unless additional details are put into the specifications and the overall construction managed carefully, requiring additional project management on the part of the owners engineers
- The community would have little input into the final design, as the contractor will select materials, equipment and aesthetics based on a performance specification
- Requires additional project management on the part of the owners' engineer
- Likely that the new design and construction costs will exceed the original project budget.
- Construction expected to start in the Summer/Fall 2017.

Alternative 4: Terminate current contract with WorleyParsons proceed to Direct Consultant Management and "in-house" design approach.

Pros:

- Similar strategy was successfully implemented on the Beddis water project.
- Local SSI project management oversight to ensure project stays on track.
- Local consultants and "in-house" engineering to gain efficiencies.
- Easy to extract beneficial components of Basis of Design completed by WorleyParsons
- Easy to communicate and implement value engineering changes to the design and project management team.
- Peer review provides further assurance of design/cost estimate.
- Provisional items allows ability to further reduce the TIC.
- Construction expected to start in the Fall 2016.

Cons:

- Still requires some redesign in order to realize the value engineering savings on the TIC.
- Although the receiving station facility can be completed, the liquid treatment and solids disposal will have to be undertaken as future phases of the project.
- Some risk is being transferred to SSI project management and “in-house” engineering.

CONCLUSION

Completing the Burgoyne Bay Septage Receiving and Storage Project is an important step towards providing an on-island solution for liquid wastes. The proposed process and equipment will be required regardless of the treatment, solids and liquid disposal process undertaken.

Utilizing a new project action plan and SSI project management delivery approach is considered to be the most cost effective solution to deliver the project within the available budget constraints.

RECOMMENDATION

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with direct consultant management to complete the Burgoyne Bay Septage Facility Project and terminate the current project consulting services contract with Worley Parsons.

Submitted by:	Keith Wahlstrom, P. Eng., Manager, Engineering Salt Spring Island Electoral Area
Concurrence:	Karla Campbell, Senior Manager, Salt Spring Island Electoral Area
Concurrence:	Ted Robbins, BSc., C Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, Chief Administrative Officer

KW/DP:

Attachments: Burgoyne Bay Septage Facility Project – Action Plan, October 21, 2015

**Supplementary Agenda
Electoral Area Services Committee**

Wednesday, October 21, 2015

1:30 PM

Room 107

Committee Members:

M. Hicks (Chair), W. McIntyre (Vice-Chair), D. Howe

5. Committee Business

5.6. 15-1159 Burgoyne Bay Septage Facility Project - Action Plan

Recommendation:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-bid-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.



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**REPORT TO ELECTORAL AREA SERVICES COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 21, 2015**

SUBJECT BURGOYNE BAY SEPTAGE FACILITY PROJECT – ACTION PLAN

ISSUE

The Salt Spring Island Liquid Waste Disposal Service, Burgoyne Bay Septage Facility Project is facing schedule and budget issues. A new project action plan to deliver the project has been prepared.

BACKGROUND

WorleyParsons (WP) was retained by the Capital Regional District (CRD) in 2013 to provide consulting services on the 'Salt Spring Island Liquid Waste Receiving Station and Storage Tanks' project. The original WP contract amount was \$81,730 and included delivery of project management and control, design, tendering and construction services. Based on their proposal, WP understood the project history, budget limitations and project schedule requirements upon entering into the consulting services agreement.

In May 2015, after receiving an updated construction budget estimate from WP, and with increasing concerns related to the performance of the WP team, CRD senior staff teleconferenced with a WP executive on May 29, 2015 to express a number of concerns with the project delivery to date. The meeting and follow-up correspondence resulted in WP expressing a commitment to completing the project as originally proposed and providing the CRD with an action plan to see the project through to completion. The WP action plan was presented to the CRD on June 10, 2015. In their response, WP acknowledged a number of key issues with their performance on the project, as it is related to their timeliness for providing project details, and their project management related to schedule, scope change management and communications, and generally meeting the terms of the agreement.

WorleyParsons' proposed (June 10) Action Plan was as follows:

1. Project Management
 - a. Establish a Project Steering Committee to review and oversee the project
 - b. Transition Project Management (PM) from Design – PM to a Tendering and Construction Services - PM
2. Project status review
 - a. Project Steering Committee members to meet with CRD PM to review status of project and align on what needs to be completed
3. Total Indicative Cost (TIC) discussion
 - a. Review the TIC cost variances to understand the rationale for the increase and to determine how to reduce the TIC cost
4. Next steps for the Design, Tendering, Construction Services with estimated timeline
 - a. Finalize design
 - i. Complete by end of early March 2016
 - b. Tendering
 - i. WorleyParsons to complete tendering process from mid-April to June 2016

- c. Construction services
 - i. WorleyParsons to start construction services scope in June 2016
 - ii. Anticipated construction schedule 4-6 months – complete by December 2016

The CRD staff have reviewed WorleyParsons' proposed Action Plan and developed alternatives as follows:

ALTERNATIVES

Alternative 1:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-bid-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

The action plan, utilizing a **design-bid-build** project delivery approach, is as follows:

1. Enhanced Project Management Team
 - a. WorleyParsons to assign their best staff to the project to the satisfaction of the CRD and utilize on-island consulting resources (retained by Worley Parsons) where appropriate and available through project delivery
 - b. Establish a Project Steering Committee to oversee the project – October 23, 2015
2. Project status review
 - a. Project Steering Committee to undertake a value engineering review/workshop of the project with the aim of reducing the project budget – November 16, 2015
 - b. WorleyParsons to update the plans and provide an updated cost estimate, or total indicative cost (TIC) – November 30, 2015
3. TIC Review
 - a. Peer review (by third party quantity surveyor or contractor) the TIC to determine if cost estimate is realistic and determine variances to understand the rationale and to determine how to reduce the TIC cost if required – December 7, 2015
 - b. Confirm with Committee whether to proceed and address variances, if any - December 16, 2015
4. Next steps for the Design, Tendering, Construction Services with estimated timeline
 - a. Finalize design
 - i. 100 % Design and specifications – early March 2016
 - b. Tendering
 - i. WorleyParsons to complete tendering scope – mid April 2016
 - c. Construction services
 - i. WorleyParsons to start construction services scope – early June 2016
 - ii. Anticipated construction schedule 4-6 months – December 2016
5. Consultants and CRD Project Administration Budgets
The Electoral Area Services Committee to approve the following budgets:
 - a. The consultant's budget to remain at \$81,730 as per approved contract and scope of work, plus an additional \$46,000 to provide enhanced engineering services including:
 - i. Value Engineering Exercise: \$10,000
 - ii. Revised TIC estimate: \$ 6,000
 - iii. Enhanced project management: \$12,000
 - iv. Project Steering Committee: \$18,000
 - b. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - c. CRD staff support through design and construction: allocate \$50,000

- d. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$187,730

Alternative 2:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

The action plan, utilizing a **design-build** project delivery approach, is as follows:

1. Enhanced Project Management Team
 - a. WorleyParsons to assign their best design-build staff to the project to the satisfaction of the CRD
 - b. Establish a Project Steering Committee to oversee the project – October 23, 2016
2. Next Steps utilizing a Design-Build approach with estimated timelines
 - a. WorleyParsons to be the Owner's Representative
 - i. Revise scope of services – mid November 2015
 - b. CRD to retain the Process Consultant to prepare documents
 - i. Define scope of services – mid November 2015
 - ii. Approve Terms of Reference (TOR) and budget – mid November 2015
3. Project status review
 - a. Project Steering Committee to undertake a value engineering review/workshop of the project with the aim of reducing the project budget - mid December 2015
 - b. WorleyParsons to update the plans and provide an updated cost estimate, or total indicative cost (TIC) - end of December 2015
4. Next steps for the Design, Tendering, Construction Services with estimated timeline
 - a. WorleyParsons to prepare the Request for Qualification (RFQ) and Request for Proposal) RFP to retain a design-build consortium – January 31, 2016
 - b. Award to selected proponent – May 30, 2016
 - c. Anticipated design and construction schedule August 2016 to December 31, 2017
5. Consultants and CRD Project Administration Budgets
The Electoral Area Services Committee to approve the following budgets:
 - a. WorleyParsons' revised budget to be \$50,000 (incurred to date) plus \$130,000 (new scope) for a total of \$180,000
Work includes:
 - i. Prepare indicative design to 30%, modifying performance specifications, tendering and construction services
 - ii. WorleyParsons to approval final design, inspect and certify project meets the performance criteria, etc.
 - iii. to start construction services scope in October 2016
 - b. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - c. Process Design Consultant at \$30,000 (if required)
 - d. Legal to review contracts and associated agreements budget of \$10,000
 - e. Stipend of \$5,000 to each of the two short-listed design/build consortiums: \$10,000
 - f. CRD staff support through design and construction: allocate \$60,000
 - g. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$300,000

Alternative 3:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with an alternative project delivery approach to complete the Burgoyne Bay Septage Facility Project and terminate the current project consulting services contract with Worley Parsons.

The action plan, utilizing an **alternative** project delivery approach is as follows:

1. Terminate the 'Salt Spring Island Liquid Waste Reveiving Station and Storage Tanks Project' consulting services contract with Worley Parsons– October 30, 2015
2. Direct staff to undertake an alternative project delivery approach for the project and the appropriate request for proposals to retain a new design and construction services consultant for the project
3. Enhanced Project Management Team
 - a. Establish a Project Steering Committee to oversee the project – November 30, 2015
 - b. Retain new consultant and establish TOR – February 28, 2016
4. Project status review
 - a. Consultant to prepare indicative design and coordinate a value engineering review/workshop of the project with the aim of reducing the project budget – July 2016
 - b. Consultant to update the plans and provide an updated cost estimate (TIC) – September 2016
5. TIC Review/Next Steps
 - a. Peer review (by third party quantity surveyor or contractor) the TIC to determine if cost estimate is realistic and determine variances to understand the rationale and to determine how to reduce the TIC cost if required – December 2016
 - b. Confirm with Committee whether to proceed – January 2017
 - c. Proceed with RFQ and RFP – February 1, 2017 to August 31, 2017
 - d. Design Build consortium to finalize design and construction – September 2017 to February 2018
6. Consultants and CRD Staff Budgets
The Electoral Area Services Committee would be required to approve the following budgets:
 - a. New Consultant – use WorleyParsons' anticipated cost \$180,000 plus an additional \$30,000 for confirmation of previous design work for a total of \$210,000
 - b. Lost investment to WorleyParsons for original contract: \$50,000
 - c. Process Design Consultant: \$30,000
 - d. Value Engineering Exercise: \$10,000
 - e. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - f. Stipend of \$5,000 to each of the two short-listed design/build consortiums: \$10,000
 - g. Legal fees related to termination of contract: \$10,000
 - h. Potential additonal payment to WorleyParson's for contract losses: \$31,000
 - i. CRD staff support through pre-design, design and construction: allocate \$70,000
 - j. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$431,000

IMPLICATIONS

Alternative 1: Proceed with Design-Bid-Build Action Plan.

Pros:

- Commitment of WorleyParsons design team
- Project Steering Committee oversight to ensure project stays on track
- Easy to undertake a value engineering exercise for potential cost savings
- Peer review provides further assurance of design/cost estimate
- Provisional items allows ability to further reduce cost estimate closer to the project budget
- Construction can start by Summer 2016

Cons:

- Still requires redesign of many aspects of project based on value engineering exercise
- No guarantee that the revised cost estimate will be within original project budget (\$676,000) and may result in future phases of the project to be delayed or postponed

Alternative 2: Proceed with the Design Build modified Action Plan

Pros:

- Commitment of WorleyParsons design team
- Project Steering Committee oversight to ensure project stays on track
- Establish an indicative design (30%) and affordability ceiling (budget, including contingency)
- Peer review provides further assurance of design/cost estimate
- During RFQ, request proponents to provide early indication of preliminary project budget
- Design-Build Consortium to assess innovation and constructability opportunities in order to deliver the project within affordability ceiling

Cons:

- Still requires some redesign (up to 30%) of many aspects of project based on value engineering exercise
- Changing from a Design-Bid-Build to a Design Build incurs additional costs
- Scalability, the facility will be designed to meet the specifications provided today, and will not necessarily have any room for future expansion unless additional details are put into the specifications and the overall construction managed carefully, requiring additional project management on the part of the owners' engineers
- The community would have little input into the final design, as the contractor will select materials, equipment and aesthetics based on a performance specification
- Requires additional project management on the part of the owners' engineer
- No guarantee that the revised cost estimate will be within original project budget (\$676,000) and may result in future phases of the project to be delayed or postponed
- Construction expected to start in the Fall 2016

Alternative 3: Terminate current contract with WorleyParsons proceed to Design-Build

Pros:

- Project Steering Committee oversight to ensure project stays on track
- Establish an indicative design (30%) and affordability ceiling (budget, including contingency)

- Peer review provides further assurance of design/cost estimate
- During RFQ, request proponents to provide early indication of preliminary project budget
- Design-Build Consortium to assess innovation and constructability opportunities in order to deliver the project within affordability ceiling

Cons:

- Significantly higher cost of \$431,000
- Still requires some redesign (up to 30%) of many aspects of project based on value engineering exercise
- Changing from a Design-Bid-Build to a Design Build incurs additional costs
- Scalability, the facility will be designed to meet the specifications provided today and will not necessarily have any room for future expansion, unless additional details are put into the specifications and the overall construction managed carefully, requiring additional project management on the part of the owners engineers
- The community would have little input into the final design, as the contractor will select materials, equipment and aesthetics based on a performance specification
- Requires additional project management on the part of the owners' engineer
- No guarantee that the revised cost estimate will be within original project budget (\$676,000) and may result in future phases of the project to be delayed or postponed
- Construction expected to start in the Summer/Fall 2017

CONCLUSION

Completing the Burgoyne Bay Septage Receiving and Storage Project is an important step towards providing an on-island solution for liquid wastes. Utilizing a new project action plan and continuing with a design-bid-build project delivery approach with the current project engineering consultant is considered to be the most cost effective solution to deliver the project within the available budget constraints and at the earliest completion date.

RECOMMENDATION

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-bid-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

Submitted by:	Keith Wahlstrom, P. Eng., Manager, Engineering Salt Spring Island Electoral Area
Concurrence:	Karla Campbell, Senior Manager, Salt Spring Island Electoral Area
Concurrence:	Ted Robbins, BSc., C Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, Chief Administrative Officer

Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Supplementary Agenda Electoral Area Services Committee

Wednesday, October 21, 2015

1:30 PM

Room 107

Committee Members:

M. Hicks (Chair), W. McIntyre (Vice-Chair), D. Howe

5. Committee Business

5.6. 15-1159 Burgoyne Bay Septage Facility Project - Action Plan

Recommendation:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-bid-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.



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**REPORT TO ELECTORAL AREA SERVICES COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 21, 2015**

SUBJECT BURGOYNE BAY SEPTAGE FACILITY PROJECT – ACTION PLAN

ISSUE

The Salt Spring Island Liquid Waste Disposal Service, Burgoyne Bay Septage Facility Project is facing schedule and budget issues. A new project action plan to deliver the project has been prepared.

BACKGROUND

WorleyParsons (WP) was retained by the Capital Regional District (CRD) in 2013 to provide consulting services on the 'Salt Spring Island Liquid Waste Receiving Station and Storage Tanks' project. The original WP contract amount was \$81,730 and included delivery of project management and control, design, tendering and construction services. Based on their proposal, WP understood the project history, budget limitations and project schedule requirements upon entering into the consulting services agreement.

In May 2015, after receiving an updated construction budget estimate from WP, and with increasing concerns related to the performance of the WP team, CRD senior staff teleconferenced with a WP executive on May 29, 2015 to express a number of concerns with the project delivery to date. The meeting and follow-up correspondence resulted in WP expressing a commitment to completing the project as originally proposed and providing the CRD with an action plan to see the project through to completion. The WP action plan was presented to the CRD on June 10, 2015. In their response, WP acknowledged a number of key issues with their performance on the project, as it is related to their timeliness for providing project details, and their project management related to schedule, scope change management and communications, and generally meeting the terms of the agreement.

WorleyParsons' proposed (June 10) Action Plan was as follows:

1. Project Management
 - a. Establish a Project Steering Committee to review and oversee the project
 - b. Transition Project Management (PM) from Design – PM to a Tendering and Construction Services - PM
2. Project status review
 - a. Project Steering Committee members to meet with CRD PM to review status of project and align on what needs to be completed
3. Total Indicative Cost (TIC) discussion
 - a. Review the TIC cost variances to understand the rationale for the increase and to determine how to reduce the TIC cost
4. Next steps for the Design, Tendering, Construction Services with estimated timeline
 - a. Finalize design
 - i. Complete by end of early March 2016
 - b. Tendering
 - i. WorleyParsons to complete tendering process from mid-April to June 2016

- c. Construction services
 - i. WorleyParsons to start construction services scope in June 2016
 - ii. Anticipated construction schedule 4-6 months – complete by December 2016

The CRD staff have reviewed WorleyParsons' proposed Action Plan and developed alternatives as follows:

ALTERNATIVES

Alternative 1:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-bid-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

The action plan, utilizing a **design-bid-build** project delivery approach, is as follows:

1. Enhanced Project Management Team
 - a. WorleyParsons to assign their best staff to the project to the satisfaction of the CRD and utilize on-island consulting resources (retained by Worley Parsons) where appropriate and available through project delivery
 - b. Establish a Project Steering Committee to oversee the project – October 23, 2015
2. Project status review
 - a. Project Steering Committee to undertake a value engineering review/workshop of the project with the aim of reducing the project budget – November 16, 2015
 - b. WorleyParsons to update the plans and provide an updated cost estimate, or total indicative cost (TIC) – November 30, 2015
3. TIC Review
 - a. Peer review (by third party quantity surveyor or contractor) the TIC to determine if cost estimate is realistic and determine variances to understand the rationale and to determine how to reduce the TIC cost if required – December 7, 2015
 - b. Confirm with Committee whether to proceed and address variances, if any - December 16, 2015
4. Next steps for the Design, Tendering, Construction Services with estimated timeline
 - a. Finalize design
 - i. 100 % Design and specifications – early March 2016
 - b. Tendering
 - i. WorleyParsons to complete tendering scope – mid April 2016
 - c. Construction services
 - i. WorleyParsons to start construction services scope – early June 2016
 - ii. Anticipated construction schedule 4-6 months – December 2016
5. Consultants and CRD Project Administration Budgets
The Electoral Area Services Committee to approve the following budgets:
 - a. The consultant's budget to remain at \$81,730 as per approved contract and scope of work, plus an additional \$46,000 to provide enhanced engineering services including:
 - i. Value Engineering Exercise: \$10,000
 - ii. Revised TIC estimate: \$ 6,000
 - iii. Enhanced project management: \$12,000
 - iv. Project Steering Committee: \$18,000
 - b. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - c. CRD staff support through design and construction: allocate \$50,000

- d. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$187,730

Alternative 2:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

The action plan, utilizing a **design-build** project delivery approach, is as follows:

1. Enhanced Project Management Team
 - a. WorleyParsons to assign their best design-build staff to the project to the satisfaction of the CRD
 - b. Establish a Project Steering Committee to oversee the project – October 23, 2016
2. Next Steps utilizing a Design-Build approach with estimated timelines
 - a. WorleyParsons to be the Owner's Representative
 - i. Revise scope of services – mid November 2015
 - b. CRD to retain the Process Consultant to prepare documents
 - i. Define scope of services – mid November 2015
 - ii. Approve Terms of Reference (TOR) and budget – mid November 2015
3. Project status review
 - a. Project Steering Committee to undertake a value engineering review/workshop of the project with the aim of reducing the project budget - mid December 2015
 - b. WorleyParsons to update the plans and provide an updated cost estimate, or total indicative cost (TIC) - end of December 2015
4. Next steps for the Design, Tendering, Construction Services with estimated timeline
 - a. WorleyParsons to prepare the Request for Qualification (RFQ) and Request for Proposal) RFP to retain a design-build consortium – January 31, 2016
 - b. Award to selected proponent – May 30, 2016
 - c. Anticipated design and construction schedule August 2016 to December 31, 2017
5. Consultants and CRD Project Administration Budgets
The Electoral Area Services Committee to approve the following budgets:
 - a. WorleyParsons' revised budget to be \$50,000 (incurred to date) plus \$130,000 (new scope) for a total of \$180,000
Work includes:
 - i. Prepare indicative design to 30%, modifying performance specifications, tendering and construction services
 - ii. WorleyParsons to approval final design, inspect and certify project meets the performance criteria, etc.
 - iii. to start construction services scope in October 2016
 - b. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - c. Process Design Consultant at \$30,000 (if required)
 - d. Legal to review contracts and associated agreements budget of \$10,000
 - e. Stipend of \$5,000 to each of the two short-listed design/build consortiums: \$10,000
 - f. CRD staff support through design and construction: allocate \$60,000
 - g. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$300,000

Alternative 3:

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with an alternative project delivery approach to complete the Burgoyne Bay Septage Facility Project and terminate the current project consulting services contract with Worley Parsons.

The action plan, utilizing an **alternative** project delivery approach is as follows:

1. Terminate the 'Salt Spring Island Liquid Waste Reveiving Station and Storage Tanks Project' consulting services contract with Worley Parsons– October 30, 2015
2. Direct staff to undertake an alternative project delivery approach for the project and the appropriate request for proposals to retain a new design and construction services consultant for the project
3. Enhanced Project Management Team
 - a. Establish a Project Steering Committee to oversee the project – November 30, 2015
 - b. Retain new consultant and establish TOR – February 28, 2016
4. Project status review
 - a. Consultant to prepare indicative design and coordinate a value engineering review/workshop of the project with the aim of reducing the project budget – July 2016
 - b. Consultant to update the plans and provide an updated cost estimate (TIC) – September 2016
5. TIC Review/Next Steps
 - a. Peer review (by third party quantity surveyor or contractor) the TIC to determine if cost estimate is realistic and determine variances to understand the rationale and to determine how to reduce the TIC cost if required – December 2016
 - b. Confirm with Committee whether to proceed – January 2017
 - c. Proceed with RFQ and RFP – February 1, 2017 to August 31, 2017
 - d. Design Build consortium to finalize design and construction – September 2017 to February 2018
6. Consultants and CRD Staff Budgets
The Electoral Area Services Committee would be required to approve the following budgets:
 - a. New Consultant – use WorleyParsons' anticipated cost \$180,000 plus an additional \$30,000 for confirmation of previous design work for a total of \$210,000
 - b. Lost investment to WorleyParsons for original contract: \$50,000
 - c. Process Design Consultant: \$30,000
 - d. Value Engineering Exercise: \$10,000
 - e. Retain a quantity surveyor to confirm anticipated construction costs: \$10,000
 - f. Stipend of \$5,000 to each of the two short-listed design/build consortiums: \$10,000
 - g. Legal fees related to termination of contract: \$10,000
 - h. Potential additional payment to WorleyParson's for contract losses: \$31,000
 - i. CRD staff support through pre-design, design and construction: allocate \$70,000
 - j. Within overall project budget, amend total consultants and CRD project administration budget allowances to \$431,000

IMPLICATIONS

Alternative 1: Proceed with Design-Bid-Build Action Plan.

Pros:

- Commitment of WorleyParsons design team
- Project Steering Committee oversight to ensure project stays on track
- Easy to undertake a value engineering exercise for potential cost savings
- Peer review provides further assurance of design/cost estimate
- Provisional items allows ability to further reduce cost estimate closer to the project budget
- Construction can start by Summer 2016

Cons:

- Still requires redesign of many aspects of project based on value engineering exercise
- No guarantee that the revised cost estimate will be within original project budget (\$676,000) and may result in future phases of the project to be delayed or postponed

Alternative 2: Proceed with the Design Build modified Action Plan

Pros:

- Commitment of WorleyParsons design team
- Project Steering Committee oversight to ensure project stays on track
- Establish an indicative design (30%) and affordability ceiling (budget, including contingency)
- Peer review provides further assurance of design/cost estimate
- During RFQ, request proponents to provide early indication of preliminary project budget
- Design-Build Consortium to assess innovation and constructability opportunities in order to deliver the project within affordability ceiling

Cons:

- Still requires some redesign (up to 30%) of many aspects of project based on value engineering exercise
- Changing from a Design-Bid-Build to a Design Build incurs additional costs
- Scalability, the facility will be designed to meet the specifications provided today, and will not necessarily have any room for future expansion unless additional details are put into the specifications and the overall construction managed carefully, requiring additional project management on the part of the owners' engineers
- The community would have little input into the final design, as the contractor will select materials, equipment and aesthetics based on a performance specification
- Requires additional project management on the part of the owners' engineer
- No guarantee that the revised cost estimate will be within original project budget (\$676,000) and may result in future phases of the project to be delayed or postponed
- Construction expected to start in the Fall 2016

Alternative 3: Terminate current contract with WorleyParsons proceed to Design-Build

Pros:

- Project Steering Committee oversight to ensure project stays on track
- Establish an indicative design (30%) and affordability ceiling (budget, including contingency)

- Peer review provides further assurance of design/cost estimate
- During RFQ, request proponents to provide early indication of preliminary project budget
- Design-Build Consortium to assess innovation and constructability opportunities in order to deliver the project within affordability ceiling

Cons:

- Significantly higher cost of \$431,000
- Still requires some redesign (up to 30%) of many aspects of project based on value engineering exercise
- Changing from a Design-Bid-Build to a Design Build incurs additional costs
- Scalability, the facility will be designed to meet the specifications provided today and will not necessarily have any room for future expansion, unless additional details are put into the specifications and the overall construction managed carefully, requiring additional project management on the part of the owners engineers
- The community would have little input into the final design, as the contractor will select materials, equipment and aesthetics based on a performance specification
- Requires additional project management on the part of the owners' engineer
- No guarantee that the revised cost estimate will be within original project budget (\$676,000) and may result in future phases of the project to be delayed or postponed
- Construction expected to start in the Summer/Fall 2017

CONCLUSION

Completing the Burgoyne Bay Septage Receiving and Storage Project is an important step towards providing an on-island solution for liquid wastes. Utilizing a new project action plan and continuing with a design-bid-build project delivery approach with the current project engineering consultant is considered to be the most cost effective solution to deliver the project within the available budget constraints and at the earliest completion date.

RECOMMENDATION

That the Electoral Area Services Committee recommend to the CRD Board to direct staff to proceed with the design-bid-build project delivery approach and action plan to complete the Burgoyne Bay Septage Facility Project.

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