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**Salt Spring Island Liquid Waste Disposal Local Services**  
**Notice of Meeting on Thursday, October 3, 2013 at 3:00 PM**  
Portlock Portable Meeting Room 145 Vesuvius Bay Road, Salt Spring Island, BC

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**AGENDA**

1. Approval of Agenda
2. Adoption of Minutes November 27, 2012 March 7, 2013 April 2, 2013
3. Presentations/Delegations
4. Reports-Verbal
  - 4.1 CRD Director Report
  - 4.2 Chair Report
5. New Business
  - 5.1 Awarding of Consulting Engineering Contract to complete proposed receiving station and storage tank upgrades to the Salt Spring Island Burgoyne Bay Liquid Waste Treatment Facility

*That the Liquid Waste Commission recommends that the contract be issued to WorleyParsons for engineering consulting services required to complete Phase 1 of the upgrades to the Burgoyne Bay Liquid Waste Treatment Facility.*
  - 5.2 Update on the Project Plan for the Proposed Upgrades to the Salt Spring Island Burgoyne Bay Liquid Waste Treatment Facility.

Report for Information Only
6. Other Business
7. Adjournment



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**Minutes of the Salt Spring Island Liquid Waste Disposal Local Service Commission  
Held November 27, 2012  
Portlock Park Meeting Room, 145 Vesuvius Bay Road, Salt Spring Island, BC**

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**DRAFT**

**Present:**        **Director:** Wayne McIntyre  
                  **Commission Members:** Peter Lake (Chair); Maxine Leichter (Vice Chair);  
                                         Sharon Bywater; John Sprague  
                  **Staff:** Janice Poncelet, Senior Business Analysis; Ted Robbins, Acting GM  
                                         Integrated Water Services; Kees Ruurs, EA Senior Manager; Ralf Waters,  
                                         Manager of Engineering; Sarah Shugar, Recording Secretary

Chair Lake called the meeting to order at 11:08 am.

**1.        Approval of Agenda**

**MOVED** by J. Sprague, **SECONDED** by W. McIntyre,  
That the agenda be adopted with the following addition:  
3.1        Burgoyne Access Road Condition

**CARRIED**

**2.        2013 Operating and Capital Budget**

T. Robbins reviewed the report and highlighted the following items:

- Actual 2012 revenue is expected to be \$24,880 below budget due to a lower than expected volume of septage received. This is partly due to conservation efforts including the upgrading to more water efficient toilets and washing machines.
- Actual operating expense is expected to be \$20,914 below budget mainly due to lower labour costs and contingency funding. Debt expenditures are expected to be \$3,966 below budget. The net result is a projected balanced budget at year end.
- It is planned to complete the design and awarded a construction contract for the septage receiving, storage, treatment and disposal works by the end of 2103. Ideally if the project goes well we can address the lagoon closure.
- The loan authorization bylaw 3564 expires at the end of December 2013. If contract commitments are not made prior to the expiration of the bylaw then a new loan authorization must be obtained through a public approval process.
- An increased budget for septage hauling and disposal, offset by a decreased budget for operations labour results in an overall operating budget increase of \$13,006.
- A \$38,486 contingency allowance is planned for 2013.
- The debt expenditures decrease by \$13,928 due to retirement of the recent five year loan.
- There is no change in the revenue requirement for 2013.
- The tipping fee will remain at \$0.38 per gallon and the 2013 parcel tax will remain at \$50.29.
- The refundable deposit was received from the stainless tanks.

The report was received for information.

*Action Items:*

- *Look into what the shipping rate would be following the expiration of the current contract.*
- *T. Robbins to provide the actual volume of septage that was shipped and received prior to March 2012 for comparisons.*
- *J. Poncelet and C. Perrins to work together in Spring 2013 to draft a budget report.*
- *R. Waters will see if the feasibility study reports can be received earlier than the end of January 2013 to assist in the possibility of moving into the design phase prior to the end of 2013.*
- *J. Poncelet to provide more clarification regarding the interest earnings on the debt proceeds.*

**MOVED** by J. Sprague, **SECONDED** by S. Bywater,

That the Salt Spring Island Liquid Waste Disposal Local Service Commission recommends that the Capital Regional Board approve the 2013 operating and capital budget for the Salt Spring Island Liquid Waste Local Service as amended by increasing the 2014 borrowing plan to at least \$3,332,000 as recommended by the Stantec Business case study.

**CARRIED**

**MOVED** by P. Lake, **SECONDED** by W. McIntyre,

That the Salt Spring Island Liquid Waste Disposal Local Service Commission recommends that the Capital Regional Board balance the 2012 actual revenue and expense on the 2013 contingency.

**CARRIED**

**3. New Business**

**3.1 Burgoyne Access Road Condition**

At the previous meeting Terry Morton requested that Commission consider the use of a neighbouring property to replace the access road that goes through his property.

There was general discussion regarding the safety of the road in winter conditions.

**MOVED** by W. McIntyre, **SECONDED** by S. Bywater,

That the Salt Spring Island Liquid Waste Disposal Local Service Commission direct staff to explore an optional road access as soon as possible for safety improvements particularly in winter conditions, based on the existing steep road access to load and remove sludge at the Burgoyne Treatment Facility.

**CARRIED**

**4. Adjournment**

The meeting was adjourned at 12:05 pm.



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**Minutes of the Salt Spring Island Liquid Waste Disposal Local Service Commission  
Held March 7, 2013**

**Portlock Park Meeting Room, 145 Bay Vesuvius Road, Salt Spring Island, BC**

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**DRAFT**

**PRESENT:** **Director:** Wayne McIntyre

**Commission Members:** Peter Lake, Chair; Maxine Leichter, Vice Chair; Sharon Bywater; Jim Sharp; John Sprague

**Staff:** Ted Robbins, CRD Acting GM Integrated Water Services (via web conferencing) (1:10 pm to 1:30 pm); Kees Ruurs, CRD EA Senior Manager; Ralf Waters, CRD EA Manager of Engineering; Sarah Shugar, Recording Secretary

The Chair called the meeting to order at 12:00 pm.

**1. Approval of Agenda**

The Chair advised that this would be an informal workshop meeting.

**2. Adoption of Minutes**

It was generally agreed to defer the October 4, 2012 meeting minutes to the next meeting.

**3. Chair's Remarks**

The Chair advised that the intent of the meeting is to provide an update and to determine the next steps.

**4. Presentations / Delegations**

There were no presentations at this time.

**5. Reports**

**5.1 CRD Director**

W. McIntyre reported on the following items:

- CRD is pleased to announce the appointment of Robert Lapham as the new Chief Administrative Officer of the CRD, effective February 7, 2013.
- Islands Trust is proceeding with the Secondary Suites Bylaw. This will be an item on the agenda of the March 20, 2013 CRD electoral area meeting.
- The governance study is proceeding. The next meeting is scheduled on March 8, 2013. The web site is [www.ssigovernance.wordpress.com](http://www.ssigovernance.wordpress.com)
- There has been discussion regarding how to promote local contractors on local projects. SSI CRD has changed the bonding requirement to a letter of credit.
- K. Ruurs, EA Senior Manager is scheduled to retire in July 2013. W. McIntyre be meeting with R. Lapham regarding the next EA Manager.

5.2 CRD EA Manager

K. Ruurs reported that the priority projects for CRD are the Beddis Water project and the Burgoyne Bay Treatment Facility project. Both of these projects are managed by the SSI CRD office.

5.3 CRD Manager of Engineering

5.3.1 Ministry of Environment Meeting

R. Waters provided an update the meeting with MOE regarding the lagoons. The lagoons have been abandoned since 1993 and CRD holds an active permit as a remediation site. In 2009 the CRD submitted a closure plan. An old permit for the lagoons is held by GI Septic. CRD had submitted a plan to MOE that was approved in 2009 to include the lagoons as part of a compost system. At that time MOE had required groundwater monitoring. Presently, there has been no groundwater monitoring or closure of the lagoons. He advised MOE that the Commission is looking at four options for the treatment facility and that the plan for the groundwater monitoring will be created once the plan for the treatment facility is in place. MOE indicated that is acceptable. It was noted that the original plan for the remediation project was estimated at \$75,000.

5.3.2 Grant Report Status

The grants that have been applied for to cover 75% of the cost of each feasibility study will be announced at the end of March 2013.

**6. Continuing Projects**

6.1 Wetlands Proposal

R. Waters reviewed the Design Basis for the Burgoyne Bay Septage Facility Upgrade prepared by Wetlands Pacific Corp. He provided a power point presentation. The proposal outlines a design that includes an automatic receiving station, an aerobic tank, reed beds and a series of ponds.

T. Robbins joined the meeting at 1:10 pm via web conferencing.

It was generally agreed that the wetland proposal is the most positive in terms of operating and capital costs and that the risks need to be established.

T. Robbins advised that CRD does not have any initial objections and that they are looking at alternative treatment systems.

T. Robbins left the meeting at 1:30 pm.

6.2 Anaerobic Report

R. Waters reviewed the Anaerobic Digester for the Burgoyne Bay Septage Facility Upgrade prepared by Trax. He advised that there is only one area on the property that has suitable soil for this option.

P. Lake provided a comparison chart with preliminary numbers for information.

The Chair called for feedback around the table on the three options that are under consideration; to continue to ship off island, the wetlands proposal and the anaerobic proposal.

The following feedback was provided:

- The wetland proposal is positive for many reasons including low environmental impact, lower operating and capital costs.
- There is an unresolved question regarding the high rainfall factor.
- To not focus the public communications on the relatively lower cost of the wetland proposal because the costs will be variable.
- Could issue RFP for design and build together or have separate RFP's.

It was generally agreed to continue with the information articles in the Driftwood and to have a public information meeting in the future.

**6.3 Whisper Tank Refund**

There was no update provided at this time.

**7. New Business**

**7.1 Signage**

It was noted that there is a section of the access road that the public uses while hiking in the area.

It was generally agreed to direct staff to have signs installed.

**7.2 Road Repairs Report**

R. Waters advised that he has received an estimate of \$1,800.00 to repair the lower section of the road. It was noted to advise the contractor to work on non-hauling days and to advise the neighbours.

**7.3 S.P.L. Contract**

It was noted that the hauling contract with S.P.L. ends in February 2014. Staff will provide the outer island hauling statistics.

**7.4 Treatment of F.O.G.**

It was noted that there will be a future requirement to have haulers separate the loads.

**8. Other Business**

There were no other business items for consideration at this time.

**9. Adjournment**

The next meeting date is to be determined.

Items to be added to the next meeting agenda:

- the amended closure plan for the lagoons
- quotes on groundwater monitoring
- update on signage for the treatment facility access road

The meeting was adjourned at 2:30 pm.



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**Minutes of the Regular Salt Spring Island Liquid Waste Disposal Services Commission  
Held April 02, 2013**

**Portlock Park Meeting Room, 145 Vesuvius Bay Road, Salt Spring Island, BC**

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**DRAFT**

**Present:**

**Director:** Wayne McIntyre

**Commission Members:** Peter Lake (Chair); Maxine Leichter (Vice Chair); Sharon Bywater; Jim Sharp; John Sprague

**Staff:** Ted Robbins, GM Integrated Water Services (via web conferencing); Kees Ruurs, EA Senior Manager; Ralf Waters, EA Manager of Engineering; Sarah Shugar, Recording Secretary

Chair Lake called the meeting to order at 1:05 pm.

**1. Approval of Agenda**

**MOVED** by S. Bywater, **SECONDED** by J. Sharp,  
That the agenda be adopted as presented.

**CARRIED**

**2. Adoption of Minutes**

**MOVED** by S. Bywater, **SECONDED** by J. Sharp,  
That the minutes of October 4, 2012 Regular Meeting be approved as presented.

**CARRIED**

The minutes of the March 7, 2013 were received for information.

It was noted that Item 5.3.1 is amended to: In 2009 the CRD submitted a closure plan. An old permit for the lagoons is held by GI Septic.

It was also noted that Item 5.1 is amended to: [ssigovernance.wordpress.com](http://ssigovernance.wordpress.com).

**3. Chair's Remarks**

There was no report at this time.

**4. Presentations / Delegations**

There were no delegations to be heard at this time.

**5. Reports**

**5.1 CRD Director McIntyre**

Director McIntyre reported on the following items:

- The terms of reference for the governance study are almost complete.
- The Lieutenant Governor of BC is scheduled to visit SSI on April 16, 2013. There will be a focus on agricultural opportunities.

**5.2 CRD EA Senior Manager**

There was no report at this time.

- 5.3 CRD GM Integrated Waters Services  
T. Robbins reported that Integrated Water Services reviewed the Design Basis for the Burgoyne Bay Septage Facility Upgrade prepared by Wetlands Pacific Corp.
- 5.4 CRD Manager of Engineering  
R. Waters reported that he and P. Lake did a site visit to a constructed wetland treatment system in Port Renfrew.

It was generally agreed to move to Item 6.1.1 at this time.

- 6.1.1 Comparison of Options  
The Burgoyne Comparison of Costs document was received for information.
- 6.1.2 RFP Parameters – Design Build  
T. Robbins reviewed the CRD RFP review and selection process.  
There was discussion regarding the pros and cons of issuing the design and build together or have separate RFP's. The question of life cycle costs was raised concerning reed beds. Electrical supply at the site should be determined before issuing the RFP.  
It was noted that the draft RFP would be circulated prior to issue.
- 6.1.3 Travel Expenses – Budget  
It was noted that P. Lake and R. Waters could do site visits of the constructed wetland and reed bed treatment systems for research purposes.

**MOVED** by M. Leichter, **SECONDED** by J. Sprague,  
That the Salt Spring Island Liquid Waste Disposal Local Services Commission approves to support the reimbursement of expenses to not exceed \$500.00, to visit wetland and reed bed treatment systems in Abbotsford and the mushroom farm, conditional upon CRD policy.

**CARRIED**

- 6.1.4 Property Zoning  
R. Waters reported that the lease area of the Burgoyne Valley Property is currently zoned A1 and it is advised to apply for rezoning to A1C.  
It was noted that the application is to state that there is at present, no on site treatment and that there is off island shipping in effect.  
It was generally agreed that staff would contact the adjacent property owners to advise them of the plan for the property and that a property survey would be conducted.

**MOVED** by M. Leichter, **SECONDED** by J. Sprague,  
That the Salt Spring Island Liquid Waste Disposal Local Services Commission recommend that staff apply to Islands Trust to rezone the Burgoyne Valley Property from A1 to A1C.

**CARRIED**

## **6. Continuing Projects**



6.1 Wetlands – Motion to proceed

**MOVED** by J. Sharp, **SECONDED** by P. Lake,  
That the Salt Spring Island Liquid Waste Disposal Local Services  
Commission recommend that an RFP be issued for the design and  
construction for the receiving and treatment of sewage and septage using  
reed bed technology and constructed wetlands.

**CARRIED**

T. Robbins left the meeting at 2:10 pm.

6.2 Road Condition

There was no update on the Burgoyne Bay Septage Facility access road  
condition at this time.

6.3 Signage on Private Road

K. Ruurs reported that there are two locations where signs should be  
installed.

It was generally agreed to have new signage installed at both locations  
that states the following: CRD Property, Danger Keep Out, Heavy Truck  
Traffic, Authorized Personnel Only, No Trespassing

6.4 Refund status – Tank Supplier

There was no update of the refund status of the whisper tanks at this  
time.

7. **New Business**

There were no new business items for consideration at this time.

8. **Other Business**

There were no other business items for consideration at this time.

9. **Adjournment**

The meeting was adjourned at 3:00 pm.



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**REPORT TO SALT SPRING ISLAND LIQUID WASTE DISPOSAL LOCAL SERVICES COMMISSION  
MEETING OF THURSDAY, OCTOBER 3, 2013**

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**SUBJECT**      **AWARDING OF CONSULTING ENGINEERING CONTRACT TO COMPLETE  
PROPOSED RECEIVING STATION AND STORAGE TANK UPGRADES TO THE  
SALT SPRING ISLAND BURGOYNE BAY LIQUID WASTE TREATMENT FACILITY**

**ISSUE**

A consulting engineering contract is required for design and construction services for a new automated receiving station and storage tanks at the Burgoyne Bay Liquid Waste Treatment Facility. These works are required as part of the total upgrade project of the Treatment Facility.

**BACKGROUND**

As part of the approved capital upgrade project, in 2010 Opus DaytonKnight (ODK) completed a design for the Burgoyne Bay Liquid Waste processing facility which included an automated receiving station, new storage tanks, dewatering press, effluent aeration, and membrane treatment. This design has not been constructed because its projected cost exceeded the available funds available for borrowing. In 2012, the Liquid Waste Commission decided to investigate other innovative solutions for the treatment and disposal of the liquid waste that might be more sustainable and cost effective for Salt Spring Island. In 2013, the CRD completed two feasibility studies that investigated alternative treatment options for the facility (reed bed stabilization with constructed wetlands, and anaerobic digestion). The CRD is conducting an Options Analysis for the facility to assess various treatment and disposal options and give a recommendation for the preferred option.

In the meantime, the CRD is moving forward with the construction of Phase 1 of the approved capital upgrade project. This includes the design and construction of the automated receiving station and storage tanks. These works are required due to the poor condition of the existing storage tanks and receiving station. These works are required regardless of whether treatment and disposal facilities are ultimately constructed. The CRD issued a RFP for the services of an engineering consultant to provide design, tendering, and construction administration services related to this phase of the upgrade project which closed on July 20, 2013. Four proposals were received from:

1. Stantec
2. WorleyParsons
3. Allnorth
4. Opus DaytonKnight

CRD staff evaluated the proposals in accordance with the CRD Consultants Policy – Evaluation Procedure and WorleyParsons was selected as the preferred consultant. The comprehensive analysis of project team organization and qualifications provides a high level of confidence that WorleyParsons would provide the best overall end product and value. CRD staff met with WorleyParsons and clarified the scope of work which resulted in an amended proposal from WorleyParsons and a reduction of approximately \$7,000 in the proposed engineering fees. The final fee estimate is \$80,567 including GST.

**Salt Spring Island Liquid Waste Disposal Local Services Commission  
Engineering Contract to Complete Phase 1 Upgrades to  
Burgoyne Bay Liquid Waste Treatment Facility**

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**ALTERNATIVES**

That the Liquid Waste Commission;

1. Recommend that the engineering contract be awarded to WorleyParsons.
2. Recommend that the engineering contract not be awarded to WorleyParsons.

**IMPLICATIONS**

Alternative 1: By recommending the contract award to WorleyParsons, the upgrade project will go forward this year and the new receiving station and storage tanks will be completed.

Alternative 2: By recommending that the contract not be awarded to WorleyParsons, the upgrade project will be postponed.

**CONCLUSION**

CRD staff has selected WorleyParsons as the preferred consultant to complete the engineering work required to complete Phase 1 of the upgrades to the Burgoyne Bay Liquid Waste Treatment Facility. The CRD staff would like the Liquid Waste Commission to recommend that a contract be awarded to WorleyParsons for the engineering consulting work.

**RECOMMENDATION**

That the Liquid Waste Commission recommends that the contract be issued to WorleyParsons for engineering consulting services required to complete Phase 1 of the upgrades to the Burgoyne Bay Liquid Waste Treatment Facility.



Ralf Waters, M.Sc., P. Eng.  
Manager of Engineering  
Salt Spring Island Electoral Area



Karla Campbell  
Senior Manager  
Salt Spring Island Electoral Area  
Concurrence



F\**R* Ted Robbins  
General Manager  
Integrated Water Services  
Concurrence



for Robert Lapham  
Chief Administrative Officer  
Concurrence



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**REPORT TO SALT SPRING ISLAND LIQUID WASTE DISPOSAL LOCAL SERVICES COMMISSION  
MEETING OF THURSDAY, OCTOBER 3, 2013**

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**SUBJECT**      **UPDATE ON THE PROJECT PLAN FOR THE PROPOSED UPGRADES TO THE SALT SPRING ISLAND BURGoyNE BAY LIQUID WASTE TREATMENT FACILITY**

**ISSUE**

To inform the Salt Spring Island Liquid Waste Disposal Local Services Commission of the status and overall project plan for the upgrades of Burgoyne Bay Liquid Waste Treatment Facility.

**BACKGROUND**

In November 2011, the CRD staff recommended that the Salt Spring Island Liquid Waste Commission direct staff to:

- Convert the existing facility to a liquid waste transfer station and take the existing treatment system off line;
- Construct and commission the transfer station works only which would include the receiving station, grit removal, storage tanks, pump out points, and road improvements;
- Enter into a two year hauling agreement to a regional treatment facility; and
- Make a recommendation in year two to either continue operation as a transfer station or seek public approval to raise additional funds to complete the treatment upgrades.

In February 2013, the CRD completed two feasibility studies for alternative methods of treatment and disposal of the liquid waste at the Burgoyne Bay facility. In April 2013, the Commission recommended that the CRD proceed with the design and construction of a reed bed/constructed wetland treatment system. As a result of this recommendation, the CRD will be conducting an Options Analysis Study to determine the most feasible treatment and disposal method based on capital costs, operation and maintenance costs, sustainability, innovation, and life cycle costs. In the meantime, we are proceeding with the design and construction of a new automated receiving station and storage tanks required to maintain the facility as a transfer station until a treatment/disposal option is determined.

In July 2013, a RFP was issued for the design and construction of the liquid waste receiving station and storage tanks and a preferred consultant has been selected. A Letter of Award will be issued following the recommendation of the Liquid Waste Commission. CRD staff will proceed with an Options Analysis after receiving the final design of the receiving station and storage tanks.

With regard to the balance of the authorization, the CRD will borrow the balance of the authorized amount based on the attached project plan.

Other outstanding issues are:

- Road repair: Preliminary cost estimates indicate that this work will be under \$20,000. The CRD staff will receive three written quotes and the work could be completed this fall;
- Warning signage: These signs have been made and CRD Parc staff will be installing them at the facility;
- Groundwater monitoring: Staff is working on a proposal to the Ministry of Environment recommending that a hydrogeology professional review all previous reports and data on the groundwater testing at the facility and then make a recommendation as to what is required with

regard to any further groundwater monitoring and what is required to safely close the old lagoons. If this approach is acceptable to the Ministry of Environment, then the CRD would like to proceed with this analysis in order to save the cost of additional groundwater monitoring that may not be necessary.

- Status of the existing tanks: There are four storage tanks on site that are approximately 10 meters in height. Two of them were for storing sludge from the press and two of them were for storing filtrate from the press. In 2010, wall thicknesses of the tanks were measured using ultrasound. Unfortunately, the original thickness of the tanks was not known but the tests did show a high variability of existing wall thickness throughout the tanks. The inspection also noted some corrosion on the outside of the tanks especially at the base which is sitting on native substrate with no concrete foundation. The final test report recommended that the tanks be replaced in the near future. The decommissioning and removal of these tanks is part of the capital upgrade project.

The two filtrate tanks are still in use for storing all of the liquid waste delivered to the facility prior to it being picked up by SPL Wastewater Recovery Center. The two sludge tanks are filled to the top with hardened sludge and some liquid at the bottom. Once the new storage tanks are operating, operations staff has a plan to recirculate the liquid from the bottom of the tanks up into the top which will eventually cause the hardened sludge to soften to the point that it can be sucked out. All four tanks can then be dismantled and hauled away.

- Hydro maintenance: the lines were cleared in August at a cost of approximately \$5,000;
- New SPL hauling contract: The hauling contractor has indicated that the contract will be extended with no significant increase in fees.

Attached is the overall project plan for the Burgoyne Bay Septage Facility which includes the background of the project, budget expenditures to date, and estimated costs of the phases to complete the upgrades.

### **ALTERNATIVES**

Not applicable to this report.

### **IMPLICATIONS**

Not applicable to this report.

### **CONCLUSION**

Not applicable to this report.

### **RECOMMENDATION**

Report for information only. No recommendation required.



Ralf Waters, M.Sc., P. Eng.  
Manager of Engineering  
Salt Spring Island Electoral Area



Karla Campbell  
Senior Manager  
Salt Spring Island Electoral Area  
Concurrence

Attachment

RW/ts



# Project Plan

Project Name:	Burgoyne Bay Liquid Waste Facility Upgrades(v5)		
Client:	Internal –	Contract #	
Client Contact:		Date:	October 1, 2013
Project Manager:	Ralf Waters	Manager:	Karla Campbell

## BACKGROUND

In 2008, the Salt Spring Island electorate approved the borrowing of up to \$2,100,000 to upgrade the CRD owned and operated Liquid Waste treatment and disposal facility at Burgoyne Bay (Bylaw 3564). The original budget consisted of the following items:

• Process Building	\$300,000
• Receiving Station	\$350,000
• Mixing upgrade to storage tanks	\$200,000
• Dewatering press upgrades	\$250,000
• Membrane upgrade	\$160,000
• Electrical upgrade	\$ 50,000
• Composting Facility	\$300,000
• Engineering, Project Mgmt.	\$490,000

In August 2009, a contract for engineering consulting services was issued to Dayton and Knight for the design, costing, tender, and construction management of the project for \$296,753. In May 2010, the Dayton and Knight Pre-Design Report indicated that there would be some budget shortfalls due to the need to replace the storage tanks and dewatering press. In order to reduce the capital cost of the Dayton and Knight design, CRD staff recommended that a MBR unit be purchased from the Ganges Sewer Plant for \$2,500 to be refurbished for use at the Burgoyne Bay facility for an estimated \$45,000. In November 2010, the CRD reported that the completed final design and Class B cost estimates indicated that there were insufficient funds in the budget to complete the full scope of work for the upgrade project. In January 2011, it was reported that \$55,000 was required for electrical upgrades to keep the facility operating. Also in January 2011, Opus Dayton Knight (ODK) reported that the new cost estimate for completing the upgrade was \$3,500,000. This includes the replacement of storage tanks, a new disposal field, an effluent aeration tank, and road upgrades. In response, the Salt Spring Island Liquid Waste Disposal Service Commission (SSILW) approved the expenditure of up to \$30,000 to conduct a business case analysis of alternative means of long term disposal of liquid waste on Salt Spring Island. The CRD engaged Stantec Consulting Ltd. to complete this analysis and a final report was received in July 2011. In summary, Stantec recommended that the CRD continue to provide liquid waste service and complete the proposed work as designed by ODK (without composting) but additional funding would be required. In November 2011, CRD staff recommended that the SSILW direct staff to:

- Convert the existing facility to a liquid waste transfer station and take the existing treatment system off line;
- Construct and commission the transfer station works only, as designed by ODK. This would include the receiving station, grit removal, storage tanks, pump out points, and road improvements;
- Enter into a two year hauling agreement to a regional treatment facility;
- Make a recommendation in year two to either continue operation as a transfer station or seek public approval to raise additional funds to complete the upgrades as per the ODK design.

Due to the inability of the existing treatment system to operate effectively and in order to not have to seek further borrowing, the SSILW approved a temporary shutdown of the treatment process and the use of the facility as a transfer station where liquid waste would be received, temporarily stored, and hauled off island.

In July 2012, the CRD applied for two Infrastructure Planning Grants for studying the feasibility of using anaerobic digestion technology and reed bed/constructed wetland technology for the treatment of the liquid waste at the Burgoyne Bay facility. In October 2012, the SSILW approved the expenditure, from the upgrade project or the operations budget of up to \$10,000 for each of the feasibility studies. The completed feasibility studies were received in February 2013. In March 2013, at a workshop commission meeting, the SSILW indicated that the reed bed/wetland proposal was the most positive option to proceed with. At the April 2, 2013 regular meeting of the SSILW, the Commission recommended that the CRD proceed with the design and construction of a reed bed/constructed wetland treatment system.

As a result of the recommendation from the Commission, the CRD will be conducting an Options Analysis to recommend which type of treatment to use at the Burgoyne Bay facility. This analysis will look at the entire facility as a whole process in terms of collection, treatment, and disposal. All feasible options will be compared, including the continuation of the current use of the facility as a transfer station. A preferred option will be recommended based on capital costs, O&M costs, sustainability, innovation, and life cycle costs. In July 2013, a RFP was issued for the design and construction of a new automated septage receiving station and storage tank(s) and a preferred consultant has been selected for this work.

#### **SUMMARY OF BUDGET EXPENDITURES 2009-2013**

The following is a summary of budget expenditures to date:

2009-2010:	Emergency Hauling:	\$ 22,879.35
	Contracted Services:	\$310,490.47 (\$213,837.72 to ODK)
	Equipment Purchases:	\$ 34,977.33
	CRD Operations &	
	Engineering Services:	<u>\$ 38,311.39</u>
	<b>Total</b>	<b>\$406,658.54</b>
2011:	Emergency Hauling:	\$ 4,537.80
	Contracted Services:	\$ 33,630.17
	Equipment Purchases:	\$ 26,003.95
	CRD Operations &	
	Engineering Services:	<u>\$ 66,482.26</u>
	<b>Total</b>	<b>\$130,654.18</b>
2012:	Contracted Services:	\$ 15,062.49 (to ODK)
	CRD Operations &	
	Engineering Services:	<u>\$ 14,620.68</u>
	<b>Total</b>	<b>\$ 29,683.17</b>
2013	Contracted Services:	\$ 20,960.50 (Feasibility Studies)
	CRD Operations &	
	Engineering Services:	\$ 27,457.33
	Rezoning:	<u>\$ 5,000.00</u>
	<b>Total</b>	<b>\$ 53,417.83</b>

**Total Expenditures to Date: \$620,413.72**

**SUMMARY OF CAPITAL BUDGET TO DATE**

Original Borrowing Authorization: \$2,100,000 (\$300,000 earmarked for composting)

Borrowed to date: \$1,330,000

Funds spent to date: \$ 620,000

Finance Charges: \$ 9,000

Remaining Capital Fund: \$ 763,000 (includes \$62,000 interest earned)\*

Remaining to be Borrowed: \$ 770,000

Remaining funds available: **\$1,533,000\*\***

\* Note: Based on commission approval of using the \$62,000 interest for the capital project.

\*\* Note: This amount includes \$300,000 earmarked for composting. The loan authorization would need to be amended to use the composting funds for other phases of the project.

**2013 - ENGINEERING SERVICES TO BE PROVIDED TO FINISH UPGRADES (SCOPE OF WORK):**

**Phase 1:** The project objective is to request quotes for contracted engineering consulting services for the selection and installation of an automated septage receiving station and storage tanks at the Burgoyne Bay Liquid Waste Facility. This will include design, tendering, and construction services.

The contract award is expected to be completed by September 2013. The purchase of the receiving station and storage tanks along with a contract for their installation is desired by December 10, 2013.

**Deliverables:**

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**PHASE 1 - PROJECT SCHEDULE (INCLUDING CHECKS AND REVIEWS):**

ACTIVITY / TASK	DELIVERABLES	START DATE	END DATE
Select preferred Consultant	Selected Consultant		August 20
Write staff recommendation in Staff Report	Staff Report		August 22
Present recommendation to Liquid Waste Commission			September
Award of Contract.	Letter of Award of Contract		September
Consultant Design Stage w/ CRD input		September	October
Supply and install of receiving station and tank(s)		November	December



**Phase 2:** The project objective is to request quotes for contracted engineering consulting services to conduct an Options Analysis for treatment and disposal options for the Burgoyne Bay Liquid Waste Facility. This will include design, tendering, and construction services.

The CRD would like to award this contract upon the completion of the design stage of Phase 1 (Receiving Station and Storage). The completion of the Options Analysis Report is desired by January 2014.

**Phase 3:** The project objective is to request quotes for contracted engineering consulting services to conduct a groundwater monitoring program for the Burgoyne Bay Liquid Waste Facility. This will include construction of three groundwater monitoring wells, a schedule of groundwater monitoring over two years, and a final report which will summarize the monitoring results and provide a recommendation for mitigating any groundwater contamination and closure of the old lagoons.

The contract award is expected to be completed by December 2013. The completion of the groundwater monitoring and remediation recommendations is desired by the Spring of 2016.

**Phase 4:** Using the results of the Options Analysis, a public consultation will be held and a decision will be made as to what type of treatment and disposal will be used at the facility. The project objective is to request quotes for contracted engineering consulting services to design and construct the preferred treatment and disposal system for the Burgoyne Bay Liquid Waste Facility that is recommended in the Options Analysis Report and the public consultation process. Possible sources for Innovation Grant Funding will be investigated. The contract award is expected to be completed in 2014.

**Phase 5:** The project objective is to request quotes for contracted engineering consulting services to complete the closure of the old lagoons at the Burgoyne Bay Liquid Waste Facility. The contract award is expected to be completed after the results from the groundwater monitoring are received.

# PROJECT PLAN

(Cont'd.)

PROJECT BUDGET:

BELOW: ☒

APPENDED ☐

TASK	DEPARTMENT/STAFF	HOURS	BUDGET
<b>Phase 1- Receiving Station and Storage</b>			
Prepare RFP, select consultant	Ralf Waters, Craig Gottfred, Richard Edwards	L.S.	\$6,000
Contracted engineering services	Outside Consultant	L.S.	\$90,000
Receiving station supply and installation	Outside Contactor	L.S.	\$175,000
Storage tanks supply and installation	Outside Contactor	L.S.	\$200,000
<b>General works</b>	<b>Outside Contactor</b>	<b>L.S.</b>	<b>\$25,000</b>
Site works including access road upgrades	Outside Contactor	L.S.	\$50,000
Electrical supply and controls to receiving station	Outside Contactor and CRD staff	L.S.	\$75,000
Mechanical works	Outside Contactor	L.S.	\$25,000
Project Management	Ralf Waters	L.S.	\$ 30,000
<b>Estimated Phase 1 Project Cost</b>			<b>\$ 676,000</b>
<b>Phase 2 – Options Analysis</b>			
Prepare RFP, select consultant	Ralf Waters, Craig Gottfred, Richard Edwards	L.S.	\$5,000
Contracted engineering services	Outside Consultant	L.S.	\$50,000
Project Management	Ralf Waters	L.S.	\$10,000
<b>Estimated Phase 2 Project Cost</b>			<b>\$65,000</b>
<b>Phase 3 – Groundwater Monitoring</b>			
Prepare RFP, select consultant	Ralf Waters, Craig Gottfred, Richard Edwards	L.S.	\$5,000
Contracted engineering services	Outside Consultant	L.S.	\$30,000
Project Management	Ralf Waters	L.S.	\$5,000
<b>Estimated Phase 3 Project Cost</b>			<b>\$40,000</b>
<b>Total Estimated Cost for Phase 1, Phase 2, Phase 3</b>			<b>\$781,000</b>

**PROJECT PLAN**  
(Cont'd.)

TASK	DEPARTMENT/STAFF	HOURS	BUDGET
<b>Phase 4a - Treatment and Disposal System (including decommission of old tanks)</b>	CRD Staff and Outside Consultant	L.S.	\$430,000
<b>Phase 4b - Composting</b>	CRD Staff and Outside Consultant	L.S.	\$300,000**(see note on page 3)
<b>Phase 5 – Lagoon Closure Plan</b>	Outside Consultant and Construction (if required)	L.S.	\$75,000
<b>Total Estimated Cost for Phase 4, Phase 5</b>			<b>\$805,000</b>
<b>Total Estimated Cost for Upgrade Project</b>			<b>\$1,586,000</b>

**PROJECT TEAM MEMBERS / POSITIONS & ROLES:**

BELOW: ☒

APPENDED ☐

TEAM MEMBERS	POSITIONS & ROLES (Include person responsible for checks/reviews & for client servicing)	REVIEW
Ralf Waters	Manager, Engineering - SSI	3,4,5
Craig Gottfred	Manager, Engineering - IWS.	3,4,5
Dan Robson	Manager, Operations	3,4,6
Denis Perreault	SPWWTP Operations Liaison	3,4,6


INCLUDE THE TYPE OF CHECK / REVIEW BESIDE THE NAME OF THE REVIEWER

- |                                                        |                                               |                                                               |
|--------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> 1 Individual Discipline Check | <input type="checkbox"/> 3 Technical Review   | <input type="checkbox"/> 5 Value Engineering                  |
| <input type="checkbox"/> 2 Interdisciplinary Review    | <input type="checkbox"/> 4 Operational Review | <input type="checkbox"/> 6 Design Control During Construction |

COORDINATION - OUTSIDE AGENCIES (include subconsultants / contractors)			
NAME	FIRM		

<b>Distribution To:</b>	Project Team Members: R. Waters, C. Gottfred, D. Robson, D. Perreault
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Accepted:



Karja Campbell  
Senior Manager, Salt Spring Island