



**PEACE RIVER REGIONAL DISTRICT
Solid Waste Committee**

for the meeting to be held on **March 7, 2019**
at the Regional District offices, 1981 Alaska Avenue, Dawson Creek, BC
commencing at 10:00 am

Conference call: 1-877-385-4099 Participant ID: 3069112#

Committee Chair: Director Rose
Vice-Chair: Director Goodings

1. **Call to Order:**
 2. **Notice of New Business:**
 3. **Adoption of the Agenda:**
 4. **Adoption of the Minutes:**
 - M-1 Solid Waste Committee Meeting Minutes of February 7, 2019
 5. **Business Arising from the Minutes:**
 - BA-1 PMAC meetings – status of
 - BA-2 Meeting with R3 Recycling to report on contamination in recyclables and costs
 - BA-3 Northwood Hotel demolition - what is happening with ICI wastes
 - BA-4 Sylvan Lake – research waste-to-energy facility
 6. **Delegation:**
 7. **Correspondence:**
 8. **Reports:**
 - R-1 February 21, 2019 – RFP Results – Anaerobic Digestion Facility (Bessborough)
 - R-2 February 20, 2019 – Hudson's Hope Transfer Station Attendant Contract
 - R-3 February 14, 2019 – For Information – meeting with First Nation Consultants
 9. **New Business:**
 10. **Items for Information and Diary:**
 - I-1 Solid Waste Committee Diary
 - I-2 Solid Waste Committee Terms of Reference
 11. **Adjournment:**
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**PEACE RIVER REGIONAL DISTRICT
Solid Waste Committee Meeting Minutes**

M-1

DATE: February 7, 2019

PLACE: Regional District offices, Dawson Creek, BC

PRESENT: Director Rose, Electoral Area 'E'
Director Sperling, ex officio
Alternate Director Deck, District of Chetwynd
Director Goodings, Electoral Area 'B'
Director Bumstead, City of Dawson Creek
Director Zabinsky, City of Fort St. John

Staff

Paulo Eichelberger, General Manager of Environmental Services
Lyle Smith, Chief Financial Officer
Loryn Day, Solid Waste Coordinator
Suzanne Garrett, Corporate Services Coordinator

1) Call to Order The meeting was called to order at 10:00 am

2) Election of Committee Chair The General Manager of Environmental Services called for nominations for the office of Committee Chair for 2019.

Director Sperling nominated Director Rose for the office of Committee Chair for 2019. Director Bumstead seconded the nomination.

Director Rose accepted the nomination.

The General Manager of Environmental Services called a second time for nominations for the office of Committee Chair for 2019.

The General Manager of Environmental Services called a third time for nominations for the office of Committee Chair for 2019.

Hearing none, the General Manager of Environmental Services declared Director Rose Chair of the Solid Waste Committee for 2019.

3) Election of Committee Vice-Chair The General Manager of Environmental Services called for nominations for the office of Committee Vice-Chair for 2019.

Director Sperling nominated Director Goodings for the office of Committee Vice-Chair for 2019. Director Bumstead seconded the nomination.

Director Goodings accepted the nomination.

The General Manager of Environmental Services called a second time for nominations for the office of Committee Vice-Chair for 2019.

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3) Election of Vice-Chair
(continued)

The General Manager of Environmental Services called a third time for nominations for the office of Committee Vice-Chair for 2019.

Hearing none, the General Manager of Environmental Services declared Director Goodings Vice-Chair of the Solid Waste Committee for 2019.

Director Rose assumed the Chair.

DIRECTORS NOTICE OF NEW BUSINESS:

Director Sperling PMAC meetings and minutes
 R3 Recycling
 ICI – Northwoods Hotel demolition
 Sylvan Lake – waste-to-energy facility

ADOPTION OF THE AGENDA:

4) Adoption of the Agenda MOVED by Director Sperling, SECONDED by Director Bumstead, that the Solid Waste Committee agenda for the February 7, 2019 meeting, including additional items for the agenda, be adopted as amended:

Call to Order

Election of Chair and Vice-Chair

Notice of New Business

Adoption of the Agenda

Minutes

M-1 Solid Waste Committee Meeting Minutes of December 6, 2018

Business Arising from the Minutes

Reports

- R-1 January 16, 2019 – Contract Award – Chetwynd Landfill Phase B Closure
- R-2 January 28, 2019 – Increased security at manned rural transfer stations
- R-3 January 21, 2019 – 2019 Solid Waste Committee Meeting Schedule
- R-4 January 31, 2019 – Draft 2019 Regional Solid Waste Management budget and supplemental budget request

New Business

- NB-1 PMAC meetings and minutes
- NB-2 R3 Recycling
- NB-3 ICI – Northwoods Hotel demolition
- NB-4 Sylvan Lake – waste-to-energy facility

Items for Information

- I-1 Solid Waste Committee Terms of Reference

Diary

Adjournment

CARRIED.

MINUTES:

5) M-1 SWC Mtg. MOVED by Director Goodings, SECONDED by Alternate Director Deck,
Min. of Dec 6, 2018 That the Solid Waste Committee Meeting Minutes of December 6, 2018 be adopted.

CARRIED.

BUSINESS ARISING FROM THE MINUTES:

- 6) Anaerobic Facility On direction from the Committee, Stacy Esau, Horseshoe Valley Ranch Ltd., was invited to attend the February 7th meeting to provide information on the proposed construction of an anaerobic facility on private property. Mr. Esau has indicated that Jay Zwierschke of Continu Inc., as the technology provider for converting solid waste into renewable natural gas, is from St. Catherines, Ontario. Arrangements will be made for a presentation to the Committee in April or May.

REPORTS:

- 7) R-1 re:
Contract Award
Chetwynd LF
Phase B Closure The Regional District issued a tender for the Chetwynd Phase B Closure, four tenders were received. Tenders were evaluated for completeness of submission, bonding and surety requirements, tender price summary, preliminary construction schedule, experience, comparable work experience, listed subcontractors and list of available equipment. Following the evaluation, the lowest tender submitted by Frontline Civil Holdings Inc. was deemed the preferred contractor – provided a reasonable schedule, good track record of past work, bid was fully compliant with tender requirements.

MOVED by Alternate Director Deck, SECONDED by Director Bumstead,
That the Solid Waste Committee recommends to the Regional Board that the
“Chetwynd Landfill Phase B Closure Construction Contract 29-2018” be awarded to
Frontline Civil Holdings Inc. Spruce Grove, Alberta, in the amount of \$1,428,773.06,
excluding GST; and that the Chair and Chief Administrative Officer be authorized to
sign the contract on behalf of the Regional District.

CARRIED.

MOVED by Director Bumstead, SECONDED by Director Sperling,
That the Solid Waste Committee recommends to the Regional Board that research be
conducted to explore options and impacts of including locally based businesses as an
evaluation criterion to maximize the participation of local business in the supply of
goods and services tendered or contracted by the Regional District.

CARRIED.

- 8) R-2 re:
Security at
manned, rural
Transfer stations In mid-January the Cecil Lake and Goodlow transfer stations were subjected to theft and vandalism. These are the first incidents to occur since the manned stations were first implemented in 2012. The total anticipated costs of the break-ins are \$7,181.57 for Cecil Lake and \$6,828.57 for Goodlow. Staff researched options to improve security at the manned rural transfer stations. For the 12 sites, Installation of one to two security cameras at each site (\$14,000 to \$20,000), and one mounted safe (\$9,323). Operating costs for security cameras would be minimal as monitoring would be done in house.

MOVED by Director Sperling, SECONDED by Director Goodings,
That no further action be taken with respect to security at manned, rural transfer
stations until the review of the Regional Solid Waste Management Plan has been
completed.

CARRIED.

Peace River Regional District
Solid Waste Committee Meeting Minutes of February 7, 2019

9) R-3 re: 2019 Meeting Schedule
 MOVED by Director Zabinsky, SECONDED by Alternate Director Deck,
 that the Solid Waste Committee Meeting Schedule for 2019 be approved, as follows:

February 7	June 6	October 3
March 7	July 4	November 7
April 4	August 1	December 5
May 2	September 13	

CARRIED.

10) R-4 re: Draft 2019 RSWM budget
 MOVED by Director Goodings, SECONDED by Alternate Director Deck,
 That the Solid Waste Committee recommends to the Regional Board that budget line item 01-2-1000-5020, entitled "Consulting Services" in the draft Regional Solid Waste Management budget be reduced to \$250,000 from \$500,000.

CARRIED.

MOVED by Alternate Director Deck, SECONDED by Director Zabinsky,
 That the Solid Waste Committee recommends to the Regional Board that a report be provided indicating how solid waste capital projects are funded, identifying different scenarios, i.e. short term borrowing, surplus funds, reserve funds, and how these options impact tax requisitions.

CARRIED.

The CFO noted that for easier reference, future solid waste financial reports will indicate revenue and expenditures for each site.

NEW BUSINESS:

11) NB items
 MOVED by Director Sperling, SECONDED by Director Bumstead,
 That the following new business items be deferred to the March 7, 2019 Solid Waste Committee meeting:

- PMAC meetings and minutes – status of
- Meeting with R3 Recycling to provide an update on contaminated recyclables
- Demolition waste from the Northwoods Hotel, what is happening with ICI Wastes
- Sylvan Lake – research waste-to-energy project in Sylvan Lake - agreement with Fogdog Energy. Facility will convert approximately 98% of the 15 tonnes of waste received at the landfill daily, into a carbon "fluff" that can be processed into hydrocarbon fuels such as diesel and gasoline.

12) Committee Report
 MOVED by Director Goodings, SECONDED by Director Bumstead,
 That the recommendations from the Solid Waste Committee meeting of February 7, 2019 be recommended to the Regional Board for approval.

CARRIED.

The Chair adjourned the meeting at 12:45 pm

Director Rose,
 Chair – Solid Waste Committee

Suzanne Garrett,
 Corporate Services Coordinator



REPORT

To: Solid Waste Committee

Date: June 15, 2018

From: Paulo Eichelberger, General Manager of Environmental Services

Subject: Plan Monitoring Advisory Committee Recommendations (PMAC) - April 25, 2018 meeting

The Solid Waste Management Plan Monitoring and Advisory Committee met on April 25, 2018 and approved the following recommendations for consideration by the Solid Waste Committee.

RECOMMENDATION No. 1:

That the Solid Waste Management Plan Monitoring and Advisory Committee recommends to the Solid Waste Committee that staff be authorized to research mechanisms to increase diversion rates for construction/demolition material resulting from home/commercial building renovations/new builds, including:

- Appropriate signage;
- Identifying types of materials from the construction/demolition industries;
- Determining whether or not there are limitations to share shed access;
- Determining information sharing methodology for users;
- Determining the need for policy support/changes; and
- Determining incentives that will encourage diversion with minimal impact to the taxpayer.

RECOMMENDATION No. 2:

That the Solid Waste Management Plan Monitoring and Advisory Committee recommends to the Solid Waste that staff be authorized to determine which municipalities have a demolition permit process and investigate with municipal staff the feasibility of finding opportunities for source segregation.

BACKGROUND/RATIONALE:

Please refer to the attachment for background information.

ALTERNATIVE OPTIONS:

1. That alternate direction be provided to staff.

STRATEGIC PLAN RELEVANCE:

- ☒ Ensure that the Solid Waste Management Plan is operating on a fiscally defensible basis.
- ☐ Ensure effective execution of Public Safety and Emergency Services initiatives.
- ☐ Foster Collaboration on services with municipalities and electoral areas.
- ☐ Establish a strategy for coordinated advocacy on identified issues.
- ☐ Manage parks and trails in the region.
- ☐ Support the agricultural industry within the regional district.

☐ Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S):

Recommendation No. 1 – no additional cost to budget.

Recommendation No. 2 – no additional cost to budget.

COMMUNICATIONS CONSIDERATION(S): None

OTHER CONSIDERATION(S): None

Attachments: (1) 2017 Solid Waste Diversion Rates and Tonnages
 (2) April 25, 2018 PMAC meeting minutes



PEACE RIVER REGIONAL DISTRICT
Solid Waste Management Plan
Monitoring and Advisory Committee Meeting Minutes

DATE: Wednesday, April 25, 2018

PLACE: Regional District Offices, Dawson Creek, BC

PRESENT: Ryan Nelson, District of Taylor
Mike Fitzgerald, Member at Large – Electoral Area 'B'
Rob Henry, Member at Large - Electoral Area 'E'
Wayne Hiebert, Member at Large - Electoral 'D'
Karen Mason-Bennett, Northern Environmental Action Team
Harry Garrison, Hagar's Re-Novation Station

Staff

Paulo Eichelberger, General Manager of Environmental Services
Phillip Kovacs, Manager of Solid Waste
Loryn Day, Solid Waste Coordinator
Suzanne Garrett, Corporate Services Coordinator

- 1) Call to Order The meeting was called to order at 10:05 am
- 2) Election of Committee Chair MOVED by Wayne Hiebert, SECONDED by Ryan Nelson,
That Paulo Eichelberger be nominated for the position of Committee Chair.
CARRIED.

ADOPTION OF THE AGENDA

- 3) Adoption of the Agenda MOVED by Rob Henry, SECONDED by Karen Mason-Bennett,
that the Solid Waste Management Plan Monitoring and Advisory Committee
Agenda for the April 25, 2018 meeting including New Business and
additional items for the agenda, be adopted:
1. Call to Order
 2. Introductions
 3. Election of Chair
 4. Minutes:
 - M-1 SWMP Monitoring and Advisory Committee (PMAC) Meeting
Minutes of January 5, 2018.
 5. Notice of New Business
 6. Topics for Discussion:
 - a) Overview of minor amendment to the Solid Waste Management Plan
from April 5, 2018 Solid Waste Committee meeting
 - Ministry of Environment representative will be attending May 1,
2018 SWC meeting to discuss proposed amendments
 - Determination on amendments – minor or major
 - Direction from Ministry of Environment moving forward with
finalizing amendments
 - b) Waste diversion in the Commercial, Demolition, Landscaping (CDL)
sectors
 - Discussion on materials commonly landfilled – quantities and
frequency
 - Review of solid waste diversion audit for 2017 sampling events

3) Adoption of the
Agenda (cont'd)

c) Discussion on tipping fees for the Commercial, Demolition, Landscaping
(CDL) sectors

- Increase disposal fees for building materials to encourage separation and recycling
- How much should this increase be?

d) Reuse of building materials

- Feasibility of adopting recycled building materials for reuse in future construction
- Infrastructure needed – storage, information sharing, accessibility
- Working with Hagar's Re-novation Station or others
- North Peace Regional Landfill material share shed pilot project

e) Municipal building permits

- Adopting requirement to implement recycling program for future construction projects
- Potentially requiring contractor to demonstrate attempt to utilize recycled building materials

CARRIED.

ADOPTION OF MINUTES

4) M-1 PMAC Mtg.
Min. of Jan 5, 2018

MOVED by Wayne Hiebert, SECONDED by Ryan Nelson,
that the Plan Monitoring and Advisory Committee Meeting Minutes of January
5, 2018 be adopted.

CARRIED.

Discussion:

5) RSWMP

Overview of Amendments to the Regional Solid Waste Management Plan

- proposed changes have been reviewed by the Advisory Committee and Solid Waste Committee
- intent of the Plan has not been changed
- revisions more accurately reflect current operating procedures
- dollar values have been updated to reflect inflation and current operations
- future capital projects have been identified in the revisions

It was noted that a Ministry of Environment representative will be attending the May 1, 2018 Solid Waste Committee meeting to provide direction if the amendment is deemed as minor or major and the amount of public consultation to take place.

6) Waste Diversion
and tipping fees

The Committee reviewed the "2017 Solid Waste Diversion Rates and Tonnages" and "Waste Composition Study – 3rd Sampling Event Results."

- Waste diversion, types of materials, utilize / reuse construction materials via share sheds, sources include residential, industrial, etc.
- Hagar's Re-Novation Station, talked to area contractors – picks up materials from the site, clean it up, advertise. Contractor does not have to pay tipping fees on diverted materials. Good turnaround of materials being picked up.
- Share sheds - pilot project will take place at the North Peace Regional Landfill this year, large shed for construction materials.
- increasing tipping fees to encourage diversion. Down side issues include extra costs being passed on to the customer and a possible increase in illegal dumping.

MOVED by Mike Fitzgerald, SECONDED by Rob Henry,
That the Solid Waste Management Plan Monitoring and Advisory Committee recommends to the Committee of the Whole that staff be authorized to research mechanisms to increase diversion rates for construction/demolition material resulting from home/commercial building renovations/new builds, including:

- appropriate signage;
- identifying types of materials from the construction/demolition industries;
- determining whether or not there are limitations to share shed access;
- determining information sharing methodology for users;
- determining the need for policy support/changes; and
- determining incentives that will encourage diversion with minimal impact to the taxpayer.

CARRIED.

7) Building Permits It was suggested that “recycling of materials” should be a part of the building permit application process. May need to develop cost benefit analysis to make it viable.

Possible development of services for other types of materials not currently being addressed through stewardship programs such as mattresses.

Demolition permits, recycle diversion should be included, source segregation, with a reward program, need to determine if all municipalities have demolition permits.

MOVED by Wayne Hiebert, SECONDED by Karen Mason-Bennett,
That the Solid Waste Management Plan Monitoring and Advisory Committee recommends to the Committee of the Whole that staff be authorized to determine which municipalities have a demolition permit process and investigate the feasibility of finding opportunities for source segregation with municipal staff.

CARRIED.

Is there a feasible way to implement a “tipping fee revenue credit”, other areas have different systems in place to increase diversion of materials.

8) Committee Report MOVED by Mike Fitzgerald, SECONDED by Wayne Hiebert,
that the recommendations from the Solid Waste Management Plan Monitoring and Advisory Committee Meeting of April 25, 2018 be recommended to the Committee of the Whole for approval.

CARRIED.

9) Adjournment The meeting adjourned at 11:35 am

Paulo Eichelberger,
Meeting Chair

S. Garrett,
Corporate Services Coordinator

March 7, 2019



REPORT

To: Solid Waste Committee

Date: February 21, 2019

From: Paulo Eichelberger, General Manager of Environmental Services

Subject: **Bessborough Anaerobic Digestion Facility RFP Results**

RECOMMENDATION #1:

1. That the Solid Waste Committee recommends to the Regional Board that the Request for Proposal for the lease of 2 Hectares of land for the development of an Anaerobic Digestion Facility at Bessborough Landfill be cancelled due to uncertainties in proponents' business cases.

BACKGROUND/RATIONALE:

In 2018, Peace River Regional District (PRRD) staff issued an Expression of Interest based on companies who were looking to lease land at the Bessborough Landfill for the purpose of developing an anaerobic digestion facility to process organic waste material¹ for a period of 20 years.

Two companies submitted bids: Herhof GbmH/HCT Sustainables and Petawawa Biofuel LP. Based on evaluations conducted by our landfill engineering consultant, GHD, both companies met the necessary requirements for being shortlisted and were subsequently invited to submit a formalized proposal, citing previous experience, methodology and lease payment. The Request for Proposal (RfP) process ran from November 13, 2018 until January 14, 2019. Both proposals have been evaluated by PRRD staff and GHD (see attached). The findings are summarized here:

- Both proponents are suggesting a \$60/tonne tipping fee (minimum) for customers of their facility to process organic material which would make the facility financially viable.
- Expected tonnage of feedstock is roughly equivalent (between 27,500 and 30,000 tonnes annually to supply the plant).
- Proposals for getting the AD facility kicked off differ in that Herhof relies heavily on PRRD resources and feedstock commitments while Petawawa relies on a portion of their feedstock from PRRD sources.
- There are conditions around financing which would have to be refined on the part of either proponent, depending on whom the PRRD negotiates with.
- Lease for 20 years for the project from each proponent are quite different:
 - Petawawa: 2.5% royalty fees equating to between \$41,250 and \$55,000/year revenue.
 - Herhof: \$57,500/yr. revenue.
- Petawawa cited experience on multiple projects in Canada and specifically, BC while Herhof's equivalent experience in Canada was limited.
- Overall rating of the proposals were **4.6/5** versus **4.3/5** in favor of Petawawa.

¹ Examples of organic waste include but aren't limited to pre/post-consumer foods, organics from grain processing facilities, livestock manure and carcasses (excluding portions of the carcass defined as specified risk material by the Canada Food Inspection Agency), wood waste/plant material from businesses and garden centres, and spoiled crops.

Staff Initials:

Dept. Head: 

CAO:



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Advantages and Challenges:

- Both facility proposals provide advantages in that:
 - Petawawa's facility will provide fertilizer and cover material which can be used for the landfill. Biogas that they will produce will be injected through the adjacent gas pipeline.
 - Herhof proposes a facility that will generate compost for the landfill as well as power generation from biogas combustion.
- Both facility proposals also provide challenges in that the proponents could rely on at least some of the organics feedstock being sourced by the PRRD. While organics diversion is one of the goals of the Solid Waste Management Plan, policy changes on the part of the PRRD and member municipalities are needed. These would include bylaw amendments which could also impact budgets for the PRRD and member municipalities.

It needs to be emphasized that without knowing how much it could cost the PRRD to supply feedstock, it is premature to enter into a formalized lease agreement with the preferred proponent unless there is a guarantee that the PRRD will not be "on the hook" for supply of any organics waste. The options for the PRRD are:

- To cancel the RfP based on the unknowns identified through the evaluation process or;
- To authorize negotiations with Petawawa with the guarantee of the 2.5% royalty option subject to the condition that the PRRD will not be responsible for providing the organics feedstock necessary to supply the AD Facility.

ALTERNATIVE OPTIONS:

1. That the Solid Waste Committee recommends to the Regional Board that the Regional District(RD) enter into preliminary negotiations with Petawawa Biofuel LP, for a 20 year lease of 2 Hectares (ha) of land at the Bessborough Landfill to develop an Anaerobic Digestion Facility for the processing of organic waste originating from such processes as grain processing facilities, agricultural processes and pre/post-consumer foods, into useable byproducts subject to the condition that RD will not guarantee provision of organics feedstock.
2. That the Regional Board provide alternative direction.

STRATEGIC PLAN RELEVANCE:

N/A

FINANCIAL CONSIDERATION(S):

The AD Facility will provide an additional revenue source for the PRRD. The preferred proponent stipulates that the revenue would be between \$41,250/year and \$55,000/year. However, uncertainties noted in the business cases of both proponents indicate that the PRRD could be relied upon to supply some or all feedstock. Given that the unknown cost impact to the Regional District introduces a large element of risk, it is not recommended to award the RfP at this time.

COMMUNICATIONS CONSIDERATION(S):

N/A

OTHER CONSIDERATION(S):

The recommended proponent proposes a tipping fee for customers utilizing their facility at \$60-\$80/tonne to be financially viable. As the current fee for household waste (of which food waste is a component) is at \$55/tonne, it will become necessary to prioritize organics diversion at the Bessborough Landfill. This would come in the form of higher tipping fees for this material alone or possibly future landfill bans on organics once the facility is online.

Additionally, the AD facility provides an avenue for member municipalities to divert their organic waste as identified in the Solid Waste Management Plan (currently under review).

Attachments:

1. GHD Memorandum - Bessborough AD Evaluation Results

**Memorandum**

February 21, 2019

To: Paulo Eichelberger

Ref. No.: 11102726

From: *DWE DL*
David Engstrom, Deacon Liddy/sz/13

Tel: 604-214-0510

cc: Loryn Day, Michael Cant, Dana-Jill Stroeder,
Sian Smart**Subject: Evaluation of Proposals for a Land Lease Agreement for an Anaerobic Digestion Facility at the Bessborough Landfill****1. Summary**

GHD Limited (GHD) evaluated the proposals submitted by the two proponents in response to the Bessborough Landfill Anaerobic Digestion Land Lease Request for Proposal #28-2018 (RFP) issued by GHD on behalf of the Peace River Regional District (PRRD). Generally, both proponents provided proposals that require further clarification and follow-up. As shown in Table 1.1, the proposal submitted by Petawawa Biofuel LP achieved a higher score and more closely met the PRRD's selection criteria identified in the RFP. GHD also identified items that should be clarified prior to selecting a proponent to establish a lease agreement. Based on the evaluation and the more flexible preliminary lease agreement terms, GHD recommends the PRRD negotiate further with Petawawa Biofuel LP.

Table 1.1 Proponent Scoring Summary

Selection Criteria	Weight	Petawawa Biofuel LP		Herhof GmbH / HCT Sustainables	
		Average Score	Weighted Score	Average Score	Weighted Score
Company and Project Team Qualifications	25%	4.6	1.2	4.4	1.1
Methodology	50%	4.5	2.3	4.4	2.2
Lease Payment	25%	4.8	1.2	4.2	1.1
Total Score	-	-	4.6	-	4.3

2. Background

The PRRD prepared an Expression of Interest (EOI) in September 2017 to identify proponents for developing an anaerobic digestion facility (AD facility) at the Bessborough Landfill (Landfill). The two proponents listed below responded to the EOI.

- Petawawa Biofuel LP
- Herhof-GmbH (HCT Sustainable)

GHD prepared the Request for Proposal (RFP) for the AD facility and, on behalf of the PRRD, issued it to the two shortlisted proponents. During the RFP period, both proponents attended separate sessions for addressing the proponent's questions. The majority of the proponent's questions were in reference to the volume of organics that are available and assumptions for proposing the lease agreement required in the RFP. Both proponents were satisfied with the answers provided and were able to submit a proposal. During the RFP period and as noted in their proposal, HCT Sustainable will be managing the project with support from Herhof GmbH, who originally responded to the EOI.

3. Proposal Evaluation Approach and Methodology

GHD used Tables 3.1 and 3.2 below to score the proposals provided by each proponent. Table 3.1 is the same selection criteria included in Section 4.6 of the RFP. Table 3.2 included provides qualitative guidelines for scoring the responses from the proponent. The average score from each selection criteria was weighted according to the Weighting Factor included in Table 3.1. The scores of each proponent were totaled as shown in Table 1.1.

Table 3.1 RFP Selection Criteria

Selection Criteria	Weighting Factor	Description
Company and Project Team Qualifications	25%	<ul style="list-style-type: none"> • Technical and management capacity and skills of Proponent and other team members • Details of team member participation and role in delivering work • Quality of Proponent work based on recent and relevant project experience on similar assignments, demonstrating suitability to undertake the work • Proven anaerobic digestion facility design and operation experience • Past performance • Feedback from references
Methodology	50%	<ul style="list-style-type: none"> • Understanding of project requirements and scope of work • Detailed methodology to permit, design, construct, maintain, and operate the AD facility • Format, clarity, and quality of proposed work plan and schedule detailed by key tasks
Lease Payment	25%	<ul style="list-style-type: none"> • Proposed lease payment

Table 3.2 Proposal Scoring Guidelines

Score Range	Guideline
0 – 1	Does not meet any of the PRRD's objectives as related to the relevant Evaluation Criteria.
2 – 3	Hardly meets the PRRD's objectives as related to the Evaluation Criteria.
4	Meets most of the PRRD's objectives.
5	Meets all of the PRRD's objectives.

4. Evaluation

GHD evaluated the proponents using the Evaluation Matrix provided in Attachment A. Petawawa Biofuel LP was listed at Proponent 1 and Herhof GmbH / HCT Sustainables was listed as Proponent 2 in the Evaluation Matrix. Overall, both proponents provided preliminary information that met most of the PRRD's objectives. This following subsections provide a brief comparison of the proponents and how they met the selection criteria.

Proponent's Company and Project Team Qualifications

Petawawa Biofuel LP provided a detailed breakdown of their team and partners (CH Four Biogas, Direct Energy, and Western Organics Management). Herhof GmbH / HCT Sustainables identified the need for a local engineering consultant for custom design and permitting, and provided the high level partners in the team (Herhof GmbH and HCT Sustainables). Team leads under Herhof GmbH / HCT Sustainables show a level of multidisciplinary skills that was not evident with Petawawa Biofuel LP.

Petawawa Biofuel LP provided references for multiple projects in Canada including British Columbia. Herhof GmbH / HCT Sustainables provided only one North American project in Peel, Ontario and did not provide contact information with this project. Herhof GmbH / HCT Sustainables did provide references for projects in Europe.

Generally, Petawawa Biofuel LP's team structure was more defined than Herhof GmbH / HCT Sustainables, but their management partner's experience in AD facilities was not as evident as Herhof GmbH / HCT Sustainables.

Proponent's Methodology

Petawawa Biofuel LP identified the necessary permitting requirements outlined in the RFP and provided their method and team for addressing them. Herhof GmbH / HCT Sustainables did not provide methods for addressing permitting requirements, but they did identify that they needed a local engineering consultant to assist with permitting.

Petawawa Biofuel LP provided a preliminary financial plan with limited details. Their financial partner, Direct Energy, financed many similar projects and would be the primary resource for financial planning. Petawawa Biofuel LP provided financial milestones in their project schedule where they will likely provide more details.

Preliminary lease conditions for financial assurance were not identified in their proposal, whereas Herhof GmbH / HCT Sustainables did provide lease conditions for securing finances for the AD facility.

Neither proponent provided details on their construction methodology or financing for construction. Herhof GmbH / HCT Sustainables provided more details in the methodology by sequencing construction in their project schedule. Petawawa Biofuel LP's partner, CH Four Biogas would manage the construction company which is when an established construction schedule would likely be provided to the PRRD.

Operationally, both proponents provide different advantages to the PRRD. Petawawa Biofuel LP proposes an AD facility (technology used not specifically identified) that can produce fertilizer and cover material for the Landfill, which they will investigate further. The biogas produced from their facility will be injected into the adjacent natural gas pipeline. Herhof GmbH / HCT Sustainables proposes a dry, in-vessel AD facility with compost for the Landfill and generate power from biogas combustion. Petawawa Biofuel LP identified the fertilizer produced from their facility can be used to amend soil. Herhof GmbH / HCT Sustainables provides many details into their technology and provide a process flow schematic. Petawawa Biofuel LP did not provide a process schematic which made it challenging to follow their process.

Overall, the information provided by Herhof GmbH / HCT Sustainables shows a good understanding of the AD technology they proposed and its limitations. Herhof GmbH / HCT Sustainables did not provide as many details regarding financing and permitting the project, but they plan to establish a local partner for the design and permitting scope of work. Petawawa Biofuel LP provided high level financial planning and permitting methods with limited details. Petawawa Biofuel LP's operations methodology was difficult to evaluate without a process schematic.

Lease Payment

Both proponents estimate approximately the same total lease payment for the life of the project, approximately \$1.1 million (high end) and \$1.15 million for Petawawa Biofuel LP and Herhof GmbH / HCT Sustainables, respectively. However, Petawawa Biofuel LP provides a royalty based lease agreement that can increase (or decrease) based on the tipping fee and the supply. Herhof GmbH / HCT Sustainables provided a fixed rate lease agreement that provides less incentive for the PRRD to increase tipping fees or volume of input biomass.

Herhof GmbH / HCT Sustainables proposed conditions as a put-and-pay type of lease agreement. For example, the PRRD would need to guarantee a minimum of 30,000 tonnes of organic material for the AD facility – this quantity is assumed to be per year. At the proposed tipping fee of \$60/tonne, this requires a commitment of approximately \$1.8 million per year for the facility. Not meeting the supply condition may cause the PRRD to pay the proponent more than received from the lease payment.

Petawawa Biofuel LP did not provide conditions in the lease agreement section of their proposal, but did hint that regulatory (e.g. banning waste from landfill) and organic supply conditions may be included in the final lease agreement. Petawawa Biofuel LP included an assessment of the organics available to the facility in their scope of work.

The lease payment structure proposed by the two proponents are fundamentally different. Herhof GmbH / HCT Sustainables proposes a fixed put-and-pay lease agreement and provides the conditions upfront.

Petawawa Biofuel LP establishes a royalty based lease agreement that may include conditions when preparing the final agreement. Because Petawawa Biofuel LP did not provide conditions in their proposal (or state that supply and regulatory conditions will not need to be established), it is unfair to negatively attribute the conditions Herhof GmbH / HCT Sustainability provided.

5. Conclusions

As shown in Table 1.1, Petawawa Biofuel LP's proposal was more closely aligned with the PRRD's selection criteria. If the PRRD selects Petawawa's Biofuel LP for the land lease agreement, GHD has identified the following items which require further clarification:

1. Establish preliminary dates for the steps provided in the "Project Summary and Work Schedule" section of the proposal.
2. Identify how the project will be financed for Steps 1. "Kickoff Meeting with PRRD" through 10. "Project Financing" shown in the "Project Summary and Work Schedule" section of the proposal. The scope of work during this period includes establishing agreements, permitting, and design.
3. Provide preliminary conditions (if any) for the proposed land lease rate. Particularly, will the lease agreement include conditions for quantity of organics supply from the PRRD?

Alternatively, if the PRRD selects Herhof GmbH / HCT Sustainability, the following items should be clarified:

1. Identify the "local engineering company" for the permitting, planning, and design phase of the AD facility.
2. The "local engineering company" should have experience with AD facilities in North America. Provide at least three project examples and references from the "local engineering company."
3. Identify how the project will be financed and when financial agreements will be secured.
4. Provide the methodology for addressing the permitting requirements for establishing the AD facility in BC.
5. Elaborate whether the following conditions can be negotiated and/or addressed when preparing the draft lease agreement:
 - a. "The Peace River Regional District will guarantee a 20 year waste processing contract and a minimum organic waste amount of 30,000t."
The PRRD is not able to guarantee this minimum organic waste amount. This put or pay contract may cause the PRRD to pay more than the amount received from the lease payment.
 - b. "A tipping fee of \$60/ t for organic material."
The PRRD has not established a tipping fee for organic material.
 - c. "A power purchase rate of \$0.07/ kWh."
This contractual agreement will need to be with BC Hydro and not the PRRD.
 - d. "Receipt of all required approvals and permits to build and operate the AD facility."
The Proponent is required to obtain permit approvals.



- e. "The investors due diligence and approval of the financing for the project."
The Proponent should provide financial assurance if the project will proceed to drafting a lease agreement.

6. Closing Remarks

Overall, Petawawa's Biofuel LP provided a proposal that met most of the RFP requirements and had sufficient clarity and planning for proceeding into a lease agreement with the PRRD. Herhof GmbH / HCT Sustainables met less of the requirements than Petawawa Biofuel LP, and certain critical items should be addressed prior to selecting this proponent as discussed in Section 5. Conclusions of this memorandum.

Petawawa Biofuel LP proposed to work with the PRRD to develop their organics diversion program and has not identified any put or pay conditions with their lease. Herhof GmbH / HCT Sustainables requested guarantees from the PRRD as part of their lease agreement and did not include services to support the PRRD with organics diversion. If the PRRD does not meet the organic waste supply condition, the PRRD's payment may be more than the amount received from the lease.

Attachment A
Proposal Analysis (2019-01-29)

Attachment A
Bessborough Landfill Anaerobic Digestion Land Lease RFP # 28-2018
Review of Submissions
Evaluation Matrix

Selection Criteria			Proponent 1		Proponent 2	
Category	Criteria	Item	Responses	Scoring for Proponent 1	Responses	Scoring for Proponent 2
Company and Project Team Qualifications	Description of Team Member Roles	Company Name	Petawawa Biofuel LP	5	Herhof GmbH / HCT Sustainables	5
Company and Project Team Qualifications	Description of Team Member Roles	Project Lead	Mark Bell (Petawawa Biofuel LP)	5	Edward Hole (HCT Sustainables)	5
Company and Project Team Qualifications	Description of Team Member Roles	Years in Business	Mark Bell has 25 years of Renewable Energy Business Development, Finance, Commercial Start-up and Industrial Project Experience	5	Edward Hole has more than 25 years of senior strategic leadership in developing projects in the private sector, including the development of waste recycling plants, waste water treatment plants, renewable energy facilities (geothermal, solar, biomass) large scale value-added agricultural processing plants, and other projects in Canada and internationally.	5
Company and Project Team Qualifications	Description of Team Member Roles	Proposed Operations Company Name	Bessborough AD Inc.	NA	Not provided	NA
Company and Project Team Qualifications	Description of Team Member Roles	Design Technical Partner	CH Four Biogas	5	Herhof GmbH with local engineering companies to be determined	5
Company and Project Team Qualifications	Description of Team Member Roles	Investment Partner	Direct Energy	5	No investment partner referenced	4
Company and Project Team Qualifications	Description of Team Member Roles	Construction Partner/Contractor	Construction contactor will be short-listed at a later date	4	Construction partner will be determined at a later date	4
Company and Project Team Qualifications	Description of Team Member Roles	Operational Support Partner	Western Organics Management (WOM)	5	HCT Sustainables	5
Company and Project Team Qualifications	Description of Team Member Roles	Third-party Agreements	PNG can accept biogas as renewable natural gas (RNG) - two pipeline interconnect locations provided as options: Mason Road and 1.5 km from the site	NA	No third-party agreements were referenced.	NA
Company and Project Team Qualifications	Description of Team Member Roles	Chain of Command and Structure	Proponent 1's proposed chain of command is described as follows: 1. Petawawa Biofuel LP is primarily the financial manager and director over Bessborough AD Inc. 2. Bessborough AD Inc. will coordinate with Partners, oversee Agreements, and will manage the General Contractors (construction/operation) 3. The General Contractor (construction/operation) will manage the Sub-contractors Team organization chart is provided and clearly defines the teams internal relationship and the communication with the PRRD	5	Proponent 2's proposed chain of command is generally described as: 1. HCT Sustainables coordinates communication Herhof GmbH/local engineering companies and Construction Contractor 2. Coordination between Proponent 2 and the PRRD is not shown in the team organization chart. Team organization chart is provided, but relationships within the team are not clear.	4
Company and Project Team Qualifications	Description of Team Member Roles	Contractual Relationships with the PRRD	PRRD will have contractual relationships with Petawawa Biofuel LP and Bessborough AD Inc.	5	A contractual relationship between the PRRD and Proponent 2 is not clearly defined. It was assumed the point of contact for the PRRD would be with HCT Sustainables	4
Company and Project Team Qualifications	Technical and Management Capacity	Corporate Sustainability Benefits	For environmental and social sustainability, Proponent 1 references the PRRD's "Guiding Principles" from the Solid Waste Management Plan and identified further advancement in organics diversion to promote these "Guiding Principles". Proponent 1 also identified the AD facility will create economic activity and provide jobs.	5	Proponent 2 identifies environmental sustainability using new technologies customized to meet client needs.	4

Selection Criteria			Proponent 1		Proponent 2	
Category	Criteria	Item	Responses	Scoring for Proponent 1	Responses	Scoring for Proponent 2
Company and Project Team Qualifications	Technical and Management Capacity	Technical Capacity During Design and Construction	<p>CH Four Biogas is the primary technical leaders for design of the AD facility. Proponent 1 identified four team members for CH Four Biogas. The team structure shown in the CVs and in the Proponent Qualifications section.</p> <p>CH Four Biogas provided a list of projects in Appendix B. Overall, the list includes biogas system design and install projects associated with farms and municipalities. Proponent 1 did not identify how CH Four Biogas would resolve capacity issues within their team.</p>	4	<p>Herhof GmbH was identified as the primary design partner for the AD facility. A local engineering company for design support was noted in the proposal, but no company was identified as part of the submission.</p> <p>Herhof GmbH provided substantial number of projects and their successes. Their lessons learned from design and process experience should be considered as they attribute well established procedures for designing, constructing, and operating the facilities.</p>	4
Company and Project Team Qualifications	Technical and Management Capacity	Technical Capacity During Operations	<p>WOM is the primary technical leaders for operations. Proponent 1 identified three team member for WOM.</p> <p>Based on the information provided in the CVs and in the Proponent Qualifications section, WOM has shown they have the capacity to manage multiple facilities; however, the proponent did not identify how they would address capacity issues related to the Operations technical advisory team.</p>	4	<p>HCT Sustainables was identified as the primary operations support partner. They have two team members identified in the Proponent 2's proposal.</p> <p>They have the technical expertise to address the challenges with operating an AD facility, and it is likely they will provide sufficient redundancy to meet the project's operational needs as technical support. Proponent 2 did not identify how they would address potential capacity issues related to the Operations Technical advisory team.</p>	4
Company and Project Team Qualifications	Technical and Management Capacity	Management Capacity	<p>Petawawa Biofuel LP was identified as the primary management partner. Mark Bell was identified as the sole team member from Petawawa Biofuel LP. Proponent 1 did not address contingency measures for potential management capacity issues.</p> <p>Proponent 1 provided multiple references.</p>	4	<p>HCT Sustainables was identified as the primary management partner. Edward Hole and Jutta Zillgen were identified as the Project Manager and Chief Technology Officer at HCT Sustainables.</p>	5
Company and Project Team Qualifications	Past Performance and References	Reference Check	<p>Petawawa Biofuel LP provided the reference below; however, they did not identify which, if any, were AD facilities.</p> <ul style="list-style-type: none">-Township of Muskoka Lakes-Panasonic Eco Solutions Canada Inc-Township of Southgate-CIBC <p>WOM provided references that were AD facility specific.</p> <ul style="list-style-type: none">-Waste Connections of Canada-Seabreeze AD-Stormfisher Biogas AD-SeaCliff Energy AD <p>CH Four Biogas: List provided in Appendix B of the proposal.</p>	4	<p>Proponent 2 provided multiple references in Europe, and identified one facility in Peel, Canada (Ontario) in the section "Explanation of proposed AD technology".</p> <p>HCT Sustainables did not provide references for their company.</p> <p>Herhof GmbH provided multiple references for AD facilities designed, constructed, and operated in Europe.</p>	3

Selection Criteria			Proponent 1		Proponent 2	
Category	Criteria	Item	Responses	Scoring for Proponent 1	Responses	Scoring for Proponent 2
Methodology	Financing	Financial Plan	Proponent 1's financial plan is provided in the Project Financing section and summarized below: -Direct Energy will partner to provide financing for the Project -Insurance will be obtained from Jones Brown Details on whether Proponent 1 will finance construction are not provided.	4	Proponent 2 did not provide a financial plan or details on financing in their proposal.	3
Methodology	Permitting	Environmental Assessments	Proponent 1 will contact the Environmental Assessment Office (EAO) to notify of intent to build AD facility and ascertain if the project would fall into the scope of a Renewable Project Regulation / Environmental Assessment Act (EAA).	5	Proponent 2 does not address obtaining environmental assessments for the proposed AD facility.	3
Methodology	Permitting	Waste Discharge Authorizations	-Site specific waste discharge authorization may be required. -Proponent 1 will coordinate an amendment to the Bessborough Landfill's liquids management plan.	5	Proponent 2 does not address the need for waste discharge authorizations for the proposed AD facility.	3
Methodology	Permitting	Organic Matter Recycling Regulation (OMRR)	-Proponent 1 proposes fertilizer as digestate thus OMRR may not be applicable. -Dewatering digestate for use at the landfill may require permit and will be further investigated Proponent 1 does not identify the permitting requirements for fertilizer and the limitations on land application / sale of fertilizer product.	4	Proponent 2 does not address the applicability of OMRR to their proposed AD facility.	3
Methodology	Permitting	Safety Permits for Digester Gas	Proponent 1 will obtain safety permits for the biogas component of the AD facility	5	Proponent 2 does not address safety permits as they relate to the biogas production at the AD facility.	3
Methodology	Construction	Construction Methodology	Detailed construction methodology not provided. CH Four Biogas will manage design, construction, and start-up commissioning.	3	Detailed construction methodology is not provided, but Proponent 2 does provide a breakdown of the construction sequence in the project schedule.	4
Methodology	Operation/Maintenance	Type	Proponent 1 did not specifically identify the type of AD technology proposed. From the process provided in Appendix F, it is assumed Proponent 1 is proposing a in-vessel wet AD method with fertilizer and biogas digestates.	3	Dry AD method, in-vessel composting and biogas method	5
Methodology	Operation/Maintenance	Process Philosophy	No schematic was provided. Proponent 1 identified the following overall processes in Appendix F: -Pre-Anaerobic Digestion -Anaerobic Digestion -Post-Anaerobic Digestion	4	Two main plant sections: -Dry fermentation -Wastewater treatment Proponent 2 provided a detailed process schematic.	5

Selection Criteria			Proponent 1		Proponent 2	
Category	Criteria	Item	Responses	Scoring for Proponent 1	Responses	Scoring for Proponent 2
Methodology	Operation/Maintenance	Process Details	<p>Proponent 1's process is provided in Appendix F and is summarized below:</p> <p>1A. Manure stored in manure receiving tank then to the Managed Receiving Tank</p> <p>1B. Stover (e.g.) will be stored and chopped at the Dry Storage Bunker and Bale Chopping Unit prior to being sent to the digester</p> <p>1C. All other feedstock sent to Receiving Station and Shredder Unit then to the Managed Receiving Tank</p> <p>2. Shredding output materials and manure sent to Managed Receiving Tank to be mixed properly</p> <p>3. Liquid stream from Managed Receiving Tank is sent to Hydrolyzer Tank</p> <p>4. Feedstock is sent to the AD from the Hydrolyzer Tank</p> <p>5. Digestate from AD is sent to the Nutrient Storage Tank for transport off-site/at the landfill</p> <p>6. Biogas will be sent to the Co-Generation Unit, Flare System, or Biogas Upgrading System.</p> <p>7. Biomethane from the Biogas Upgrading System is sent to the Pipeline Injection Module</p> <p>8. Hot Water Supply & Return System is used to maximize energy efficiency at the facility</p> <p>Items 1A and 1B appear to occur in parallel. Proponent 1 did not provide a schematic of their process which would clarify routing between units. Proponent also does not identify the type of AD tank to be used.</p>	3	<p>Proponent 2's process is provided in section "Explanation of proposed AD technology" and provided below:</p> <p>1. Placing the substrates in the empty dry fermenter</p> <p>2. Optional pre-aeration in the closed dry fermenter to increase the temperature</p> <p>3. Anaerobic processing by means of percolation with process water</p> <p>- Primarily hydrolytic phase</p> <p>- Primarily methanogenic phase</p> <p>4. Post-aeration</p> <p>- Expulsion of biogases, aerification of digestate, odour removal</p> <p>- Optional aerobic post-processing to reduce water content</p> <p>5. Removal of digestate Post-treatment of fermentation residue (e.g. hygienisation in Herhof boxes or maturation, screening etc. depending on the application)</p>	5
Methodology	Operation/Maintenance	Feedstock	<p>Proposes completing an assessment of feedstock availability:</p> <p>-Municipal residential organics (e.g. yard & garden, food waste);</p> <p>-Commercial/Industrial/Institutional organics (e.g. food waste, fats/oils greases, expired food products etc.);</p> <p>-Restaurants, grocery stores, cafeterias and food processing plants;</p> <p>-Residual Agricultural materials (silage, stover);</p> <p>-Manures;</p> <p>-Deadstock;</p> <p>-Yard Materials (easy to digest cellulosic materials such as garden debris, wood debris, and wood chips).</p> <p>Proponent 1 does not clearly identify the amount of organics expected from the PRRD and the amount expected from external sources. Proponent 1 may be planning to establish the required amount as a condition in the lease agreement.</p>	4	<p>Requires the PRRD to provide a minimum of 30,000 tonnes of organic waste</p>	4
Methodology	Operation/Maintenance	Supply of Electricity	<p>To be determined during Engineering Assessment completed by Proponent 1</p>	5	<p>Proponent 2 proposes to produce electricity and requires a power purchase rate of \$0.07/kWh.</p>	5
Methodology	Operation/Maintenance	Digestate	<p>Proponent 1 will seek an Organic Biofertilizer Certification for using the digestate as fertilizer. If the digestate is to be used as cover material in the landfill, Proponent 1 identified further investigation is needed.</p>	5	<p>Proponent 2 identifies compost as a use for the digestate.</p>	5

Selection Criteria			Proponent 1		Proponent 2	
Category	Criteria	Item	Responses	Scoring for Proponent 1	Responses	Scoring for Proponent 2
Methodology	Operation/Maintenance	Biogas	Proponent 1 provides two options for injecting the biogas into the adjacent natural gas pipeline. Proponent 1 also identifies the need for biogas treatment prior to injection and proposes a Biogas Upgrading System.	5	Proponent 2 plans to generate electricity on-site from the biogas produced from the AD facility.	5
Methodology	Operation/Maintenance	Labour Requirements	-Daily estimated traffic: 4-8 trucks substrate in, 4 trucks digestate out, < 1 truck solid waste out -4 operators total - 2 traffic employees per shift, 1-2 utilities/maintenance employees/week	5	1 Manager 1 Front end loader operators 1 Electrician 2 Industrial Mechanic/ Fitter 1 Weigh scale operator (if there is not yet an existing weight scale at the landfill) Trucking Delivery: Monday to Saturday from 8am – 5pm.	5
Methodology	Operation/Maintenance	Capacity	Assumed feedstock of approximately 27,500 tonnes/year	5	Assumed input material of 30,000 tonnes of biomass (per year).	5
Methodology	Operation/Maintenance	Input Requirements	No detailed requirements for feedstock were provided at this stage. Proponent 1 proposed to complete an assessment of the volumes of the following types of feedstock: -Municipal residential organics (e.g. yard & garden, food waste); -Commercial/Industrial/Institutional organics (e.g. food waste, fats/oils greases, expired food products etc.); -Restaurants, grocery stores, cafeterias and food processing plants; -Residual Agricultural materials (silage, stover); -Manures; -Deadstock; -Yard Materials (easy to digest cellulosic materials such as garden debris, wood debris, and wood chips).	5	No detailed requirements for feedstock were provided at this stage. Proponent 2 identified their findings that 43.9% of organic compostable waste 4% pet waste plus approximately 4% agricultural waste will be used as input material.	4
Methodology	Operation/Maintenance	Odour, vectors, or noise constraints	Proponent 1 proposes to complete air dispersion modeling as part of the biogas production at the AD facility.	4	Proponent 2 proposes using in-vessel composting to minimize odours, noise, and dust.	4
Methodology	Operation/Maintenance	End Products	Fertilizer and biogas for injection into the adjacent pipeline	5	Compost and electricity	5
Methodology	Operation/Maintenance	Management and potential usage of end product locally	Proponent 1 proposes to store digestate on-site and on nearby agricultural field locations until appropriate for land application. Proponent 1 also proposes to investigate potential usage of the digestate as landfill cover. Proponent 1 proposes installing a flare when biogas production exceeds the capacity of the Biogas Upgrading System.	5	Proponent 2 proposes to store compost in a roofed area to keep it dry. Proponent 2 proposes a tank to store biogas prior to electrical generation.	5
Methodology	Schedule	Project Start	April 2019	5	April 2019	5
Methodology	Schedule	Financial Assurance	July 2019 - March 2020	5	Proponent 2 has not provided the target date for obtaining financial assurance.	5
Methodology	Schedule	Design	April -July 2019	5	April-October 2019	5
Methodology	Schedule	Construction	May-November 2020	5	April 2020 - February 2021	5
Methodology	Schedule	Operation Start-up	end of 2020 / early 2021	5	August 2021	5
Lease Payment	Lease Payment	Type	Royalty-based lease agreement	5	Fixed annual rate Proponent 2 did not identify options for adjusting the rate over time.	5
Lease Payment	Lease Payment	Proposed Rate	2.5% of incoming fees	5	\$57,600/year	5

Selection Criteria			Proponent 1		Proponent 2	
Category	Criteria	Item	Responses	Scoring for Proponent 1	Responses	Scoring for Proponent 2
Lease Payment	Lease Payment	Assumed Tipping Fee	\$60-80/tonne	5	\$60/tonne	5
Lease Payment	Lease Payment	Total Lease Payment for Life of Project	\$825,000 to \$1.1 million	5	Approximately \$1.15 million	5
Lease Payment	Lease Payment	Conditions	<p>Proponent 1 did not identify conditions in the Lease Agreement section of their proposal; the following may be preliminary conditions that Proponent 1 may intend to incorporate into the lease agreement:</p> <p>-The PRRD may be required to make regulatory changes for supporting organics diversion. Proponent 1 will provide assistance with drafting these changes. Reference the last paragraph in "Scope of Work" on page 7 of 17 in Proponent 1's proposal.</p> <p>-The PRRD may be committed to supply quantities or a ban on organics at the landfill. Refer to "Project Schedule, 4A." on page 8 of 17 in Proponent 1's proposal.</p>	4	<p>Proponent 2 identified the following conditions:</p> <p>-a minimum 30,000 tonnes of organic waste guarantee from the PRRD would be established in the put-or-pay contract</p> <p>-PRRD to guarantee a 20-year waste processing contract</p> <p>-Power purchase rate of \$0.07 with the local utility.</p> <p>This put or pay contract would require a commitment of approximately \$1.8 million annually. The PRRD may have to pay more than the amount received by the lease payment.</p>	1



REPORT

To: Solid Waste Committee

February 20, 2019

From: Paulo Eichelberger, General Manager of Environmental Services

Subject: **Hudson's Hope Transfer Station Attendant Contract**

RECOMMENDATION #1:

That the Solid Waste Committee recommends to the Regional Board that a Request for Proposal(RfP) for the operation of the Hudson's Hope Transfer Station be issued for a two year term.

BACKGROUND/RATIONALE:

The Hudson's Hope Solid Waste Transfer Station (SWTS) is operated by an attendant (contractor) under contract with the PRRD, similar to the operation of the Mile 62.5 and Tumbler Ridge SWTS's. The current contract for the operation of the Hudson's Hope SWTS will expire on June 2, 2019.

A tender for the operation of the Hudson's Hope SWTS for a three year term (with an option to renew for up to one year) was issued in May, 2018. During the June 22, 2018 Regional Board Meeting, the following resolution was passed:

RD/18/06/22 (28)

That the Hudson's Hope Transfer Station Site Attendant Contract No. 19-2018 be awarded to Carol Johnson, for a one (1) year term, for an annual amount of \$54,000 (monthly rate of \$4,500), (excluding taxes); with an hourly rate for extra work at \$30 for the duration of the contract; and that the Chair and Acting Chief Administrative Officer be authorized to sign the contract on behalf of the Regional District.

Members will recall that recent budget discussions resulted in upgrades to the Hudson's Hope SWTS into a standardized Tier 1 SWTS being deferred to budget 2020. Should the upgrades move forward in 2020, any resulting changes that may affect the scope of work for attendant operations at the site could have budget impacts in late 2020 or early 2021. Therefore, there are two suggested options:

- In line with purchase policy, an RfP process for a two year term contract.
- Waiving of purchase policy and issuing a one year extension of the existing contract at current rates.

ALTERNATIVE OPTIONS:

1. That the Solid Waste Committee recommends to the Regional Board to authorize waiving of the Regional District purchasing policy and extend "Hudson's Hope Transfer Station Site Attendant Contract #19-2018" for attendant services at the Hudson Hope Transfer Station, for one year in the amount of \$54,000 (monthly rate of \$4,500), (excluding taxes); with an hourly rate for extra work at \$30 for the duration of the contract; and that the Chair and Acting Chief Administrative Officer be authorized to sign the contract on behalf of the Regional District.

Staff Initials: *PE*

Dept. Head: *PE*

CAO: *PE*

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March 7, 2019

2. That alternative direction be provided.

STRATEGIC PLAN RELEVANCE:

N/A

FINANCIAL CONSIDERATION(S):

Costs for attendant services are already incorporated into the draft 2019 Financial Plan (Line 01-2-2060-6020 –Contractor HHTS \$55,080).

COMMUNICATIONS CONSIDERATION(S):

N/A

OTHER CONSIDERATION(S):

On February 27, 2019, conversion of the Hudson’s Hope Transfer Station into a standardized Tier 1 Transfer Station was deferred by the Regional Board to 2020 budget discussions, pending the completion of the Solid Waste Management Plan renewal process.



REPORT

To: Solid Waste Committee

February 14, 2019

From: Paulo Eichelberger, General Manager of Environmental Services

Subject: **Meeting with First Nation Consultants on use of PRRD Facilities**

RECOMMENDATION #1:

That the Solid Waste Committee receives the report on increased waste diversion for the Blueberry River and Halfway River First Nations for information.

BACKGROUND/RATIONALE:

On Monday, February 11, 2019, Peace River Regional District (PRRD) staff met with consultants from GHD to discuss recycling and solid waste management within the PRRD (particularly the rural transfer stations) as well as apprise the PRRD on work GHD is performing in collaboration with two local First Nations.

The focus of GHD's work with the Blueberry River and the Halfway River First Nations (FN) is on development and upgrading of their solid waste systems. Currently Blueberry River FN is not using any of the neighbouring PRRD transfer stations. Instead they utilize large 50 yard bins to collect residential waste which is then hauled to the landfill via their private contractor. Using this system there is no separation of waste taking place. The Halfway River First Nations are using the Upper Halfway Transfer Station for regular residential garbage disposal and the Wonowon Transfer Station for bulky waste and appliance disposal. There is no residential household recycling program operated at Halfway River First Nations.

As part of this work, GHD reached out to the PRRD to understand how our system of landfills/transfer stations and recycling works so that they can design a system for the First Nations which will work in harmony with our solid waste system. Discussions centered on how recycling was operated at the First Nations' neighbouring rural transfer stations¹ as well as how the PRRD works with stewardship agencies to collect and divert from landfill, products such as Packaging and Printed Paper (PPP), Metal, Appliances, Paint, and Electronics.

It is anticipated that Blueberry River First Nations will have a program developed for spring and will start bringing in sorted waste and recycling to PRRD facilities. The start date for Halfway River First Nations is unknown at this time.

ALTERNATIVE OPTIONS:

N/A

¹ The neighbouring rural transfer stations for Blueberry River First Nations are Buick Creek Transfer Station (Tier 2) and Prespatou Transfer Station (Tier 1). The neighbouring rural transfer station for Upper Halfway First Nations are Upper Halfway Transfer Station (Tier 2) and Prespatou Transfer Station (Tier 1).

Staff Initials:

Dept. Head:

CAO: Page 1 of 2

March 7, 2019

STRATEGIC PLAN RELEVANCE:

N/A

FINANCIAL CONSIDERATION(S):

The PRRD can see increased revenue from the additional recycling that will be taken to the rural transfer stations, as these sites are run under the Recycle BC stewardship program for residential household recycling. At this time the volumes and associated revenue is unknown.

First Nation communities pay a \$50 per household fee in lieu of taxes. These fees are to simulate taxes as First Nations are not taxed directly by the PRRD. First Nation communities pay all applicable fees at the landfills and transfer stations.

COMMUNICATIONS CONSIDERATION(S):

N/A

OTHER CONSIDERATION(S):

These discussions are a part of a larger project that GHD is working with other First Nations communities in the Province, which could foster further partnership and collaboration with other First Nations communities such as Doig River, Saulteau, and West Moberly, in the PRRD.

SOLID WASTE COMMITTEE DIARY

FUTURE OF SOLID WASTE MEETINGS		Follow-up Action / Status
1.	alternatives/solutions for continued development of waste reduction projects in the region taking into consideration challenges with distances to markets, agricultural plastics (include Oil and Gas industry), service variables between low and high density population areas. September 28, 2018	
GROUNDBIRCH TRANSFER STATION		
2.	that the status of a proposed property (located on 271 Road, north of the current unmanned waste site near the Groundbirch store) be monitored every four months, for siting a manned transfer station and that any changes in said property's status be reported back to the Committee. August 2, 2018	
WOOD WASTE MATERIAL DIVERSION		
3.	Work with Expander Energy Inc., a company proposing to utilize wood waste fibre to produce renewable synthetic fuel, by providing them with data regarding wood waste received at the NPRLF; such data to include volume, materials accepted, material rejection criteria and process, separation and chipping responsibility; further that staff report back to the SWC regarding the data provided to Expander Energy and any questions that arise following provision of the data to Expander Energy Inc. December 6, 2018	
4.		
	For December SWC Agenda – 2020 Meeting schedule for approval	
		Page 1



Solid Waste Committee TERMS OF REFERENCE

The Peace River Regional District (PRRD) developed a Regional Solid Waste Management Plan that was approved in 2009. The Plan addresses three key areas:

- Greater efficiency of programs and services
- Greater focus on reducing, reusing and recycling to protect our environment
- Greater focus on sustainable management to protect future generations

ROLE OF THE COMMITTEE

With the understanding that Solid Waste Management is a regional function and represents our largest single budget item; the goals of the Solid Waste Committee (SWC) is to act as an advisory committee for the Regional District solid waste management function and identify concerns and issues that may arise.

STRUCTURE OF THE SOLID WASTE COMMITTEE

1. Members: The SWC will consist of five (5) Board members as appointed by the Chair and will consist of:

- Director from the City of Dawson Creek, or alternate director
- Director from the City of Fort St. John, or alternate director
- Director from the District of Chetwynd, or alternate director
- Director from Electoral Area 'B', or alternate (Electoral Area 'C' Director)
- Director from Electoral Area 'E', or alternate (Electoral Area 'D' Director)
- PRRD Board Chair, as ex-officio member
- The meetings will be chaired by a Committee member elected by the Committee participants on an annual basis
- In the absence of the Chair, a member elected Vice-Chair by the Committee on an annual basis will chair the meetings;
- Appropriate Regional District staff person – non-voting.

2. Meetings:

- The Committee shall meet on a monthly basis, on the first Thursday of every month;
- Meetings will be open to the public;
- Items for the regular agenda must be provided to Administration one (1) week prior to the scheduled meeting;
- The PRRD Board Chair will be given a copy of all Committee meeting agendas.

3. Procedures:

- Quorum – at least one-half of the members of the Committee;
- Voting – all options and recommendations shall be determined by majority vote, with recommendations and options being forwarded to the Regional Board for consideration and action.