



SOLID WASTE COMMITTEE MEETING MINUTES

July 4, 2024, 10:00 a.m.

1981 Alaska Avenue, Dawson Creek, BC

Directors Present: Director Hiebert, Electoral Area D, Committee Chair
Director Dober, City of Dawson Creek
Director Kealy, Electoral Area B
Director Quibell, District of Hudson's Hope (Via Zoom)
Director Sperling, Board Chair (Ex Officio)
Director Zabinsky, City of Fort St. John

Staff Present: Shawn Dahlen, Chief Administrative Officer
Tyra Henderson, Corporate Officer
Kari Bondaroff, General Manager of Environmental Services
Gerritt Lacey, Solid Waste Manager
Roxanne Shepherd, Chief Financial Officer
Colin Bates, Solid Waste Foreman
Anndrea Kellestine, Solid Waste Coordinator
Suzanne Garrett, Recorder

Delegation: University of Northern British Columbia
Dominic Reiffarth, Natural Resources and Environmental Studies (Via Zoom)

1. CALL TO ORDER

The Chair called the meeting to order at 10:00 a.m.

2. ADOPTION OF AGENDA

MOVED Director Zabinsky

SECONDED Director Dober

That the Solid Waste Committee adopt the July 4, 2024, meeting agenda:

1. Call to Order

2. Adoption of Agenda

3. Gallery Comments or Questions

4. Adoption of Minutes

4.1 Solid Waste Committee Meeting Minutes of April 5, 2024

5. Business Arising from the Minutes

6. Delegations

6.1 University of Northern BC – Pyrolysis as a waste management approach

7. Correspondence

7.1 Letter from MP Zimmer regarding the Wonowon Transfer Station

8. Reports

8.1 Progress Unattended Transfer Station Supply of Additional Bins, ENV-SWC-159

8.2 Solid Waste Management Best Practices: Pyrolysis Waste Management Study, ENV-SWC-166

9. New Business

(Cont'd on next page)

9. Consent Calendar

- 9.1 Relocation of the Hudson's Hope Unattended Recycling Station – update, ENV-SWC-158
- 9.2 Solid Waste Agreement with the District of Hudson's Hope, ENV-SWC-161
- 9.3 Solid Waste Agreement with the District of Tumbler Ridge, ENV-SWC-162
- 9.4 24 Hour Pilot Expansion at Rolla and Cecil Lake Transfer Stations – Update 2, ENV-SWC-163
- 9.5 2024 Solid Waste Projects Update, ENV-SWC-165
- 9.6 Solid Waste Committee Terms of Reference

10. Adjournment

CARRIED

3. GALLERY COMMENTS OR QUESTIONS

4. ADOPTION OF MINUTES

4.1 Solid Waste Committee Draft Meeting Minutes of April 5, 2024

MOVED Director Zabinsky

SECONDED Director Kealy

That the Solid Waste Committee adopt the Solid Waste Committee Meeting minutes of April 5, 2024.

CARRIED

5. BUSINESS ARISING FROM THE MINUTES

6. DELEGATIONS

6.1 University of Northern BC – Pyrolysis as a Waste Management Approach

Dominic Reiffarth, PhD, University of Northern British Columbia gave a presentation to the Committee titled 'Pyrolysis: A waste management approach for the Peace River Regional District, an economic and environmental evaluation' which included the following:

- Investigated solid waste best practices and the potential use of a pyrolysis unit within the PRRD to manage organic waste as an alternative to landfilling,
- pyrolysis background, thermal treatment of waste (carbonizes materials=biochar)
- sub-regional "pilot scale" pyrolysis plant: MJT-500, 500 kg/hr operating, 90% uptime, 5 days/week, 40 hours per day: 936 annual tonnes (dry or 3,153 wet @ 70% assumed moisture for FW)
- regional pyrolysis solutions - ATS 1000, 1,500 kg/hr operating, FW, GW, plastics, textiles, tires
- Landfill divertible feedstocks, assumptions - 90% of compostable organics (FW food waste, GW Green waste, yard and garden; 80% of paper waste, 30-80% of plastics, 90% of textiles (synthetic and natural).
- pyrolysis is flexible and may be switched over to use other types of waste
- sub-regional operating scenarios; financial outlook; environmental outlook
- regional CO2 reduction
- regional scale solution
- financial summary - sub-regional scale, regional scale
- summary
- conclusions
- recommendations
- moving forward - funding sub-regional, small, "pilot scale" implies research sized unit, collaboration with research institute, up to \$1.5-\$3 million investment. Regional pilot \$13-\$25 million range depending on scale, possible joint venture or lease to own.

6.1 University of Northern BC – Pyrolysis as a Waste Management Approach (Cont'd)

A discussion period ensued and included:

- Was transportation and equipment operator costs factored into the sub-regional scenario. The presenter advised that those costs had not been included, some assumptions were made to determine costs, i.e. picking up and sorting waste, assumed this would take place anyway. Can drill down to obtain costs.
- Biochar at \$400 per tonne, where are those numbers coming from, Canada or overseas. The presenter noted that the price depends on the quality of the biochar and the unpredictable market.
- Will affect financial outcome, if transportation costs are high recovery will be difficult, are there any units in operation in BC? The presenter advised of a unit that is operating in the McBride, however, couldn't confirm what the biochar is being sold for. It was noted that if a market cannot be established, at a value of \$1,200/tonne the scenarios are not very profitable.
- What is the power supply cost for heat generation. The presenter advised that those costs are relatively cheap, offset gas required to operate equipment. The major energy cost is drying the feed stock. Net benefit by processing it for a better end-product.
- Chemical content of end-product, possible toxin level. Ideal conditions are not agreed upon right now. Suggest start up take 6 months to fine tune the nutrient content to meet market requirements.
- For agricultural purposes the nutrient base would be important. Use lab analysis to determine levels of toxic metals. Lots of debate on how temperature levels affect nutrient levels.
- Are there numbers to determine how much landfill space would be saved if we buried biochar versus burying waste. The presenter advised that there are numbers which can be provided.
- The Bessborough Landfill was chosen for the scenario due to its age and location, centrally located to receive commercial waste.
- The presenter noted that at the moment there are too many challenges before pyrolysis systems could be the future of handling solid waste. The BC government is not willing to identify any guidelines for these types of systems.

Mr. Reiffarth left the meeting at 11:04 a.m.

7. CORRESPONDENCE

7.1 Letter from MP Zimmer Re: Wonowon Transfer Station

MOVED Director Zabinsky

SECONDED Director Kealy

That the Solid Waste Committee receive the letter from MP Zimmer regarding cardboard collection at the Wonowon Transfer Station for discussion.

CARRIED

Staff noted that both parties were contacted to address the concern brought forward. When the recycling program first started, there was greater allowance for ICI (Institutional, Commercial, Industrial) collected recyclables. In 2018 the program terms changed, and the Regional District moved forward with an option to not collect ICI recyclables at the site. Commercial businesses can rent their own cardboard bin. Residential recycling of cardboard is still available at the Wonowon transfer station.

8. REPORTS

8.1 Progress Unattended Transfer Station Supply of Additional Bins, ENV-SWC-159

MOVED Director Zabinsky

SECONDED Director Kealy

That the Solid Waste Committee recommend that the Regional Board approve the placement of two additional PL6 bins at the Progress Unattended Transfer Station for the remaining term of the “South Peace Rural Refuse Collection and Transfer Station Service Contract” expiring June 30, 2025 to increase the collection capacity of the site in an effort to reduce the amount of weekly site clean-up required.

CARRIED

Comments:

- Concerns raised with the amount of material left on the ground currently and the requirement to add additional bins and cost to accommodate the waste being received.
- Increasing bins will not reduce additional cost of bulky waste items that are seen at the site that require cleanup.
- In response to a question staff advised that the site is close to the highway and used by others not just local residents.

8.2 Solid Waste Management Best Practices: Pyrolysis Waste Management Study, ENV-SWC-156

MOVED Director Zabinsky

SECONDED Director Sperling

That the Solid Waste Committee receive the reports prepared by Dominic Reiffarth from UNBC titled “Solid Waste Management Best Practices - Cost Effective Options to Sustainably Manage Solid Waste in the PRRD” (July 2022) and “Solid Waste Management Best Practices: Pyrolysis as a Waste Management Approach in the PRRD” (June 2024), which investigated solid waste best practices and the potential use of a pyrolysis unit within the PRRD to manage organic waste as an alternative to landfilling; further that the reports be shared with the Regional Board via the Consent Calendar.

CARRIED

Staff advised this was the final report under the Solid Waste Management Best Practices Study, the project is now complete.

Comments:

- Do not feel any more time should be wasted on this concept, it is too broad plus there are too many challenges for an unknown return on investment.
- Pursue a pilot, there are 400 Pyrolysis units in Europe. Province needs to get in step. Need additional information.
- Staff noted that there is no organic collection program offered in the Regional District, this would have to be further investigated with member municipalities to understand diversion opportunities. Further, the Regional Solid Waste Management Plan (RSWMP) would need to be updated to identify the use of a Pyrolysis system within the PRRD for processing organic waste.

8.2 Solid Waste Management Best Practices: Pyrolysis Waste Management Study, ENV-SWC-156 (Cont'd)

MOVED Director Sperling

SECONDED Director Zabinsky

That the Regional Board approve that additional information, including landfill air space savings if biochar is buried versus landfilling waste, CO2 reductions at landfill if a system is implemented, and funding costs for transportation and equipment operator be obtained from of the report prepared by Dominick Reiffarth from UNBC titled “Solid Waste Management Best Practices – Pyrolysis as a Waste Management Approach in the PRRD”.

CARRIED

OPPOSED: Director Dober

10. CONSENT CALENDAR

MOVED Director Sperling

SECONDED Director Kealy

That the Solid Waste Committee receive the July 4, 2024 consent calendar.

CARRIED

In response to a question staff noted that the Solid Waste Operating Agreement between the District of Hudson’s and Regional District for the delivery of solid waste services within the community is in the final stages of review. It is anticipated the draft agreement will be ready for the District of Hudson’s Hope review within the next few weeks.

11. ADJOURNMENT

The Chair adjourned the meeting at 11:27 a.m.

CERTIFIED a true and correct copy of the Minutes of the Solid Waste Committee from a meeting held on July 4, 2024 in the PRRD Board Room, 1981 Alaska Avenue, Dawson Creek, BC.

Leonard Hiebert, Committee Chair

Suzanne Garrett, Recorder