

**REGIONAL DISTRICT OF BULKLEY-NECHAKO****WASTE MANAGEMENT COMMITTEE****AGENDA**

Thursday, December 16, 2021

<u>PAGE NO.</u>		<u>ACTION</u>
	<u>CALL TO ORDER</u>	
	<u>AGENDA</u> – December 16, 2021	Approve
	<u>SUPPLEMENTARY AGENDA</u>	Receive
	<u>MINUTES</u>	
3-6	Waste Management Committee Meeting Minutes – November 4, 2021	Approve
	<u>COMMITTEE ADVOCACY</u>	
	<ul style="list-style-type: none">• Verbal Update – Chair• Youth Application	
	<u>SOLID WASTE ADVISORY COMMITTEE UPDATE</u>	
7-12	Verbal Report re: Recruitment <ul style="list-style-type: none">• Terms of Reference• Poster• Application	
	<u>POLICY REVIEW</u>	
	None	
	<u>DIVERSION & RECYCLING</u>	
13-17	Janette Derksen, Waste Diversion Supervisor - First Nations Recycling	Receive
18-20	Alex Eriksen, Director of Environmental Services - Update – Handling Procedures for Hazardous Materials	Receive
	<u>OPERATIONS UPDATE</u>	
	Verbal Update <ul style="list-style-type: none">• Daily Landfill Cover Requirements• Wood Grinding	
21	Alex Eriksen, Director of Environmental Services - Department Activity Update	Receive
22-24	Knockholt Landfill Update – Waste Re-routing Plan	Receive

MISCELLANEOUS

Verbal Report re: Impact of Lower Mainland Flooding

FUTURE MEETING TOPICS

- Environmental Services Department Structure Update – January 2022
- Agricultural Plastics Pilot Program Update – February 2022
- Metal Salvage Discussion – March 2022
- Revenue vs. Diversion Discussion Including Airspace & Development Costs – March 2022
- Legacy Projects – Funding Request Updates – March 2022

SUPPLEMENTARY AGENDA

NEW BUSINESS

ADJOURNMENT

REGIONAL DISTRICT OF BULKLEY-NECHAKO
WASTE MANAGEMENT COMMITTEE MEETING
(VIRTUAL)

Thursday, November 4, 2021

PRESENT: Chair Mark Fisher

Directors Gladys Atrill
Shane Brienen
Chris Newell
Jerry Petersen
Michael Riis-Christianson
Gerry Thiessen

Staff Curtis Helgesen, Chief Administrative Officer
Cheryl Anderson, Director of Corporate Services
Janette Derksen, Waste Diversion Supervisor
Alex Eriksen, Director of Environmental Services
John Illes, Chief Financial Officer
Deborah Jones-Middleton, Director of Protective Services
Taddea Kunkel, First Nations Liaison
Jason Llewellyn, Director of Planning
Wendy Wainwright, Executive Assistant/Recording Secretary

Others Dolores Funk, Village of Burns Lake
Clint Lambert, Electoral Area "E" (Francois/Ootsa Lake Rural)
Annette Morgan, Village of Telkwa
Linda McGuire, Village of Granisle
Bob Motion, District of Fort St. James
Mark Parker, Electoral Area "D" (Fraser Lake Rural)

Media Eddie Huband, LD News

CALL TO ORDER

Chair Fisher called the meeting to order at 11:03 a.m.

AGENDA

Moved by Director Petersen
Seconded by Director Newell

WMC.2021-5-1

"That the Waste Management Committee Agenda for November 4, 2021 be approved."

(All/Directors/Majority)

CARRIED UNANIMOUSLY

SUPPLEMENTARY AGENDA

Moved by Director Petersen
Seconded by Director Newell

WMC.2021-5-2

"That the Supplementary Agenda be dealt with at this meeting."

(All/Directors/Majority)

CARRIED UNANIMOUSLY

MINUTES

Waste Management
Committee Meeting Minutes
-October 7, 2020

Moved by Director Atrill
Seconded by Director Newell

WMC.2021-5-3

“That the Minutes of the Waste Management Committee for October 7, 2021 be approved.”

(All/Directors/Majority)

CARRIED UNANIMOUSLY

ADVOCACY AND COMMUNITY ENGAGEMENT

None

SOLID WASTE ADVISORY COMMITTEE UPDATE

None

POLICY REVIEW

None

DIVERSION & RECYCLING

Metal Salvaging at
RDBN Sites

Moved by Director Riis-Christianson
Seconded by Director Brien

WMC.2021-5-4

“That the Committee receive the Director of Environmental Services’ Metal Salvaging at RDBN Sites memorandum.”

Opposed: Director Newell

CARRIED

(All/Directors/Majority)

Discussion took place regarding the following:

- Salvaging and reuse of materials is a part of sustainable use
- Re-evaluate options to metal salvage
- Need for further discussion regarding
 - o Revenue vs. diversion
 - o Creative solutions for metal salvaging
 - o Possible separation of the metal piles – lead to more community salvage/use
- Advancement of re-use sheds overtime
- Impacts to metal price if metal piles have been salvaged
- Salvaging vs. reuse
 - o Salvaging useable materials
 - o Reuse a form of salvaging – more directed towards specific items
- Currently RDBN facilities have salvageable bays for reuse items
- Diversion vs. salvage
- Youth programs to assist with diversion initiatives
- Past historical event regarding salvaging at RDBN facility
- Forming a working group to brainstorm ideas
- Staff to provide additional information at a future meeting.

OPERATIONS UPDATEAlex Eriksen, Director of Environmental Services - Verbal Update – Grinding Demo

Alex Eriksen, Director of Environmental Services provided an overview of a grinding demo he participated in to find ways to utilize waste to be landfilled. He noted that the Environmental Services Department is investigating options to utilize contaminated wood waste for the regulated daily cover needed for the landfill cover. He noted that the demonstration was successful and that the Environmental Services Department will potentially move forward with a more extensive demonstration.

Verbal Report

Moved by Director Petersen
Seconded by Director Atrill

WMC.2021-5-5

“That the verbal report be received.”

(All/Directors/Majority)

CARRIED UNANIMOUSLY

SUPPLEMENTARY AGENDA**MISCELLANEOUS**2021 Revenue from Pipeline Camps and Out-of-Region Sources

Moved by Director Atrill
Seconded by Director Newell

WMC.2021-5-6

“That the Committee receive the Director of Environmental Services’ 2021 Revenue from Pipeline Camps and Out-of-Region Sources memorandum and the updated memo on the Supplementary Agenda.

(All/Directors/Majority)

CARRIED UNANIMOUSLY

The following was discussed:

- Asbestos Waste – C&D (Construction & Demolition)
 - o Protocols
 - o Process to dispose of materials
 - o Staff to provide further information regarding handling and processing of hazardous waste such as asbestos waste and contaminated soils
- Opportunities for legacy projects and creating long term infrastructure in partnerships
 - o Chair Fisher will follow up with staff.

FUTURE MEETING DISCUSSION ITEMS

Chair Fisher will provide an update at future meeting in regard to the Virtual NCLGA Solid Waste Virtual Forum he attended October 12 & 13, 2021 as well as the Coast Waste Management Association 2021 Conference held October 20-22, 2021 in Victoria, B.C.

Chair Fisher outlined the following discussion items for a future Waste Management Committee Meeting:

- Agriculture Plastics Update
- Revenue vs. Diversion
- Metal Salvage and Reuse
- Handling and processing of hazardous materials such as asbestos and contaminated soils
- Opportunities for legacy projects.

ADJOURNMENT

Moved by Director Brien
Seconded by Director Atrill

WMC.2021-5-7

“That the meeting be adjourned at 11:37 am.”

(All/Directors/Majority)

CARRIED UNANIMOUSLY

Mark Fisher, Chair

Cheryl Anderson, Director of Corporate Services

Regional District of Bulkley-Nechako Regional Solid Waste Advisory Committee Terms of Reference

1. Committee Mandate

The purpose of the Committee is to monitor and make recommendations to the Waste Management Committee on the implementation of the Solid Waste Management Plan (SWMP).

2. Scope of Work

The Committee shall:

- a) Act as advisors to the Waste Management Committee;
- b) Monitor the progress made on the SWMP to date;
- c) Keep apprised of key topics and trends in the solid waste and recycling sectors and their impact on the region;
- d) Prioritize and make recommendations to the Waste Management Committee on the implementation of projects and initiatives in the region.
- e) Represent a balance of community interests;
- f) Participate on smaller ad-hoc committees dealing with specific issues or tasks as required;
- g) Contribute to programs and policies that are in the best interests of all residents of the RDBN, balancing both community and industry needs and technical requirements.

3. Authority

The Committee is a select committee of the RDBN established by the Board under section 218 (1) of the *Local Government Act* to consider, inquire and make recommendations to the Board via the Waste Management Committee concerning the Solid Waste Management Plan. Bylaw 1832, Part 19 outlines the requirements for select committees.

4. Membership

- a) The committee shall consist of no more than 15 members representing a diversity of backgrounds, interests, and geographical location. The committee will combine technical, political and community representation and will involve the RDBN, municipal and First Nations governments from the Bulkley-Nechako region. Membership should include representation as follows:
 - Minimum two (2) representatives from RDBN member municipalities;
 - Minimum two (2) representatives from RDBN electoral areas;
 - Minimum three (3) representatives from First Nations within the RDBN;
 - Public (rural and municipal);
 - Public Sector/Institutions (eg. Province, School District, Hospital);
 - Waste Management Service Providers;
 - Agricultural Sector;
 - Province.

- b) The Chair of the Waste Management Committee shall be the Chair of the Regional Solid Waste Advisory Committee;
- c) Members shall be approved by the RDBN Board of Directors.

5. Tenure

This select committee shall be disbanded upon the completion of the tasks outlined in this Terms of Reference at the direction of the RDBN Board.

6. Meetings

- a) The Committee shall meet a minimum of two times per year or as required in order to adequately address the Scope of Work;
- b) Meetings will be held at the call of the Committee Chair;
- c) All meetings must be open to the public;
- d) The Committee must follow the RDBN Procedure Bylaw as amended from time to time.

7. Quorum

Quorum of the Committee shall be a minimum of 50% plus one.

8. Voting

All members of the Committee, including the chair, have a vote. If the votes of the members present at the time of the vote are equal for and against a motion, the motion is defeated. For the purposes of counting the vote, any member who abstains from voting (except for a stated conflict of interest) has their vote counted in the affirmative.

9. Minutes

- a) Meeting minutes must be taken;
- b) The Chief Administrative Officer shall appoint a staff member to take minutes. The minutes must be received by the Board of the RDBN.

10. Reporting to the Board

- a) The Chair or designate shall report to the Waste Management Committee at a minimum once every six (6) months, and shall provide other reports to the Board, as needed from time to time;
- b) Recommendations of the Committee must be approved by the Committee prior to presentation to the Waste Management Committee.

11. Representative Authority

- a) The Committee does not have the authority to pledge the credit of the RDBN, or to authorize any expenditure to be charged against the RDBN;
- b) The Committee members do not have the authority to speak publicly (e.g. to the media) on behalf of the Committee unless so directed by the Board.

12. Staff Support

- a) The Director of Environmental Services shall be the staff champion;
- b) Other RDBN staff shall be available from time to time upon request through the Chief Administrative Officer to provide technical and periodic administrative support.

13. Financial Resources

The Committee does not have a specific budget. Financial requests must be submitted to the RDBN Board via the Waste Management Committee for approval.

14. Travel Reimbursement

Appropriate travel costs will be reimbursed for non-RDBN Board members.

SEEKING¹⁰ MEMBERS



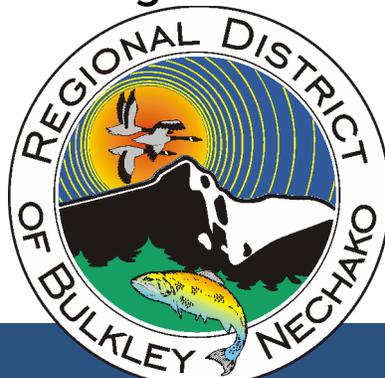
WE ARE LOOKING FOR YOU TO JOIN OUR

REGIONAL SOLID WASTE ADVISORY COMMITTEE

Are you a community member, business or stakeholder
interested in having your voice heard?

Are you a community member, business or stakeholder
interested in recycling and waste management?

This is your opportunity to provide input on important issues
in the Regional District.



For more information and to apply go to
www.rdbn.bc.ca/departments/environmental-services/request-forms



MEMBER APPLICATION FORM

Regional Solid Waste Advisory Committee

The Regional District of Bulkley-Nechako (RDBN) is seeking individuals who are interested in being part of the planning process for Waste Management projects and Diversion initiatives. The Regional Solid Waste Advisory Committee will be composed of members representing various groups and stakeholders in our communities to provide the perspectives necessary to improve our services. The committee members will become familiar with the Solid Waste Management Plan (2019) and provide varying degrees of input to help find the most effective solutions for the waste management challenges in the RDBN. Applicants must complete and submit this form by December 31, 2021. Responsibilities of the committee are as follows:

- Gathering up to 4 times per year for approximately 2 to 4 hour meetings for the next 2 years.
- Review of reports in preparation for meetings.
- Provide input on RDBN waste management projects and initiatives.
- Endorse final strategies and plans for waste and Diversion related projects and initiatives.

All committee meetings will be held in Burns Lake. Meals will be provided, and a travel allowance will be considered for those traveling from out of town. Virtual attendance is also available.

Personal Information:

Last Name:

First Name:

Mailing Address:

Street Address:

Main Phone:

Alternate Phone:

Contact Email:

Occupation:

Please indicate the sector (stakeholder) that best describes your interests:

Lumber Industry

Large Waste Generators

Agriculture Industry

Waste Transport

Retail Industry

Health Sector

Manufacturing Industry

Community Member

Oil & Gas Industry (Pipeline)

Youth Member

Mining Industry

Other (please specify):

Please indicate if you have attached a resume (optional): Yes No

Please explain why you are interested in joining the Regional Solid Waste Advisory Committee:

Please indicate any experience or qualifications you have with respect to Solid Waste Management and Recycling:

Other Comments:

If you have any questions or require additional information, please contact the Environmental Services Department at (250) 692-3195 (TF 1-800-320-3339) or email alex.eriksen@rdbn.bc.ca.



**REGIONAL DISTRICT OF BULKLEY-NECHAKO
MEMORANDUM**

To: Chair Fisher and the Waste Management Committee

From: Janette Derksen, Diversion Supervisor

Date: December 16, 2021

Subject: First Nations Recycling Consolidation Pilot Program

RECOMMENDATION

That the Committee receive this memo.

BACKGROUND

The Regional District of Bulkley-Nechako was informally introduced to the First Nations Consolidation Recycling Program when the Binche Whut'en and the Tl'azt'en First Nation Bands started utilizing the RDBN's Fort St. James Recycling Depot as a receiving location for Recycle BC curbside material. Further conversations led to a working relationship between RDBN staff and Recycle BC's First Nations coordinator who verified that these First Nation Bands were participating in a pilot program funded by Indigenous Services Canada (ISC). This Pilot Program was initiated by Recycle BC to assist First Nations with recycling programs in their communities, including the operation of collection businesses. This agreement with Recycle BC resolves the current issue of recyclable materials collected by small business being re-classified as ICI (for First Nations Communities).

The Fort St. James Recycling Depot will become a host depot for the material collected from both Binche Whut'en and the Tl'azt'en communities. The RDBN will receive the revenue for any material received at the normal Recycle BC incentive rates.

CHALLENGES

Staff recognized that the curbside recycling coming from this community program wasn't being sorted properly and required significant RDBN staff time to re-sort the material as per Recycle BC standards. After discussion with the consultant working for ISC, it became clear that due to various complications, the communities had significant staffing challenges after receiving their initial training, resulting in the training not being carried over before commencing their operations. The RDBN has offered to re-train the First Nations staff members associated with this program. Previous attempts for training were delayed due to scheduling conflicts, however, a session has been conducted on October 29, 2021 with the Tl'azt'en First Nation. The RDBN is yet to meet with Binche Whut'en Community on this matter. No major issues have been noted with the product coming in from this program and volumes haven't been too much at this time.

OPPORTUNITIES

Staff will continue to work with the Binche Whut'en and the TI'azt'en First Nation Bands to ensure the program is successful and will initiate conversations with other First Nations Communities in the RDBN that may be interested in joining the pilot program.

Respectfully submitted,

Janette Derksen
Waste Diversion Supervisor

Attachments:

1. First Nations Consolidation Pilot Agreement - Unsigned

FIRST NATIONS CONSOLIDATION PILOT

Pursuant to a Statement of Work for Depot Collection Services dated [MONTH, DAY, YEAR] (the “SOW”), MMBC Recycling Inc. carrying on business as Recycle BC (“**Recycle BC**”) and the **Regional District of Bulkley Nechako (“RDBN”)**, Recycle BC has contracted **RDBN** to collect In-Scope Packaging and Paper Product (PPP) from Customers at the Approved Depots. Capitalized terms used but not defined herein have the meaning set forth in the SOW.

This document provides an overview of a pilot pursuant to which **RDBN** will be permitted to receive In-Scope PPP from certain First Nations communities in the region. This document is intended to describe the major roles and responsibilities of both the **RDBN** and Recycle BC over the course of this pilot.

Procedure

First Nations collectors with staffed depots and/or curbside collection programs would be permitted to deliver In-Scope PPP to Approved Depots, provided the following conditions were met:

- In-Scope PPP originated from staffed depots and/or curbside collection programs
- In-Scope PPP did not originate from ICI sources (offices, businesses etc.) and/or from unstaffed bins
- In-Scope PPP is received and/or sorted at the depot into the applicable depot material categories
- In-Scope PPP is reasonably free of contamination and does not include plastic bags, comingled glass or other non-targeted or non-accepted materials

RDBN staff responsibilities:

- Coordinating with applicable First Nations communities to ensure they understand the applicable procedures and receive instructions on where to deliver material (including requesting and reviewing an operational plan for each community wanting to participate in the pilot)
- Working with Recycle BC to finalize and maintain the list of First Nations communities that will participate under this pilot
- Confirming with applicable First Nations collectors that the material originated from staffed depots and/or curbside collection programs
- Confirming with applicable First Nations collectors that the material did not originate from ICI sources and/or from unstaffed bins
- Ensuring that procedures are in place to ensure that material are received and/or sorted at the depot in the applicable depot material categories (e.g. Mixed paper separate from mixed containers)
- Rejecting material with high levels of contamination or cross-contamination, or otherwise sorting out major sources of contamination or cross-contamination prior to consolidation with depot material
- Consolidating material received from applicable First Nations with depot material (separate tracking, consolidation or weighing is not required)
- Sharing any recycling guides or other materials [Local Government] develops with respect to its recycling program with participating First Nations communities

Recycle BC responsibilities:

- Working with **RDBN** to finalize and maintain the list of First Nations communities that will participate in the pilot
- Assisting **RDBN** in coordinating with applicable First Nations

- Providing educational materials or other resources to educate First Nations communities participating in the pilot about contamination and proper multi-stream sorting practices
- Providing pick-up of consolidated material at depot via regular depot pick-up process
- Providing payment to [Local Government] for all depot material received at the per-tonne rates outlined in the SOW, including material consolidated from applicable First Nations with the depot material, which would not be differentiated for reporting or payment purposes

First Nation Communities' responsibilities:

- Delivering PPP to the designated depot location communicated by the RDBN
- Ensuring PPP originated from staffed depots and/or curbside collection programs
- Ensuring PPP did not originate from ICI sources (offices, businesses etc.) and/or from unstaffed bins
- Ensuring PPP is delivered to the depot into the applicable depot material categories (e.g. Mixed paper separate from mixed containers)
- Ensuring PPP is reasonably free of contamination and does not include comingled plastic bags, glass or other non-targeted or non-accepted materials
- Ensuring any Recycle BC-accepted film, foam, glass or OFPP collected from a First Nations community is delivered to the depot clean, sorted individually, and kept separately from other collected PPP

Pilot Timeline

This procedure is considered a pilot only. The launch date and timeline are subject to approval by both Recycle BC and RDBN.

The pilot will last one year, subject to cancellation by either the RDBN or Recycle BC with reasonable advance notice to the other party. Discussions will be held between the two parties before the one-year pilot termination to determine whether the pilot should be extended and, if so, whether the SOW should be amended to contemplate the collection of In-Scope PPP from local First Nations communities or whether new protocols, procedures and/or agreements are otherwise warranted.

Participating First Nations Communities

Phase 1

It is currently contemplated that the following First Nations communities will participate in the pilot:

First Nation Community	Material Drop Off Location	Population	# Households
Binche Whuten	Fort St James Transfer Station Depot		
Tl'azt'en		582	150

Other Remaining Communities

The following First Nations communities will be considered for inclusion in the pilot once they have notified RDBN that they are ready to drop off source-separated material at a designated depot.

First Nation Community	Material Drop Off Location	Population	# Households
Ts'il Kaz Koh (Burns Lake Indian Band)		48	
Cheslatta Carrier Nation		170	
Lake Babine Nation		1,418	543
Nadleh Whuten		279	
Nak'azdli Whut'en		985	753
Nee-Tahi-Buhn		112	
Saik'uz First Nation		456	
Stellat'en First Nation		223	84
Skin Tyee		166	
Takla Lake First Nation		250	105
Wet'suwet'en First Nation		96	
Yekooche First Nation		106	

Dated as _____, 2021

MMBC RECYCLING INC.

Regional District of Bulkley Nechako

By: _____

By: _____

Name:

Name:

Title:

Title:



REGIONAL DISTRICT OF BULKLEY-NECHAKO
MEMORANDUM

To: Chair Fisher and the Waste Management Committee

From: Alex Eriksen, Director of Environmental Services

Date: December 16, 2021

Subject: Update – Handling Procedures for Hazardous Materials

RECOMMENDATION

That the Board receive this memo.

BACKGROUND

At the November 4, 2021, Waste Management Committee meeting, the committee expressed an interest to understand the RDBN's procedures for accepting and disposing of Hazardous Materials.

As per the Environmental Management Act:

"Hazardous Waste" means dangerous goods if they are no longer used for their original purpose, and meet the criteria of the federal dangerous goods regulations, including those that are recycled, treated, abandoned, stored or disposed of, intended for recycling, treatment or disposal or in storage or transit before recycling, treatment or disposal

Example: PCB wastes, biomedical wastes, wastes containing dioxin, waste oil, waste asbestos, waste pest control product containers and wastes containing pest control products, including wastes produced in the production of treated wood products using pest control products, leachable toxic waste, waste containing tetrachloroethylene and polycyclic aromatic hydrocarbon," - EMA

HOUSEHOLD HAZARDOUS WASTE (HHW)

The RDBN Landfills and transfer stations routinely receive for disposal a number of the household hazardous wastes often unknowingly or unidentifiably. Admittedly, this is not an ideal practice that should be continued due to the risk these substances may pose to our staff and the public at our facilities. Environmental impacts are mitigated by landfill design and practices. Many hazardous materials have procedures that are required prior to disposal which means that hidden wastes are not always handled or disposed of correctly. The RDBN's Solid Waste Management Plan (2018) identified that the RDBN needs to increase public education and communication on proper handling and the correct collection locations for HHW to improve use of existing programs. (Section 4.1.7 SWMP) This may result in a better HHW program.

A number of Hazardous Wastes that RDBN waste facilities receive in household quantities are associated with an Extended Producer Responsibility Program (EPR) or other recycling program. EPRs include paint products and pesticides, automotive and household batteries and electronics. Paints and pesticides do not require RDBN staff to handle or transport, but batteries and electronics are prepared for transport by staff. Ozone depleting substance are removed from appliances by a third-party program before disposal.

ASBESTOS DISPOSAL

The Hazardous Waste Regulation (HWR) defines Asbestos Containing Substance (ACM) as:

"Waste asbestos" as a hazardous waste if the waste contains more than 1%, by weight, of asbestos fibers and the waste is either a powder/dust or friable, or asbestos fibers are no longer bound in a binder material/matrix."

Asbestos is a common component of building materials (in particular, those from older buildings constructed before 1990). Exposure to any type of asbestos increases the health risk of cancer of the lung, larynx, and ovary, as well as mesothelioma, and non-malignant lung and pleural disorders, including asbestosis, pleural plaques, and pleural effusions. There have also been positive associations between asbestos exposure and cancer of the pharynx, stomach, and colorectum.

As a third party secure landfill, the RDBN's Clearview and Knockholt Landfills are authorized to receive and dispose of asbestos waste under regulation of our site Operational Certificates. The RDBN follows stringent procedures for approving, handling, and exposure control for the acceptance of asbestos, summarized as follows.

1. Generator request a disposal providing the quantity of waste, time of disposal and requires transport manifest. Approval is granted by the Director of Environmental Services or delegate.
2. Approved loads require 24-hours' notice to prepare a suitable pit or trench at the active face, into which the loads are directly dumped. All ACMs must be sealed in plastic (double bagged) to prevent any release of fibers.
3. Once a load has been dumped into the pit, the waste is immediately covered with 0.5m of suitable cover material and not disturbed in the future.
4. Haulers are charged \$90 MT plus a \$100 handling fee per load of asbestos containing material.
5. Documents are submitted to the MoECS via the RDBN after disposal.

The exposure control plans are designed to eliminate any exposure of RDBN staff to asbestos and includes educational material, detailed handling procedures, personal protective equipment usage, and other mitigation procedures.

CONTAMINATED SOILS DISPOSAL

Soil contamination occurs when human-made chemicals, such as hydrocarbons and heavy metals, find their way into the earth, altering the natural soil environment. Generally, soil contamination is cited because of non-organic farming practices, industrial activity, and improper waste disposal. Common chemicals involved in soil contamination include petroleum hydrocarbons, lead, solvents, pesticides and polynuclear aromatic hydrocarbons, such as naphthalene. Improper disposal of this material can cause environmental impacts to the surrounding area, water ways or the landfill's leachate treatment process.

As a third party secure landfill, the RDBN's Clearview and Knockholt Landfills are authorized to receive and dispose of contaminated soils under regulation of our site Operational Certificates. The RDBN follows stringent procedures for approving and accepting contaminated soils, summarized as follows:

1. Generators submit disposal request forms provided by the RDBN, providing the quantity and properties of the soil, time of disposal, analytical results for samples acquired as per the Contaminated Soils Regulation (CSR) sampling guidelines and a transportation manifest.

2. Analytical results are compared to hazardous waste limits and approval is granted by the Director of Environmental Services or delegate only if no parameters exceed the hazardous limit for that substance and soil moisture content is suitable. The RDBN does not accept soils in saturated or slurry form.
3. Approved loads require 24-hours' notice prior to delivery. Contaminated soils are dumped on the active face and generally utilized as daily cover.
4. Haulers are charged \$60/MT for contaminated soils and \$25/MT for clean soils.
5. Documents are submitted to the MoECS via the RDBN after disposal.

Exposure to contaminated soils does not pose a risk to landfill staff, as the loads are dumped and processed in open air conditions. Volatile compounds will evaporate, and liquid compounds will remain entrained in the soil matrix.

Respectfully Submitted,



Alex Eriksen
Director of Environmental Services



**REGIONAL DISTRICT OF BULKLEY-NECHAKO
MEMORANDUM**

To: Chairperson Fisher and the Waste Management Committee
 From: Alex Eriksen, Director of Environmental Services
 Date: December 16, 2021
 Subject: Department Activity Update

RECOMMENDATION

(All/Directors/Majority)

1. That the Committee receive the update.

DEPARTMENT ACTIVITY

1. Administration: 2022 Capital and Operational Budget Development.
2. Administration: The recruitment campaign for the Solid Waste Advisory Committee commenced
3. Contracts: no new contracts
4. Clearview Landfill: 100% daily cover requirements in place
5. Knockholt Landfill: 100% daily cover requirements in place
6. Knockholt Landfill: Phase 3 Expansion Design was approved on November 17.
7. Burns Lake Transfer Station: Nothing to report.
8. Smithers-Telkwa Transfer Station: Nothing to report.
9. Granisle Transfer Station: Nothing to report.
10. Southside Transfer Station: Nothing to report.
11. Area 'D' Transfer Station: Wood sorting bays and wood bin loading dock completed.
12. Ft. St. James Transfer Station: Metal pile removed.
13. Vanderhoof Transfer Station: Nothing to report.
14. Ft. Fraser Water & Sewer: Nothing to report
15. Waste Haul: Wood waste hauling from ADTS and FSJ via roll-off bin has commenced.
16. Field Operations: Grinding of Wood Waste, to be utilized as landfill cover commenced.

Respectfully submitted,

A handwritten signature in blue ink that reads "Alex Eriksen".

Alex Eriksen
 Director of Environmental Services

Attachments: none



REGIONAL DISTRICT OF BULKLEY-NECHAKO
MEMORANDUM

To: Chair Fisher and Waste Management Committee

From: Alex Eriksen, Director of Environmental Services

Date: December 16, 2021

Subject: Knockholt Landfill Update – Waste Re-routing Plan

RECOMMENDATION

That the Committee receive this memo.

BACKGROUND

In May 2020, staff provided an update to the Board of Directors on the status of the Knockholt Landfill (KLF) and the need to proceed with an expansion (Phase 3B) a year ahead of schedule due to the disposal of large volumes of cardboard and the addition of pipeline camp waste. The Board approved an amendment to the budget based on this need to complete the expansion in 2020. Staff immediately began working on the expansion design and authorization from Ministry of Environment and Climate Strategy (MoECS).

During the design process, a potential groundwater issue in the expansion footprint was identified and a geotechnical investigation was undertaken in July 2020 to determine subsurface conditions. The investigation found that there was a perched water table in a portion of the expansion area. The 2016 Landfill Criteria treats all subsurface water as ground water and a new expansion design was required. The MoECS was clear that an assessment of the landfill and approval for a re-designed expansion would not occur in 2020.

On September 22, 2020, due to the express need for expansion and with favourable soil conditions adjacent to the Phase 3A (Active Landfill), authorization was given to the RDBN to construct a 20m extension of Phase 3A, which would provide enough airspace until the 2021 construction season (June/July). Phase 3A extension was completed on October 20, 2020.

For the remainder of 2020 and throughout 2021, Staff and the Engineer (XCG Consulting) continued working towards a robust design for Phase 3B. In December 2020, Staff was informed that an updated Design, Operation and Closure Plan (DOCP) was required by the MoECS before they would consider any new expansion designs for approval. XCG created a new DOCP which was submitted to MoECS in April 2021. The detailed Phase 3B/C design brief was submitted in May 2021. Due to the ground water issues in the expansion area, the design was highly scrutinized and went through several review processes before receiving final approval on November 17, 2021. There were other circumstantial delays that slowed this approval process by approximately one month.

Unfortunately, conditions in November were not favourable for construction and the RDBN was only able to achieve preparatory works for a 2022 completion. All layout, materials acquisition and site rearrangement have been completed so Staff will be ready to begin construction as soon as the conditions are favourable in 2022.

PROJECTED CAPACITY OF PHASE 3A

The delay in expansion design approval has created a very challenging situation at the Knockholt landfill. At the current rate of disposal, Staff estimates that Phase 3A will be full by May 1, 2022. If weather permits, Staff may be able to construct the transition from Phase 3A to 3B/C in December 2021 which will allow space for a structural berm and for a steeper slope on the active face, which would result potentially in two (2) additional months of airspace. However, as these estimates are uncertain, it is necessary to try and reduce the volume of waste received at KLF.

KNOCKHOLT LANDFILL WASTE RE-ROUTING PLAN

In an effort to minimize the volume of waste received at the Knockholt Landfill to extend the airspace available at KLF until the Phase 3/C expansion could be completed, staff began re-routing large projects to the Clearview Landfill (CLF). In June of 2021 staff developed a more formal re-routing plan with the purpose of ensuring that disposal services for Municipal Solid Waste (MSW) were prioritized over non-essential projects. The Clearview landfill currently does not have capacity issues and can receive additional waste if and when the plan is implemented. The KLF re-routing plan is as follows:

Stage 1 (April 2021)

- No project greater than 5 loads (tandem axle or bin) will be accepted at KLF - re-routed to Clearview.
- Out-of-Region waste - directed to Clearview (or denied disposal)

Stage 2 (January 2022)

- No new projects greater than 1 load (tandem axle or bin) accepted at KLF - re-routed to Clearview
- Utilize only chipped wood waste as daily cover and minimize loads
- 40% of Burns Lake Transfer Station's waste (2 loads per week) - re-routed to Clearview
- Out-of-Region waste disposal agreements (for CLF) - will not be renewed

Stage 3 (May 2022 - based on aerial and onsite visual monitoring)

- No Commercial loads will be accepted at Knockholt - re-routed to Clearview
- No camp waste accepted at Knockholt – re-routed to Clearview
- No new projects greater than 5 load (tandem axle or bin) at Clearview

Stage 4 (Summer 2022 based on aerial and onsite visual monitoring)

- Full waste diversion to the Clearview Landfill except for municipal waste from the District of Houston (as there is a public transfer station at the Knockholt Landfill)

The Knockholt landfilled will be monitored closely and every effort to maximize airspace to avoid implementing Stage 3 and 4 will be made.

IMPACTS

The impacts that this plan will have on Clearview Landfill while accommodating the re-routing plan will create challenges but are manageable. Increased staffing will require recruitment and funding; however, we currently have casual staff willing to assist and contingency wage budgets to mitigate the financial impact. The re-routed waste will also be accompanied by additional operating costs for equipment and site maintenance at CLF, however there may be a savings with reduced costs at KLF.

The additional waste will affect the development schedule of CLF, but the construction of Sub-cell in 2020 and 2021 will provide enough space for this short-term re-routing plan. The current phase still has one sub-cell remaining so this plan will not create any unneeded urgency to develop the next phase.

Should the implementation of Stage 3 be necessary, the financial impact for Waste Generators/Haulers will be significant and there may be consideration to waive tip fees for all re-routed users. The following chart shows the monthly revenue stream for C&D at Knockholt in 2020 and the potential loss in revenue for each month of waived tip fees.

2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
KLF Revenue	\$3,032	\$5,522	\$4,041	\$6,498	\$9,243	\$9,448	\$9,690	\$4,561	\$12,821	\$7,405	\$6,304	\$3,088

CLOSURE

The Knockholt Landfill Phase 3 expansion challenges have led to the unfortunate need to develop and implement a Waste Re-routing Plan, which will have impacts for both the RDBN and waste generators in our region. Staff has made and is making all efforts to provide continual disposal services to our residents and businesses and will monitor the airspace and the landfilling plan closely to minimize the disruption to the western RDBN waste management services.

Respectfully Submitted,



Alex Eriksen
Director of Environmental Services