



Solid Waste Management Plan

NCRD Public & Technical Advisory Committee Meeting

Presented by Sperling Hansen Associates

March 16, 2022

Meeting #1



Agenda

• Introductions

NORTH COAST

- Project Outline
- Planning Process
- NCRD Objectives & Goals
- Roles & Responsibilities
- NCRD System Overview
- Waste Diversion Opportunities





Technical Memorandum #1 System Overview & Waste Diversion





Planning Team

North Coast Regional District

- > Daniel Fish, CAO
- > Tim Des Champ, Mainland Recycling Manager
- Rob Kidd, Island Solid Waste
 Manager
- > Other NCRD Staff

PTAC

NCRD Board of Directors

Sperling Hansen Associates (SHA)

- > Tony Sperling, Senior Reviewer
- » Nicole Kohnert, Project Manager
- » Roger Tooms, Sr. Project Advisor
- Rahim Gaidhar, Project Coordinator
- Chloe Heatherington, Engineering Assistant
- > Drafting Personnel





PTAC

Membership Name

Lisa Pineault

Des Nobels

Ed Landrath

Erin Mutrie

Organization Hans Seideman **City of Prince Rupert** Tanya Ostrom City of Prince Rupert Danielle Myles-Wilson District of Port Edward Bret Johnston Village of Masset Village of Queen Charlotte Kazamir Falconbridge Village of Port Clements **Skidegate Band Council** Tracy Hageman Old Massett Village Council Patrika McEvoy Council of the Haida Nation Stephen Grosse Rina Gemeinhardt Kitsumkalum Indian Band Leonard Cook Ministry of Environment & Climate Change Strategy Mike Richardson **Big Red Enterprises** NCRD BoD, Electoral Area A Evan Putterill NCRD BoD, Electoral Area E **Regional Recycling Advisory Committee** Metlakatla First Nation Christina Jewell Dirt Nerd Soil Company **Emily Peer-Groves Dirt Nerd Soil Company**

https://www.arcgis.com/home/web map/viewer.html?webmap=c71671 dd1ea74cc4b4581f622fcbb6a7

NCRD STAFF: Daniel Fish, CAO

Tim Des Champ, Superintendent of Waste Management Rob Kidd, Manager, Islands Solid Waste





Project Outline & Planning Process







					Q4 2021 Q1 2022 Q2 20			Q2 2022 Q3 2022			2	Q4 2022				Q1 2023			Q2 2023					
ID	Task	Start	End	Weeks	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
0	Project Management, Administration, and Communication	Project Award	Project Conclusion																					
1 Start-up and Background Information Review																								
1.1	Kick-Off Meeting	12-Nov-21	12-Nov-21	0	•																			
1.2	Document Review	15-Nov-21	26-Nov-21	1																				
2	Develop and Finalize Technical Memos																							
2.1	Draft Techical Memo 1, 2 and 3	15-Nov-21	30-May-22	28																				
2.2	PTAC Meetings #1, #2 and #3	1-Feb-22	30-Apr-22	12					•	•	•													
3 Develop and Finalize Cost Recovery Options																								
3.1	Draft Technical Memo 4 and Consultation & Engagement Plan	1-May-22	30-Jun-22	8																				
3.2	PTAC Meeting #4	15-Jun-22	15-Jun-22	0								•												
3.3	Prepare Draft 1 SWMP Update for Staff Board Report	1-Jun-22	31-Jul-22	8																				
4	Conduct Public Consultation and Engagement						-			-														
4.1	Develop Poster Boards and Arrange Meetings	1-Jul-22	30-Sep-22	13																				
4.2	Develop & Maintain Materials for Website	1-Jan-22	31-May-23	73																				
4.3	Conduct Open Houses	1-Aug-22	30-Sep-22	8										•	•									
4.4	Conduct Virtual Presentations	1-Aug-22	30-Sep-22	8										•	•									
4.5	Develop Draft Consultation Summary Report	1-Oct-22	31-Oct-22	4																				
5	Arrange and Conduct NCRD Board Workshop						-			-														
5.1	Finalize Technical Memos, Draft 1 SWMP & Consultation Summary Report for Workshop	1-Oct-22	30-Nov-22	8																				
5.2	Conduct Board Workshop	1-Nov-22	30-Nov-22	4													•							
6	Draft and Finalize SWMP			-			-			-			-		-	_								
6.1	Prepare Draft 2 SWMP Update for adoption	1-Dec-22	31-Jan-23	8																				
6.2	PTAC Meeting #5	1-Feb-23	28-Feb-23	3																•				
6.3	Prepare Final SWMP for Staff Board Report	1-Feb-23	31-Mar-23	8																				
6.4	Finalize SWMP Update for Submission to ENV	1-Apr-23	30-Apr-23	4																				
	Final NCRD SWMP Submission		1-May-23																				♦	
	Cumulative Project Timeline	12-Nov-21	1-May-23	76	+																		→	





BC Guide to SWMP Planning

Waste Hierarchy



Guiding Principles

- 1. Promote zero waste approaches and support a circular economy
- 2. Promote the first 3 Rs (Reduce, Reuse, Recycle)
- 3. Maximize beneficial use of waste materials and manage residuals appropriately
- 4. Support polluter and user-pay approaches and manage incentives to maximize behaviour outcomes
- 5. Prevent organics and recyclables from going into the garbage wherever practical
- 6. Collaborate with other regional districts wherever practical
- 7. Develop collaborative partnerships with interested parties to achieve regional targets set in plans
- 8. Level the playing field within regions for private and public solid waste management facilities





NCRD Principles and Objectives

- 1. Implement this plan in a way that will minimize inconvenience to residents
- 2. Ensure that possible negative reactions to some plan policies are addressed during implementation
- 3. Ensure that the public and system users are participants in any modifications to this plan
- 4. Provide a framework to resolve disputes arising from implementation of the plan
- 5. Ensure that the entire system is funded to accomplish the goals of this plan
- 6. Focus the SWMP on:

Improving the operational and financial efficiency of the NCRD waste management systems Assisting users to improve their participation in waste segregation and diversion programs

Principles & Objectives Continued

- c) Continuing to monitor solid waste management facilities and services
- d) Maintaining and improving relationships with large waste generators
- e) Maximizing compliance and efficiency with new and existing product stewardship programs
- f) Improving service delivery to rural communities
- g) Developing a strategy to reduce single use items
- h) Developing a food waste reduction strategy
- i) Improving recycling collection in the Mainland and Island Solid Waste Service Areas
- j) Developing options for compost collection and organics processing in both Service Areas
- k) Expanding the list of prohibited wastes
- I) Collecting household hazardous waste
- m) Enhancing and enforcing solid waste source control for the Industrial, Commercial and Institutional (ICI) sector
- n) Making recommendations respecting the acceptable cost of recycling ICI cardboard and printed paper and plastic.









a)

b)

Goals and Targets

Provincial

- Lower the MSW per capita disposal rate to 350 kg by 2020
- Have 75% of BC's population covered by organics disposal restrictions by 2020

22/23 Provincial Update: 460 kg/capita > 420 kg/capita by 24/25 80% covered by organics > 80 % by 24/25

NCRD

2021 Disposal Rate

- Population = 18,181
- Waste disposed in 2021 = 12,894 tonnes
- 710 kg/capita based on 2021 Census
- From estimated 628 kg/capita in 2019
- 2019 provincial average = 501 kg/capita

Can vary depending on how data is collected and interpreted



Mainland: 890 kg/capita

Island: 480 kg/capita







Interested Parties

Stakeholder Groups in the NCRD

First Nations

- Gitga'at First Nation
- Gitxaala First Nation
- Kitselas First Nation
- Kitsumkalum First Nations
- Lax Kw'alaams Band
- Metlakatla First Nation
- Old Massett Village Council
- Skidegate Band Council
- Council of the Haida Nation

Commercial Haulers

- Big Red Enterprises
- Clearbrook Trucking
- Jims Mowing
- Skeena Waste and Recycling
- Rupert Disposal
- Tickers Hauling

Municipalities

- City of Prince Rupert
- District of Port Edward
- Village of Queen Charlotte
- Village of Port Clements
- Village of Masset

Industry and Government Agencies

- Port of Prince Rupert
- Prince Rupert Grain
- Ridley Terminals
- DP World Prince Rupert
- BC Ferries
- BC Government Ministries
 Interest Groups
- Prince Rupert Environmental Society
- Dirt Nerd Soil Company

Institutions

- School District 50 and 52
- Northern Health Facilities



System Overview

Islands

- 1. Islands Landfill and Recycling Depot Serves Haida Gwaii as a whole
- 2. Masset Transfer Station
- 3. Skidegate Transfer Station
- 4. Sandspit Transfer Station
- 5. Queen Charlotte Recycling Depot
- 6. Masset Recycling Depot
- 7. Community Collection Bins (Tlell, Sandspit)

Most of the recyclable materials are consolidated and shipped to NCRD RRD for processing and marketing

Mainland

- 1. Prince Rupert Landfill (City of Prince Rupert) Serves Municipalities, Electoral Areas and First Nations
- 2. NCRD Regional Recycling Depot Serves region as a whole
- 3. Dolphin Island Eco Depot and Transfer Station (Kitkatla)
- 4. Prince Rupert Bottle Depot (private)
- 5. Lax Kw'alaams Transfer Station (Lax Kw'alaams)
- 6. Metlakatla Recycling Program (Metlakatla)
- 7. Prince Rupert Curbside Recycling Collection Program (Recycle BC, City of Prince Rupert)





Regional District or Region	RDOS (2008)	TNRD (2011)	RDNO (2012)	CSRD (2013)	SCRD (2015)	Metro Vanc. (2016)	RDKS (2017)	RDEK (2018)	Haida Gwaii (Gallant, 2007)	Haida Gwaii (Lamm, 2019)	
Category											
Paper and Paperboard	10%	15%	15%	16%	9%	19%	20%	13%	25%	13%	1,67
Plastics	12%	11%	14%	18%	17%	19%	15%	14%	10%	14%	1,80
Glass	1%	2%	3%	2%	2%	3%	3%	3%	6%	3%	387
Metals	7%	4%	7%	6%	2%	3%	3%	5%	4%	4%	516
Compostable Organics	40%	44%	28%	34%	18%	27%	20%	30%	20%	25%	3,22
Non-compostable Organics	0%	1%	10%	4%	0%	11%	12%	8%	6%	8%	1,03
Construction - Demolition	10%	12%	7%	3%	25%	9%	4%	11%	7%	10%	1,28
Textiles	4%	4%	0%	0%	9%		0%	5%	7%	5%	645
Household Hygiene	0%		7%	4%	2%	6%	14%	5%		5%	645
Household Hazardous Waste	1%	2%	4%	6%	0%	1%	5%	2%	1%	2%	258
Electronics	1%	2%	3%	5%	6%	2%	1%	2%		2%	257
Bulky Waste	4%		0%	1%	8%	0%	2%	2%		6%	774
Fines / Other	10%	5%	2%	1%	4%	1%	2%	2%	14%	3%	387

Lamm (2019) Waste Characterization for Islands Solid Waste Area (Qualitative)

Waste Composition

NORTH COAST ONAL DISTRICT



Islands Landfill

Paper **Plastics Organics** CRD Waste







Service Agreements

- Old Massett Village Council (TS facility use)
- Skidegate Band Council (TS facility use)
- Big Red Enterprises (Islands collection contract)
- Gitga'at First Nation (RRD facility use)
- Lax Kw'alaams Band (RRD facility use)
- Metlakatla Governing Council (RRD facility use)
- Village of Masset (SW services)
- Village of Port Clements (SW services)
- Village of Queen Charlotte (SW services)
- Stewardship Agencies

- Drop Off Depots (Islands 5; Mainland 2+)
- City of Prince Rupert Curbside Recycling Program (packaging & printed paper) started Jan 2022
- Waste Segregation at disposal sites (EPR items, scrap metal, wood/yard waste for burning, empty drums, propane tanks, vehicle hulks)
- Initiatives already implemented under the 1996 SWMP

Existing Diversion Strategies

- Stewardship Programs (EPR) [Islands and Mainland]
 - BCUOMA (used oil/filters/antifreeze/containers)
 - MARR (major appliances white goods)
 - Recycle BC (packaging and printed paper): RRC & PR Curbside Pgm
 - Call2Recycle (household batteries)
 - ElectroRecycle (small appliances and power tools)
 - Encorp Pacific (beverage containers)
 - Product Care Recycle (paint, HHW, lights and smoke alarms)
 - > Tire Stewardship BC (tires)











Waste Diversion Tools

Administrative/Governance Initiatives:

Current bylaws specify materials to be diverted and fees, restrict disposal of recyclable material, and vary tipping fees to incentivize/disincentivize users of disposal facilities.

Waste Prevention Initiatives:

Not currently a focus in the NCRD but can include smart shopping and education.

Waste Reuse Initiatives:

Paint Share and thrift/used goods stores are good examples of reuse currently in place in the NCRD.





Opportunities and Options

Kitimat Stikine Regional District

- Reduce single use plastics (bylaws)
- Conduct targeted campaigns that support 3Rs
- Develop a building/construction contractor's guide
- Support reuse & repair events
- Encourage deconstruction instead of demolition
- Increase diversion of CRD waste
- Provide education and outreach
- Divert organics

Central Coast Regional District

- Proved an integrated education and communication program
- Provide a community composting operation at the new Eco-Depot
- Provide regulatory incentives to encourage source separation

Other Common Initiatives in BC

- Organics bans at disposal facilities
- Deconstruct mattresses and box-springs
- Investigate alternative use of drywall cut ends
- Include wood chips in daily cover (reduce soil cover needs use for bio-cover)
- Encourage textiles and clothing reuse through on-site donation bins
- Cooperate with neighboring jurisdictions to reduce shipping costs





Stretch Break!



15 minutes

KAISER PERMANENTE.

PTAC Meeting No. 1 - NCRD SWMP Update





A-1 Improve the operational efficiency of the NCRD waste management system.

- Regularly examine each solid waste management service to measure and refine processes, employees/contractors, technology and financials with the goal to continually improve these aspects to improve operational efficiency
- Develop a set of parameters that can be assessed quarterly or annually by the service area manager:
 - quantity of each type of material handled by source (jurisdiction) and type (Residential, ICI, CRD)
 - costs (wages, utilities, maintenance, trucking, other)
 - revenues and number of operating hours.
- Helps make good data available to determine the cost per tonne of material managed, plan for changes to the services, manage assets and prepare cost/benefit analyses for Board decisions.

Challenge: Staff time





A-2 Continue monitoring solid waste management facilities and services. As described in A-1, this initiative can be accomplished through the collection of service specific data and will support operational efficiency improvements.

A-3 Improve service delivery to rural and underserved communities in the Island and Mainland service areas.

Services in the NCRD rural communities has undergone recent improvements initiated by the NCRD directly and by other jurisdictions, including increased access to facilities through management agreements and extended operating hours.

Discussion: "What improvements are needed and where?"





A-4 Improve transportation of materials between service areas.

- Examine in detail the routes (including ferry schedules) and costs of transporting recyclable and refuse between the Islands facilities and the Mainland
- Essential to understanding where improvements can be made
- Collect data to assess whether or not shipments are efficient or need to be reconfigured, including outsourcing versus in-house provision of the transportation, compaction of materials versus hauling loose, and scheduling shipments
- Review site access for contractors and availability of switch bins.

<u>Challenges</u>: Data availability, fluctuating prices & equipment costs





A-5 Develop cost recovery models.

This initiative is the primary topic of Technical Memo 4 and will be covered in detail.

A-6 Establish a permanent Islands Solid Waste Advisory Committee.

- Carry forward initiative from the 1996 SWMP
- Reestablishment of the Islands Solid Waste Advisory Committee will assist with the management of the Islands Solid Waste service





A-7 Expand the list of prohibited wastes.

• Expanding the list of waste prohibited from disposal supports the diversion of materials for beneficial reuse or recycling

<u>Caution/Challenge</u>: ensure there are viable, sustainable and economical options available

A-8 Update Bylaws.

Current bylaws do not restrict EPR materials from landfills and curbside programs and may be out of compliance with EPR agreements (e.g. Bylaw No. 587 includes charges for the disposal of major appliances).

<u>Challenge</u>: continued access to drop off and curbside collection needed for majority of households





R-1 Fund a Waste Reduction Coordinator.

- Carry forward item from the 1996 SWMP (dedicated full or part time employee or contractor)
- Common and specialty skilled position to assist with implementing the SWMP and helping ensure goals and targets are being met and barriers/challenges overcome in the region as a whole
- Can assist in an operational capacity, but normally focused and dedicated to:
 - > coordinating events
 - > delivering status reports
 - interacting with Interested Parties

Challenge: Cost and time for supervision

Diversion Potential: quarter percent improvement in the diversion of 15 divertible material categories; **483 tonnes per year** (3.7% of available quantities in the waste stream)





R-2 Assist users and improve their participation in waste segregation and diversion programs.

- Determine if participation is low and why it is low (e.g. public survey) and assess what is needed such as public engagement, incentives and/or signage improvements in entire Region
- RecycleCoach (mobile phone App) and/or additional staff (see R-1)

<u>Challenge</u>: available staff resources

Diversion Potential: Included in Item R-1





R-3 Maximize compliance with new and existing stewardship programs.

- As more agreements with product stewards are secured, monitor compliance with the terms and conditions
- Ensure maximum revenues are received and minimize fines & non-compliance notices
- Make sure the terms and conditions are clearly laid out and in writing with acceptable service change notices and possible compensation for withdrawal
- Good communication with each steward is also very important in order to maintain proper service levels

<u>Challenge</u>: available staff resources, storage space at Island facilities, shipping costs for additional materials

Diversion Potential: 30% increase in participation; **400 tonnes/year** (10% of available recyclables in waste stream)





R-4 Optimize recycling efficiencies by increasing diversion rates for residential materials or commercial generators that are below average.

- Monitor sources of recyclable materials that show a decline in quantities generated on a monthly or quarterly basis to be proactive and ready for possible revenue decreases
- Keep track of markets which can decline on a regular basis depending on many economic factors regionally and globally
- Regularly research alternate generators that could help balance or mitigate declines in quantity received and processed
- Assess participation in recycling programs (e.g. 'ride alongs' and face-to-face meetings with businesses)

<u>Challenge</u>: available staff resources, available space at Island facilities, shipping costs for additional material

Diversion Potential: **100 tonnes/year** (2% of available recyclables in waste stream) {without additional staff}





R-5 Develop a strategy to reduce single-use items.

- Focus on reducing the use of single-use items such as plastic grocery bags, take-out containers and straws (common marine and litter debris)
- Coastal cities have enacted bans (Tofino, Ucluelet)
- Provincial and national campaigns and regulatory changes (RDs still require approvals for bylaws banning single use items)

<u>Challenge</u>: alternative products availability

Diversion Potential: **10 tonnes/year** (0.05% of available waste stream) {North America estimate – 50 kg/capita generation}





R-6 Develop a food waste reduction strategy.

- Largest component of refuse going to landfill (low hanging fruit) so will make largest impact on diversion
- Reduce GHGs, convert waste to a valuable product, improve soils, and conserve airspace
- Encourage food waste reduction first (education) update NRCD website, attend events
- Backyard composting (e.g. subsidize and educate)
- Develop processing capacity
- Include in OCPs and Regional Growth Plans
- Extensive studies available

Challenge: staff resources & processing capacity development

Diversion Potential: **900 tonnes/year** (30% of available compostable material in waste stream) {estimate – 52 kg/capita generation}





R-7 Collect Household Hazardous Waste (HHW).

- Corrosive, ignitable, infectious, reactive and toxic materials have potential to harm human health and the environment
- Paint, solvents, oils, acids, sludges, pesticides, cleaners
- Collect in accordance with regulations and protect workers
- EPR: Product Care (17 tonnes in 2020) and BCUOMA (thousands of litres in 2020): implement collection in other depots where there is space and worker/public safety
- Implement Paint Share on the Island

<u>Challenge</u>: Stewardship agreements, availability of space at Island facilities, shipping costs for additional materials

Diversion Potential: **5 tonnes/year** (2% of HHW in waste stream)

Challenge: Agreements with not-for-profit organizations

Diversion Potential: 30 tonnes/year (5% of available textiles in waste stream)

NCRD Residential Opportunities

R-8 Encourage reuse such as Thrift Stores.

- Support existing thrift stores in Prince Rupert Masset and Queen Charlotte
- Add 'reuse' message to NCRD website
- Consider setting up donation bins at SWM facilities and other community venues











R-9 Work with local bicycle retailers for inclusion in the Tire Stewardship BC bicycle tire program.

- Current closes location to drop off bicycle tires/tubes is Terrace (McBike Shop)
- Prince Rupert and Masset have bicycle shops and could be encouraged to work with Tire Stewardship BC to set up tire/tube drop off

Challenge: Host location for stewardship agreement

Diversion Potential: **1.8 tonnes/year** (~1,760 tires/year at 1 kg per tire/tube)





NCRD ICI Opportunities

I-1 Encourage initiatives for commercial organics diversion.

- Encourage food waste reduction first (education) update NRCD website, attend events
- Show how generators can save money on tipping fees by reducing waste or finding alternative uses for organics (animal feed, compost)
- As with R-1 additional staff may be needed
- Implement disposal surcharge and restrict organics from the ICI sector which can encourage composting and digester capacity development
- Phase in slowly

Challenge: availability of alternatives

Diversion Potential: **230 tonnes/year** (50% of available ICI food waste – 26 kg/capita average food waste from food service in high-income countries)





NCRD ICI Opportunities

I-2 Enhance and enforce ICI solid waste source control.

- Starts with education update NRCD website, attend events, work with large generators
- Track commercial/industrial versus residential quantities
- Assist with waste audits and use progress to showcase businesses and support marketing (e.g. Green Businesses)
- Disincentives can drive behaviour changes such as tipping fee surcharges for recyclable material and restrictions on disposal
- Ensure alternatives to disposal are available (reduce, reuse, recycle)

Challenge: availability of alternatives

Diversion Potential: **375 tonnes/year** (15% of ICI waste stream which is estimated to be 50%)





NCRD ICI Opportunities

I-3 Recover costs of ICI packaging and printed paper processing.

This initiative will be explored as part of Technical Memo No. 3





NCRD CRD Opportunities

CRD-1 Clean wood waste diversion and re-use.

- Restrict the disposal of clean wood to divert cut ends, branches and other clean wood to the burn pile, or make available for salvage
- Avoid burning treated wood
- Set tipping fees for clean wood significantly lower than 'dirty' wood to provide incentive to separate, sort and save
- Track quantities diverted

Challenge: Stockpiling space at facilities





Diversion Potential Summary

2,530 tonnes

Initiative	Waste Reduction, Reuse and Recycling	Diversion Potential (Tonnes)
A-1	Improve the operational efficiency of the NCRD waste management system	N/A
A-2	Continue monitoring solid waste management facilities and services	N/A
A-3	Improve service delivery to rural and underserved communities in the Island and Mainland service areas	N/A
A-4	Improve transportation of materials between service areas	N/A
A-5	Develop cost recovery models	N/A
A-6	Establish a permanent Islands Waste Management Committee	N/A
A-7	Expand the list of prohibited wastes	N/A
A-8	Update Bylaws	N/A
R-1	Fund a Waste Reduction Coordinator	483
R-2	Assist users and improve their participation in waste segregation and diversion programs	See R-1
R-3	Maximize compliance with new and existing stewardship programs	400
R-4	Optimize recycling efficiencies by increasing diversion rates for residential materials or commercial generators that are below average	100
R-5	Develop a strategy to reduce single-use items	10
R-6	Develop a food waste reduction strategy	900
R-7	Collect household hazardous waste (HHW)	5
R-8	Encourage reuse such as thrift stores	30
R-9	Work with local bicycle retailers for inclusion in the Tire Stewardship BC bicycle tire program	1.8
I-1	Encourage initiatives for commercial organics diversion	225
I-2	Enhance and enforce ICI solid waste source control	375
I-3	Recover costs of ICI PPP processing	N/A
CRD-1	Clean wood waste diversion and re-use	N/A
	Total waste diversion potential	2,530





Next Steps

- Technical Memorandum No. 2 Waste Disposal
 PTAC Meeting Beginning of May
- Technical Memorandum No. 3 Cost Recovery & Public Consultation Plan
 PTAC Meeting Middle of June
- Public Consultation August/September (survey, events)





Sandspit Transfer Station

The STS is accessible via Copper Bay Mainline road, approximately 10km south of Sandspit.

The site has been operating privately, however the NCRD will soon be named as the operators on the amended STS permit.

The location of the transfer station may no longer be efficient and so the NCRD is pursuing potential new locations that would serve Sandspit and nearby community residents.



Figure 1: Sandspit Transfer Station Location





Transfer Station Relocation Criteria

Preliminary criteria to evaluate potential locations:

- Adequate storage space for stockpiled materials such as scrap metal and Freon containing goods, tires, vehicle hulks, and wood
- Within an appropriate land use area as per Zoning Bylaw, shown in Figure 2
- Use of required setbacks to water bodies (30m), water wells (60m), and property boundaries (3m)
- Minimum distance from High Smoke Sensitivity Zones (if open burning is conducted under the operating permit)
- No impact on traffic/roads
- Reasonable distance to ferry
- Appropriate setback from residents (nuisance issues: noise, dust, litter)
- · At least 1 ha lot and low topography









Typical Transfer Station Layout

FEATURES:

- Yard waste/brush collection
- Major appliances collection
- Pressurized tank collection
- Tire stockpile
- Scrap metal collection
- Lidded bins
- Guard rails
- Attendant trailer
- Fencing/gate
- Solar energy
- Bin bays (refuse & recyclables)
- Free store



