



NORTH COAST
REGIONAL DISTRICT



SPERLING
HANSEN
ASSOCIATES

Solid Waste Management Plan Update

NCRD Public & Technical Advisory Committee Meeting

Presented by Sperling Hansen Associates via Zoom

May 10, 2023

Meeting #5 – Solid Waste Management Services Review



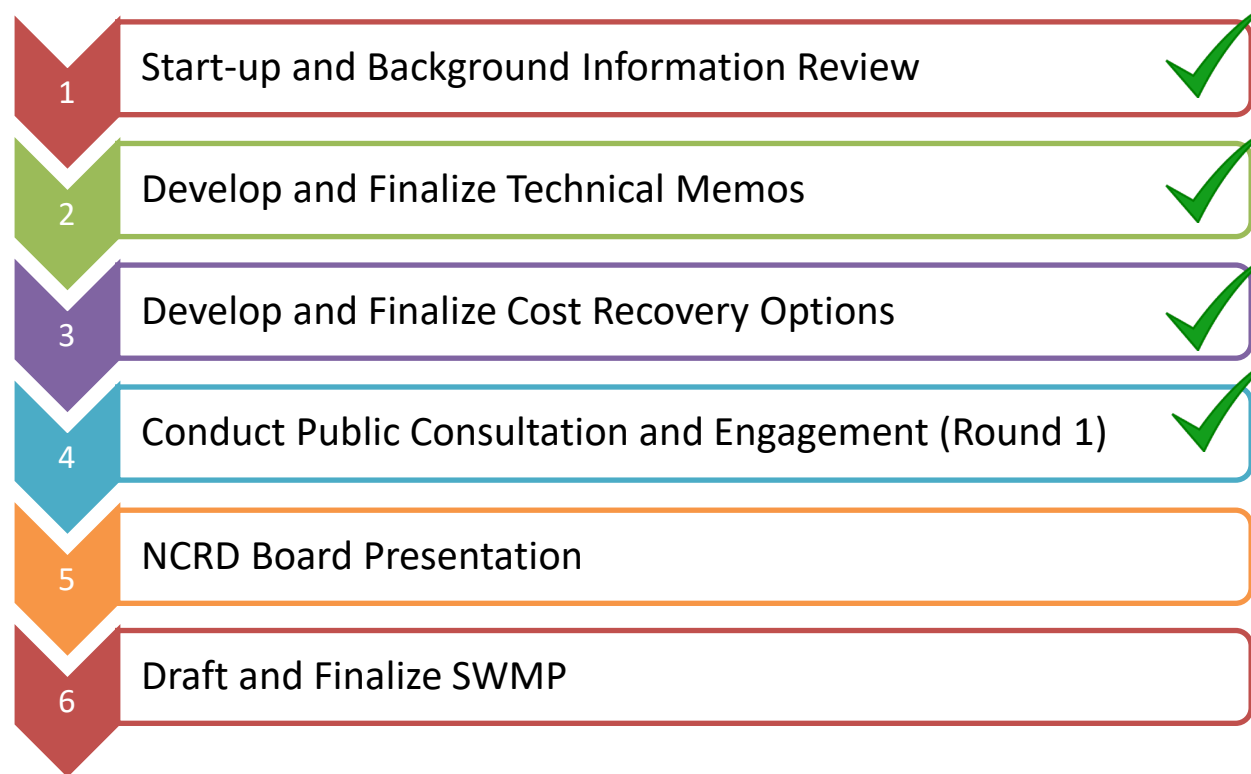
1. Service Review Discussion

2. Public Consultation and Engagement Plan Revision

3. Next Steps



Project Outline & Status



Re- Draft Solid Waste Management Plan
Release for public consultation – Round 2



Revise Draft Solid Waste Management Plan to include additional input received during Round 1 consultation to:

1. Improve the economic viability, sustainability, and fee equity of solid waste management services
2. Consider consolidating and centralizing services to build efficiencies, reduce costs, and simplify management
3. Recommend changes to existing services that minimize stakeholder push-back and new costs

- Transfer Stations (TS):
 - Masset TS
 - Sandspit TS
 - Skidegate TS

- Recycling Depots (RD):
 - Daajing Giids RD
 - Masset RD

- Commercial Cardboard Collection – Island Service Area

- Commercial Office Paper Collection – Mainland Service Area

- Possible Prince Rupert Landfill Transfer to NCRD

- Septage Waste Management



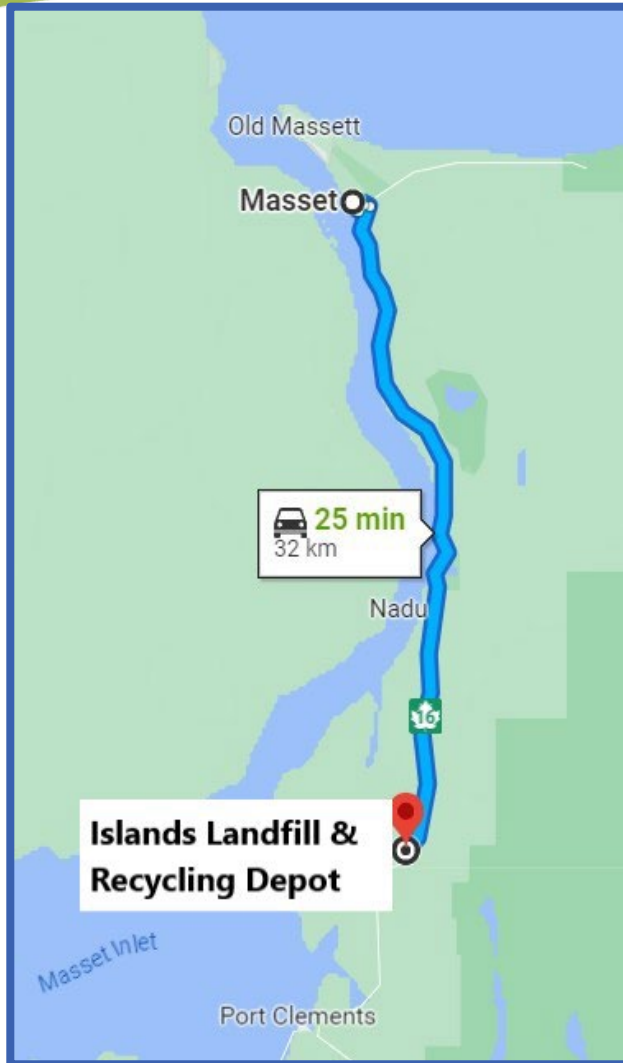
Services Under Review

Service	Location	Owned & Operated By
Islands Service Area		
Islands Garbage Collection	Electoral Areas D and E and municipalities	NCRD program, operated by contractor
Commercial Cardboard Collection	Island ICI sector	NCRD program, operated by NCRD staff
Masset Transfer Station	East of Masset	Crown Lease (2005 – 2035) & operated by NCRD staff
Skidegate Transfer Station	North of Skidegate (Electoral Area D)	NCRD leased & operated by casual NCRD staff
Sandspit Transfer Station	South of Sandspit (Electoral Area E)	NCRD leased & operated by contractor
Masset Recycling Depot	Masset	Rented & operated by NCRD staff
Daajing Giids Recycling Depot	Daajing Giids	Rented & operated by casual NCRD staff
Drop-Off Bins – Sandspit	Sandspit, Super Value	NCRD program, operated by NCRD staff
Drop-Off Bins – Tlell	Tlell, Fire Hall	NCRD program, operated by NCRD staff
Mainland Service Area		
Prince Rupert Landfill	Prince Rupert	City of Prince Rupert owned & operated
NCRD Regional Recycling Depot	Prince Rupert	Owned & operated by NCRD



- **OPEN:** Wednesday 1:00 – 5:00 and Saturday 11:00 – 3:00 (8 hrs/week)
- **SERVES:** OMV, Masset, EA D (north) ~954 Dwellings
- **4 TRANSFER CONTAINERS:** MSW, scrap metal, wood, tires & appliances collected and hauled to Islands Landfill 32 km south by attendant ~ 450 tonnes/year
- **OTHER DISPOSAL SERVICES IN AREA:** Curbside collection of garbage in communities (trucks go direct to landfill), stump dump on same access road (VoM), commercial dumpsters for rent (Big Red Enterprises)
- **ISSUES:**
 - bins need replaced @ \$25,000/bin
 - Staff works 14 hr/week
 - Security fence needed (\$75,000)
 - cost to operate (\$66,535) 5x more than revenue [tipping fees] generated (\$12,431)
- **COSTS TO OPERATE (2022):**
 - \$2,810 – Contracted Services
 - \$25,433 – Staffing
 - \$36,941 – Bin Hauling
 - \$1,351 - Maintenance

+ Administration costs



1. Commercial collection vehicles (including NCRD's contractor) go direct to the Islands Landfill from Masset area
2. Area has curbside garbage collection services (residents & businesses)
3. Costs to operate far outweigh tipping fee revenue
4. New roll-off bins are needed at \$25,000 each as the existing 4 are coming to the end of their service life
5. The facility is not fenced/secure
6. The funds could be better spent elsewhere, e.g., ensuring the Islands Landfill remains in compliance

If shutting down the Masset TS, consider the following:

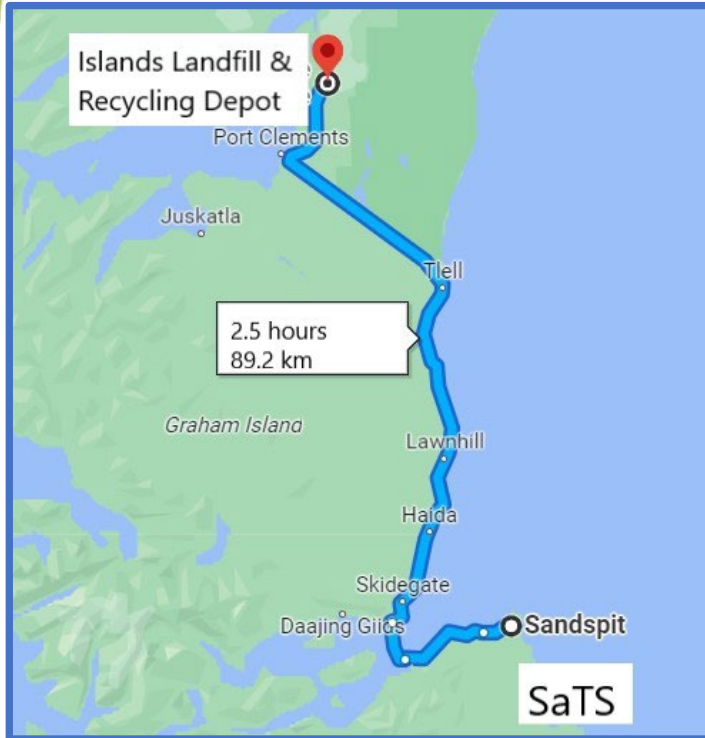
- Recommend ICI sector combine loads and/or hire their own contractors (job creation potential) – e.g., roll off and front/side load containers
- Stockpile materials and make less frequent trips, e.g., non-putrescible waste
- Enhance current curbside service or further support 'clean up events' provided by local government by adding a bulky item pick up once or twice per year [\$6,000/event & specialized trailer purchase ~ \$10,000] & 'free tipping' days at the Islands Landfill to help prevent illegal dumping and stockpiling
- Costs to shut down and sufficient notice



Sandspit Transfer Station (SaTS)



- **OPEN:** Tuesday 11:00 – 1:00 and Saturday 11:00 – 1:00 (4 hrs/week)
- **SERVES:** EA E ~251 Dwellings [high season] – ICI: harbour, airport, supermarket, accommodations
- **TRANSFER STATION:** 2 bays for garbage, stockpiles for tires, scrap metal [incl. fridges that are decommissioned], scrap vehicles, clean wood that is burned periodically & septage pit; OPERATED by NCRD contractor including road maintenance; stewards handle tires and refrigerated items. Lidded 30 cubic yard bins are hauled by NCRD to Islands Landfill about 4-5 times/month ~533 m³/year
- **OTHER DISPOSAL SERVICES IN AREA:** Curbside collection of garbage by NCRD contractor (trucks go direct to landfill), private commercial bag collection service by Haida Gwaii Ties (uses SATS)
- **ISSUES:**
 - Materials transferred by truck across Ferry [20 min crossings], 2.5 hrs one way to Islands Landfill
 - Site not fenced, but illegal dumping not an issue (septage pit is fenced)
 - 2022 cost to operate (\$49,961) is more than tipping fee revenue generated (\$28,445)
- **COSTS TO OPERATE (2022):**
 - \$8,441 – Contracted Services \$3,975 – Maintenance \$37,545 – Bin Hauling
 - Solid Waste Service includes septage receiving facility



1. NCRD's curbside collection contractor goes direct to the Islands Landfill from Sandspit area
2. Businesses use Haida Gwaii Ties that tips at the SaTS (also is the NCRD contractor for the transfer station)
3. Costs to operate outweigh tipping fee revenue – tipping fees should be reviewed
4. The facility is not fenced/secure, however, illegal dumping not considered a problem
5. Septage receiving service still necessary (2 hauling companies that also service BC Ferries)

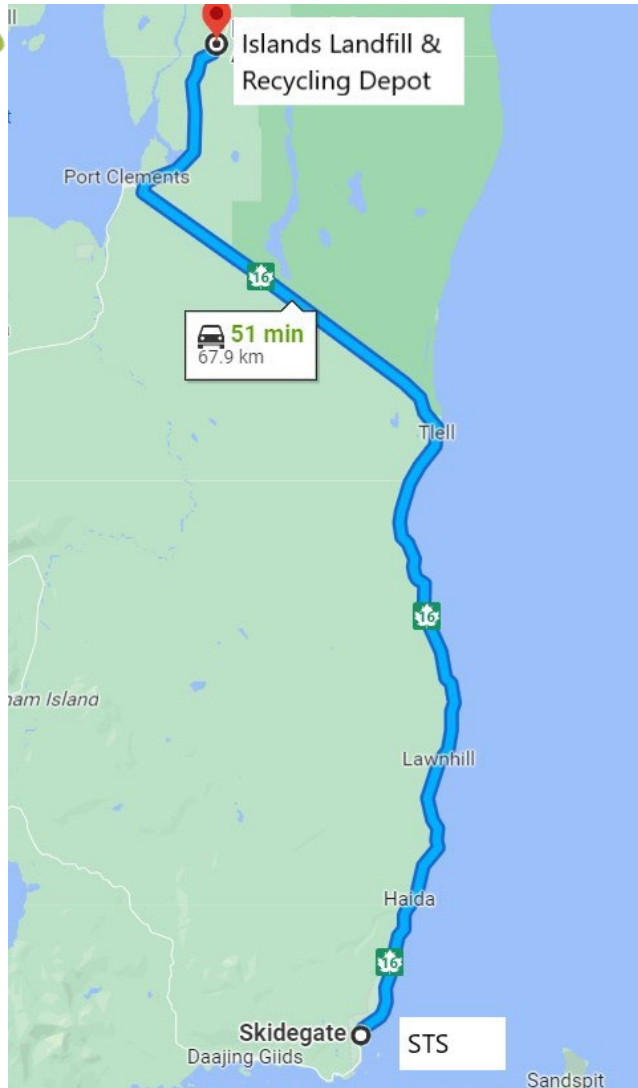
If increasing fees or banning ICI waste at the Transfer Station, consider the following:

- ICI sector waste should go direct to the Island Landfill to reduce SaTS transport costs
- And/or increase tipping fees for ICI sector to cover costs of transfer
- Sufficient notice required
- Consider costs of cleaning up illegal dumping until system changes are accepted



- **OPEN:** Wednesday 1:00 – 5:00 and Saturday 11:00 – 3:00 (8 hrs/week)
- **SERVES:** Skidegate Band, Skidegate Landing & Miller Creek in EA D & Village of Daajing Giids ~ 980 private dwellings (high season)
- **TRANSFER MATERIALS:** 2 bays for garbage, stockpiles for scrap metal, tires and clean wood which is periodically burned by a contractor who also maintains roads and pushes piles, plus a shipping container for used oil and filters collection; refrigeration units are decommissioned by NCRD staff and stockpiled with scrap metal; stewards fund tires, large appliances and used oil/filters programs; lidded 30 cubic yard bins are hauled by NCRD 2 -3 times/week to the Islands Landfill ~ 2,442 m³/year; septage receiving facility included in the solid waste service
- **OTHER SERVICES IN AREA:** NCRD curbside collection of garbage (trucks go direct to landfill), Skidegate Band waste collection (residential & ICI) - trucks go to STS, commercial dumpsters for rent from Big Red Enterprises, 2 septage hauling co.
- **ISSUES:**
 - Materials dropped off outside open hours (SBC has a gate key)
 - No disposal agreement with SBC to tip ICI waste
 - 2022 cost to operate (\$86,493) ~4x more than tipping fee revenue generated (\$23,076)
- **COSTS TO OPERATE (2022):**

\$3,822 Contracted Services	\$16,634 – Staffing	\$59,106 – Bin Hauling	\$
6,931- Maintenance	+ Administration costs		



1. NCRD's curbside contractor goes direct to the Islands Landfill from Skidegate area but Skidegate Band continues to haul to the STS
2. Area has curbside garbage collection services (residents & businesses)
3. Costs to operate far outweigh tipping fee revenue

If requiring all commercial collection vehicles go direct to the Islands Landfill, consider the following:

- Enhance current curbside service or further support 'clean up events' provided by local government by adding a bulky item pick up once or twice per year [\$6,000/event & specialized trailer purchase ~ \$10,000] & 'free tipping' days at the Islands Landfill to help prevent illegal dumping and stockpiling
- Sufficient notice to area residents and businesses (especially in Skidegate area)
- Continue septage receiving facility – see slide below



- **OPEN:** Sunday, Monday & Tuesday 10:00 – 4:00 (18 hrs/week)
- **SERVES:** Daajing Giids, Sandspit, and Skidegate areas & EA D (south) and EA E ~ 1,231 private dwellings (high season)
- **MATERIALS MANAGED:** packaging & printed paper, used oil/filters, electronics, small appliances, smoke alarms, light bulbs, mercury switches and batteries, all supported by stewardship agencies; material from Islands Landfill and the DGRD are stockpiled to await shipping to Prince Rupert by BC Ferries from Skidegate Landing (wait for full loads)
- **OTHER SERVICES IN AREA:** NCRD community drop-off bins in Sandspit and Tlell, NCRD Cardboard Collection Program for businesses
- **ISSUES:**
 - Rental fees are high & quantities managed are very low
 - Materials not tracked by facility by NCRD or the stewards
 - Commercial quantities not financially supported by Recycle BC
 - 2022 Operating costs (\$96,872) 34x more than tipping fee Revenue (\$2,884)
- **COSTS TO OPERATE (2022):**

<ul style="list-style-type: none">• \$ 30,150 Building & Equipment Rental• \$38,094 Staffing• \$23,827 Hauling• \$4,801 Maintenance	<ul style="list-style-type: none">+ Administration costs
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\$2,750/trailer to ship 48 skids to Prince Rupert

1. The costs to operate the facility far outweigh the revenues collected (prior to RBC onboarding)
2. Funding may be better spent upgrading the Islands Landfill Recycling Depot and covering shipping costs
3. Currently the Skidegate and Old Massett Bands do not pay into the recycling services – just the disposal services

For economic viability, consider the following:

- Collect more user fees from all users including First Nations
- Implement a curbside collection service for RBC materials on the same route as the current garbage collection program - use carts or containers (seek grants) ~ \$70,000 without RBC onboard – tender the new service
- And/or provide additional community bins – specialized containers ~\$6,000 + shipping each
- Implement more substantial roundup events with stewards on board – if not cost could be \$2,500 for 2 events (to transport material and pay staff) – events could combine with larger community events
- Transport and storage of bales for shipping to Prince Rupert
- Sufficient notice and changes to agreements if facility operation changes

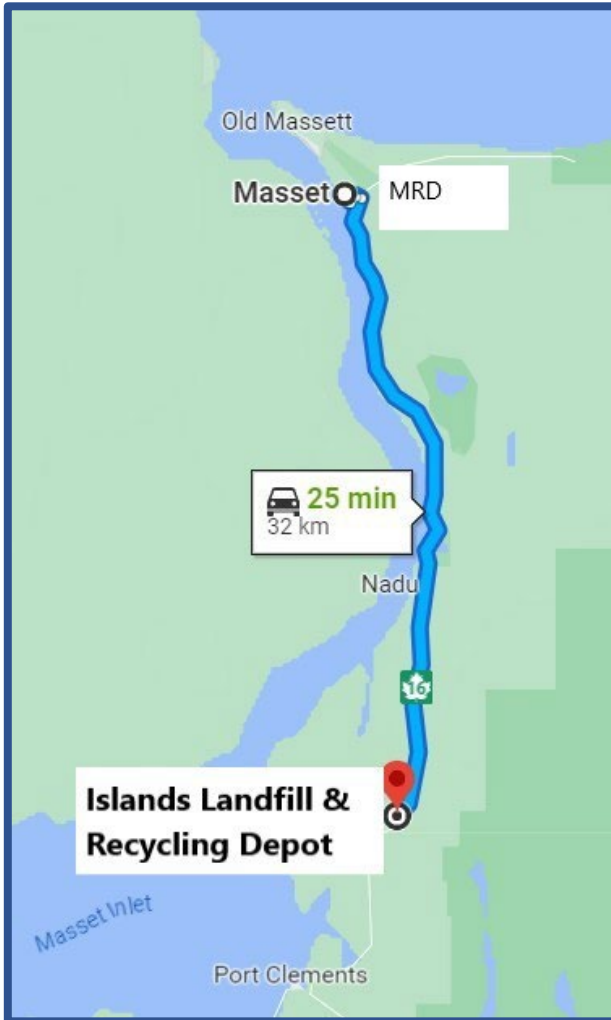




Masset Recycling Depot (MRD)



- **OPEN:** Thursday, Friday & Saturday 9:00 – 3:30 [closed 12-1] (16.5 hrs/week)
- **SERVES:** Old Massett Village, Masset areas & EA D (north) ~ 954 private dwellings (high season)
- **MATERIALS MANAGED:** packaging & printed paper, used oil/filters, electronics, small appliances, smoke alarms, light bulbs, mercury switches and batteries, all supported by stewardship agencies; PPP is transferred to the Islands Landfill Recycling Depot for processing before shipping to Prince Rupert (stockpiled prior at the DGRD) – NCRD operate the depot and transport materials
- **OTHER SERVICES IN AREA:** Joe's Bottle Depot
- **ISSUES:**
 - 2022 Operating costs (\$82,515) more than Revenue (\$58,768)
- **COSTS TO OPERATE (2022):**
 - \$ 14,365 - Rental of building
 - \$40,951 - Staffing
 - \$22,856 – Materials Handling
 - \$1,575 – Maintenance of building and equipment



1. The costs to operate the facility far outweigh the tipping fee revenue collected (prior to RBC onboarding)
2. Funding may be better spent upgrading the Islands Landfill Recycling Depot and covering shipping costs
3. Currently the Skidegate and Old Massett Village Councils do not pay into the recycling services – just the disposal services

For economic viability, consider the following:

- Collect more user fees from all users including First Nations
- Implement a curbside collection service for RBC materials on the same route as the current garbage collection program - use carts or containers (seek grants) ~ \$70,000 without RBC onboard – tender the new service (by June 2026)
- And/or provide additional community bins – specialized containers ~\$6,000 + shipping each
- Implement more substantial roundup events with stewards on board – if not cost could be \$2,500 for 2 events (to transport material and pay staff) – events could combine with larger community events
- Materials storage in Daajing Giids prior to shipping to Prince Rupert
- Sufficient notice and changes to agreements if facility operation changes

Service:

- Curbside collection from businesses (approx. 34) to prevent community bins from filling up
- Provided with bags and charged \$20/pickup for unlimited amount on a monthly basis (twice per week service)
- NCRD staff operated using van dedicated to hauling recyclables
- About 12 customers self-haul to the DGRD for a fee of \$10 per full pickup (\$5/half) on the honor system (depot is not secured)

Reasons for Review:

- 2022 cost to operate (\$77,232) exceed revenue (\$33,500) > not a self-sustaining program
 - Hauling - \$32,858
 - Materials Handling - \$31,521
 - Maintenance - \$12,853
- Recycle BC funding may cover some shipping costs off Island
- Fees not adjusted since program implemented in 2015 (staff recommend an increase of \$20/bag)

Considerations:

- raise fees to \$32/pickup
- raise drop off fees
- cancel service so private company can take over
- ban from the Landfill to increase incentive to recycle
- sufficient notification if changes made

Potential Consequences: businesses stop recycling

Service:

- Curbside collection from businesses (approx. 24) to prevent community bins from filling up
- In customer provided bags and charged \$15, \$20 or \$30 per pickup depending on quantity on a monthly basis
- NCRD staff operated using dedicated van Tuesday to Friday 6 hours / day
- Approximately 42 tonne/year diverted from disposal
- Processed at and shipped from the NCRD Recycling Depot (not with RBC material)

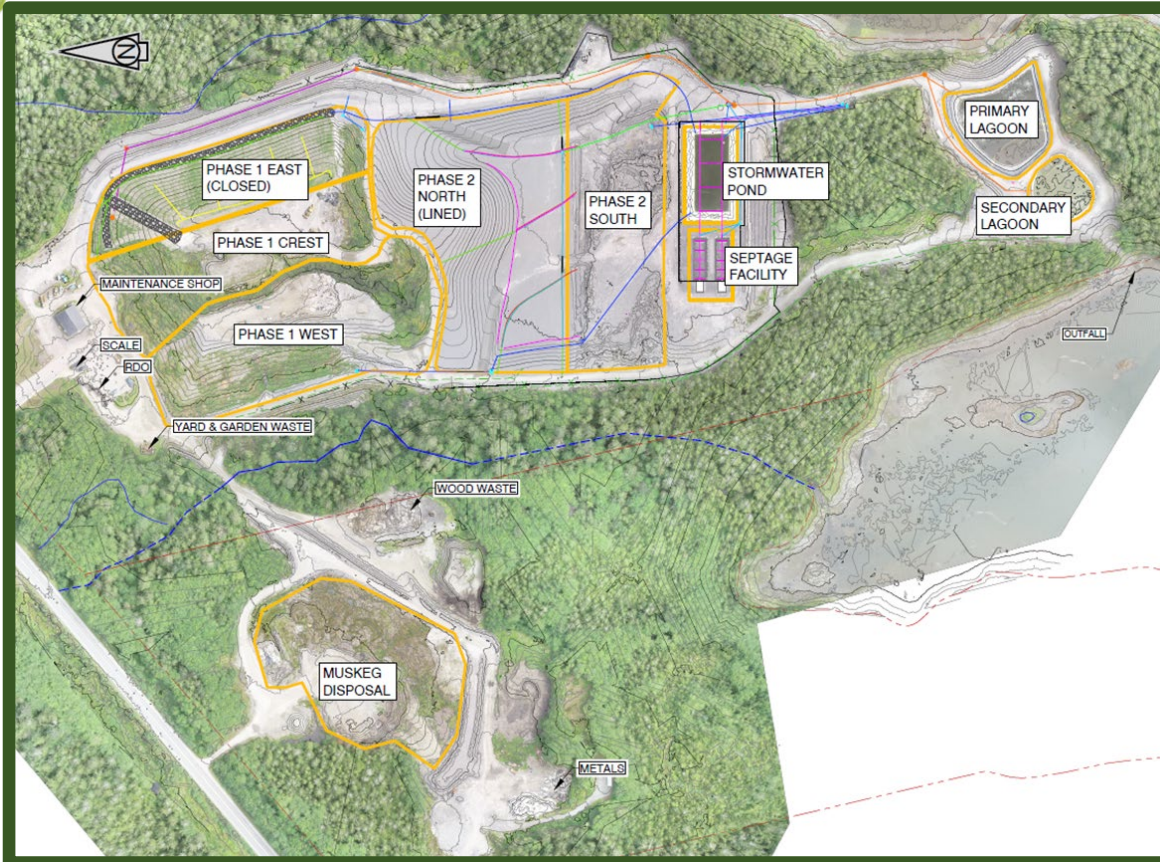
Reasons for Review:

- 2022 cost to operate estimated at \$78,830
- Revenues using the highest pickup rate for the 1,281 pickups/year (\$38,430) covers less than half the costs
- Determine if NCRD should continue providing the service or if it should be turned over to the private sector

Considerations:

- raise fees to at least \$68/pickup
- implement ICI drop off fees to match other users (\$179/tonne)
- convenience of door-to-door service
- cancel service so private company can take over
- ban from the Landfill to increase incentive to recycle
- sufficient notification if changes made

Potential Consequences: businesses stop recycling



Landfill Transfer Initiative:

- ☐ Engagement to date has raised the possibility of the NCRD accepting ownership of the Prince Rupert Landfill
- ☐ Board agreed to participate in and share the costs of a workshop to learn more
- ☐ Several meetings are expected

Impact on SWMP Update:

- Both parties agreed that the SWMP Update should include text that introduces the initiative and states that the transfer of the Landfill to the NCRD is currently under review
- All comments received on this initiative during consultation/engagement will be recorded for future review if or when a Landfill ownership transfer process is started.



Funded under Solid
Waste Service

Septage Waste Management:

- ☐ Upgrades needed to meet Operational Certificate requirements
- ☐ Currently receiving more than authorized amount of 150 m³/year of septic tank and holding tank liquid waste
- ☐ Liquid waste also coming from Skidegate Band Council's WWTP, Kwuna Ferry, BC Ferries, & local portable toilets
- ☐ NCRD asked that a plan be developed for authorized waste only and authorized waste plus other waste currently being disposed
- ☐ Included in the SWMP Update due to dried sludge needing to go to the Islands Landfill for operational purposes and possible consultation piggy-back with SWMP process

Plan is anticipated to be completed in 2023 and will identify:

- the upgrades required
- the service area
- the operational requirements
- the costs to protect the environment, provide a sustainable well operated facility and to comply with the OC

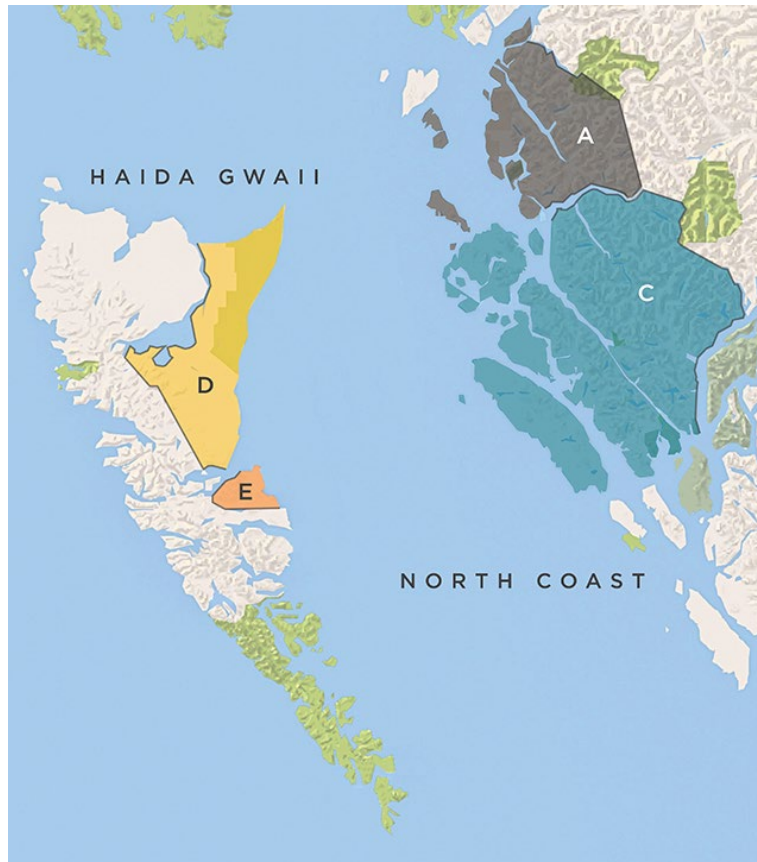
Public Consultation & Engagement Plan - Revision

Reason for revision:

Additional comments/input received during Round 1 consultation & engagement that could modify the Draft SWMP with respect several topics. Topics are consolidated in Technical Memorandum #4.

- Phase 1 – Prior to drafting of the SWMP (July 2022 – September 2022)
- Phase 2 – Following completion of the draft SWMP (October – December 2022)
- Phase 3 (new) – Following update and approval by the Board of the second draft SWMP (June – August 2023)

- ☐ Include Phase 3 Follow-Up Survey (*What do you think of 2nd Draft?* – 3rd Survey)
- ☐ Similar engagement as Round 1 with input on opportunities from PTAC to garner more participation
- ☐ Consider attending council meetings, organizing 'café talks' & attending public events with a booth
- ☐ Resend engagement request to all elected officials and stakeholders requesting input
- ☐ Potential service changes may entice more feedback/input



Redraft and release the Draft SWMP
for consultation

Public Consultation & Engagement
Summer/Fall 2023

Finalize SWMP Update for Board Approval and
Submission to the Ministry