

DATE OF REPORT: November 16, 2016
TO: North Pender Island Local Trust Committee
FROM: Justine Starke, Island Planner
SUBJECT: Waste Management Site Suitability

RECOMMENDATION

1. That the North Pender Island Local Trust Committee direct staff to schedule site visits and meetings with operators and land owners, for one trustee and staff to attend.
2. That the North Pender Island Local Trust Committee direct staff to continue to refine the list of suitable sites for waste management, based on the results of site visits, and consultation with owners and stakeholders.
3. That the North Pender Island Local Trust Committee direct staff to draft regulations for the purpose of discussion, based on Option 1, as presented in the staff report dated November 7, 2016.

REPORT SUMMARY

The purpose of this report is to seek direction from the North Pender Island Local Trust Committee (LTC) on next steps for the top priority project: Land Use Planning for Waste & Resource Management.

BACKGROUND

The North Pender Island Local Trust Committee has been conducting a participatory community process to consider land use changes to accommodate waste management facilities. The objectives of the review are:

- *To consult North and South Pender islanders, waste management operators, and other stakeholders.*
- *To consider what level of waste transfer is needed on N. Pender.*
- *To inventory existing industrial zones and waste transfer sites and apply land use criteria for siting a range of waste transfer facilities.*
- *To make recommendations on potential locations and the range of appropriate land uses*
- *To consider amending the OCP with guiding policies and land designations for waste and resource management.*
- *To consider zoning and regulating land to accommodate the preferred level of waste and resource management.*
- *Collaboration with CRD to ensure a comprehensive understanding and integrated approach.*

The current report provides the results of the public “integrated decision making” process, held over two workshops on August 10, 2016 and October 6, 2016. The objective of the workshops was to use a participatory process to systematically consider the land use impacts and corresponding land use criteria for a waste and resource management facility.

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ANALYSIS

Policy/Regulatory:

See previous reports, most notably the [staff report presented at the March 26, 2015](#) LTC meeting.

Consultation:

The integrated decision making sessions built on the previous community engagement:

- The Waste and Resource Management Commission (WRMC) - eight public meetings over six months (August 2015 – January 2016)
- May 30, 2016 information open house

Integrated Decision Making Process

- October 6, 2016
 - 26 members of the public in attendance
 - See the [final report](#).
 - [Click here for the minutes](#)
- August 10, 2016
 - 23 members of the public in attendance.
 - The consultant’s report for Aug. 10 is found in the appendix of the Final Report (linked above).
 - [Click here for the minutes](#)

Results:

The integrated decision making session established the problem statement as follows: “What are the facility type(s) and site(s) that will best serve the needs of the Pender Islands community for waste resource management?” The attached report, *Pender Islands Waste Management Site Suitability Report*, (the final report) was submitted by the consultant. It describes the process in detail.

The main purpose of the August 10 work shop was to create the decision matrix in order to evaluate individual properties. The criteria was developed to be applied the different facility scenarios that could be provided by waste management operators (See figure 1). The intent was to develop criteria that could be applied to each property and considered for each facility scenario.

The October 6 workshop and resulting decision matrix only applied the criteria (values) to the Full “A” Facility Scenario, where it was clarified that recycling referred to commercial recycling and was not intended to host a recycling depot such as is already operated by Pender Island Recycling Society.

Figure 1:



The workshop presented the results of analysis and data gathering that staff and the consultant had prepared in the time between the two workshops. A number of visual aids were provided, including a layered map that could display the results of criteria analysis.

The objective was to evaluate each of the 15 properties according to the criteria, and eliminate properties based on the values agreed to at the previous workshop. See Table 1 for a list of properties with their corresponding site number. Map 1 shows the subject properties, which is included in the final report.

Map 1: SUBJECT PROPERTIES

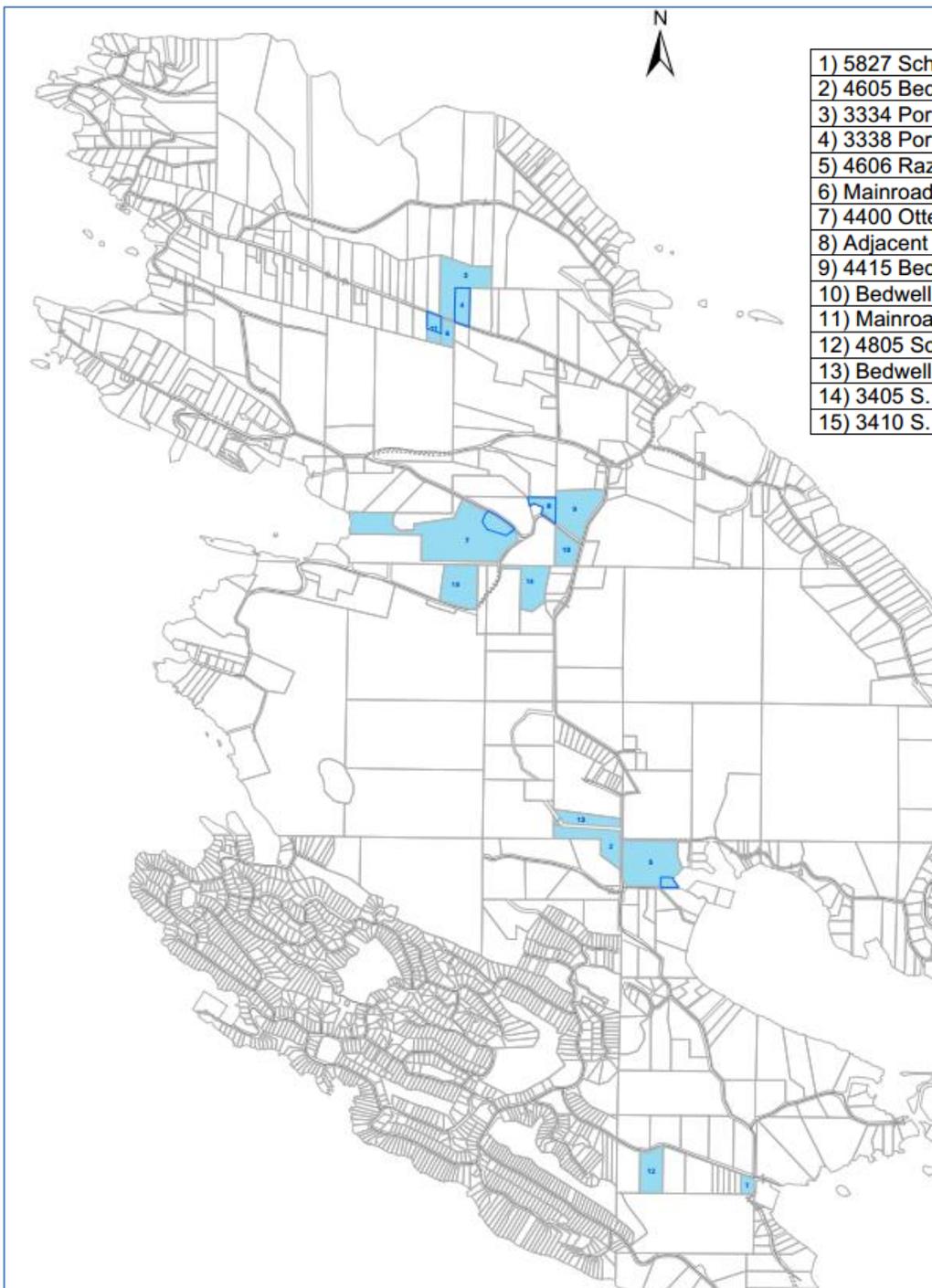


TABLE 1: SUBJECT PROPERTIES

1) 5827 Schooner Way
2) 4605 Bedwell Harbour Road (Driftwood Ctr)
3) 3334 Port Washington Rd
4) 3338 Port Washington Rd
5) 4606 Razor Pt. Rd. Browning Harbour
6) Mainroad Yard (on Port Washington Rd.)
7) 4400 Otter Bay Rd.
8) Adjacent to 4400 Otter Bay Rd. Recycling Depot
9) 4415 Bedwell Harbour Rd.
10) Bedwell Harbour Rd. - Across from Fir Hill Farm
11) Mainroad Yard (on Port Washington Rd.)
12) 4805 Schooner Way
13) Bedwell Harbour Rd. – Adjacent to airstrip
14) 3405 S. Otter Bay Rd.
15) 3410 S. Otter Bay Rd.

Table 2 is a copy of the assessment matrix that can be used to evaluate each of the properties according to the criteria.

TABLE 2: ASSESSMENT MATRIX

Facility "A"		Space for Expansion - 50m buffer	Space for Expansion - 38m buffer	Space for Expansion - 30m setback	Sensitive ecosystem	Groundwater vulnerability	Surface waterbody	Archeo-logical site	Agri-cultural potential	Sufficient Flat Area
Unit of measure ->	site #	*-insufficient	*-insufficient	*-insufficient	*-feature present	*-vulnerable	*-feature present	*-feature present	*-ag capability present	*-not flat
5827 Schooner Way	1	✘	✘	✘	✓	✘	✓	✓	✓	✘
4605 Bedwell Hbr Rd Driftwood Centre	2	✘	✘	✓	✘	✘	✘	✓	✓	✓
3334 Port Washington Rd	3	✓	✓	✓	✘	✓	✓	✓	✓	✘
3338 Port Washington Rd	4	✘	✘	✘	✓	✘	✓	✓	✓	✘
4606 Razor Pt. Rd (Browning)	5	✓	✓	✓	✓	✘	✓	✓	✘	✓
Mainroad Yard	6	✘	✘	✘	✘	✘	✓	✓	✓	maybe*
4400 Otter Bay Rd	7	✓	✓	✓	✘	✘	✘	✓	✘	✓
Adj Recycling -4400 Otter Bay	8	✘	✘	✘	✓	✘	✓	✓	✓	✘
4415 Bedwell Harbour	9	✓	✓	✓	✓	✘	✓	✘	✓	✓
Across Fir Hill Farm, Bedwell Hbr	10	✘	✓	✓	✘	✘	✘	✓	✓	maybe*
Mainroad Yard	11	✘	✘	✘	✘	✘	✓	✓	✓	✘
4805 Schooner Way	12	✓	✓	✓	✓	✘	✓	✓	✓	maybe*
Bedwell Hbr Rd Adj to Airstrip	13	✘	✘	✘	✘	✘	✓	✓	✓	✘
3405 South Otter Bay	14	✓	✓	✓	✓	✘	✓	✓	✓	✓
3410 South Otter Bay	15	✓	✓	✓	✓	✓	✓	✓	✓	✓

During the course of the workshop it became clear people were concerned that there was not enough information to accurately apply some of the criteria, and that doing so anyway would result in ineffective recommendations. Specifically, the concern was that the criteria were designed to apply to the entire area of each of the properties, rather than the ideal locations within each property. Criteria such as: space for operations, agricultural capability, sensitive ecosystems, surface water, groundwater vulnerability, and topography need to be assessed by specifically evaluating the portion of the property that is actually feasible for waste management. This kind of a detailed survey of the properties was beyond the scope of the review process.

The workshop agenda for the afternoon of October 6 was therefore amended, and instead of assessing the properties according to the criteria, people were asked to choose their top three criteria, and the criteria were ranked according to level of relative importance. This exercise found that the people in the room ranked the following as the five most important criteria to use for evaluation: sufficient space for operations, presence of sensitive ecosystems, adjacency to industrial zones, groundwater vulnerability, and remoteness from dense neighbourhoods. See Table 3.

TABLE 3: PRIORITIZED CRITERIA

	Criterion (re-ordered according to priority)	Number of participants who selected this as one of their top 3 priorities
1.	Sufficient space (by recalculated minimum area required for parking, waste operations for Facility 'A', buffers, setbacks and expansion capability)	22
2.	Sensitive ecosystems	12
3.	Adjacent to industrial zones	12
4.	Groundwater vulnerability	11
5.	Remote from dense neighbourhoods (less than 50 properties within 1 km under 5 acres)	10
6.	Topography	3
7.	Agricultural capability	3
8.	Archeological feature	1
9.	Presence of fresh water bodies	0
10.	Distance to common use areas (Magic Lake Estates, Driftwood Ctr., or Recycling Ctr.)	0
11.	[Serviced by a] dedicated road	0

Based on the results of the prioritized criteria, the final report does provide an evaluation of the properties in order to narrow down the number of properties being considered for a full service waste transfer station:

Step 1:

- Sites 1 and 12 were eliminated because they are not adjacent industrial zones, which ranked high among the participants as an important criterion.

Step 2:

- After step 1, the criterion for “remote from dense neighbourhood” (number five in Table 2 above), was compared across remaining sites. The number of properties under 5 acres, within a 1km radius of each site was measured in the data matrix.
- Sites eliminated by this step were: 2,3,4,5,6 and 13 (for more information, see the Final Report, Table 9 and Results, Table 10).
- The report points out that defining remote as “sites surrounded by 50 properties or less under 5 acres,” is an arbitrary cut-off, and that if a different threshold were selected, the results would differ.

Step 3:

- After step 2, the criterion for “groundwater vulnerability” and presence of “sensitive ecosystems” was considered (see table below, found as Table 11 in the final report) on the remaining sites (7,8,9,10,11,14 and 15).
- Note that if the whole of each site was evaluated for the presence of these features, even though as mentioned above, only a portion may be viable for waste transfer. As such, the report does not

recommend eliminating sites based on these criteria without mapping and ground-truthing the exact location of these features.

		Sensitive ecosystem	Groundwater vulnerability
7	4400 Otter Bay Rd	No mapped sensitive area	vulnerable
	Adj Recycling -4400		
8	Otter Bay	No mapped sensitive area	vulnerable
9	4415 Bedwell Harbour	No mapped sensitive area	vulnerable
	Across Fir Hill Farm,		
10	Bedwell Hbr	Sensitive ecosystem	vulnerable
11	Mainroad Yard	Sensitive ecosystem	vulnerable
14	3405 South Otter Bay	No mapped sensitive area	vulnerable
15	3410 South Otter Bay	No mapped sensitive area	not vulnerable

The report suggests that on the basis of assessment measures for the two highest priority criteria (“adjacent existing industrial zoning” and “remote from dense neighbourhoods”), there would be seven suitable sites:

1. Site 7: 4400 Otter Bay Rd.
2. Site 8: Adjacent Recycling - 4400 Otter Bay Rd.
3. Site 9: 4415 Bedwell Harbour (Old MacDonald Farm)
4. Site 10: Across Fir Hill Farm, Bedwell Harbour Rd.
5. Site 11: Mainroad Yard on Port Washington Rd.
6. Site 14: 3405 South Otter Bay Rd.
7. Site 15: 3410 South Otter Bay Rd.

These could undergo further data collection to determine:

- a) site-specific calculations about sufficient space, including buffers and setbacks;
- b) topography;
- c) mapping of ecosystem features as related to potential facility area within property boundaries (including groundwater and surface water features, soil and climatic capability for agriculture, archeological feature).

The consultant recommends the following next steps to assess the remaining sites in order to confirm and to ground-truth criteria for sufficient space, topography, sensitive ecosystem and water features, as well as archeological and agricultural values:

1. *Review calculations of minimum Facility ‘A’ space for operations and parking, and the estimates for expansion area required at a waste transfer Facility ‘A’. (See “Calculations and Assumptions” section in this report.)*
2. *Conduct site visits for further assessment and refinement, as follows:*
 - a. *If resources allow, visit all fifteen potential sites.*
 - b. *If resources do not allow, the consultant recommends that sites 7,8*,9*,10,11,14 and 15 should all be visited for further assessment. (See Discussion or Executive Summary for site selection rationale.)*
**Site 8 is likely not large enough for the minimal space criterion, including buffers, but the possibility for Site 9 and 8 to be considered as a single site combining the*

existing Recycling Centre and the proposed Facility 'A' Waste Transfer should be explored.

Suggested Site Visit Parameters:

- *Measure and demarcate on a map the exact situation of minimal space for operations, parking and expansion (Criteria 7 and 9) (after Step 1 is completed).*
 - *Measure and demarcate minimal buffers and setbacks (see Criteria 7 and 9), taking into account natural existing buffer zones, and possibly using road area as part of a setback or buffer from neighbouring properties, where feasible.*
 - *Assess topography (criterion 15).*
 - *Visit and ground-truth the mapped criteria in the assessment (in relation to the exact facility space measures):*
 - *sensitive ecosystem features,*
 - *surface and groundwater ratings,*
 - *archeological, agriculturally- capable areas)*
 - *The potential for a proposed facility type 'A' to impact these features, as affected by topography, and micro-climate, needs to be assessed. Methods for assessment should be transparent, well-referenced and documented at each stage.*
 - *Visit each property with the property owner, and avoid political bias or other participants in site visits to keep them factual.*
3. *Consult with local waste management service providers to assist with refined site suitability assessments, after step 2 has been completed.*
 4. *Option to refine Criterion 6. Work with volunteers to conduct pedestrian traffic counts during peak periods (of day, week and high occupancy periods over annual cycle) on roads near the most suitable sites remaining after step 3.*

Issues and Opportunities:

The consultant's final report suggests that on the basis of assessment measures for the two highest priority criteria ("adjacent existing industrial zoning" and "remote from dense neighbourhoods"), there would be seven suitable sites:

1. Site 7: 4400 Otter Bay Rd.
2. Site 8: Adjacent Recycling - 4400 Otter Bay Rd.
3. Site 9: 4415 Bedwell Harbour (Old MacDonald Farm)
4. Site 10: Across Fir Hill Farm, Bedwell Harbour Rd.
5. Site 11: Mainroad Yard on Port Washington Rd.
6. Site 14: 3405 South Otter Bay Rd.
7. Site 15: 3410 South Otter Bay Rd.

The integrated decision making workshop #2 did not have time to review more than the full service station scenario ("A"). Although the majority of participants in workshop #1 preferred zoning that would permit the full range of uses, the workshop did test each criteria against the different facility scenarios.

The Final Report recommends that site surveys be conducted in order to map certain criteria within each property:

- Usable flat area (topography)
- Agricultural capability
- Vicinity to a sensitive ecosystem
 - North Pender Island has mapped its sensitive ecosystems and all (with the exception of mature forest) are protected under Development Permit Areas.
- Vicinity to an archaeological site
- Vicinity to a fresh water body
- Groundwater vulnerability

The NPI LTC does not have the capacity to do such a detailed environmental assessment type review of specific areas of individual properties. It is the type of review that should be conducted by the proponents as part of a development approval.

Additionally, there has been more concern voiced over the data, specifically in the interpretation of the soil capability mapping. The consultant responded to these concerns with an [erratum](#), and by amending the final report. However, there continues to be concern over the reliability of the interpretation of the soil mapping, especially as it appears to be different from the classification rating assigned to site 5 by the Agricultural Land Commission. An overarching staff concern is the age of the capability mapping (1978) and the scale of the mapping. Current, site specific agricultural capability is best assessed in detail by an agrologist with a background in soil science. As above, this could be funded by proponents as part of an application for development approval.

A combination of site visits and consultation with operators would be helpful in evaluating criteria such as “usable flat area” and enough “space for operations,” “parking,” and “expansion.” The recommended 1.25 acre of space (including parking and driveway access, but excluding landscape buffers and setbacks) was determined based on research in US and Canadian waste management reference manuals and through discussions with experts in the field throughout BC; however, this could be further reviewed for practicality through discussions with operators. With this information, the LTC could consider moving this project forward according to the following options:

Option 1:

1. Pending site visits and consultation with owners and operators, refine further the list of seven suitable properties to host a full service waste transfer station.
2. Direct staff to draft land use bylaw amendments and OCP amendments if required, that would pre-zone the eligible properties to enable a full service facility (Scenario A) combined with a new Waste Transfer Station Development Permit Area (DPA).
3. Direct staff to re-evaluate all 15 properties for their ability to host service scenario D (no public access, storage and sorting only) and Scenario E (public drop off only, no long term storage or sorting). This evaluation would be conducted by staff, and informed by the results of Workshop 1.
4. Direct staff to draft land use bylaw amendments and OCP amendments if required, that would pre-zone the new list of suitable properties to enable facility scenarios D and E, combined with a new Waste Transfer Station Development Permit Area (DPA).

5. Direct staff to draft an OCP amendment which would create a new Development Permit Area for protection of the environment, form and character of industrial use, and/or protection from hazardous conditions. The guidelines of the DPA could address the environmental, aesthetic, and/or hazardous concerns related to the use. Under the Development Approval Information Bylaw, the LTC could require detailed information such as:
 - a. Surveys that include natural features such as water bodies or sensitive ecosystems
 - b. Site and Building plans, demonstrating room for operations, parking, drainage considerations (no effluent released into environment).
 - c. agricultural capacity of the site
 - d. Archaeological reports
 - e. Confirmation from professionals that the proposal will not have negative impact on the environment, including groundwater, surface water, and agricultural soils, etc.
6. Direct staff to consider what amendments to the [Development Approval Information Bylaw](#) would be required to empower the LTC to request the range of information required to assess the impacts of a waste transfer station on the environment.

Option 2:

1. Do not consider changing regulations to pre-zone properties for waste management, but rather direct staff to propose Official Community Plan amendments that are specific to waste transfer and would enable rezoning applications and new conditions to guide Temporary Use Permit applications.

Option 3:

1. Redefine or develop new criteria and re-evaluate all 15 properties.
2. Consider pre-zoning a new list of eligible properties for waste transfer, in combination with a new Development Permit Area.

Rationale for Recommendation:

The current Local Trust Committee has been working on this subject since the beginning of 2015, and even before that in application driven processes. An essential problem underlying the process continues to be the tension resulting from the rezoning applications currently on hold. The discussion is still unduly influenced by consideration of implications for those specific sites.

Nevertheless, the community driven, participatory processes that have been undertaken have informed the LTC of the most pressing issues and concerns the community has relative to the social and environmental impacts of waste transfer. The LTC has enough information to move on and consider regulatory approaches. The recommendation is that the regulatory approach takes into account the need for additional, site level information.

The seven properties that have been selected as eligible for further consideration for a full service facility were chosen based on 1) adjacency to other industrial zones and 2) remoteness, as a measure of the relative density of the immediate surrounding neighbourhood. Further elimination of sites was not conducted based on the course nature of the data being used. The level of site specific information that is required to address many of the environmental concerns is beyond the scope and resources of this planning process. Confirmation of a site's

ability to host a waste transfer site without negatively impacting the environment can be established through development approval information required by a development permit, rezoning, or temporary use process.

NEXT STEPS

If the LTC proceeds with Option 1, next steps could include:

- 1. Consultation with waste disposal operators - focus on use and land needs.
- 2. Site visits and consultation with property owners.
- 3. Refine list of eligible sites and propose draft regulations for consideration.
- 4. Consultation: Community survey/ General community meeting to discuss draft regulations.
- 5. Formal bylaw amendment process (to be decided).

Submitted By:	Justine Starke, Island Planner	November 16, 2016
Concurrence:	Robert Kojima, Regional Planning Manager	November 16, 2016

ATTACHMENTS

- 1. [Pender Islands Waste Management Site Suitability Report](#)