

# *Growing Knowledge*



Ministry of  
Agriculture

## *Agricultural Land Use Inventory*

Reference Number: 800.510-88.2014

### **Southern Gulf Islands Capital Regional District Summer 2014**



**Strengthening Farming Program  
Ministry of Agriculture  
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### Disclaimer:

Agriculture and Agri-Food Canada, the BC Ministry of Agriculture and the Investment Agriculture Foundation of BC, are pleased to participate in the delivery of this project. We are committed to working with our industry partners to address issues of importance to the agriculture and agri-food industry in British Columbia. Opinions expressed in this report are those of the authors and not necessarily those of the Investment Agriculture Foundation or Agriculture and Agri-Food Canada.

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## *Acronyms*

|      |                                 |
|------|---------------------------------|
| AGRI | BC Ministry of Agriculture      |
| ALR  | Agricultural Land Reserve       |
| ALUI | Agricultural Land Use Inventory |
| CRD  | Capital Regional District       |
| GIS  | Geographic Information Systems  |
| LTA  | Local Trust Area                |
| SGI  | Southern Gulf Islands           |

## Executive Summary

In 2012, the Capital Regional District established the Southern Gulf Islands Economic Development Commission to work towards achieving a resilient and sustainable local economy. The commission has identified agriculture as one strategic focus area, and is undertaking a food and agriculture strategy. The BC Ministry of Agriculture and the Capital Regional District partnered in 2014 to conduct an Agricultural Land Use Inventory (ALUI) in the Southern Gulf Islands Electoral Area. This ALUI will provide background information to inform the food and agriculture strategy. Direct funding for the project was provided by Capital Regional District, BC Ministry of Agriculture and Investment Agriculture Foundation of BC.

ALUIs can be used to understand to type and extent of agricultural activities within the inventory area. The ALUI data quantifies how much land is currently used for agriculture, how much land is unavailable for agriculture, and the potential for agriculture expansion. The data provides baseline information that can be used to track trends in agricultural land use and to measure changes over time. The data also enables the estimation of agricultural water demand with the use of an irrigation water demand model.

Included in the inventory were all parcels:

- completely or partially within the ALR, or
- classified by BC Assessment as having “farm” status for tax assessment, or
- zoned by local government bylaws to permit agriculture and showing signs of agriculture on aerial photography, or
- with an active water licence for farming or irrigation purposes

The ALR in the Southern Gulf Islands consists of 2,347 ha. Of this area, 2,294 ha (98%) met one of the inventory criteria and was inventoried. The remaining 53 ha (2%) of ALR was not inventoried as it was in ALR slivers (<500 m<sup>2</sup>) or was outside of legally surveyed parcels in rights of ways or in foreshore.

In total 6,891 ha on 711 parcels was inventoried. The inventory area consists of 2,294 ha in the ALR and 4,597 ha outside the ALR. See Tables 1 & 2 for inventory details by island and local trust area.

The ALUI was conducted using visual interpretation of aerial imagery combined with a drive-by “windshield” survey to capture a “snapshot in time” of land use and land cover. Land cover is the biophysical material at the surface of the earth while land use is how people utilize the land.

### **Southern Gulf Islands Overview**

In the ALR by land cover, 25% was farmed, 13% was in anthropogenic (not farmed) vegetation, buildings, and waterbodies, and 60% was in a natural or semi-natural state. The remaining 2% of ALR was outside of legally surveyed parcel and is considered unavailable for farming. There was another 145 ha of farmed land cover outside the ALR, bringing the total farmed area to 736 ha. See Tables 3-5 and Map 1 for more details.

For land use, the entire parcel was examined and a “Used for farming” definition was applied based on the percentage of the parcel in cultivated crops, farm infrastructure, and/or the scale of livestock production. In the ALR by land area, a total of 928 ha (40%) is on parcels “Used for farming”, and 1,365 ha (58%) is on parcels “Not used for farming”. See Table 13 and Map 2 for more details.

The inventory provided insight into ALR land available and with potential for farming by looking at land cover, land use, and physical site limitations. Of the ALR land in the Southern Gulf Islands, 24%

was actively farmed and 1% supports farming (e.g. houses, farm roads, farm buildings, etc.). Ten percent (10%) of ALR was unavailable for farming due to existing land use or land cover, and 41% had limited potential for farming due to physical site limitations such as topography, soils, or drainage. That leaves 22% of ALR that is available and has potential to be farmed. See Table 15, Figures 13-14, and Map 3 for details.

There were 718 ha of cultivated field crops in the Southern Gulf Islands Electoral Area with 580 ha in the ALR and 137 ha outside the ALR. Forage & pasture was the most common crop type with 639 ha or 89% of all cultivated land. Also recorded were 26 ha in tree fruits, 24 ha in grapes, 21 ha in vegetables, and 8 ha in other types of crops. See Table 19-20 for details.

Small scale agriculture is defined as crops and greenhouses where the area utilized is less than 500 m<sup>2</sup>. These small activities are rarely full-time operations but can contribute significantly to local food production and can help maintain local production skills and knowledge. In the inventory area, 101 small scale agriculture activities were recorded. These included 13 greenhouses, 4 fruit/tree fruit gardens, 27 mixed gardens, and 57 vegetable gardens. See Table 24 and Map 2 for more information.

Irrigation use was captured by crop type and irrigation system type to aid in developing a water demand model for agriculture. Irrigation in the Southern Gulf Islands is rare with only 75 ha or 10% of the cultivated land under irrigation. See Table 25 and Map 4 for details.

Livestock activities were also recorded, but are very difficult to measure using a windshield survey. Livestock may not be visible if they are confined in barns or are on another land parcel. The inventory data does not identify animal movement between parcels that make up a farm unit, but reports livestock at the parcel where the animals or related structures are observed. No actual livestock numbers were obtainable through the inventory, so the results were reported as a range in terms of animal unit equivalents for each parcel.

Sheep / goat and beef are the most common types of livestock in the Southern Gulf Islands Electoral Area. There are 37 sheep / goat animal homesites of which 18 are very small scale (< 5 goats or < 10 sheep), 18 are small scale ( 5 – 125 goats or 10 – 250 sheep), and 1 is medium scale (250 – 1000 sheep). There are 15 beef animal homesites including 3 very small scale (1 cow), 11 small scale ( 2 – 25 cattle), and 1 medium scale ( 25 – 100 cattle). Thirty-six poultry activities were recorded, however, all were backyard flocks ( < 100 birds). Although equines are not important for food production, they contribute greatly to the rural life style. All recorded equine activities (19 homesites) were “non-intensive” and had less than 25 animals. Also recorded were 6 llama / alpaca activities, 4 swine activities, and 1 ratite activity. See Table 27 for more information.

Parcel size analysis was conducted on 259 parcels with 2,103 ha of ALR land. Of these ALR parcels:

- the average parcel size was 13.6 ha and the median parcel size was 3.2 ha.
- 26% were less than 1 ha and 54% were less than 4 ha.
- 61 (24%) were “Used for farming” and 198 (76%) were “Not used for farming”.

In general, the proportion of parcels “Used for farming” increases as the parcel size increases. Parcels of all sizes were “Used for farming”, however, small parcels were less likely to be farmed than larger parcels.

ALUI data is presented for each Local Trust Area (LTA) within the Southern Gulf Islands Electoral Area. When only one island in the LTA had inventoried land, the section is titled by the island name. When more than one island in a LTA was inventoried, the section is titled by LTA name.

### **Galiano Island**

In the ALR by land cover, 47 ha (13%) was farmed, 41 ha (11%) was built or managed in anthropogenic (not farmed) land cover, and 284 ha (76%) was in in natural or semi-natural land cover. An additional 23 ha outside of the ALR was in farmed land cover.

### **Mayne Island Local Trust Area**

Mayne and Curlew Island had lands that met the inventory criteria. Mayne is the only Island with ALR.

In the ALR by land cover, 166 ha (53%) was farmed, 26 ha (8%) was built or managed in anthropogenic (not farmed) land cover, and 126 ha (40%) was in in natural or semi-natural land cover. An additional 36 ha outside of the ALR was in farmed land cover.

### **North Pender Island**

North Pender Island and the North Pender Associated Islands are presented separately in this report.

In the ALR by land cover, 140 ha (41%) was farmed, 44 ha (13%) was built or managed in anthropogenic (not farmed) land cover, and 161 ha (47%) was in in natural or semi-natural land cover. An additional 63 ha outside of the ALR was in farmed land cover.

### **North Pender Associated Islands**

Land on Sidney, Morseby, James, Coal, Brethour, and Knapp Islands were inventoried.

In the ALR by land cover, 78 ha (12%) was farmed, 148 ha (23%) was built or managed in anthropogenic (not farmed) land cover, and 427 ha (65%) was in in natural or semi-natural land cover. An additional 4 ha outside of the ALR was in farmed land cover.

### **South Pender Island**

In the ALR by land cover, 27 ha (17%) was farmed, 17 ha (11%) was built or managed in anthropogenic (not farmed) land cover, and 112 ha (72%) was in in natural or semi-natural land cover. An additional 28 ha outside of the ALR was in farmed land cover.

### **Saturna Island Local Trust Area**

Saturna Island and Samuel Island had lands that met the inventory criteria. There is ALR on both islands (307 ha on Saturna and 77 ha on Samuel).

In the ALR by land cover, 88 ha (23%) was farmed, 32 ha (8%) was built or managed in anthropogenic (not farmed) land cover, and 264 ha (69%) was in in natural or semi-natural land cover. An additional 7 ha outside of the ALR was in farmed land cover. All of the farmed land cover is on Saturna Island.

### **Prevost Island and Piers Island (Salt Spring Island Local Trust Area)**

Prevost Island and Piers Island had lands that met the inventory criteria. Salt Spring Island is not within the Southern Gulf Island Electoral Area, and was not surveyed as part of this inventory. Of Prevost and Piers Islands, only Prevost has land in the ALR and all of the farmed land cover is on Prevost Island.

In the ALR by land cover, 44 ha (69%) was farmed and 20 ha (31%) was in in natural or semi-natural land cover. An additional 10 ha outside of the ALR was in farmed land cover.

### **Conclusion**

This report provides some insight into the current status of agriculture. It can be used to inform decision on managing the agricultural land base in order to support and strengthen farming in the future.

## Agrologist Comments

The Southern Gulf Islands (SGI) are the traditional territory for many Coast Salish First Nations including Tsartlip, Penelakut, Pauquachin, Tseycum, Tsawout and Tsawwassen. First Nations communities in the South Salish Sea developed and maintained extensive clam gardens in shoreline areas and camas gardens in Gary Oak meadows, both of which suggest the ongoing cultivation, selection and management of an important food source.

The first European settlers arrived in the late 1850's, precipitated by the gold rush in the Cariboo. Miners stopped on Mayne Island before making the trip across the Strait of Georgia to the mainland, and some of the earliest homesteads on the islands were settled in this area. By the early 1900s, the region had become known for fruit production, particularly apples, but strawberries and hothouse tomatoes were also grown on Mayne Island. Japanese settlers in particular contributed to the horticultural enterprises and chicken farming, although this ceased with the internment during World War II. Many of these Japanese families never returned to the islands. The introduction of irrigation to the Okanagan Valley in the 1930s meant that the islands became gradually less important for fruit production.

Farming in the SGI region in the early days supplied the local population. Excess product was shipped to markets on Salt Spring, Vancouver Island and the Lower Mainland. Jersey cows were prevalent on a few of the islands and provided milk for the Salt Spring creamery. Sheep were also popular livestock and are still raised on Galiano and Pender in significant numbers.

### **Topography and Soils**

The collision of terranes along the western North American plate margin resulted in folding and faulting of metamorphic, igneous and sedimentary rocks in the Gulf Island region. Throughout these islands, prominent headlands and high ridges are formed from erosion-resistant sandstone and conglomerate, whereas the narrow bays and valleys are sculpted from softer and more easily eroded shale. Bedrock exposures commonly are striated and grooved, dramatically showing the erosive effects of ice-entrained debris during the last glaciation, between 30,000 and 10,000 years ago.

The soils of the SGI region and southeastern Vancouver Island are distinct and more diverse from the rest of British Columbia's coast. This is largely because the climate is sunnier, drier, and warmer as a result of the rain shadow created by the mountains of Vancouver Island and Washington's Olympic Peninsula. It is also because of variations in both climate and parent material over very short distances. The soil orders or types that are prevalent in the SGI region include: brunisolic soils, gleysolic soils, organic soils, podzolic soils, regosolic soils, and made land (soils artificially altered or disturbed by the activities of humans to such a degree that they cannot be identified and classified).

### **Challenges to Farming**

Overall, farms in the SGI became less profitable from 2006 to 2011. The gross margin decreased from -6.3% in 2006 to -15.1% in 2011, meaning that for every dollar of sales, the farmer was losing 15.1 cents. The BC gross margin average is 11.3%, so the SGI falls far below the average range for profitability. As expected, gross farm receipts have risen since 2006 and the revenue per hectare increased from \$376.67 in 2006 to \$925.47 in 2011, which is encouraging, but these figures do not take operating expenses into account.

Perhaps not surprisingly, 60% of farms in the SGI region were earning less than \$10,000 in gross farm receipts in 2011. Less than half of the farms are making over \$10,000 and only 9% are making more than \$50,000 per year.

There are a number of challenges to farming in the SGI region contributing to the low profitability of farms. Many of these are associated with limited access to markets due to ferry transportation costs and schedules. The aging farming population has also led to a loss in maintenance and transfer of food and agriculture knowledge. As in many other rural areas of the Province, infrastructure assets are also limited such as: on-island meat processing and storage facilities; long-term cold storage facilities; adequate food processing facilities; limited housing opportunities for farm workers; and certain farm equipment and technology.

Water supply and irrigation capacity is also a longstanding concern and limitation to production in the SGI region. Droughty summer conditions coupled with limited accessible water supplies limit the use of irrigation. There is a limited (and possibly diminishing) supply of quality groundwater and growing competition from non-farming uses. Information about surface and groundwater supplies across the region is not adequate. Climate change could make this situation worse in the summer (drought) and in the winter (flooding). Other issues include the distribution of water, and water collection and retention.

### **Opportunities for Farming**

Although there are numerous challenges for farmers, there is also considerable land available for farming and capacity for expansion of agricultural initiatives in the SGI region. There are also a variety of organizations actively working to support new and existing farmers such as the:

- 1 . Pender Island Farmers' Institute
- 2 . Galiano Food Program
- 3 . Mayne Island Farm Gate Store
- 4 . Pender Island Farmland Acquisition Group

Each island also hosts a farmers market and food festivals to encourage local support of farmers and raise awareness of farming in the region. A Food and Agriculture Strategy is currently underway to further support the agriculture sector in the SGI region.

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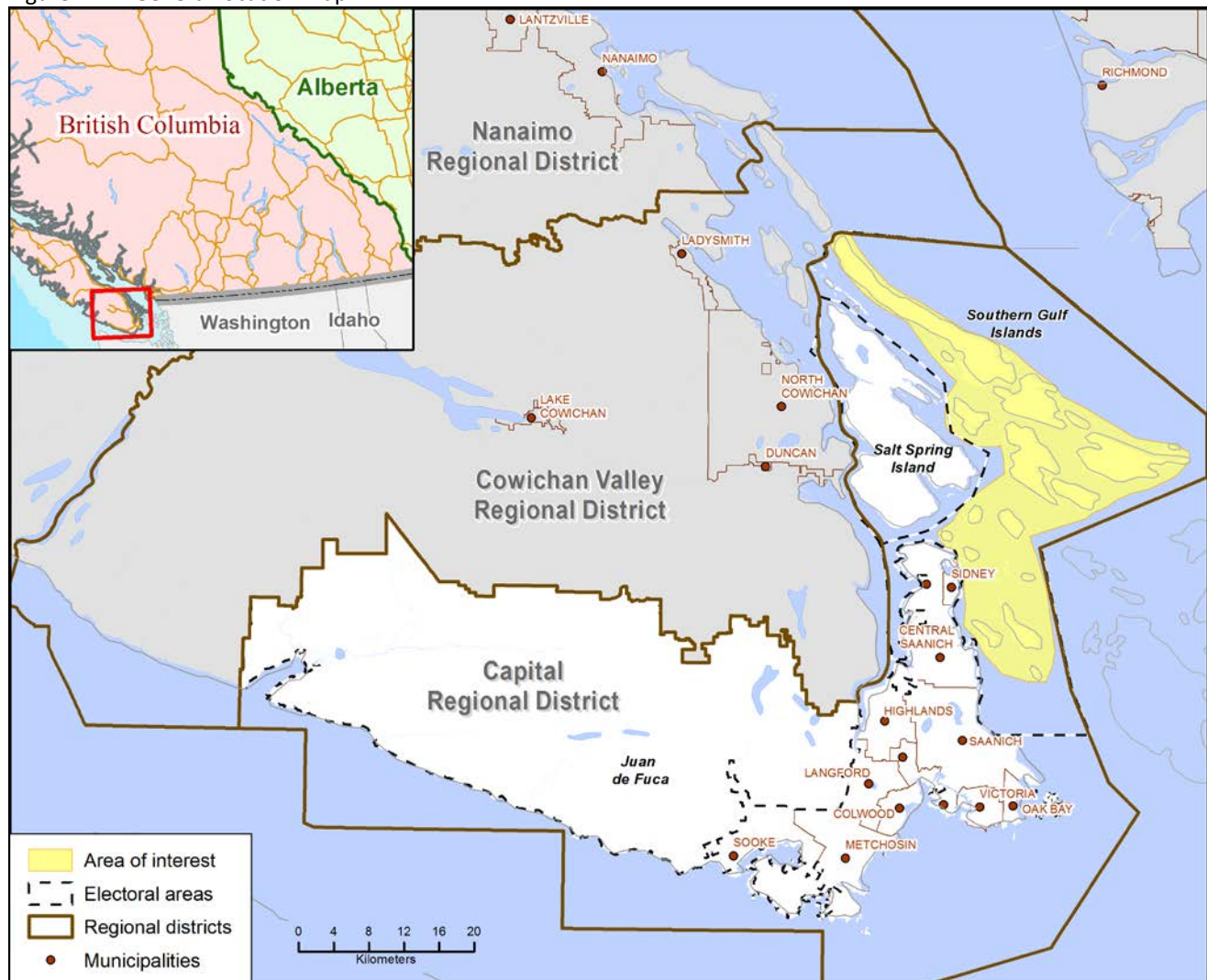
## 1. General Information

In 2012, the Capital Regional District established the Southern Gulf Islands Economic Development Commission (SGIEDC) to work towards achieving a resilient and sustainable local economy. The SGIEDC has identified agriculture as one strategic focus area and, in partnership with the Capital Regional District, is undertaking a food and agriculture strategy. The information in the Agricultural Land Use Inventory (ALUI) will be used to inform the food and agriculture strategy.

Islands Trust is the government body responsible for land use planning on Islands in the Strait of Georgia between southern Vancouver Island and the BC mainland. Islands Trust uses local trust areas<sup>1</sup> as jurisdictional boundaries. The local trust areas within the Southern Gulf Islands Electoral Area include: Galiano, Mayne, Saturna, North Pender, South Pender, and a portion of Salt Spring Island (refer to Figure 3). The ALUI is bounded by the Electoral Area and the data is presented by local trust area.

The Southern Gulf Islands Electoral Area stretches from Galiano Island in the north to D'Arcy Island in the south. The electoral area has a total area (including land and water) of 54,844<sup>2</sup> ha.

Figure 1. General location map



<sup>1</sup> Refer to Islands Trust for information on Local Trust Areas. <http://www.islandstrust.bc.ca/home.aspx>

<sup>2</sup> Calculated in GIS.

## AGRICULTURAL LAND RESERVE

The Agricultural Land Reserve (ALR) is a provincial land use zone that was designated in 1973 in which agriculture is recognized as the priority use. Within the ALR, farming is encouraged and non-agricultural uses are controlled.

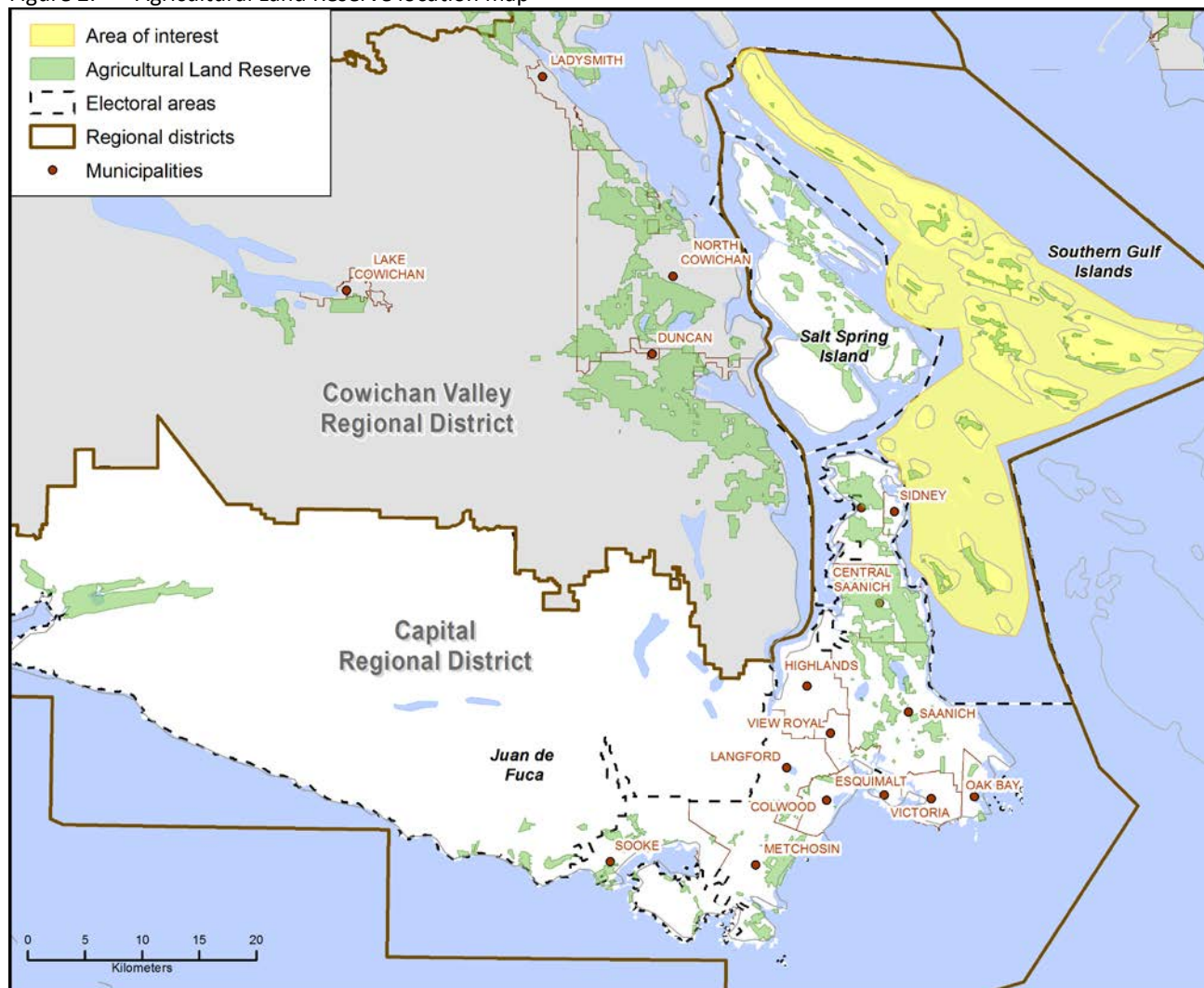
There are 16,399 ha<sup>3</sup> of ALR land within the Capital Regional District (see Figure 2). The Southern Gulf Islands Electoral Area contains 2,347 ha<sup>4</sup> of ALR land, which is 14% of the ALR within CRD.

The total size of the area of interest is 54,844<sup>5</sup>. Of this area, only 19,122 ha is on land. With 2,347 ha in the ALR, 12% of the Southern Gulf Islands land area is in the ALR. The ALR area includes:

- 2,294 ha in inventoried parcels
- 49 ha outside legally surveyed parcels (rights-of-way, water, foreshore)
- 4 ha on inventoried parcels that have less than 500 square meters in the ALR

There are an additional 17 ha of ALR on Saturna Island 7 Indian reserve. This area is not included in the ALR and inventory area totals.

Figure 2. Agricultural Land Reserve location map



<sup>3</sup> Provincial Agricultural Land Commission (ALC) Annual Report 2012/13 Pg 31. <http://www.alc.gov.bc.ca>

<sup>4</sup> Agricultural Land Commission, ALR mapping, Land and Resource Data Warehouse, 2012-10-31 (area calculated in GIS).

<sup>5</sup> Calculated in GIS.

## INVENTORY AREA

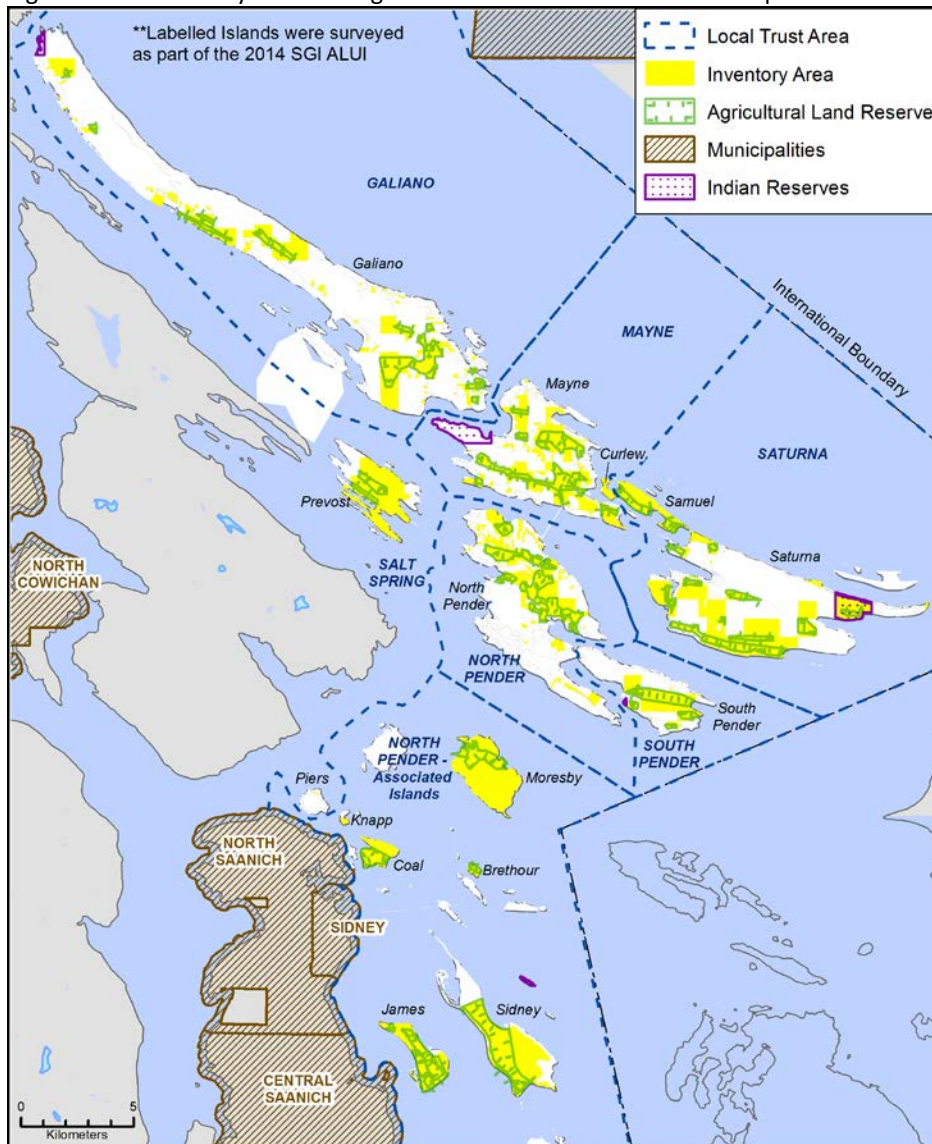
The total inventory area encompasses 711 parcels with a combined area of 6,891 ha, or 36% of the Southern Gulf Islands total land area (water excluded). Included are all parcels:

- completely or partially within the Agricultural Land Reserve, or
- classified by BC Assessment as having “Farm” status for property tax assessment, or
- with an active water licence for farming or irrigation purposes, or
- zoned by local government bylaws to permit agriculture and exhibiting signs of agriculture on aerial photography and greater than 1 acre (0.4 ha) in size

The amount of ALR land included in the inventory area is 2,294 ha located on 430 parcels. This area is 98% of the ALR within the SGI electoral area. The remaining ALR was excluded from the inventory.

In this report, data is presented primarily by local trust area; Galiano, Mayne, Saturna, North Pender, and South Pender Local Trust Areas are included. To give a clear picture of North Pender Island, the North Pender Local Trust Area is split into 2 groups for the purposes of this report: North Pender Island and the North Pender Associated Islands.

Figure 3. Inventory area and Agricultural Land Reserve location map



Where only one island in the Local Trust Area had land that met the inventory criteria, each section is titled by the island name. Where two or more islands were inventoried within a local trust area, the section is titled by local trust area name.

There is an additional 17 ha of ALR land on Saturna Island 7 Indian reserve. This area is not included in the inventory and the ALR totals due to differences in levels of governance.

Table 1. ALR and inventory area by local trust area

| Local Trust Area         | % of regional ALR area | Surveyed parcel area |                  |                 |
|--------------------------|------------------------|----------------------|------------------|-----------------|
|                          |                        | In ALR (ha)          | Outside ALR (ha) | Total Area (ha) |
| Galiano                  | 16 %                   | 372                  | 843              | 1,215           |
| Mayne                    | 14 %                   | 318                  | 648              | 965             |
| North Pender*            | 15 %                   | 346                  | 528              | 874             |
| North Pender Associated* | 28 %                   | 654                  | 1,037            | 1,691           |
| South Pender             | 7 %                    | 157                  | 192              | 349             |
| Saturna                  | 16 %                   | 383                  | 927              | 1,310           |
| Salt Spring Island       | 3 %                    | 64                   | 422              | 486             |
| <b>TOTAL</b>             | <b>98 %</b>            | <b>2,294</b>         | <b>4,597</b>     | <b>6,891</b>    |
| Not surveyed             | 2 %                    | 53                   |                  |                 |
| <b>TOTAL</b>             | <b>100 %</b>           | <b>2,347</b>         |                  |                 |

Table 1 details the surveyed area inside and outside of the ALR for each local trust area within the inventory area.

\* The North Pender Island Local Trust Area is comprised of North Pender Island and many associated smaller islands. In this report, North Pender Island is presented separately from the associated islands.

Table 2. ALR and inventory area by local trust area and island name

| Local Trust Area                 | Island name  | Surveyed parcel area |                  |                 | Number of parcels |
|----------------------------------|--------------|----------------------|------------------|-----------------|-------------------|
|                                  |              | In ALR (ha)          | Outside ALR (ha) | Total Area (ha) |                   |
| Galiano                          | Galiano      | 372                  | 843              | 1,215           | 152               |
| <b>Subtotal</b>                  |              | <b>372</b>           | <b>843</b>       | <b>1,215</b>    | <b>152</b>        |
| Mayne                            | Mayne        | 318                  | 619              | 937             | 128               |
|                                  | Curlew       | -                    | 28               | 28              | 1                 |
| <b>Subtotal</b>                  |              | <b>318</b>           | <b>648</b>       | <b>965</b>      | <b>129</b>        |
| North Pender*                    | North Pender | 346                  | 528              | 874             | 172               |
| <b>Subtotal</b>                  |              | <b>346</b>           | <b>528</b>       | <b>874</b>      | <b>172</b>        |
| North Pender Associated Islands* | Sidney       | 305                  | 309              | 614             | 113               |
|                                  | Moresby      | 118                  | 485              | 602             | 18                |
|                                  | James        | 149                  | 155              | 304             | 5                 |
|                                  | Coal         | 71                   | 70               | 141             | 7                 |
|                                  | Brethour     | 12                   | 10               | 21              | 1                 |
|                                  | Knapp        | -                    | 8                | 8               | 1                 |
| <b>Subtotal</b>                  |              | <b>654</b>           | <b>1,037</b>     | <b>1,691</b>    | <b>145</b>        |
| South Pender                     | South Pender | 157                  | 192              | 349             | 40                |
| <b>Subtotal</b>                  |              | <b>157</b>           | <b>192</b>       | <b>349</b>      | <b>40</b>         |
| Saturna                          | Saturna      | 307                  | 803              | 1,110           | 57                |
|                                  | Samuel       | 77                   | 123              | 200             | 1                 |
| <b>Subtotal</b>                  |              | <b>383</b>           | <b>927</b>       | <b>1,310</b>    | <b>58</b>         |
| Salt Spring Island               | Prevost      | 64                   | 421              | 484             | 13                |
|                                  | Piers        | -                    | 2                | 2               | 2                 |
| <b>Subtotal</b>                  |              | <b>64</b>            | <b>422</b>       | <b>486</b>      | <b>15</b>         |
| <b>TOTAL</b>                     |              | <b>2,294</b>         | <b>4,597</b>     | <b>6,891</b>    | <b>711</b>        |

Table 2 details the surveyed area inside and outside of the ALR for each island within the inventory area.

\* The North Pender Island Local Trust Area is comprised of North Pender Island and many associated smaller islands. For the purposes of this report, North Pender Island is presented separately from the associated islands.

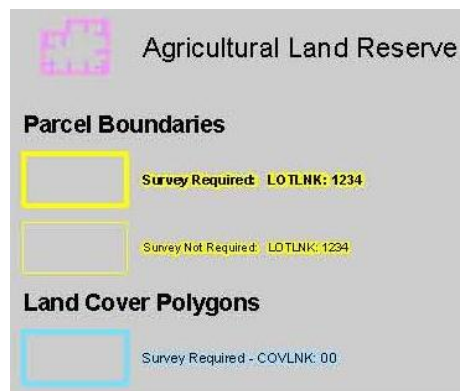
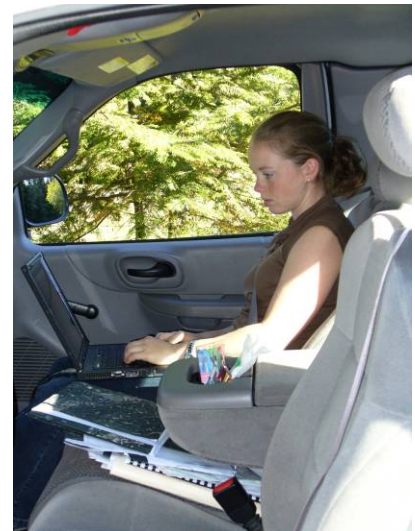
## 2. Methodology

### INVENTORY METHODOLOGY

AgFocus is an Agricultural Land Use Inventory System developed by BC Ministry of Agriculture's Strengthening Farming Program. AgFocus employs a "windshield" survey method designed to capture a snapshot in time of land use and land cover on legal parcels. For more information on AgFocus, please refer to these documents available from the Strengthening Farming Program:

- AgFocus – A Surveyor's Guide to Conducting an Agricultural Land Use Inventory
- AgFocus – Field Guide to Conducting an Agricultural Land Use Inventory
- AgFocus – A GIS Analyst's Guide to Agricultural Land Use Inventory Data

The Southern Gulf Islands Agricultural Land Use Inventory was conducted in the summer of 2014 by a Professional Agrologist assisted by a GIS technician. The survey crew visited each property and observed land use, land cover, and agriculture activity from the road. Where visibility was limited, data was interpreted from aerial photography in combination with local knowledge. The technician entered the survey data into a database on a laptop computer.



Field survey maps provided the basis for the survey and included:

- The legal parcel boundaries (cadastre)<sup>6</sup>
- Unique identifier for each legal parcel
- The preliminary land cover polygon boundaries (digitized prior to field survey using aerial photography)
- Unique identifier for each preliminary land cover polygon
- The boundary of the Agricultural Land Reserve (ALR)
- Base features such as streets, street names, watercourses and contours
- Aerial photography



<sup>6</sup> Cadastre mapping (2013) was provided by Capital Regional District.

## DESCRIPTION OF THE DATA

For each property in the study area, data was collected on general land use and land cover. For properties with agriculture present, data was collected on agricultural practices, irrigation, crop production methods, livestock, agricultural support (storage, compost, waste), and activities which add value to raw agricultural products.

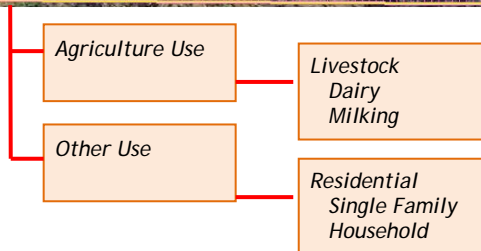
Once acquired through the survey, the data was brought into a Geographic Information System (GIS) to facilitate analysis and mapping. Digital data, in the form of a tabular database and GIS spatial layers (for maps), may be available with certain restrictions through a terms of use agreement.

### *General land use:*

Up to two general land uses (e.g. residential, commercial) were recorded for each property based on an assessment of overall economic importance, the property's tax status, and/or the extent of the land use. The survey for general land use focuses solely on human use and considers:

- The actual human use of land and related structures and modifications to the landscape
- Use-related land cover (where land cover implies a use or is important to interpreting patterns of use)
- Declared interests in the land (which may limit use) such as parks

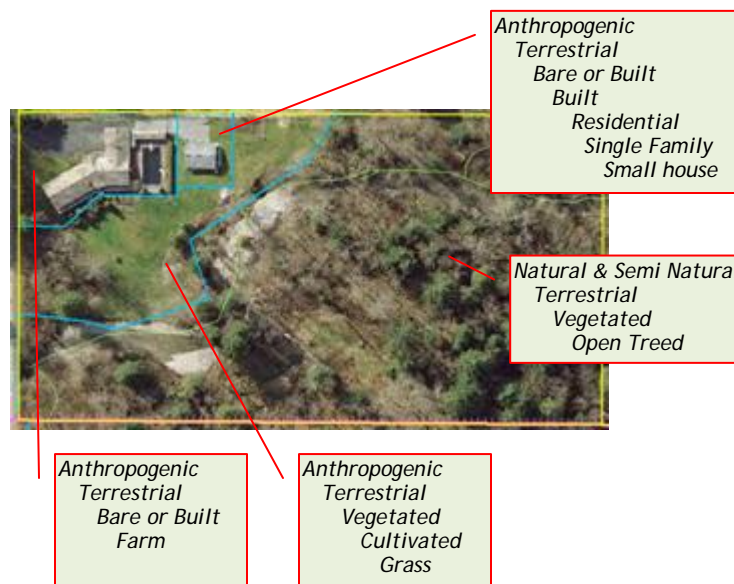
In addition, the availability of non-farm use properties for future farming was assessed based on the amount of potential land for farming on the property and the compatibility of existing uses with future farming activities.



### *Land cover:*

Land cover refers to the biophysical features of the land (e.g. crops, buildings, forested areas, woodlots, streams). Land cover was surveyed by separating the parcel into homogeneous components and assigning each a description. Prior to field survey, polygons were delineated in the office using orthophotography. Further delineation occurred during the field survey until one of the following was achieved:

- Minimum polygon size (500 sq m ~5400 sq ft) or minimum polygon width (10 m ~33 ft)
- Polygon is homogeneous in physical cover and homogeneous in irrigation method
- Maximum level of detail required was reached



In most cases, more than one land cover was recorded for each parcel surveyed.

*Agricultural practices:* Surveyors recorded agricultural practices associated with crops or livestock activities. For example, if a forage crop was being harvested for hay, it was recorded. Irrigation was also recorded, including the type of system used.

*Agricultural crop production:* Crop production and crop protection methods observed on the parcel were recorded such as wildlife scare devices, temperature or light control, or organic production. Organic production is not always visible and may have been recorded based on local knowledge or farmer interviews.

*Livestock:* Livestock operations and confinement methods along with the scale of the activity were estimated and recorded. Livestock not visible at the time of survey may have been inferred based on grazed pastures, manure storage, size of barn and other evidence.

*Agricultural support:* Ancillary agricultural activities, such as storage, compost or waste, supporting the production of a raw commodity on a farm unit were recorded.

*Agricultural value added:* Activities that add value to a raw commodity where at least 50% of the raw commodity is produced on the farm unit were recorded. This value-added activity included processing, direct sales and agri-tourism activities.

## ***PRESENTATION OF THE DATA***

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The data is presented in the form of summarized tables and charts. Absolute data values are preserved throughout the summarization process to maintain precision. In the final formatting of the summarized tables and charts, data values are rounded to the nearest whole number. As a result, data presented in the summarized tables and charts may not appear to add up correctly.

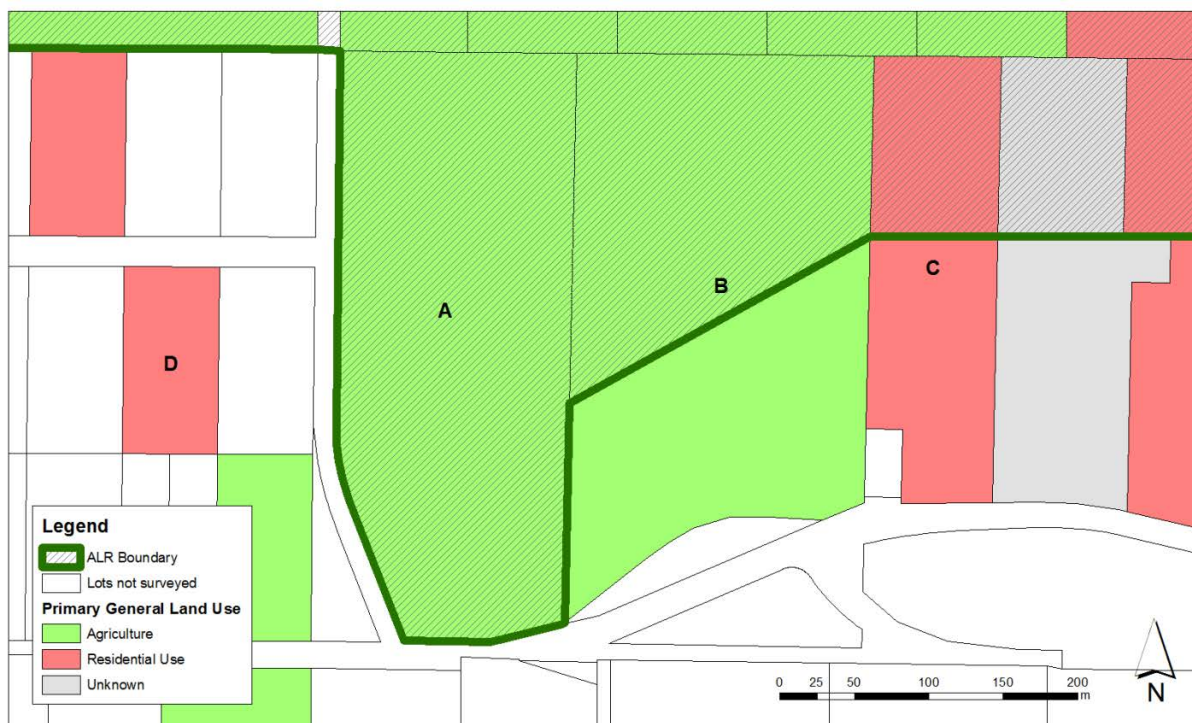
## DETERMINATION OF PARCELS WITHIN THE ALR

Since much of the following analysis is parcel based, it is important to note that the ALR boundaries do not always align with parcel boundaries. As a result, many parcels have only a portion of their area in the ALR.

Figure 4 illustrates the frequent misalignment between parcel boundaries and the ALR boundary. Given that the dark green line represents the ALR boundary, Lot A is completely in the ALR and Lots B and C have a portion of their area in the ALR. Lot D is completely outside the ALR.

Many of the results presented in this report include 3 separate totals: the total parcel area, the portion of the parcel inside the ALR, and the portion of the parcel outside the ALR.

Figure 4. Parcel inclusion in the ALR



### 3. Land Cover and Farmed Area

Land cover describes the biophysical material at the surface of the earth and is distinct from land use which describes how people utilize the land.

Land use is surveyed by assigning the parcel up to two land uses. Some examples of land use are residential, commercial, and industrial. Refer to Section 4 of this report for more information on land use.

Land cover is surveyed by separating the parcel into homogeneous components and assigning each a description such as landscape lawn, natural open treed, natural waterbody, blueberries, road, or small single family house. Most surveyed parcels have numerous different land cover types with each describing a different area of the parcel. Land cover more closely approximates the actual area of land in agricultural production or “Farmed” than land use.

Four land cover types are considered “Farmed”:

- **Cultivated field crops:** vegetation under cultivation for harvest or pasture including land temporarily set aside from farming and perennial crops that were not harvested or grazed in the current growing season
- **Farm infrastructure:** built structures associated with farming such as barns, stables, corrals, riding rings, and their associated yards
- **Greenhouses:** permanent enclosed glass or poly structures with or without climate control facilities for growing plants and vegetation under controlled environments
- **Crop barns:** permanent enclosed structures with non-translucent walls for growing crops such as mushrooms or bean sprouts

Forage and pasture field crops which have not been cut or grazed during the current growing season (unused), unmaintained field crops, and unmaintained greenhouses are considered “Farmed” land covers but are considered inactive.

Natural pasture and rangeland are fenced areas with uncultivated (not sown) natural or semi-natural grasses, herbs or shrubs used for grazing domestic livestock. These areas are considered “Grazed” and not “Farmed” although usually these areas are extensions of more intensive farming areas.

Land cover types which may support farming, such as farm residences, vegetative buffers and farm road access, are not considered “Farmed”.

## Overview

Table 3. Land cover and farmed area – Southern Gulf Islands

| Land cover*                                |                          | ALR          |             | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|--------------------------|--------------|-------------|------------------|-----------------|---------------------|
|                                            |                          | In ALR (ha)  | % of ALR    |                  |                 |                     |
| Actively farmed                            | Cultivated field crops   | 541          | 23%         | 121              | 661             | 10%                 |
|                                            | Farm infrastructure      | 10           | < 1%        | 7                | 17              | < 1%                |
|                                            | Greenhouses              | <1           | < 1%        | <1               | 1               | < 1%                |
| Inactively farmed                          | Unmaintained field crops | 32           | 1%          | 13               | 45              | < 1%                |
|                                            | Unused forage or pasture | 7            | < 1%        | 3                | 11              | < 1%                |
| <b>FARMED SUBTOTAL</b>                     |                          | <b>591</b>   | <b>25%</b>  | <b>145</b>       | <b>736</b>      | <b>11%</b>          |
| Anthropogenic (not farmed)                 | Managed vegetation       | 256          | 11%         | 255              | 510             | 7%                  |
|                                            | Non Built or Bare        | 4            | < 1%        | 10               | 14              | < 1%                |
|                                            | Residential footprint    | 16           | < 1%        | 33               | 49              | < 1%                |
|                                            | Settlement               | 4            | < 1%        | 6                | 10              | < 1%                |
|                                            | Transportation           | 16           | < 1%        | 20               | 36              | < 1%                |
|                                            | Waterbodies              | 13           | < 1%        | 6                | 20              | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                          | <b>309</b>   | <b>13%</b>  | <b>329</b>       | <b>639</b>      | <b>9%</b>           |
| Natural and Semi-natural                   | Vegetated                | 1,291        | 55%         | 3,583            | 4,875           | 71%                 |
|                                            | Natural pasture          | 58           | 2%          | 172              | 230             | 3%                  |
|                                            | Wetlands                 | 14           | < 1%        | 13               | 27              | < 1%                |
|                                            | Natural bare areas       | 18           | 1%          | 45               | 63              | < 1%                |
|                                            | Waterbodies              | 12           | < 1%        | 20               | 32              | < 1%                |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                          | <b>1,394</b> | <b>60%</b>  | <b>3,834</b>     | <b>5,227</b>    | <b>76%</b>          |
| Not surveyed                               | Unknown                  | -            | -           | 289              | 289             | 4%                  |
| <b>TOTAL</b>                               |                          | <b>2,294</b> | <b>98%</b>  | <b>4,597</b>     | <b>6,891</b>    | <b>100%</b>         |
| Not surveyed                               | Outside parcels          | 49           | 2%          |                  |                 |                     |
|                                            | Parcels areas < 500 sq m | 4            | < 1%        |                  |                 |                     |
| <b>SUBTOTAL</b>                            |                          | <b>53</b>    | <b>2%</b>   |                  |                 |                     |
| <b>TOTAL</b>                               |                          | <b>2,347</b> | <b>100%</b> |                  |                 |                     |

\* Refer to the glossary for terms used in this table.

Table 3 shows the extent of different land cover types across the entire Southern Gulf Islands inventory area.

There are 736 ha of land in “Farmed” land cover (591 ha in the ALR and 145 outside of the ALR). Fifty-six of these ha are “Inactively farmed” in unmaintained field crops or in unused forage or pasture.

Refer to Map 1 for more information.

Figure 5. Land cover and farmed area in the ALR – Southern Gulf Islands

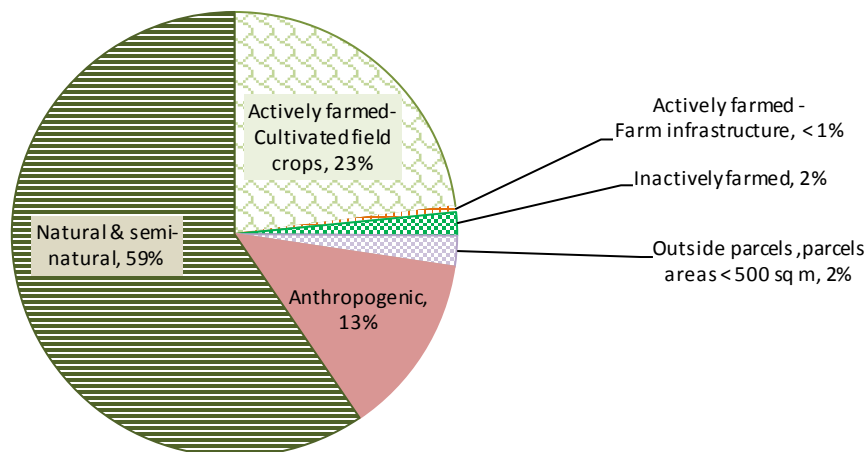


Figure 5 shows the proportion of different land cover types across the ALR.

Of the ALR land, 59% is in “natural & semi-natural” land cover while 23% is in cultivated field crops, and 2% is “inactively farmed”.

Land used in support of farming such as farm residences, vegetative buffers or roadways is not included as “Farmed”.

Table 4. Land cover and farmed area in the ALR by local trust area

| Local Trust Area<br>(LTA)                             | ALR Land Cover Category |                 |                               |                 |                           |                 | Total          |                 |
|-------------------------------------------------------|-------------------------|-----------------|-------------------------------|-----------------|---------------------------|-----------------|----------------|-----------------|
|                                                       | Farmed                  |                 | Anthropogenic<br>(not farmed) |                 | Natural &<br>Semi-natural |                 |                |                 |
|                                                       | In ALR<br>(ha)          | % of<br>LTA ALR | % of<br>LTA ALR               | % of LTA<br>ALR | In ALR<br>(ha)            | % of<br>LTA ALR | In ALR<br>(ha) | % of<br>LTA ALR |
| Galiano                                               | 47                      | 13%             | 41                            | 11%             | 284                       | 76%             | 372            | 100%            |
| Mayne                                                 | 166                     | 52%             | 26                            | 8%              | 126                       | 40%             | 318            | 100%            |
| North Pender*                                         | 140                     | 41%             | 44                            | 13%             | 161                       | 47%             | 346            | 100%            |
| North Pender Associated*                              | 78                      | 12%             | 148                           | 23%             | 427                       | 65%             | 654            | 100%            |
| South Pender                                          | 27                      | 17%             | 17                            | 11%             | 112                       | 72%             | 157            | 100%            |
| Saturna*                                              | 88                      | 23%             | 32                            | 8%              | 264                       | 69%             | 383            | 100%            |
| Salt Spring Island                                    | 44                      | 69%             | <1                            | < 1%            | 20                        | 31%             | 64             | 100%            |
| TOTAL ALR                                             | 591                     | 26%             | 309                           | 13%             | 1,394                     | 59%             | 2,294          | 98%             |
| Not surveyed - outside parcels, parcel areas < 500 m² |                         |                 |                               |                 |                           |                 | 53             | 2%              |
| TOTAL ALR                                             |                         |                 |                               |                 |                           |                 | 2,347          | 100%            |

\* The North Pender Island Local Trust Area is comprised of North Pender Island and many associated smaller islands. In this report, North Pender Island is presented separately from the associated islands.

Table 4 shows the extent of different land cover types across the Southern Gulf Islands ALR area by Local Trust Area.

There are 591 ha of ALR land or 26% of the SGI ALR area in “Farmed” land cover. “Farmed” land cover includes cultivated field crops, farm infrastructure and greenhouses.

Refer to Map 1 for more information.

## Galiano Island

Table 5. Land cover and farmed area – Galiano Island

| Land cover*                                |                          | ALR         |             | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|--------------------------|-------------|-------------|------------------|-----------------|---------------------|
|                                            |                          | In ALR (ha) | % of ALR    |                  |                 |                     |
| Actively farmed                            | Cultivated field crops   | 43          | 11%         | 21               | 64              | 5%                  |
|                                            | Farm infrastructure      | 2           | < 1%        | 1                | 3               | < 1%                |
|                                            | Greenhouses              | <1          | < 1%        | <1               | <1              | < 1%                |
| Inactively farmed                          | Unmaintained field crops | 2           | < 1%        | <1               | 3               | < 1%                |
| <b>FARMED SUBTOTAL</b>                     |                          | <b>47</b>   | <b>13%</b>  | <b>23</b>        | <b>70</b>       | <b>6%</b>           |
| Anthropogenic (not farmed)                 | Managed vegetation       | 34          | 9%          | 46               | 81              | 7%                  |
|                                            | Non Built or Bare        | 1           | < 1%        | 2                | 3               | < 1%                |
|                                            | Residential footprint    | 3           | < 1%        | 9                | 12              | 1%                  |
|                                            | Settlement               | <1          | < 1%        | 1                | 2               | < 1%                |
|                                            | Transportation           | <1          | < 1%        | 6                | 6               | < 1%                |
|                                            | Waterbodies              | 2           | < 1%        | <1               | 3               | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                          | <b>41</b>   | <b>11%</b>  | <b>65</b>        | <b>107</b>      | <b>9%</b>           |
| Natural and Semi-natural                   | Vegetated                | 273         | 73%         | 738              | 1,010           | 83%                 |
|                                            | Natural pasture          | 4           | < 1%        | 3                | 7               | < 1%                |
|                                            | Wetlands                 | 6           | 2%          | 7                | 13              | 1%                  |
|                                            | Natural bare areas       | -           | -           | 5                | 5               | < 1%                |
|                                            | Waterbodies              | 2           | < 1%        | 2                | 4               | < 1%                |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                          | <b>284</b>  | <b>76%</b>  | <b>755</b>       | <b>1,038</b>    | <b>85%</b>          |
| <b>TOTAL</b>                               |                          | <b>372</b>  | <b>100%</b> | <b>843</b>       | <b>1,215</b>    | <b>100%</b>         |

\* Refer to the glossary for terms used in this table.

Table 5 shows the extent of different land cover types across the Galiano Island inventory area.

There are 70 ha of land in “Farmed” land cover (47 in the ALR and 23 outside). Sixty-four of these ha are in cultivated field crops, 3 ha are in farm infrastructure, and 3 ha are in unmaintained field crops.

Figure 6. Land cover and farmed area in the ALR – Galiano Island

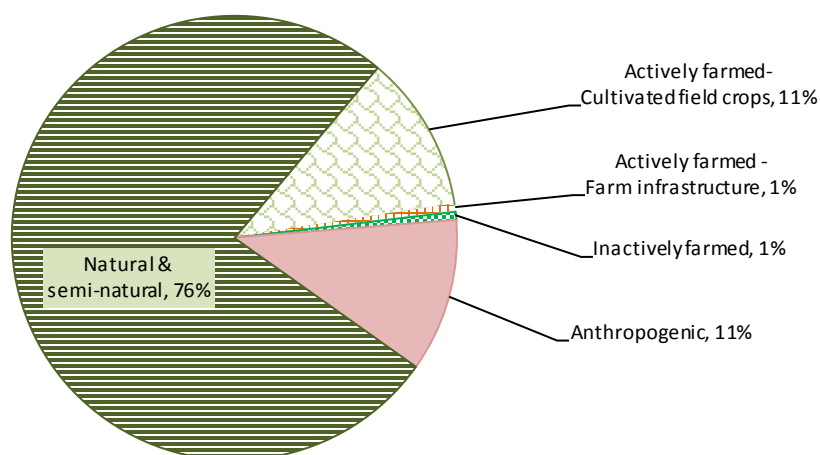


Figure 6 shows the proportion of different land cover types across the ALR on Galiano Island.

Of the ALR land, 76% is in “natural & semi-natural” land cover while 12% is in actively farmed in cultivated field crops and farm infrastructure.

Land used in support of farming such as farm residences, vegetative buffers or roadways is not included as “Farmed”.

## Mayne Island Local Trust Area (Mayne & Curlew Islands)

Table 6. Land cover and farmed area – Mayne Island Local Trust Area

| Land cover*                                |                          | ALR         |             | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|--------------------------|-------------|-------------|------------------|-----------------|---------------------|
|                                            |                          | In ALR (ha) | % of ALR    |                  |                 |                     |
| Actively farmed                            | Cultivated field crops   | 161         | 51%         | 29               | 190             | 20%                 |
|                                            | Farm infrastructure      | 2           | 1%          | 2                | 4               | < 1%                |
|                                            | Greenhouses              | <1          | < 1%        | <1               | <1              | < 1%                |
| Inactively farmed                          | Unmaintained field crops | 2           | < 1%        | 2                | 4               | < 1%                |
|                                            | Unused forage or pasture | -           | -           | 3                | 3               | < 1%                |
| <b>FARMED SUBTOTAL</b>                     |                          | <b>166</b>  | <b>53%</b>  | <b>36</b>        | <b>202</b>      | <b>21%</b>          |
| Anthropogenic (not farmed)                 | Managed vegetation       | 19          | 6%          | 36               | 55              | 6%                  |
|                                            | Non Built or Bare        | <1          | < 1%        | 2                | 2               | < 1%                |
|                                            | Residential footprint    | 2           | < 1%        | 7                | 9               | < 1%                |
|                                            | Settlement               | <1          | < 1%        | 2                | 2               | < 1%                |
|                                            | Transportation           | 2           | < 1%        | 2                | 3               | < 1%                |
|                                            | Waterbodies              | 3           | < 1%        | <1               | 3               | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                          | <b>26</b>   | <b>8%</b>   | <b>50</b>        | <b>76</b>       | <b>8%</b>           |
| Natural and Semi-natural                   | Vegetated                | 124         | 39%         | 560              | 683             | 71%                 |
|                                            | Natural pasture          | 2           | < 1%        | -                | 2               | < 1%                |
|                                            | Wetlands                 | <1          | < 1%        | <1               | <1              | < 1%                |
|                                            | Natural bare areas       | -           | -           | <1               | <1              | < 1%                |
|                                            | Waterbodies              | <1          | < 1%        | <1               | 1               | < 1%                |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                          | <b>126</b>  | <b>40%</b>  | <b>562</b>       | <b>688</b>      | <b>71%</b>          |
| <b>TOTAL</b>                               |                          | <b>318</b>  | <b>100%</b> | <b>648</b>       | <b>965</b>      | <b>100%</b>         |

\* Refer to the glossary for terms used in this table.

Table 6 shows the extent of different land cover types across the inventory area in the Mayne Island LTA.

There are 202 ha of land in “Farmed” land cover; 190 ha are in cultivated field crops, 4 ha are in farm infrastructure, and 7 ha are in unmaintained or unused crops. All of the “Farmed” land cover occurs on Mayne Island.

Refer to Map 1 for more information.

Figure 7. Land cover and farmed area in the ALR – Mayne Island Land Trust Area

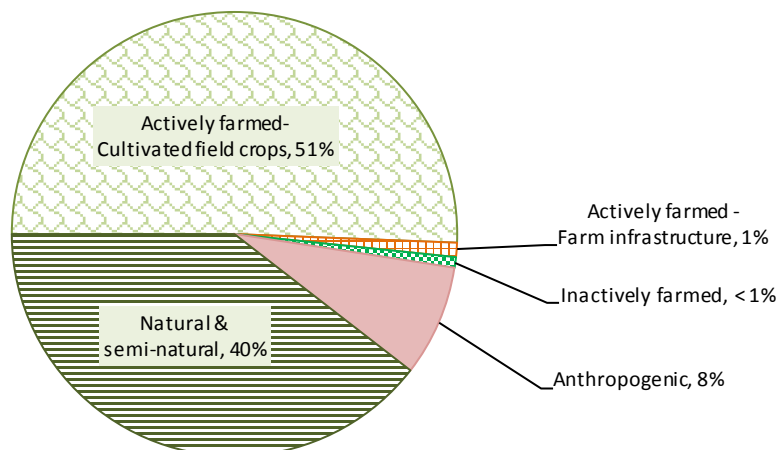


Figure 7 shows the proportion of different land cover types across the ALR in the Mayne Island LTA. Mayne Island is the only island within the LTA with ALR.

Of the ALR land, 51% is in cultivated field crops while 40% is in “natural & semi-natural” land cover.

Land used in support of farming such as farm residences, vegetative buffers or roadways is not included as “Farmed”.

## North Pender Island

Table 7. Land cover and farmed area – North Pender Island

| Land cover*                                |                          | ALR         |             | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|--------------------------|-------------|-------------|------------------|-----------------|---------------------|
|                                            |                          | In ALR (ha) | % of ALR    |                  |                 |                     |
| Actively farmed                            | Cultivated field crops   | 130         | 38%         | 49               | 179             | 21%                 |
|                                            | Farm infrastructure      | 2           | < 1%        | 2                | 4               | < 1%                |
|                                            | Greenhouses              | <1          | < 1%        | <1               | <1              | < 1%                |
| Inactively farmed                          | Unmaintained field crops | <1          | < 1%        | 10               | 11              | 1%                  |
|                                            | Unused forage or pasture | 7           | 2%          | <1               | 8               | < 1%                |
| <b>FARMED SUBTOTAL</b>                     |                          | <b>140</b>  | <b>41%</b>  | <b>63</b>        | <b>203</b>      | <b>23%</b>          |
| Anthropogenic (not farmed)                 | Managed vegetation       | 31          | 9%          | 31               | 62              | 7%                  |
|                                            | Non Built or Bare        | 2           | < 1%        | 4                | 6               | < 1%                |
|                                            | Residential footprint    | 5           | 1%          | 10               | 15              | 2%                  |
|                                            | Settlement               | 2           | < 1%        | 2                | 4               | < 1%                |
|                                            | Transportation           | 1           | < 1%        | 1                | 2               | < 1%                |
|                                            | Waterbodies              | 4           | 1%          | 3                | 7               | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                          | <b>44</b>   | <b>13%</b>  | <b>52</b>        | <b>96</b>       | <b>11%</b>          |
| Natural and Semi-natural                   | Vegetated                | 156         | 45%         | 411              | 566             | 65%                 |
|                                            | Natural pasture          | 4           | 1%          | 1                | 5               | < 1%                |
|                                            | Wetlands                 | 1           | < 1%        | -                | 1               | < 1%                |
|                                            | Natural bare areas       | -           | -           | <1               | <1              | < 1%                |
|                                            | Waterbodies              | <1          | < 1%        | <1               | 2               | < 1%                |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                          | <b>161</b>  | <b>47%</b>  | <b>413</b>       | <b>575</b>      | <b>66%</b>          |
| <b>TOTAL</b>                               |                          | <b>346</b>  | <b>100%</b> | <b>528</b>       | <b>874</b>      | <b>100%</b>         |

\* Refer to the glossary for terms used in this table.

Table 7 shows the extent of different land cover types across the North Pender Island inventory area.

There are 203 ha of land in “Farmed” land cover; 179 ha are in cultivated field crops, 4 ha are in farm infrastructure, and 19 ha are in unmaintained or unused crops.

Refer to Map 1 for more information.

Figure 8. Land cover and farmed area in the ALR – North Pender Island

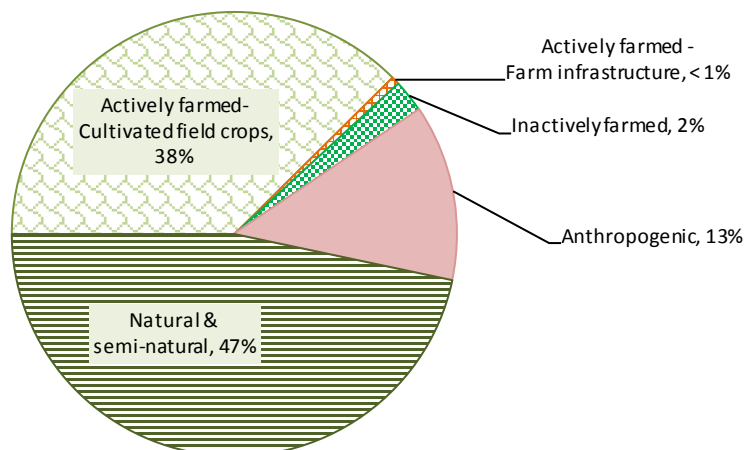


Figure 8 shows the proportion of different land cover types across the ALR on North Pender Island.

Of the ALR land, 38% is in cultivated field crops while 47% is in “natural & semi-natural” land cover.

Land used in support of farming such as farm residences, vegetative buffers or roadways is not included as “Farmed”.

## North Pender LTA Associated Islands

Table 8. Land cover and farmed area – North Pender Associated Islands

| Land cover*                                |                        | ALR         |             | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|------------------------|-------------|-------------|------------------|-----------------|---------------------|
|                                            |                        | In ALR (ha) | % of ALR    |                  |                 |                     |
| Actively farmed                            | Cultivated field crops | 76          | 12%         | 4                | 81              | 5%                  |
|                                            | Farm infrastructure    | 2           | < 1%        | -                | 2               | < 1%                |
| <b>FARMED SUBTOTAL</b>                     |                        | <b>78</b>   | <b>12%</b>  | <b>4</b>         | <b>83</b>       | <b>5%</b>           |
| Anthropogenic (not farmed)                 | Managed vegetation     | 131         | 20%         | 107              | 238             | 14%                 |
|                                            | Non Built or Bare      | -           | -           | 1                | 1               | < 1%                |
|                                            | Residential footprint  | 1           | < 1%        | 2                | 3               | < 1%                |
|                                            | Settlement             | <1          | < 1%        | <1               | 2               | < 1%                |
|                                            | Transportation         | 11          | 2%          | 9                | 20              | 1%                  |
|                                            | Waterbodies            | 3           | < 1%        | 1                | 5               | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                        | <b>148</b>  | <b>23%</b>  | <b>121</b>       | <b>269</b>      | <b>16%</b>          |
| Natural and Semi-natural                   | Vegetated              | 401         | 61%         | 713              | 1,114           | 66%                 |
|                                            | Wetlands               | 6           | < 1%        | 2                | 8               | < 1%                |
|                                            | Natural bare areas     | 14          | 2%          | 25               | 39              | 2%                  |
|                                            | Waterbodies            | 6           | < 1%        | 3                | 9               | < 1%                |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                        | <b>427</b>  | <b>65%</b>  | <b>743</b>       | <b>1,170</b>    | <b>69%</b>          |
| Not surveyed                               | Unknown                | -           | -           | 169              | 169             | 10%                 |
| <b>TOTAL</b>                               |                        | <b>654</b>  | <b>100%</b> | <b>1,037</b>     | <b>1,691</b>    | <b>100%</b>         |

\* Refer to the glossary for terms used in this table.

Table 8 shows the extent of different land cover types across the North Pender LTA Associated Islands inventory area.

There are 83 ha of land in “Farmed” land cover; 81 ha are in cultivated field crops and 2 ha are in farm infrastructure.

Refer to Map 1 for more information.

Figure 9. Land cover and farmed area in the ALR – North Pender Associated Islands

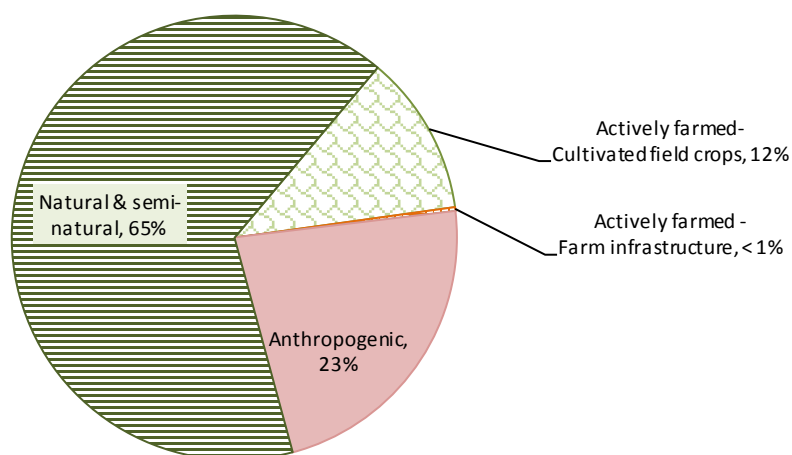


Figure 9 shows the proportion of different land cover types across the ALR on the North Pender Associated Islands.

Of the ALR land, 65% is in “natural & semi-natural” land cover, 23% in in anthropogenic (not farmed) land cover, and 12% is in cultivated field crops.

Land used in support of farming such as farm residences, vegetative buffers or roadways is not included as “Farmed”.

## South Pender Island

Table 9. Land cover and farmed area – South Pender Island

| Land cover*                                |                          | ALR         |             | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|--------------------------|-------------|-------------|------------------|-----------------|---------------------|
|                                            |                          | In ALR (ha) | % of ALR    |                  |                 |                     |
| Actively farmed                            | Cultivated field crops   | 21          | 13%         | <1               | 21              | 6%                  |
|                                            | Farm infrastructure      | <1          | < 1%        | <1               | 1               | < 1%                |
|                                            | Greenhouses              | <1          | < 1%        | <1               | <1              | < 1%                |
| Inactively farmed                          | Unmaintained field crops | 6           | 4%          | <1               | 6               | 2%                  |
| <b>FARMED SUBTOTAL</b>                     |                          | <b>27</b>   | <b>17%</b>  | <b>1</b>         | <b>28</b>       | <b>8%</b>           |
| Anthropogenic (not farmed)                 | Managed vegetation       | 14          | 9%          | 3                | 17              | 5%                  |
|                                            | Non Built or Bare        | <1          | < 1%        | <1               | <1              | < 1%                |
|                                            | Residential footprint    | 3           | 2%          | 2                | 5               | 1%                  |
|                                            | Settlement               | <1          | < 1%        | -                | <1              | < 1%                |
|                                            | Waterbodies              | <1          | < 1%        | -                | <1              | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                          | <b>17</b>   | <b>11%</b>  | <b>6</b>         | <b>23</b>       | <b>7%</b>           |
| Natural and Semi-natural                   | Vegetated                | 111         | 71%         | 178              | 289             | 83%                 |
|                                            | Wetlands                 | -           | -           | 1                | 1               | < 1%                |
|                                            | Natural bare areas       | -           | -           | <1               | <1              | < 1%                |
|                                            | Waterbodies              | <1          | < 1%        | 6                | 7               | 2%                  |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                          | <b>112</b>  | <b>72%</b>  | <b>186</b>       | <b>298</b>      | <b>85%</b>          |
| <b>TOTAL</b>                               |                          | <b>157</b>  | <b>100%</b> | <b>192</b>       | <b>349</b>      | <b>100%</b>         |

\* Refer to the glossary for terms used in this table.

Table 9 shows the extent of different land cover types across the South Pender Island inventory area.

There are 28 ha of land in “Farmed” land cover; 21 ha are in cultivated field crops, 1 ha is in farm infrastructure, and 6 ha are in unmaintained crops.

Refer to Map 1 for more information.

Figure 10. Land cover and farmed area in the ALR – South Pender Island

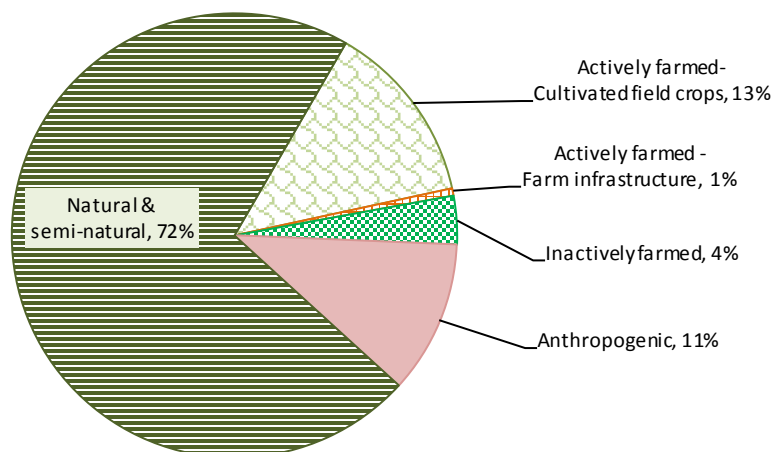


Figure 10 shows the proportion of different land cover types across the ALR on South Pender Island.

Of the ALR land, 72% is in “natural & semi-natural” land cover while 13% is in cultivated field crops and 4% is “Inactively farmed”.

Land used in support of farming such as farm residences, vegetative buffers or roadways is not included as “Farmed”.

## Saturna Island Local Trust Area (Saturna & Samuel Islands)

Table 10. Land cover and farmed area – Saturna Island Local Trust Area

| Land cover*                                |                          | ALR         |             | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|--------------------------|-------------|-------------|------------------|-----------------|---------------------|
|                                            |                          | In ALR (ha) | % of ALR    |                  |                 |                     |
| Actively farmed                            | Cultivated field crops   | 66          | 17%         | 7                | 72              | 6%                  |
|                                            | Farm infrastructure      | <1          | < 1%        | <1               | <1              | < 1%                |
|                                            | Greenhouses              | <1          | < 1%        | <1               | <1              | < 1%                |
| Inactively farmed                          | Unmaintained field crops | 21          | 6%          | <1               | 22              | 2%                  |
| <b>FARMED SUBTOTAL</b>                     |                          | <b>88</b>   | <b>23%</b>  | <b>7</b>         | <b>95</b>       | <b>7%</b>           |
| Anthropogenic (not farmed)                 | Managed vegetation       | 26          | 7%          | 8                | 35              | 3%                  |
|                                            | Non Built or Bare        | <1          | < 1%        | <1               | 1               | < 1%                |
|                                            | Residential footprint    | 1           | < 1%        | 2                | 3               | < 1%                |
|                                            | Settlement               | <1          | < 1%        | <1               | <1              | < 1%                |
|                                            | Transportation           | 2           | < 1%        | 2                | 4               | < 1%                |
|                                            | Waterbodies              | 1           | < 1%        | <1               | 1               | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                          | <b>32</b>   | <b>8%</b>   | <b>13</b>        | <b>45</b>       | <b>3%</b>           |
| Natural and Semi-natural                   | Vegetated                | 208         | 54%         | 609              | 817             | 62%                 |
|                                            | Natural pasture          | 49          | 13%         | 168              | 217             | 17%                 |
|                                            | Wetlands                 | <1          | < 1%        | <1               | 1               | < 1%                |
|                                            | Natural bare areas       | 4           | < 1%        | 5                | 9               | < 1%                |
|                                            | Waterbodies              | 2           | < 1%        | 4                | 6               | < 1%                |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                          | <b>264</b>  | <b>69%</b>  | <b>786</b>       | <b>1,050</b>    | <b>80%</b>          |
| Not surveyed                               | Unknown                  | -           | -           | 120              | 120             | 9%                  |
| <b>TOTAL</b>                               |                          | <b>383</b>  | <b>100%</b> | <b>807</b>       | <b>1,190</b>    | <b>91%</b>          |

\* Refer to the glossary for terms used in this table.

Table 10 shows the extent of different land cover types across the Saturna Island LTA inventory area.

There are 95 ha of land in “Farmed” land cover; 72 ha are in cultivated field crops while 22 ha are in unmaintained field crops. All of the “Farmed” land cover occurs on Saturna Island.

The 120 ha of ‘not surveyed – unknown’ land cover occurs on 1 parcel of 200 ha on Samuel Island. The parcel was partially surveyed with only the ALR portion being inventoried.

Refer to Map 1 for more information.

Figure 11. Land cover and farmed area in the ALR – Saturna Island Land Trust Area

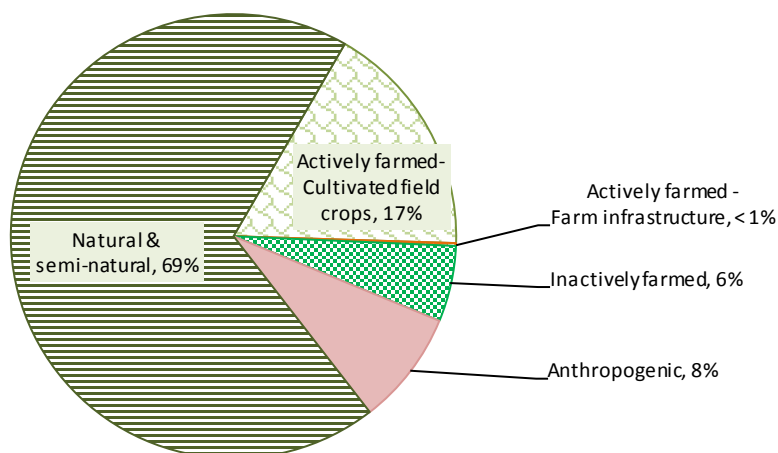


Figure 11 shows the proportion of different land cover types across the ALR in the Saturna Island LTA.

Of the ALR land, 69% is in “natural & semi-natural” land cover while 17% is in cultivated field crops and 6% is “Inactively farmed”.

Land used in support of farming such as farm residences, vegetative buffers or roadways is not included as “Farmed”.

## Piers Island & Prevost Island (Salt Spring Island Local Trust Area)

Table 11. Land cover and farmed area – Piers & Prevost Islands

| Land cover*                                |                        | ALR          |                | Outside ALR (ha) | Total area (ha) | % of inventory area |
|--------------------------------------------|------------------------|--------------|----------------|------------------|-----------------|---------------------|
|                                            |                        | In ALR (ha)  | % of ALR       |                  |                 |                     |
| Actively farmed                            | Cultivated field crops | 44           | 69%            | 9                | 53              | 11%                 |
|                                            | Farm infrastructure    | -            | -              | 1                | 1               | < 1%                |
| <b>FARMED SUBTOTAL</b>                     |                        | <b>44</b>    | <b>69%</b>     | <b>10</b>        | <b>54</b>       | <b>11%</b>          |
| Anthropogenic (not farmed)                 | Managed vegetation     | <1           | < 1%           | 23               | 23              | 5%                  |
|                                            | Residential footprint  | -            | -              | <1               | <1              | < 1%                |
| <b>ANTHROPOGENIC SUBTOTAL</b>              |                        | <b>&lt;1</b> | <b>&lt; 1%</b> | <b>23</b>        | <b>23</b>       | <b>5%</b>           |
| Natural and Semi-natural                   | Vegetated              | 20           | 31%            | 375              | 395             | 81%                 |
|                                            | Wetlands               | -            | -              | 1                | 1               | < 1%                |
|                                            | Natural bare areas     | -            | -              | 10               | 10              | 2%                  |
|                                            | Waterbodies            | -            | -              | 3                | 3               | < 1%                |
| <b>NATURAL &amp; SEMI-NATURAL SUBTOTAL</b> |                        | <b>20</b>    | <b>31%</b>     | <b>389</b>       | <b>409</b>      | <b>84%</b>          |
| <b>TOTAL</b>                               |                        | <b>64</b>    | <b>100%</b>    | <b>423</b>       | <b>486</b>      | <b>100%</b>         |

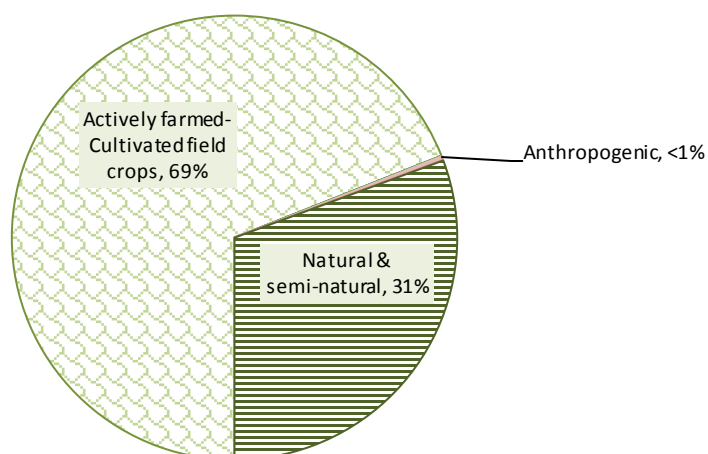
\* Refer to the glossary for terms used in this table.

Table 11 shows the extent of different land cover types on Piers and Prevost Islands.

There are 54 ha in “Farmed” land cover, 23 ha in “anthropogenic – managed vegetation”, and 409 ha in “natural and semi-natural” land cover. All of the “Farmed” land cover occurs on Prevost Island.

Refer to Map 1 for more information.

Figure 12. Land cover and farmed area in the ALR – Prevost Island



There is no ALR land on Piers Island.

Figure 12 shows the proportion of different land cover types across the ALR on Prevost Island.

Of the ALR land, 69% is in cultivated field crops and 31% is “natural & semi-natural” land cover.

## 4. Land Use and Farm Use

Land use focuses solely on human use and describes the economic function or type of establishment using the parcel. A parcel can have a variety of activities on the land, yet serve a single use. For example, two parcels are said to be “Used for farming”, even if one is a dairy farm and the other is in blueberries. Another example is “Commercial” land use; if one parcels is a hotel, another is a retail store, and a third is a gas station, all area considered to have “Commercial” land use.

Up to two general land uses (e.g. residential, commercial, protected area) are recorded for each parcel. Evaluation of land uses are based on overall economic importance, the property’s tax status, and/or the extent of the land use.

Parcels where the majority of the parcel area is utilized for farming or parcels which exhibit significant evidence of intensive farming are considered “**Used for farming**”. For a complete definition of “Used for farming”, refer to the glossary.

Parcels “**Not used for farming**” with a significant portion of their area in natural pasture or rangeland and evidence of active domestic livestock grazing are considered “**Used for grazing**”.

Many parcels “Used for farming” or “Used for grazing” are also used for other purposes such as “Residential” or “Industrial”. This report does not attempt to determine which use is primary.

Table 12. Land use and farming use by parcel – Southern Gulf Islands

| Parcel land use*                     |                                 | ALR          |               | Outside ALR (ha) | Total area (ha) | % of inventory area | Number of parcels | % of parcels | Average parcel size (ha) |
|--------------------------------------|---------------------------------|--------------|---------------|------------------|-----------------|---------------------|-------------------|--------------|--------------------------|
|                                      |                                 | In ALR (ha)  | % of ALR area |                  |                 |                     |                   |              |                          |
| Used only for farming - no other use |                                 | 277          | 12 %          | 324              | 601             | 9 %                 | 23                | 3 %          | 26                       |
| Used for farming - mixed use         | Residential                     | 640          | 27 %          | 472              | 1,111           | 16 %                | 85                | 12 %         | 13                       |
|                                      | Transportation                  | 9            | <1 %          | 2                | 11              | <1 %                | 1                 | <1 %         | 11                       |
|                                      | Gravel extraction               | 2            | <1 %          | 9                | 12              | <1 %                | 1                 | <1 %         | 12                       |
| <b>USED FOR FARMING SUBTOTAL</b>     |                                 | <b>928</b>   | <b>40 %</b>   | <b>807</b>       | <b>1,735</b>    | <b>25 %</b>         | <b>110</b>        | <b>15 %</b>  |                          |
| Not used for farming                 | Residential                     | 637          | 27 %          | 1,734            | 2,371           | 34 %                | 390               | 55 %         | 6                        |
|                                      | Transportation                  | 265          | 11 %          | 281              | 545             | 8 %                 | 17                | 2 %          | 32                       |
|                                      | No apparent use                 | 237          | 10 %          | 1,156            | 1,393           | 20 %                | 152               | 21 %         | 9                        |
|                                      | Recreation & leisure - golf     | 143          | 6 %           | 94               | 237             | 3 %                 | 7                 | <1 %         | 34                       |
|                                      | Commercial & service            | 32           | 1 %           | 1                | 33              | <1 %                | 3                 | <1 %         | 11                       |
|                                      | Protected area / park / reserve | 31           | 1 %           | 434              | 465             | 7 %                 | 14                | 2 %          | 33                       |
|                                      | Dumps & deposits                | 8            | <1 %          | 8                | 16              | <1 %                | 1                 | <1 %         | 16                       |
|                                      | Institutional & community       | 7            | <1 %          | 15               | 22              | <1 %                | 11                | 2 %          | 2                        |
|                                      | Utilities                       | 3            | <1 %          | 62               | 65              | <1 %                | 2                 | <1 %         | 32                       |
|                                      | Water management                | 2            | <1 %          | -                | 2               | <1 %                | 2                 | <1 %         | 1                        |
|                                      | Gravel extraction               | 1            | <1 %          | 6                | 7               | <1 %                | 2                 | <1 %         | 4                        |
| <b>NOT USED FOR FARMING SUBTOTAL</b> |                                 | <b>1,365</b> | <b>58 %</b>   | <b>3,790</b>     | <b>5,156</b>    | <b>75 %</b>         | <b>601</b>        | <b>85 %</b>  |                          |
| <b>TOTAL</b>                         |                                 | <b>2,294</b> | <b>98 %</b>   | <b>4,597</b>     | <b>6,891</b>    | <b>100 %</b>        | <b>711</b>        | <b>100 %</b> |                          |
| Not surveyed                         | Outside parcels                 | 49           | 2 %           |                  |                 |                     |                   |              |                          |
|                                      | Parcels areas < 500 sq m        | 4            | <1 %          |                  |                 |                     |                   |              |                          |
| <b>SUBTOTAL</b>                      |                                 | <b>53</b>    | <b>2 %</b>    |                  |                 |                     |                   |              |                          |
| <b>TOTAL</b>                         |                                 | <b>2,347</b> | <b>100 %</b>  |                  |                 |                     |                   |              |                          |

\* See "Land Use" in the glossary for definitions of terms in this table.

Table 12 shows that 1,735 ha on 110 parcels are "Used for farming". Of this area, 928 ha are in the ALR.

Most "Used for farming" parcels are also used for residential purposes with only 601 ha (9% of the inventory area) on 23 parcels exclusively "Used for farming".

Refer to Map 2 for more information.

Table 13. Parcel use and land cover in the ALR – Southern Gulf Islands

| Parcel Land Use                      |                          | Land Cover Category |               |                            |               |                        |               | Total       |               |
|--------------------------------------|--------------------------|---------------------|---------------|----------------------------|---------------|------------------------|---------------|-------------|---------------|
|                                      |                          | Farmed *            |               | Anthropogenic (not farmed) |               | Natural & Semi-natural |               |             |               |
|                                      |                          | In ALR (ha)         | % of ALR area | In ALR (ha)                | % of ALR area | In ALR (ha)            | % of ALR area | In ALR (ha) | % of ALR area |
| Used only for farming - no other use |                          | 167                 | 7 %           | 1                          | <1 %          | 109                    | 5 %           | 277         | 12 %          |
| Used for farming - mixed use         | Residential              | 335                 | 14 %          | 35                         | 1 %           | 270                    | 11 %          | 640         | 27 %          |
|                                      | Transportation           | 3                   | <1 %          | < 1                        | <1 %          | 5                      | <1 %          | 9           | <1 %          |
|                                      | Gravel extraction        | 1                   | <1 %          | < 1                        | <1 %          | < 1                    | <1 %          | 2           | <1 %          |
| USED FOR FARMING SUBTOTAL            |                          | 506                 | 22 %          | 36                         | 2 %           | 385                    | 16 %          | 928         | 40 %          |
| Not used for farming or grazing      |                          | 84                  | 4 %           | 273                        | 12 %          | 1,008                  | 43 %          | 1,365       | 58 %          |
| SUBTOTAL                             |                          | 591                 | 25 %          | 309                        | 13 %          | 1,394                  | 59 %          | 2,294       | 98 %          |
| Not surveyed                         | Outside parcels          |                     |               |                            |               |                        |               | 49          | 2 %           |
|                                      | Parcels areas < 100 sq m |                     |               |                            |               |                        |               | 4           | <1 %          |
| SUBTOTAL                             |                          |                     |               |                            |               |                        |               | 53          | 2 %           |
| TOTAL ALR                            |                          |                     |               |                            |               |                        |               | 2,347       | 100 %         |

\* Some parcels that are "Not used for farming" have "Farmed" land cover, however, the extent or intensity is insufficient for the parcel to be considered "Used for farming". For a complete definition of "Used for farming" refer to the definitions section.

Table 13 combines land use and land cover on ALR land in the Southern Gulf Islands. For example, parcels with the mixed use "Used for farming" and "Residential" have a total of 335 ha in "Farmed" land cover, 35 ha in "Anthropogenic" (not farmed) land cover, and 270 ha in "natural & semi-natural" land cover.

Although 928 ha or 40% of the ALR is on parcels "Used for farming" refer to (Table 12 ), only 591 ha is actually in "farmed" land cover. Many "Used for farming" parcels have significant areas left as "natural and semi-natural" land cover.

## 5. Availability of Land for Farming

There is currently a strong demand for local agricultural products that is expected to increase with population growth <sup>7</sup>. This demand, along with other market demands, and farm management requirements (nutrient management, bio-security), will influence agricultural land needs in the future. Lands suitable for agricultural development may not be available and agricultural sectors that require large land bases, such as dairy or berry, may find it difficult to access sufficient land. Future agriculture growth may come from new commodity types and intensifying land use rather than finding new land for development.

The analysis of the availability of land for farming examines how much land is available for farming, has the potential to be farmed, and the characteristics of this land.

Properties currently “Used for farming” or with some agriculture present are considered available for farm expansion. Properties currently “Not used for farming” but with an existing use compatible with agriculture, such as residential, are considered available for farming. In both cases, it is assumed that any existing non-farm land use will be maintained and not displaced by agriculture expansion.

Properties currently “Not used for farming” and with an established non-farm use that is incompatible with agriculture (e.g. a golf course, a school, or small lot residential) are considered unavailable for farming. These properties usually have little land available for farming and/or tend to have very high land values. It is generally uneconomical for a farmer to acquire and convert these properties to farmland given the limited farming potential.

Land is further assessed for its farming potential based on physical and environmental characteristics. It is assumed that removing built structures and fill piles, filling in water bodies or remediating slopes/soils to create land with cultivation potential would likely not occur. In addition, areas with operational constraints such as a very small size are considered not to have potential for cultivation. Only areas in natural and semi-natural vegetation, areas in managed vegetation (managed for landscaping, dust or soil control), and non-built or bare areas are considered to have potential for cultivation.

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<sup>7</sup> In BC, the regulated marketing system requires that over 95% of our milk, eggs, chicken and turkey be produced in BC. The need to produce these products increases in direct proportion to the population growth.

Table 14. Status of the land base with respect to farming – Southern Gulf Islands

| Land status                                        |                                     | ALR          |              | Outside ALR (ha) | Total area (ha) | % inventory area |
|----------------------------------------------------|-------------------------------------|--------------|--------------|------------------|-----------------|------------------|
|                                                    |                                     | In ALR (ha)  | % ALR Area   |                  |                 |                  |
| Actively farmed                                    | Cultivated field crops              | 541          | 23 %         | 121              | 661             | 10 %             |
|                                                    | Farm infrastructure                 | 10           | <1 %         | 7                | 17              | <1 %             |
|                                                    | Greenhouses                         | < 1          | <1 %         | < 1              | 1               | <1 %             |
| <b>ACTIVELY FARMED</b>                             |                                     | <b>551</b>   | <b>24 %</b>  | <b>129</b>       | <b>680</b>      | <b>10 %</b>      |
| Supporting farming                                 | Artificial Waterbodies              | 7            | <1 %         | 2                | 9               | <1 %             |
|                                                    | Residential footprint               | 5            | <1 %         | 4                | 9               | <1 %             |
|                                                    | Transportation                      | < 1          | <1 %         | 2                | 2               | <1 %             |
|                                                    | Built up - Other                    | < 1          | <1 %         | < 1              | < 1             | <1 %             |
| <b>SUPPORTING FARMING</b>                          |                                     | <b>13</b>    | <b>1 %</b>   | <b>8</b>         | <b>20</b>       | <b>&lt;1 %</b>   |
| Unavailable for farming due to existing land use   | Recreation & leisure - golf         | 143          | 6 %          | 94               | 237             | 3 %              |
|                                                    | Protected area / park / reserve     | 27           | 1 %          | 434              | 461             | 7 %              |
|                                                    | Transportation                      | 11           | <1 %         | 8                | 19              | <1 %             |
|                                                    | Institutional & community           | 3            | <1 %         | 13               | 16              | <1 %             |
|                                                    | Commercial & service                | < 1          | <1 %         | -                | < 1             | <1 %             |
|                                                    | Utilities                           | < 1          | <1 %         | < 1              | < 1             | <1 %             |
|                                                    | Residential                         | < 1          | <1 %         | < 1              | < 1             | <1 %             |
| Unavailable for farming due to existing land cover | Waterbodies                         | 13           | <1 %         | 15               | 28              | <1 %             |
|                                                    | Wetlands                            | 11           | <1 %         | 9                | 20              | <1 %             |
|                                                    | Residential footprint               | 10           | <1 %         | 28               | 39              | <1 %             |
|                                                    | Natural bare areas                  | 10           | <1 %         | 40               | 50              | <1 %             |
|                                                    | Transportation                      | 3            | <1 %         | 8                | 12              | <1 %             |
|                                                    | Built up - Other                    | 2            | <1 %         | 3                | 5               | <1 %             |
| <b>UNAVAILABLE FOR FARMING</b>                     |                                     | <b>235</b>   | <b>10 %</b>  | <b>653</b>       | <b>888</b>      | <b>13 %</b>      |
| Site limitations                                   | Soils &/or topography               | 887          | 38 %         | 2,708            | 3,595           | 52 %             |
|                                                    | Flooding &/or drainage              | 76           | 3 %          | 40               | 116             | 2 %              |
|                                                    | Operational                         | 8            | <1 %         | 26               | 33              | <1 %             |
|                                                    | Riparian                            | -            | -            | < 1              | < 1             | <1 %             |
| <b>LIMITED POTENTIAL FOR FARMING</b>               |                                     | <b>971</b>   | <b>41 %</b>  | <b>2,774</b>     | <b>3,745</b>    | <b>54 %</b>      |
| Available & with potential for farming             | Natural & Semi-natural - Vegetation | 310          | 13 %         | 554              | 864             | 13 %             |
|                                                    | Anthropogenic - Managed vegetation  | 164          | 7 %          | 155              | 319             | 5 %              |
|                                                    | Unmaintained field crops            | 32           | 1 %          | 13               | 45              | <1 %             |
|                                                    | Natural pasture or rangeland        | 11           | <1 %         | 19               | 29              | <1 %             |
|                                                    | Unused forage or pasture            | 7            | <1 %         | 3                | 11              | <1 %             |
|                                                    | Anthropogenic - Non Built or Bare   | < 1          | <1 %         | < 1              | 1               | <1 %             |
| <b>AVAILABLE &amp; WITH POTENTIAL FOR FARMING</b>  |                                     | <b>524</b>   | <b>22 %</b>  | <b>745</b>       | <b>1,269</b>    | <b>18 %</b>      |
| Not surveyed                                       | Unknown                             | -            | -            | 289              | 289             | 4 %              |
| <b>TOTAL</b>                                       |                                     | <b>2,294</b> | <b>98 %</b>  | <b>4,597</b>     | <b>6,891</b>    | <b>100 %</b>     |
| Not surveyed                                       | Outside parcels                     | 49           | 2 %          |                  |                 |                  |
|                                                    | Parcels areas < 100 sq m            | 4            | <1 %         |                  |                 |                  |
| <b>SUBTOTAL</b>                                    |                                     | <b>53</b>    | <b>2 %</b>   |                  |                 |                  |
| <b>TOTAL</b>                                       |                                     | <b>2,347</b> | <b>100 %</b> |                  |                 |                  |

Table 14 shows that 551 hectares or 24% of the ALR is actively used for farming; 10% is unavailable for farming due to an existing land use or land cover; 41% has limited potential for farming due to site limitations such as soils &/or topography; and 22% is available and has potential for farming.

Refer to Maps 2 and 3 for more information.

Figure 13. Status of the ALR land base with respect to farming – Southern Gulf Islands

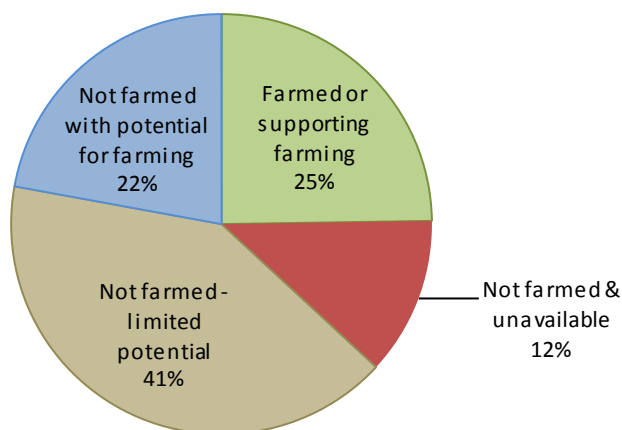


Figure 13 shows the status of the ALR in relation to farming in the Southern Gulf Islands.

Twenty-five (25%) of the ALR is farmed or supporting farming.

Another 22% is available and has potential for farming as it is not limited by significant physical constraints or built areas.

Forty-one percent (41%) has limited potential for farming due to physical site limitations such as soils &/or topography.

Twelve percent (12%) is unavailable for farming due to an existing land use or land cover or due to being outside a legal parcel.

Table 15. Land available and with potential for farming by island name

| Local Trust Area                | Island       | ALR         |          | Outside ALR (ha) | Total area (ha) | % of total available but not farmed area (ha) |
|---------------------------------|--------------|-------------|----------|------------------|-----------------|-----------------------------------------------|
|                                 |              | In ALR (ha) | % of ALR |                  |                 |                                               |
| Galiano                         | Galiano      | 83          | 4 %      | 128              | 210             | 17 %                                          |
| Mayne                           | Mayne        | 77          | 3 %      | 190              | 267             | 21 %                                          |
|                                 | Curlew       | -           | -        | 1                | 1               | <1 %                                          |
| North Pender                    | North Pender | 77          | 3 %      | 239              | 315             | 25 %                                          |
| North Pender Associated Islands | Sidney       | 108         | 5 %      | 11               | 119             | 9 %                                           |
|                                 | James        | 1           | <1 %     | 15               | 16              | 1 %                                           |
|                                 | Coal         | 7           | <1 %     | < 1              | 7               | <1 %                                          |
|                                 | Moresby      | < 1         | <1 %     | < 1              | < 1             | <1 %                                          |
|                                 | Knapp        | -           | -        | < 1              | < 1             | <1 %                                          |
|                                 | Brethour     | < 1         | <1 %     | -                | < 1             | <1 %                                          |
| South Pender                    | South Pender | 105         | 4 %      | 35               | 140             | 11 %                                          |
| Saturna                         | Saturna      | 50          | 2 %      | 102              | 153             | 12 %                                          |
|                                 | Samuel       | 16          | <1 %     | < 1              | 16              | 1 %                                           |
| Salt Spring Island              | Prevost      | < 1         | <1 %     | 20               | 20              | 2 %                                           |
|                                 | Piers        | -           | -        | 2                | 2               | <1 %                                          |
| TOTAL                           |              | 524         | 22 %     | 745              | 1,269           | 100 %                                         |

Table 15 illustrates the amount of land that is “available” and has “potential for farming” by island name. Land that is “available and with potential for farming” is not currently farmed, is not limited by an existing land use or cover, and does not have a significant site limitation (e.g. soils or topography).

Of the 1,269 ha of land available for farming in the Southern Gulf Islands, 315 ha (25%) is on North Pender Island, and 267 ha (21%) is on Mayne Island.

95% of all available and with potential for farming land cover occurs on 6 Islands: North Pender, Mayne, Galiano, Saturna, South Pender, and Sidney.

Figure 14. Availability and potential of ALR lands for farming

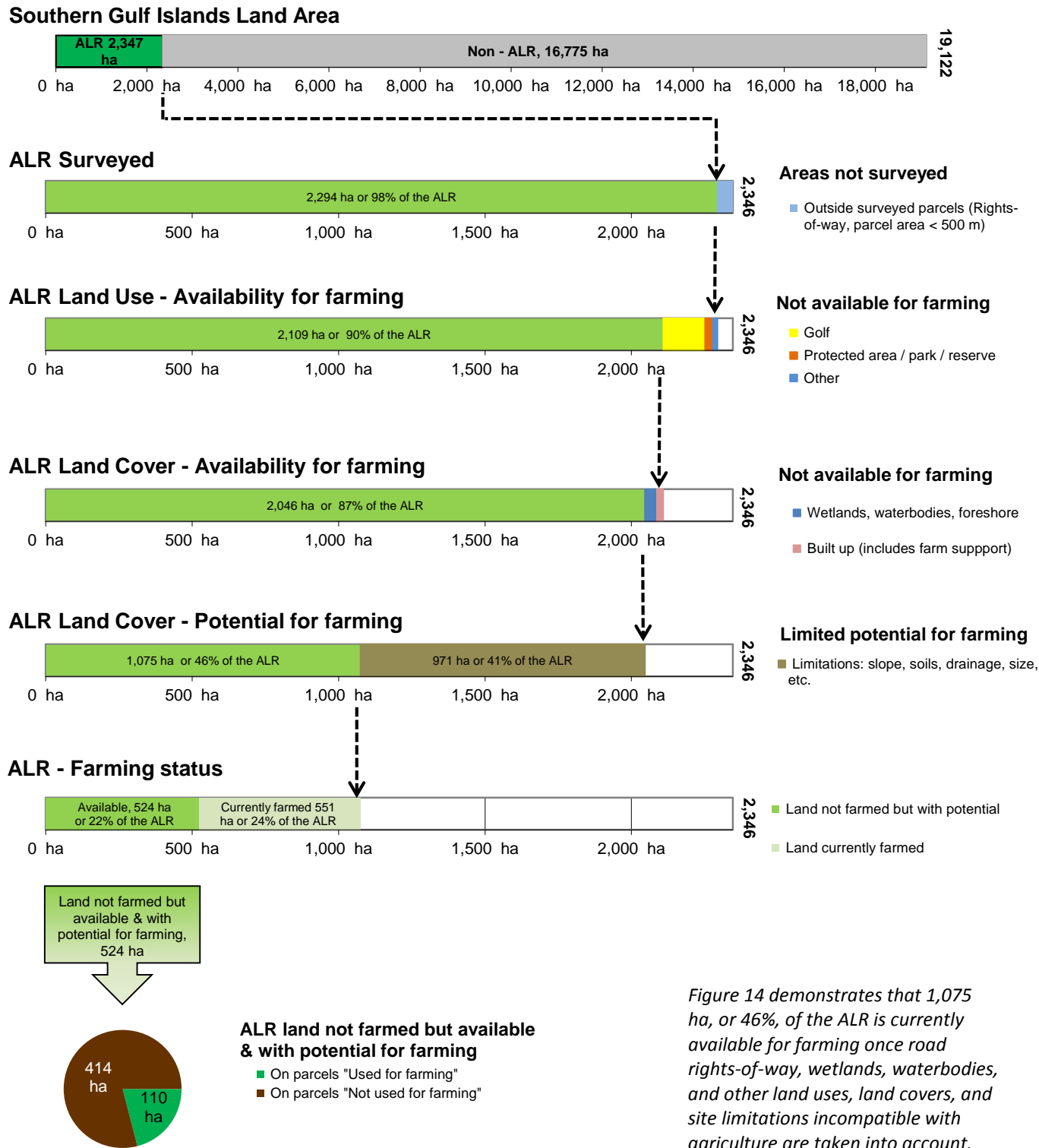


Figure 14 demonstrates that 1,075 ha, or 46%, of the ALR is currently available for farming once road rights-of-way, wetlands, waterbodies, and other land uses, land covers, and site limitations incompatible with agriculture are taken into account. Of those 1,075 ha, 551 ha are currently in farmed land cover, and 524 ha are available and have potential for farming.

## ***CHARACTERISTICS OF NOT FARMED BUT AVAILABLE LANDS***

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Some of the areas that are not farmed could be available for agricultural expansion. Farms have the potential to expand by cultivating more land on a parcel. This can involve clearing, draining, or levelling the land to prepare it for cultivation. In some cases, it is important to consider the ecological services and wildlife habitat provided by naturally vegetated areas. These values may need to be weighed against the need for food production.

The size of the area available, and its proximity to and/or adjacency to a larger field can affect the potential of the area to be used for agriculture. Smaller areas are suitable for some types of intensive agricultural production such as mushrooms, floriculture, poultry, and container nurseries. Small areas are also suitable for start-up farmers and established farmers wanting to expand through leases.

Despite these opportunities, small areas provide fewer farming opportunities than large lots. They specifically exclude dairy, hogs, and large vegetable greenhouses. Dairy operations, for example, are unsuited to small lots as a single cow produces sufficient manure per year to fertilize 0.4 ha of forage production. This means a dairy operation consisting of 50 cows would require access to 20 ha. Without sufficient land area to utilize the manure as a fertilizer, the dairy operation would have to find other, more expensive, methods to handle the manure produced on the farm. In addition, working farms require sufficient space to operate in order to avoid odour, dust, and noise conflicts with nearby non-farm land uses.

## On Parcels “Used For Farming”

Parcels that are “Used for farming” do not always utilize 100% of their land area. Land not farmed but available and with potential for farming can offer opportunities to expand farming activities.

Table 16. Land use and cover on “Used for farming” parcels with land available for farming

| Mixed land use on<br>“Used for farming” parcels | Number<br>of parcels | Land not farmed but with<br>potential for cultivation |                     |                    | Land currently farmed |                     |                    | % potential<br>increase to<br>total ALR<br>farmed area |
|-------------------------------------------------|----------------------|-------------------------------------------------------|---------------------|--------------------|-----------------------|---------------------|--------------------|--------------------------------------------------------|
|                                                 |                      | In ALR<br>(ha)                                        | Outside<br>ALR (ha) | Total area<br>(ha) | In ALR<br>(ha)        | Outside<br>ALR (ha) | Total area<br>(ha) |                                                        |
| Residential                                     | 36                   | 95                                                    | 72                  | 167                | 245                   | 20                  | 264                | 17 %                                                   |
| Used for farming only                           | 8                    | 12                                                    | 2                   | 14                 | 82                    | 4                   | 86                 | 2 %                                                    |
| Transportation                                  | 1                    | 3                                                     | 1                   | 5                  | 3                     | < 1                 | 3                  | <1 %                                                   |
| <b>TOTAL</b>                                    | <b>45</b>            | <b>110</b>                                            | <b>76</b>           | <b>186</b>         | <b>330</b>            | <b>23</b>           | <b>354</b>         | <b>20 %</b>                                            |

Table 7 illustrates the potential to increase the amount of cultivated land on parcels with ALR that are already “Used for farming”. This increase would come from expanding the farm operations towards a fuller utilization of the available parcel area. It is assumed that existing non-farm land uses would be maintained.

Figure 15. ALR land cover that is available for farming on “Used for farming” parcels

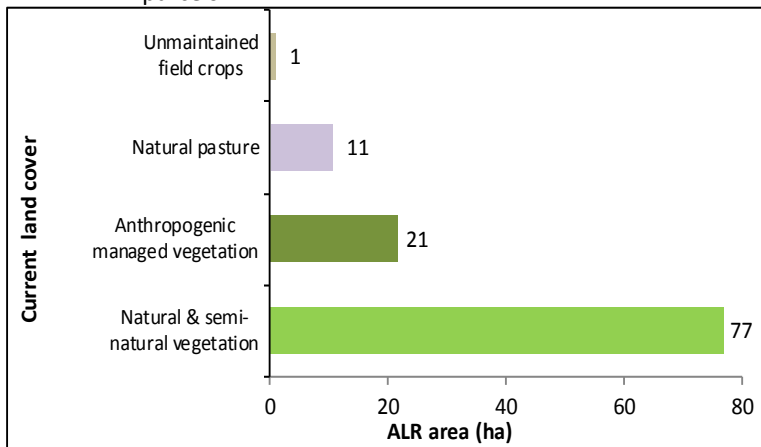


Figure 15 indicates that land currently in “natural & semi-natural vegetation” could provide the greatest gains in farmed land on parcels that are already “Used for farming”.

These gains in cultivated land would have to be measured against other ecological and social values such as wildlife habitat, natural landscapes, and privacy.

## On Parcels “Not Used For Farming”

Table 17. Land use and cover on “Not used for farming” parcels with land available for farming

| Parcel Land use      |                                 | Number of parcels | Land not farmed but with potential for cultivation |                  |                 | % potential increase to total ALR farmed area | Average parcel size (ha) |
|----------------------|---------------------------------|-------------------|----------------------------------------------------|------------------|-----------------|-----------------------------------------------|--------------------------|
|                      |                                 |                   | In ALR (ha)                                        | Outside ALR (ha) | Total area (ha) |                                               |                          |
| Not used for farming | Residential                     | 118               | 225                                                | 241              | 466             | 41 %                                          | 4                        |
|                      | Transportation                  | 3                 | 103                                                | 15               | 118             | 19 %                                          | 39                       |
|                      | No apparent use                 | 22                | 53                                                 | 28               | 81              | 10 %                                          | 4                        |
|                      | Commercial & service            | 2                 | 25                                                 | 0                | 26              | 5 %                                           | 13                       |
|                      | Protected area / park / reserve | 1                 | 3                                                  | <0.1             | 3               | <1 %                                          | 3                        |
|                      | Utilities                       | 1                 | 2                                                  | 26               | 28              | <1 %                                          | 28                       |
|                      | Institutional & community       | 1                 | 2                                                  | <0.1             | 2               | <1 %                                          | 2                        |
|                      | Water management                | 1                 | 0                                                  | -                | 0               | <1 %                                          | 0                        |
|                      | Gravel extraction               | 2                 | 0                                                  | 4                | 4               | <1 %                                          | 2                        |
| TOTAL                |                                 | 151               | 414                                                | 314              | 728             | 75 %                                          |                          |

Table 17 illustrates the potential to increase the amount of cultivated land on parcels with ALR land that are “Not used for farming”. This increase would come from prioritizing agriculture over other non-farm land uses and utilizing the full area of the parcel that is available for farming. It is assumed that existing non-farm land uses would be maintained.

Figure 16. ALR land cover that is available for farming on “Not used for farming” parcels

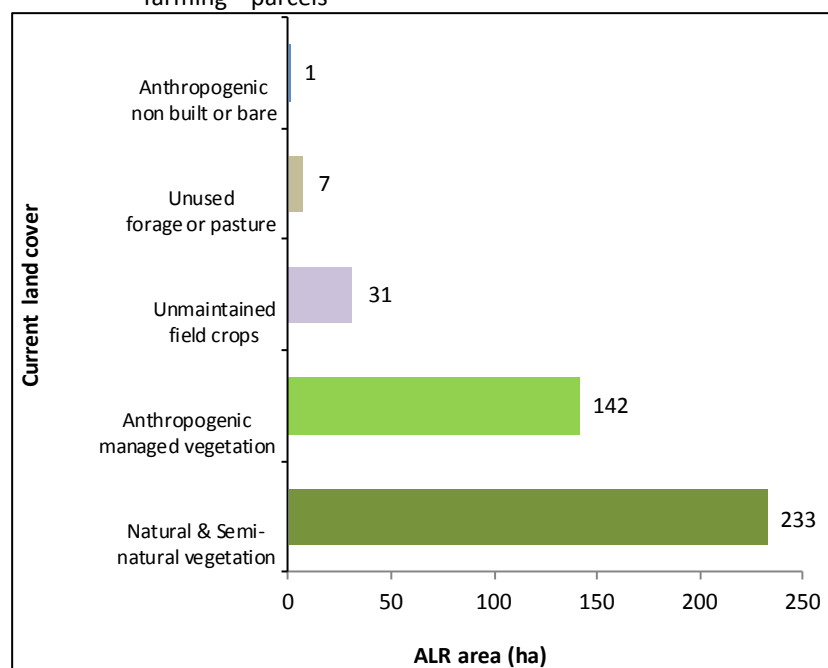


Figure 16 indicates that clearing land in “natural & semi-natural vegetation” could provide the greatest gains in farmed land on parcels that are “Not used for farming”.

Land currently in anthropogenic managed vegetation such as lawns and landscaping could also be used to increase agricultural land, however this may not be supported by property owners.

Figure 17. Size of areas available and with potential for farming on parcels “Not used for farming”

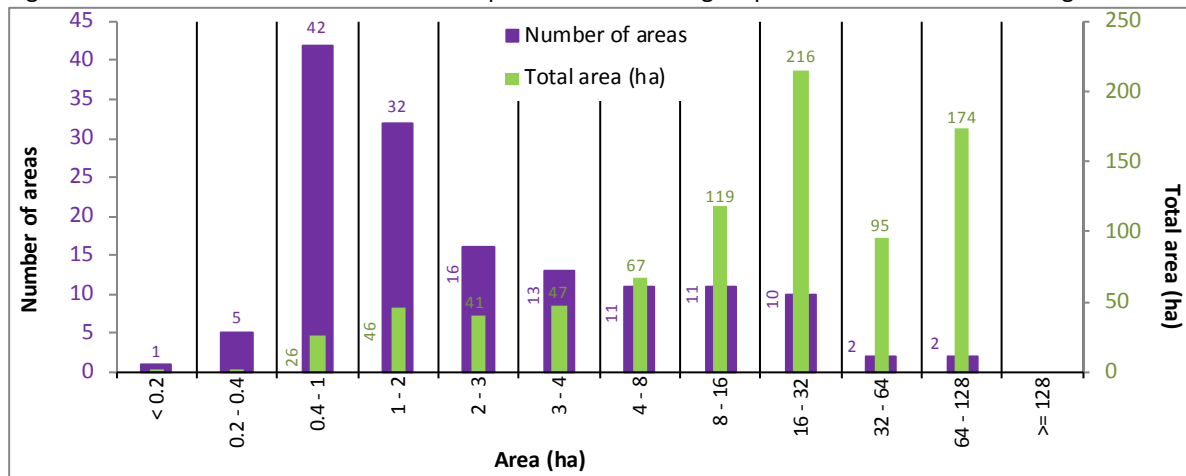


Figure 17 illustrates the number of areas available and with potential for cultivation in the Southern Gulf Islands. The area of all adjacent available and cultivated land covers on a parcel are summed to arrive at the total area that could potentially be farmed. An area is considered available and with potential if it is free from cover limitations and is greater than 0.4 ha (1 acre). A single area may be comprised of multiple land covers on the same parcel.

Of the 142 areas available for farming, 80 (56%) are less than 2 ha and 108 (76%) are less than 4 ha in size. Fewer options are available to efficiently farm small parcels. In general, areas should be at least 4 ha to provide the widest range of farming options.

There are 33 areas greater than 4 ha and available for cultivation in the Southern Gulf Islands. These areas have a total of 559 ha, or 77% of the 728 ha available (refer to Table 17).

Figure 18. Number of ALR parcels available and with potential for farming

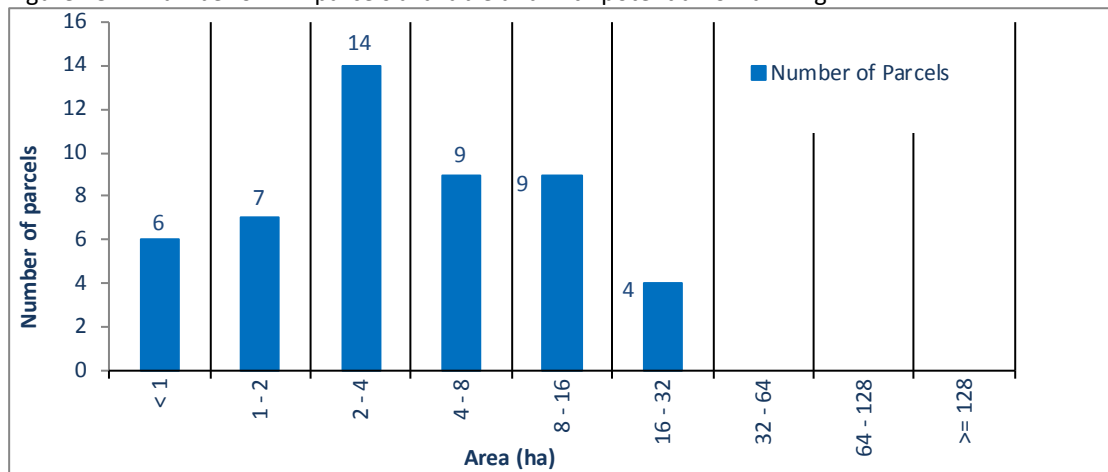


Figure 18 shows the number of parcels that are available and have potential for farming in the Southern Gulf Islands. For a parcel to be considered available for farming, it must have at least 1 acre (~0.4 ha) and 50% of the parcel area in land cover that is available and has potential for farming.

## 6. Farming Activities

### CULTIVATED FIELD CROPS

Cultivated field crops are captured in a geographical information system (GIS) at the field or land cover polygon level by crop type (vegetables, forage or pasture, berries, etc.). Each crop type is then summarized to total land area and evaluated for field size characteristics.

Included with cultivated field crops is fallow farmland, inactively farmed land (i.e. forage or pasture crops which have not been harvested or grazed this season) and land temporarily set aside for wildlife or other purposes. Also included is bare cultivated land or land under preparation for planting as it is assumed these lands will be planted during the survey season. Excluded are crops grown in crop cover structures such as greenhouses or mushroom barns.

Cultivated field crops in the Southern Gulf Islands are described by 10 crop groupings:

- **Forage & pasture:** grass
- **Tree fruits:** apples, mixed fruits
- **Grapes**
- **Vegetables:** mixed vegetables (a variety of vegetables grown together in a field), pumpkins, garlic, sweet corn
- **Crop transition**
- **Berries:** blueberries, cranberry seedlings, mixed berries
- **Specialty:** herbs, hops, olives
- **Nut trees:** hazelnut/filbert, walnuts
- **Floriculture:** cut flowers, lavender, mixed
- **Nursery**

Table 18. Main field crop types by area – Southern Gulf Islands

| Type             | ALR         |            | Outside ALR (ha) | Total area (ha) | % of cultivated land | Number of crop fields* |
|------------------|-------------|------------|------------------|-----------------|----------------------|------------------------|
|                  | In ALR (ha) | % of ALR   |                  |                 |                      |                        |
| Forage & pasture | 533         | 23%        | 106              | 639             | 89%                  | 149                    |
| Tree fruits      | 11          | < 1%       | 15               | 26              | 4%                   | 68                     |
| Grapes           | 22          | < 1%       | 2                | 24              | 3%                   | 6                      |
| Vegetables       | 10          | < 1%       | 11               | 21              | 3%                   | 104                    |
| Crop transition  | 1           | < 1%       | < 1              | 2               | < 1%                 | 2                      |
| Berries          | < 1         | < 1%       | 1                | 2               | < 1%                 | 7                      |
| Specialty        | 1           | < 1%       | < 1              | 2               | < 1%                 | 4                      |
| Nut trees        | 1           | < 1%       | < 1              | 1               | < 1%                 | 5                      |
| Floriculture     | < 1         | < 1%       | < 1              | < 1             | < 1%                 | 4                      |
| Nursery          | -           | -          | < 1              | < 1             | < 1%                 | 2                      |
| <b>TOTAL</b>     | <b>580</b>  | <b>25%</b> | <b>137</b>       | <b>718</b>      | <b>100%</b>          | <b>351</b>             |

\* Crop field. A continuous or non-continuous area of the same crop type on one parcel. The number of crop fields is equal to the number of parcels where that specific type of crop occurs.

Table 18 shows the 10 crop groupings that account for the 718 ha of cultivated land in the Southern Gulf Islands.

Forage & pasture is the predominant crop, accounting for 89% of all cultivated crops.

Although there are a high number of forage & pasture fields (149) and vegetable fields (104), forage & pasture fields have a much greater total area.

Refer to Map 4 for more information.

Figure 19. Main field crop types by percentage – Southern Gulf Islands

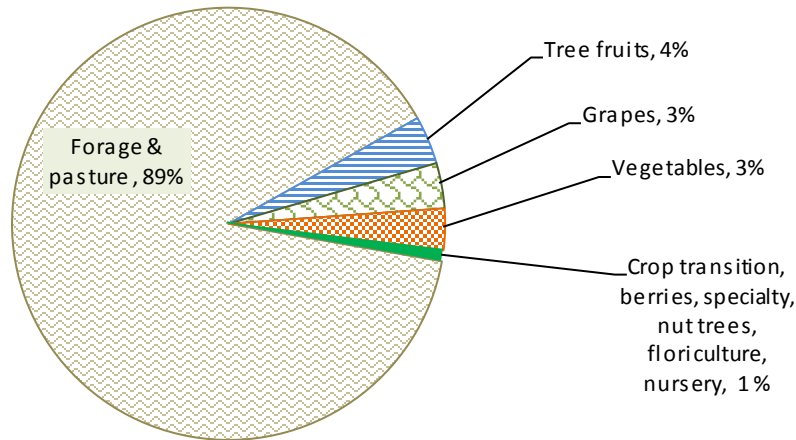


Figure 19 shows the proportion of main field crop types across the cultivated land on the Southern Gulf Islands.

“Forage & pasture” comprises 89% of all cultivated land.

Figure 20. All cultivated field crops by size – Southern Gulf Islands<sup>8</sup>

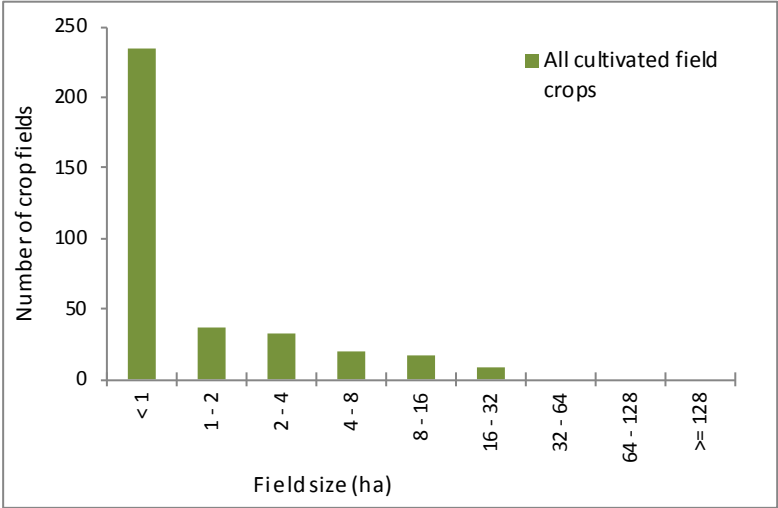


Figure 20 illustrates that the majority of all cultivated crop fields are less than 1 ha in size.

There are 351 individual crop fields with an average crop area of 2 ha and a median crop area of 0.4 ha.

The average parcel size where field crops occur is 11 ha and the median parcel size is 4 ha.

There are no crop fields larger than 32 ha.

If two or more crop fields of the same crop type are present on one parcel, they are counted as one crop field. A parcel may have several different crop fields.

Figure 21. Forage & pasture, tree fruits, vegetable and grape fields by size – Southern Gulf Islands

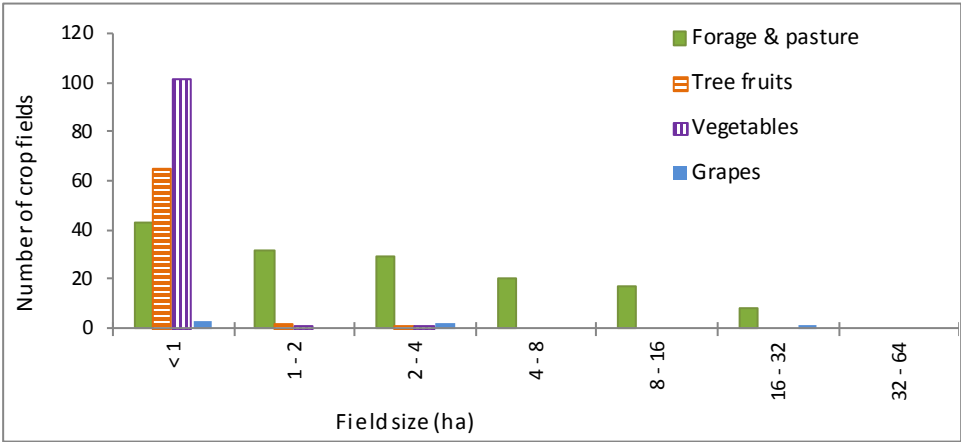


Figure 21 compares the main crop types by field sizes.

Although vegetable fields are numerous, nearly all are less than 1 ha.

Forage & pasture fields have the widest range of field sizes.

There is one grape field of 18 ha, however, this field is “unmaintained”

There are no individual crop fields larger than 32 ha.

<sup>8</sup> Each distinct crop type on one parcel is counted as one crop activity. Each crop activity will include at least one and perhaps more crop fields. A parcel may have more than one crop activity if there is more than one distinct type of crop on that parcel.

Table 19. Main field crop types by local trust area

| Local Trust Area            | Total area (ha)  |             |           |            |                 |          |           |           |              |              | Total area in cultivated crops (ha) | % of total crop area |
|-----------------------------|------------------|-------------|-----------|------------|-----------------|----------|-----------|-----------|--------------|--------------|-------------------------------------|----------------------|
|                             | Forage & pasture | Tree fruits | Grapes    | Vegetables | Crop transition | Berries  | Specialty | Nut trees | Floriculture | Nursery      |                                     |                      |
| Galiano                     | 55               | 3           | -         | 7          | -               | <1       | <1        | <1        | <1           | -            | 67                                  | 9%                   |
| Mayne                       | 185              | 6           | <1        | 5          | -               | -        | -         | -         | <1           | <1           | 197                                 | 28%                  |
| North Pender                | 170              | 10          | 6         | 7          | 2               | 1        | 1         | <1        | -            | <1           | 199                                 | 28%                  |
| North Pender Associated     | 78               | 3           | -         | -          | -               | -        | -         | -         | -            | -            | 81                                  | 11%                  |
| Salt Spring Island LTA      | 53               | -           | -         | -          | -               | -        | -         | -         | -            | -            | 53                                  | 7%                   |
| Saturna                     | 73               | 2           | 18        | <1         | -               | -        | -         | <1        | -            | -            | 94                                  | 13%                  |
| South Pender                | 26               | <1          | -         | <1         | -               | <1       | <1        | -         | -            | -            | 27                                  | 4%                   |
| <b>TOTAL CROP AREA (ha)</b> | <b>639</b>       | <b>26</b>   | <b>24</b> | <b>21</b>  | <b>2</b>        | <b>2</b> | <b>2</b>  | <b>1</b>  | <b>&lt;1</b> | <b>&lt;1</b> | <b>718</b>                          | <b>100%</b>          |

Table 19 shows the 10 crop groupings that account for the 718 ha of cultivated land in the Southern Gulf Islands. Over half (56%) of all crops occur on Mayne and North Pender Islands.

Refer to Map 4 for more information.

Figure 22. Proportion of total field crop area by local trust area

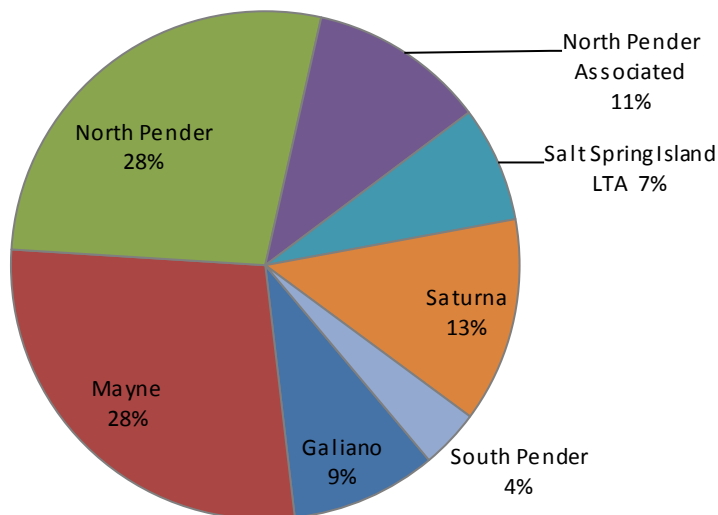


Figure 22 shows the proportion of cultivated field crops in the Southern Gulf Islands by local trust area.

The field crops on Mayne Island, North Pender Island, and the North Pender Associated Islands account for two-thirds (67%) of all cultivated crops in the Southern Gulf Islands.

## Forage & pasture crops

Forage & pasture is the most prevalent crop type in the Southern Gulf Islands and is described in greater detail.

Forage is a cultivated crop that is cut and made into silage or hay for livestock feed. Three levels of management are described:

- **Forage (intensively managed):** Management includes weed control & fertilizer / manure applications and crop is cut 4-8 times per year. Often there is no fencing and crop growth is vigorous, even and thick.
- **Forage (managed):** Management includes weed control & fertilizer / manure applications and crop is cut several times per year. Often there is no fencing and crop growth is generally healthy and even.
- **Forage (unmanaged):** Weed management & fertilizer / manure applications are minimal. Crop is cut only once per year. Crop growth is uneven with weeds.

Pasture is a cultivated crop that is used for grazing only and is not cut. Two levels of management are described:

- **Pasture (managed):** Management includes weed control & fertilizer / manure applications. Usually fields are large to accommodate equipment. Fencing is in good condition and crop growth is vigorous with few weeds.
- **Pasture (unmanaged):** Weed management & fertilizer / manure applications are minimal. Fencing is in good condition. Crop is varied (some weeds) and growth is uneven with signs of animal dung.

Some areas are used for both forage & pasture:

- **Forage & pasture (managed):** Crop is cut 1 to 3 times per year and made into silage or haylage. Also used for grazing for 1 to 3 months per season. Fencing is in good condition and crop growth is reasonably even with few weeds. Often associated with dairy operations.

Areas previously used for forage or pasture are considered inactively farmed:

- **Unused** refers to forage or pasture which has not been cut or grazed during the current growing season.
- **Unmaintained** refers to forage or pasture which has not been cut or grazed during the current growing season, has not been maintained for several years, and probably would not warrant harvest.

Table 20. Forage & pasture crops by management type – Southern Gulf Islands

| Forage & pasture crops     |       | ALR         |          | Outside ALR (ha) | Total area (ha) | % of cultivated land |
|----------------------------|-------|-------------|----------|------------------|-----------------|----------------------|
|                            |       | In ALR (ha) | % of ALR |                  |                 |                      |
| Forage (managed)           | Grass | 194         | 8%       | 15               | 209             | 29%                  |
| Forage (unmanaged)         | Grass | 41          | 2%       | 4                | 45              | 6%                   |
| Subtotal                   |       | 235         | 10%      | 19               | 254             | 35%                  |
| Pasture (managed)          | Grass | 42          | 2%       | 26               | 68              | 9%                   |
| Pasture (unmanaged)        | Grass | 86          | 4%       | 26               | 113             | 16%                  |
| Subtotal                   |       | 128         | 5%       | 52               | 180             | 25%                  |
| Forage & pasture (managed) | Grass | 147         | 6%       | 19               | 166             | 23%                  |
| Subtotal                   |       | 147         | 6%       | 19               | 166             | 23%                  |
| Unused                     | Grass | 7           | < 1%     | 3                | 11              | 2%                   |
| Unmaintained / abandoned   | Grass | 14          | < 1%     | 13               | 27              | 4%                   |
| Subtotal                   |       | 22          | < 1%     | 16               | 38              | 5%                   |
| TOTAL                      |       | 533         | 23%      | 106              | 639             | 89%                  |

Table 20 shows there are 254 ha in forage crops, 180 ha in pasture crops, and 166 ha in forage & pasture. Grass is the only forage & pasture crop type recorded.

Refer to Map 4 for more information.

Table 21. Forage & pasture types by local trust area

| Local Trust Area            | Total area (ha) |            |                  |              |           | Total area in forage or pasture (ha) |
|-----------------------------|-----------------|------------|------------------|--------------|-----------|--------------------------------------|
|                             | Forage          | Pasture    | Forage & pasture | Unmaintained | Unused    |                                      |
| Galiano                     | -               | 19         | 33               | 3            | -         | 55                                   |
| Mayne                       | 80              | 90         | 8                | 4            | 3         | 185                                  |
| North Pender*               | 55              | 24         | 72               | 11           | 8         | 170                                  |
| North Pender Associated*    | 62              | 16         | -                | -            | -         | 78                                   |
| Salt Spring Island          | 47              | 6          | -                | -            | -         | 53                                   |
| Saturna                     | 4               | 26         | 40               | 4            | -         | 73                                   |
| South Pender                | 7               | -          | 13               | 6            | -         | 26                                   |
| <b>TOTAL CROP AREA (ha)</b> | <b>254</b>      | <b>180</b> | <b>166</b>       | <b>27</b>    | <b>11</b> | <b>639</b>                           |

\* The North Pender Island Local Trust Area is comprised of North Pender Island and many associated smaller islands. In this report, North Pender Island is presented separately from the associated islands.

Table 21 details the total area in forage and pasture crops by local trust area.

The largest amounts of forage & pasture crops occur in the North Pender LTA (on North Pender Island) and in the Mayne LTA (on Mayne island)

Refer to Map 4 for more information.

Figure 23. Forage & pasture fields by size and type – Southern Gulf Islands

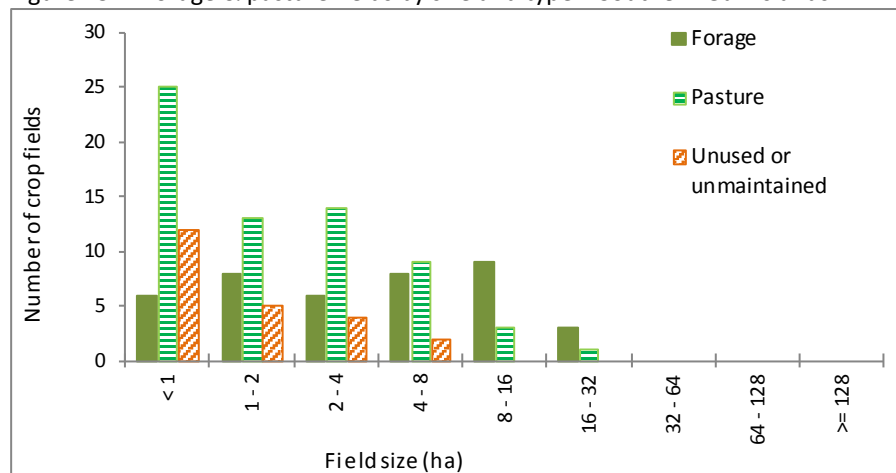


Figure 23 compares the field sizes of forage and pasture fields.

Although pasture fields are more numerous than forage fields, pastures comprise a smaller total area than forage fields (refer to Table 20)

There are 65 pasture fields with an average crop area of 3 ha, a median crop area of 1 ha, and an average parcel size of 17 ha.

In comparison, there are 40 forage fields with an average crop area of 6 ha, a median crop area of 4 ha, and an average parcel size of 27 ha.

## Top 20 Crop types

Table 22. Top 20 crop types by area – Southern Gulf Islands

| Cultivated field crop       | ALR         |            | Outside ALR (ha) | Total area (ha) | % of cultivated land |
|-----------------------------|-------------|------------|------------------|-----------------|----------------------|
|                             | In ALR (ha) | % of ALR   |                  |                 |                      |
| Forage (managed)            | 194         | 8%         | 15               | 209             | 29%                  |
| Forage & pasture (managed)  | 147         | 6%         | 19               | 166             | 23%                  |
| Pasture (unmanaged)         | 86          | 4%         | 26               | 113             | 16%                  |
| Pasture (managed)           | 42          | 2%         | 26               | 68              | 9%                   |
| Forage (unmanaged)          | 41          | 2%         | 4                | 45              | 6%                   |
| Unmaintained forage/pasture | 14          | < 1%       | 13               | 27              | 4%                   |
| Mixed fruits                | 9           | < 1%       | 13               | 22              | 3%                   |
| Mixed vegetables            | 8           | < 1%       | 11               | 20              | 3%                   |
| Grapes (Unmaintained)       | 18          | < 1%       | < 1              | 18              | 2%                   |
| Unused forage/pasture       | 7           | < 1%       | 3                | 11              | 2%                   |
| Grapes                      | 4           | < 1%       | 2                | 6               | < 1%                 |
| Apples                      | 2           | < 1%       | 2                | 4               | < 1%                 |
| Crop transition             | 1           | < 1%       | < 1              | 2               | < 1%                 |
| Pumpkins                    | 2           | < 1%       | -                | 2               | < 1%                 |
| Blueberries                 | < 1         | < 1%       | < 1              | 1               | < 1%                 |
| Hops                        | 1           | < 1%       | < 1              | 1               | < 1%                 |
| Mixed berries               | -           | -          | < 1              | < 1             | < 1%                 |
| Mixed floriculture          | < 1         | < 1%       | -                | < 1             | < 1%                 |
| Nut trees                   | < 1         | < 1%       | -                | < 1             | < 1%                 |
| Walnut                      | < 1         | < 1%       | < 1              | < 1             | < 1%                 |
| <b>TOTAL</b>                | <b>580</b>  | <b>25%</b> | <b>136</b>       | <b>717</b>      | <b>100%</b>          |

Table 22 shows the top 20 crop types and their levels of management in the Southern Gulf Islands.

Forage is the number one crop, followed by pasture.

## Small scale agriculture

Small scale agriculture plays a significant role in producing food, maintaining local production skills and knowledge, and promoting a general awareness of the importance of agriculture. Small operations often provide the nucleus for larger market gardens and greenhouses. They can also positively contribute to the local food supply and to the socio-economic fabric of the community.

For this report, small scale agriculture is defined as crops or greenhouses where the area utilized is less than 500 square meters. This includes most residential and subsistence gardens and greenhouses.

Four scales of small scale agriculture are defined:

- **Very small scale:** <100 square meters in size
- **Small scale:** 100 - 250 square meters in size
- **Medium scale:** 250 - 400 square meters in size
- **Large scale:** 400 - 500 square meters in size

Table 23. Small scale agriculture by activity – Southern Gulf Islands

| Small scale agriculture<br>(< 500 sq m) |              | Number of<br>activities | Min area<br>sq m | Max area<br>sq m |
|-----------------------------------------|--------------|-------------------------|------------------|------------------|
| Greenhouse                              | Small scale  | 13                      | 1,300            | 3,250            |
| Subtotal                                |              | 13                      |                  |                  |
| Fruit/tree<br>fruit garden              | Small scale  | 2                       | 200              | 500              |
|                                         | Medium scale | 2                       | 500              | 800              |
| Subtotal                                |              | 4                       |                  |                  |
| Mixed garden                            | Small scale  | 18                      | 1,800            | 7,200            |
|                                         | Medium scale | 9                       | 2,250            | 4,500            |
| Subtotal                                |              | 27                      |                  |                  |
| Vegetable<br>garden                     | Small scale  | 25                      | 2,500            | 6,250            |
|                                         | Medium scale | 30                      | 7,500            | 12,000           |
|                                         | Large scale  | 2                       | 800              | 1,000            |
| Subtotal                                |              | 57                      |                  |                  |
| TOTAL                                   |              | 101                     | 16,850           | 35,500           |

*Small scale agriculture is common in the Southern Gulf Islands.*

*Table 23 details the 101 small scale agriculture activities identified within the inventory area*

*Small scale agriculture activities comprise between 1.6 ha - 3.5 ha (16,850 – 35,500 sq m) of gardens and greenhouses.*

*These 101 activities occur on 93 parcels as some parcels have more than one type of small scale agriculture activity.*

*Refer to Map 2 for more information.*

## IRRIGATION

Irrigation is the artificial application of water to the land or soil and may be used to assist in the growing of agricultural crops, maintenance of managed vegetation, and control of soil erosion or dust. The potential to irrigate is often limited by the quality and quantity of available irrigation water. Insufficient water sources or water delivery infrastructure can also limit the potential to increase agricultural production through irrigation.

Irrigation is captured at the field or land cover level by system type (sub-surface, sprinkler, giant gun, trickle) and then summarized by crop type to the total land area under irrigation. Irrigated land includes all irrigated field crops and may also include irrigated fallow farmland, land set temporarily set aside for wildlife or other purposes, and land under preparation for planting. Also included are crops grown in greenhouses and crop barns. In addition, individual cultivated field crops are evaluated for percent of crop area under irrigation.

Table 24. All crop types and irrigation – Southern Gulf Islands

| Cultivated field crop                  | Irrigation system in use |           | Total area irrigated (ha) | % of crop type under irrigated |
|----------------------------------------|--------------------------|-----------|---------------------------|--------------------------------|
|                                        | Sprinkler                | Trickle   |                           |                                |
| Forage & pasture                       | 41                       | -         | 41                        | 6%                             |
| Vegetables                             | 18                       | 2         | 21                        | 93%                            |
| Grapes                                 | -                        | 6         | 6                         | 26%                            |
| Berries                                | < 1                      | 2         | 2                         | 97%                            |
| Crop transition                        | < 1                      | 1         | 2                         | 81%                            |
| Specialty                              | 1                        | -         | 1                         | 79%                            |
| Tree fruits                            | < 1                      | < 1       | 1                         | 4%                             |
| Floriculture                           | < 1                      | < 1       | < 1                       | 94%                            |
| Nursery                                | < 1                      | < 1       | < 1                       | 100%                           |
| Nut trees                              | -                        | -         | -                         | -                              |
| Rhubarb                                | -                        | -         | -                         | -                              |
| <b>TOTAL FIELD CROP AREA IRRIGATED</b> | <b>63</b>                | <b>12</b> | <b>75</b>                 | <b>10%</b>                     |

Table 24 outlines the type of irrigation systems used on the cultivated field crops in the Southern Gulf Islands

A total of 75 ha, or 10% of the cultivated land was irrigated; 63 ha used sprinkler systems and 12 ha used trickle systems.

Refer to Map 1 for more information.

Table 25. Irrigated crop area by irrigation type and local trust area

| Local Trust Area           | Total area (ha) |           | Irrigated crop area (ha) |
|----------------------------|-----------------|-----------|--------------------------|
|                            | Sprinkler       | Trickle   |                          |
| Galiano                    | 8               | 1         | 9                        |
| Mayne                      | 5               | 2         | 7                        |
| North Pender               | 8               | 9         | 17                       |
| North Pender Associated    | 41              | -         | 41                       |
| Saturna                    | <1              | -         | <1                       |
| South Pender               | <1              | -         | <1                       |
| <b>IRRIGATED AREA (ha)</b> | <b>63</b>       | <b>12</b> | <b>75</b>                |

Table 25 outlines the type of irrigation systems used on the cultivated field crops by local trust area.

No irrigated crops were recorded on Piers or Prevost Islands (Salt Spring Island LTA).

## LIVESTOCK

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Livestock activities are difficult to measure using a windshield survey. Livestock are often confined to structures making it difficult for the surveyor to see the animals. Local knowledge and other indicators such as animal confinement type (barn type), feeder system type, manure handling system type, and other visible elements may be used to infer the type of livestock and scale of activity that exist on a parcel. In addition, livestock are mobile and may utilize more than one land parcel. Livestock visible on a certain parcel one day may be visible on a different parcel the next day. This inventory does not attempt to identify animal movement between parcels that make up a farm unit but reports livestock at the parcel where the animals or related structures were observed.

**"Main Type"** and **"Secondary Type"** of livestock are determined by comparing the scale of different livestock activities on the parcel. The "Main Type" of livestock does not represent the primary agricultural activity, but only the main type of livestock activity.

**"Intensive"** livestock activities utilize specialized structures such as barns, feedlots and stockyards designed for confined feeding at higher stocking densities.

**"Non Intensive"** livestock activities allow animals to graze on a pasture and often utilize non intensive barns and corrals/paddocks.

**"Unknown livestock"** refers to activities where non specialized livestock related structures were present but the livestock were not visible and therefore the specific type of livestock could not be determined.

**"Homesite"** refers to the location of the main ranch or main barn of a livestock operation or farm unit<sup>9</sup>. Often, other types of farm infrastructure, such as corrals, paddocks, barns, and feeding/watering facilities, as well as the farm residence, are also at this location. This is the primary location of the farm unit where most livestock management occurs.

**"Non Homesite"** refers to a location where livestock are present but related infrastructure is minimal. Often pasture fencing and watering are the only apparent infrastructure improvements. This location is often used only for pasturing livestock and is secondary to an operation's primary (or homesite) location.

The scale system used to describe livestock operations relies on animal unit equivalents which is a standard measure used to compare different livestock types. One animal unit equivalent is approximately equal to one adult cow or horse. The scale system includes 4 levels:

- **"Very Small"** Approximately 1 cow or horse or bison, 3 hogs, 5 goats or deer, 10 sheep, 50 turkeys, 100 chickens (1 animal unit equivalent)
- **"Small"** LESS THAN 25 cows or horses or bison, 75 hogs, 125 goats or deer, 250 sheep, 1250 turkeys, 2500 chickens (2 - 25 animal unit equivalents)
- **"Medium"** LESS THAN 100 cows or horses or bison, 300 hogs, 500 goats or deer, 1000 sheep, 5000 turkeys, 10,000 chickens (25 - 100 animal unit equivalents)
- **"Large"** MORE THAN 100 cows or horses or bison, 300 hogs, 500 goats or deer, 1000 sheep, 5000 turkeys, 10,000 chickens (over 100 animal unit equivalents).

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<sup>9</sup> Farm unit includes all the property belonging to a farm and may incorporate more than one parcel.

## Overview

Table 26. Livestock activities – Southern Gulf Islands

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Sheep / goat    | 20                | 25          | 2            | -           | 47               | -                | 47            | 37          | 10           |
| Poultry         | 36                | -           | -            | -           | 36               | -                | 36            | 36          | -            |
| Beef            | 3                 | 15          | 4            | -           | 22               | -                | 22            | 15          | 7            |
| Llama / alpaca  | 3                 | 3           | -            | -           | 6                | -                | 6             | 6           | -            |
| Swine           | 2                 | 2           | -            | -           | 4                | -                | 4             | 4           | -            |
| Ratite          | 2                 | -           | -            | -           | 2                | -                | 2             | 1           | 1            |
| Equine          | 12                | 12          | -            | -           | 24               | -                | 24            | 19          | 5            |
| <b>TOTAL</b>    | <b>78</b>         | <b>57</b>   | <b>6</b>     | <b>-</b>    | <b>141</b>       | <b>-</b>         | <b>141</b>    | <b>118</b>  | <b>23</b>    |

Table 26 details the type and scale of livestock activities in the Southern Gulf Islands.

Sheep/goat activities are the most common type of livestock activity accounting for 47 out of 141 activities.

Poultry is the second most common with 36 activities, however, all poultry occurrences are very small scale or backyard flocks (less than 100 birds). Over two-thirds of the poultry activities (69%) are a “secondary” livestock type, meaning there is another livestock type of a greater scale on the same parcel.

Equine is third most common with 24 activities.

There are no “large” scale livestock operations on the Southern Gulf islands. There are 6 “medium” scale activities; 4 are beef ( 25 -100 cattle) and 2 are sheep / lamb/ goat activities (125-500 goats or 250 – 1000 sheep).

Of the 141 livestock activities, only 118 are homesites. This indicates that some livestock operations are utilizing more than one parcel.

Figure 24. Livestock homesite activities by scale and type – Southern Gulf Islands

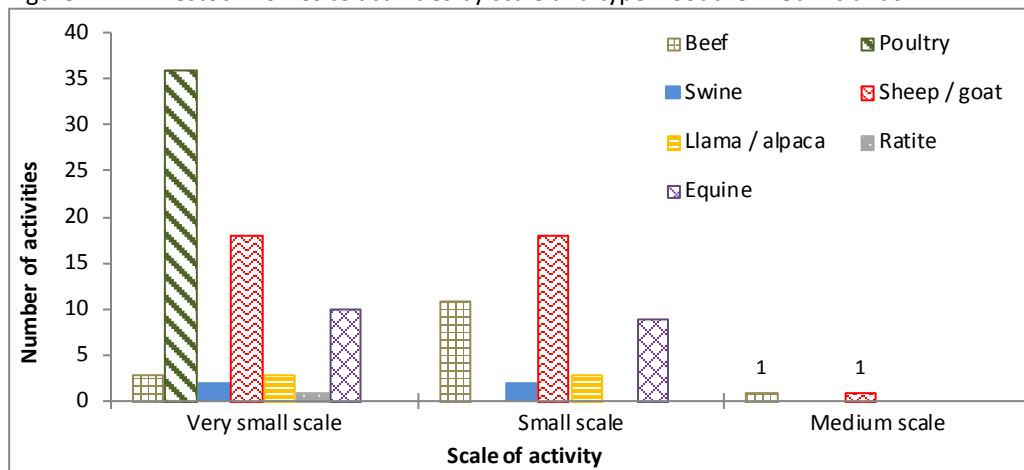


Figure 24 illustrates the scale of livestock homesite activities.

There are no “large” scale livestock activities on the Southern Gulf Islands. Beef and sheep / goat are the only livestock types occurring on a “medium” scale.

Of the 6 “medium” scale activities(refer to Table 26) , only 2 are livestock homesites; 1 is associated with beef and the other is associated with sheep.

Poultry and ratite activities occur only on “very small” scale.

Figure 25. Livestock homesite activities by parcel size and scale – Southern Gulf Islands

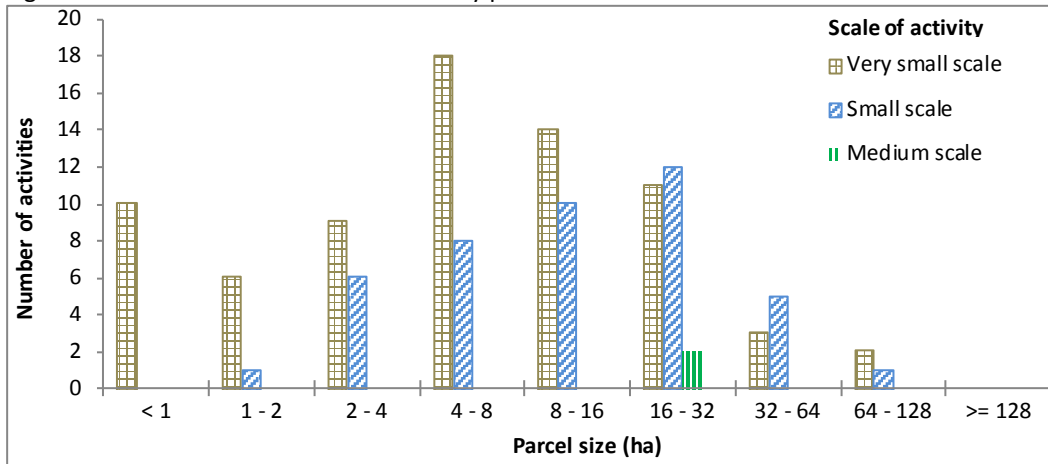


Figure 25 illustrates the distribution of livestock homesite activities by scale across parcel size categories.

“Very small” and “small” scale activities occur across all parcels sizes with livestock activities, including on large parcels. Both “medium” scale homesite activities occur on parcels 16 -32 ha in size.

## Galiano Island

Table 27. Livestock activities – Galiano Island

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Sheep           | 5                 | 4           | -            | -           | 9                | -                | 9             | 9           | -            |
| Equine          | 5                 | 2           | -            | -           | 7                | -                | 7             | 7           | -            |
| Chicken         | 5                 | -           | -            | -           | 5                | -                | 5             | 5           | -            |
| Llama           | 1                 | 1           | -            | -           | 2                | -                | 2             | 2           | -            |
| Beef            | -                 | 1           | -            | -           | 1                | -                | 1             | 1           | -            |
| <b>TOTAL</b>    | <b>16</b>         | <b>8</b>    | <b>-</b>     | <b>-</b>    | <b>24</b>        | <b>-</b>         | <b>24</b>     | <b>24</b>   | <b>-</b>     |

Table 27 shows that all livestock activities on Galiano Island are “small” or “very small” scale. Sheep activities are the most common with 5 “very small” scale (<10 sheep) and 4 “small” scale (10 – 250 sheep) activities. Equine activities are the second most common.

Figure 26. Livestock and equine homesite activities by scale and type – Galiano Island

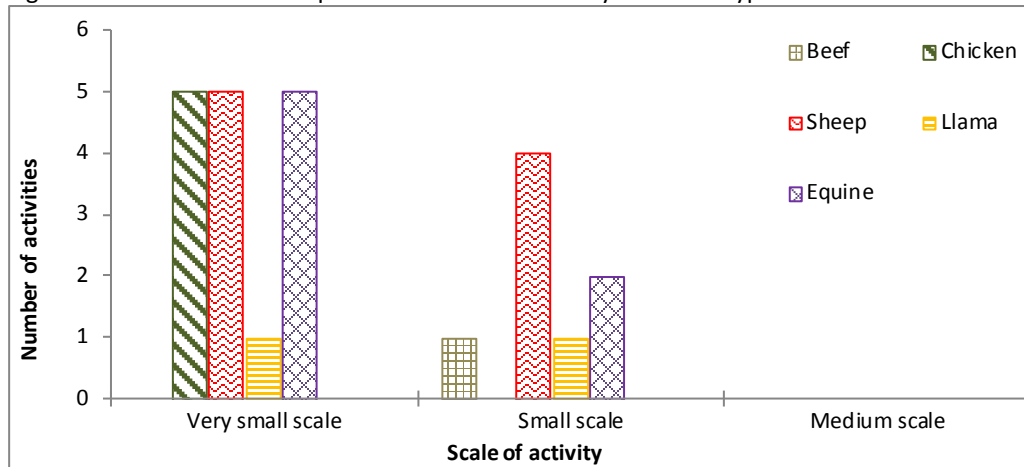


Figure 26 illustrates the scale of livestock homesite activities on Galiano Island.

## Mayne Island Local Trust Area (Mayne Island & Curlew Island)

Table 28. Livestock activities – Mayne Island

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Beef            | -                 | 5           | 4            | -           | 9                | -                | 9             | 5           | 4            |
| Sheep / goat    | 8                 | 1           | -            | -           | 9                | -                | 9             | 7           | 2            |
| Poultry         | 7                 | -           | -            | -           | 7                | -                | 7             | 7           | -            |
| Equine          | 4                 | 3           | -            | -           | 7                | -                | 7             | 5           | 2            |
| Ratite          | 2                 | -           | -            | -           | 2                | -                | 2             | 1           | 1            |
| Alpaca          | -                 | 1           | -            | -           | 1                | -                | 1             | 1           | -            |
| <b>TOTAL</b>    | <b>21</b>         | <b>10</b>   | <b>4</b>     | <b>-</b>    | <b>35</b>        | <b>-</b>         | <b>35</b>     | <b>26</b>   | <b>9</b>     |

All identified livestock activities in the Mayne Local Trust Area occur on Mayne Island.

Table 28 shows that beef and sheep/goat activities are the most common type of livestock. Beef is the only livestock type occurring on a “medium” scale (25 – 100 cattle). All poultry, ratite, and most sheep/ goat activities are “very small” scale.

Of the 9 beef activities, only 5 are on “homesites”. Of the poultry 7 recorded poultry activities, 6 are chicken and 1 is duck.

Figure 27. Livestock homesite activities by scale and type – Mayne Island

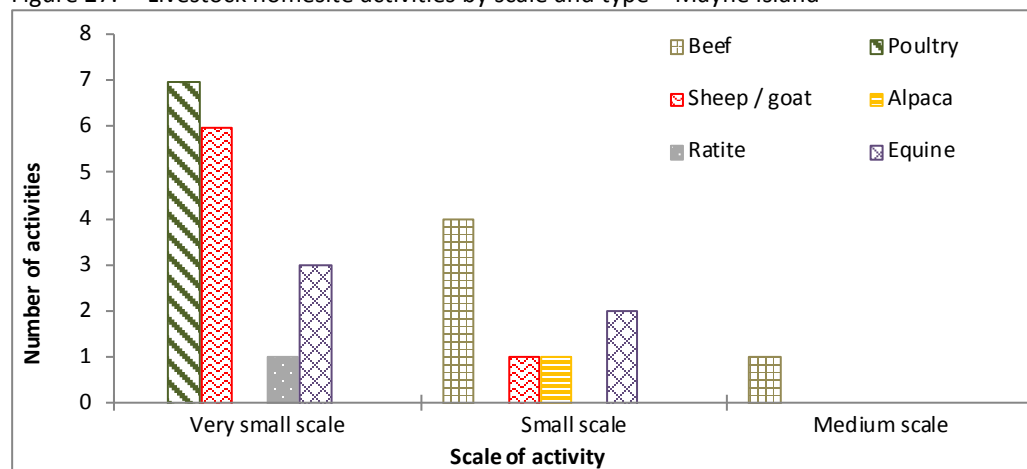


Figure 27 illustrates the scale of livestock homesite activities on Mayne Island.

There is only one “medium” scale homesite activity that is associated with Glenwood Farm. There are 3 other ‘non-homesite’ beef activities associated with this operation (not shown in figure).

## North Pender Island

Table 29. Livestock activities – North Pender Island

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Sheep / goat    | 3                 | 14          | 2            | -           | 19               | -                | 19            | 13          | 6            |
| Poultry         | 15                | -           | -            | -           | 15               | -                | 15            | 15          | -            |
| Equine          | 3                 | 5           | -            | -           | 8                | -                | 8             | 5           | 3            |
| Beef            | 1                 | 2           | -            | -           | 3                | -                | 3             | 2           | 1            |
| Llama / alpaca  | 2                 | 1           | -            | -           | 3                | -                | 3             | 3           | -            |
| Swine           | 1                 | 1           | -            | -           | 2                | -                | 2             | 2           | -            |
| <b>TOTAL</b>    | <b>25</b>         | <b>23</b>   | <b>2</b>     | <b>-</b>    | <b>50</b>        | <b>-</b>         | <b>50</b>     | <b>40</b>   | <b>10</b>    |

Table 29 shows that sheep/goat and poultry activities are the most numerous livestock activities on North Pender Island. There are 15 recorded poultry activities (13 chicken, 2 duck, and 1 turkey), all of which are “very small” scale.

Sheep/goat activities were recorded on 19 parcels. Of these activities, 13 are homesites. There are 12 sheep homesites and 1 goat homesite.

Figure 28. Livestock homesite activities by scale and type – North Pender Island

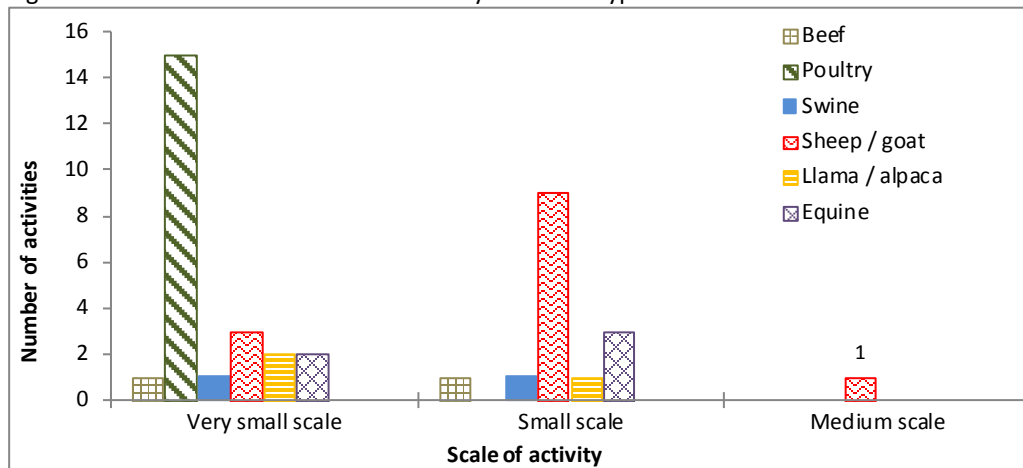


Figure 28 illustrates the scale of livestock homesite activities on North Pender Island.

There is one “medium” scale sheep homesite activity on North Pender.

## North Pender Associated Islands

Table 30. Livestock activities – North Pender Associated Islands

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Beef            | -                 | 4           | -            | -           | 4                | -                | 4             | 2           | 2            |
| Sheep           | 1                 | -           | -            | -           | 1                | -                | 1             | 1           | -            |
| <b>TOTAL</b>    | <b>1</b>          | <b>4</b>    | <b>-</b>     | <b>-</b>    | <b>5</b>         | <b>-</b>         | <b>5</b>      | <b>3</b>    | <b>2</b>     |

Table 30 shows there are few livestock activities on the North Pender Associated Islands. There are 2 “small” scale beef homesite activities (2 -25 cattle) and 1 “very small” scale sheep homesite activity (< 10 sheep). The beef homesites are located on Coal and Moresby Islands while the sheep activity occurs on Brethour Island.

Figure 29. Livestock homesite activities by scale and type – North Pender Associated Islands

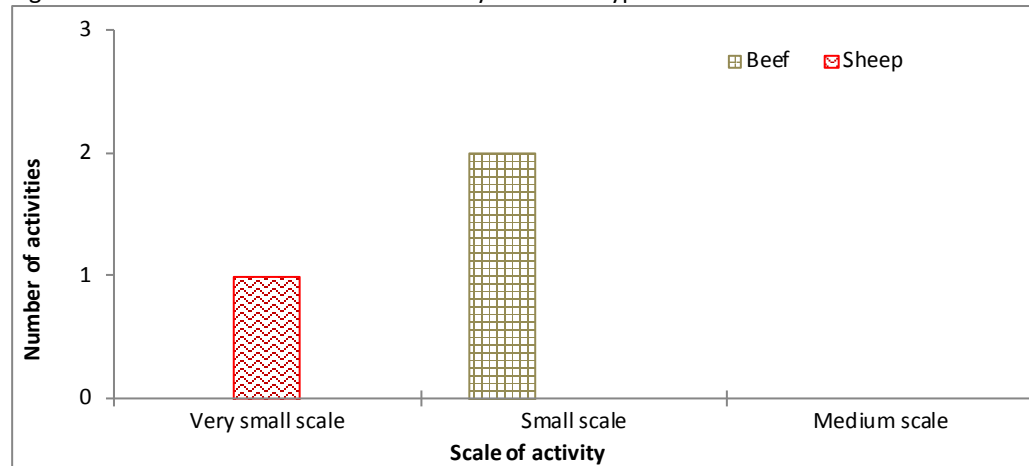


Figure 29 illustrates the scale of livestock homesite activities on the North Pender Associated Islands

## South Pender Island

Table 31. Livestock activities – South Pender Island

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Chicken         | 3                 | -           | -            | -           | 3                | -                | 3             | 3           | -            |
| Sheep           | -                 | 2           | -            | -           | 2                | -                | 2             | 2           | -            |
| Beef            | -                 | 1           | -            | -           | 1                | -                | 1             | 1           | -            |
| Swine           | -                 | 1           | -            | -           | 1                | -                | 1             | 1           | -            |
| <b>TOTAL</b>    | <b>3</b>          | <b>4</b>    | <b>-</b>     | <b>-</b>    | <b>7</b>         | <b>-</b>         | <b>7</b>      | <b>7</b>    | <b>-</b>     |

Table 31 shows there are few livestock activities on South Pender Island. Of the 7 recorded activities 3 were poultry, 2 were sheep, 1 was beef, and 1 was swine. These 7 activities occur on 3 parcels (each parcel has more than 1 type of livestock). All activities are “small” or “very small” scale.

Figure 30. Livestock homesite activities by scale and type – South Pender Island

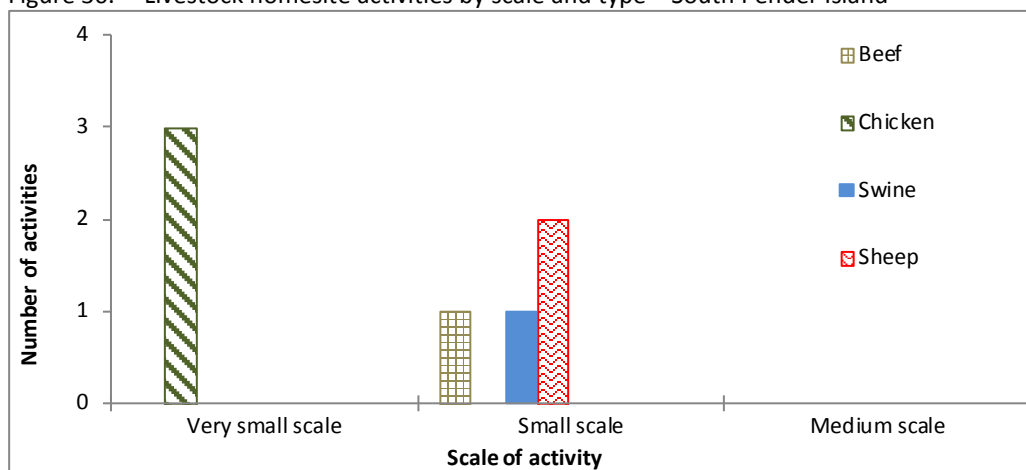


Figure 30 illustrates the scale of livestock homesite activities on South Pender.

## Saturna Island Local Trust Area (Saturna Island & Samuel Island)

Table 32. Livestock activities – Saturna Island

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Poultry         | 6                 | -           | -            | -           | 6                | -                | 6             | 6           | -            |
| Sheep           | 1                 | 4           | -            | -           | 5                | -                | 5             | 3           | 2            |
| Beef            | 2                 | 1           | -            | -           | 3                | -                | 3             | 3           | -            |
| Swine           | 1                 | -           | -            | -           | 1                | -                | 1             | 1           | -            |
| Equine          | -                 | 1           | -            | -           | 1                | -                | 1             | 1           | -            |
| <b>TOTAL</b>    | <b>10</b>         | <b>6</b>    | <b>-</b>     | <b>-</b>    | <b>16</b>        | <b>-</b>         | <b>16</b>     | <b>14</b>   | <b>2</b>     |

All identified livestock activities in the Saturna Local Trust Area occur on Saturna Island.

Table 32 details the livestock activities on Saturna Island. Poultry and sheep activities are the most numerous types of livestock, however, all poultry activities are “very small” scale and only 3 of the 5 sheep activities are animal “homesites”.

Figure 31. Livestock homesite activities by scale and type – Saturna Island

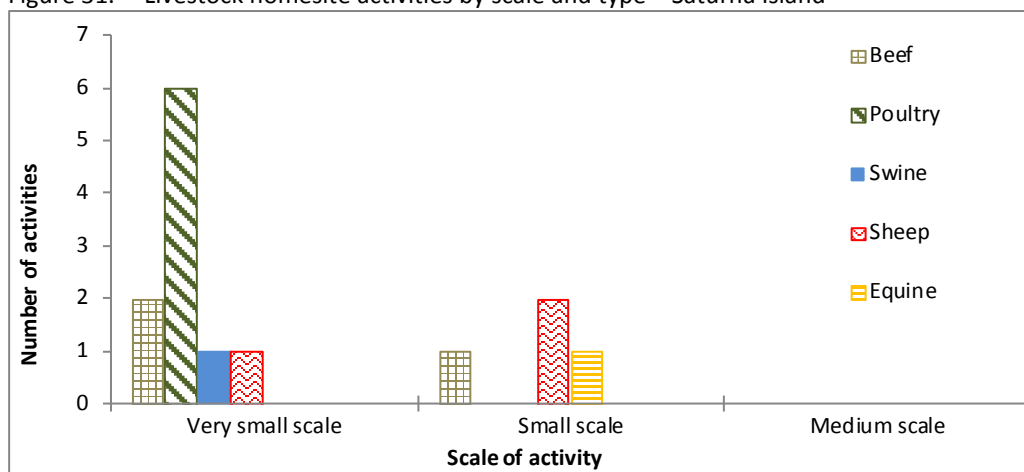


Figure 31 illustrates the scale of livestock homesite activities on Saturna Island.

## Prevost Island

Table 33. Livestock activities – Prevost Island

| Livestock group | Scale of activity |             |              |             | Total activities | By activity type |               | By location |              |
|-----------------|-------------------|-------------|--------------|-------------|------------------|------------------|---------------|-------------|--------------|
|                 | Very small scale  | Small scale | Medium scale | Large scale |                  | Intensive        | Non intensive | Homesite    | Non homesite |
| Sheep / goat    | 2                 | -           | -            | -           | 2                | -                | 2             | 2           | -            |
| Beef            | -                 | 1           | -            | -           | 1                | -                | 1             | 1           | -            |
| Equine          | -                 | 1           | -            | -           | 1                | -                | 1             | 1           | -            |
| <b>TOTAL</b>    | <b>2</b>          | <b>2</b>    | <b>-</b>     | <b>-</b>    | <b>4</b>         | <b>-</b>         | <b>4</b>      | <b>4</b>    | <b>-</b>     |

Table 33 shows the four livestock activities recorded on Prevost Island. There is 1 “small” scale beef activity (2 – 25 cattle), 1 “very small” sheep activity (<10 sheep), 1 “very small” goat activity (<5 goats), and 1 “small” equine activity (2 – 25 equines). All identified livestock activities occur on 1 parcel.

## APICULTURE

Apiculture is the management of honeybees. Honeybees play a vital role in the pollination of crops and flowering plants.

Three scales of activity were described:

- **“Small”** A small colony placed for seasonal pollination or a small personal permanent bee yard usually associated with organic farms. Hives are usually present at this site during the growing season.
- **“Medium”** Usually a permanent bee yard intended to generate honey or beeswax for sale to small local markets and provide seasonal pollination. Hives may not be present during the growing season.
- **“Large”** Permanent bee yard intended to generate bulk amount of honey or beeswax for off farm sale and provide extensive contract pollination. Hives may not be present during the growing season.

Table 34. Apiary activities by land trust area

| Local Trust Area | Scale of apiary |          | Total number |
|------------------|-----------------|----------|--------------|
|                  | Small           | Medium   |              |
| Galiano          | 1               | 1        | 2            |
| Mayne            | 1               | 1        | 2            |
| North Pender     | 2               | -        | 2            |
| South Pender     | 1               | -        | 1            |
| <b>TOTAL</b>     | <b>5</b>        | <b>2</b> | <b>7</b>     |

*Table 34 details the 7 apiary activities recorded on the Southern Gulf Islands. Five activities were “small” scale and two were “medium” scale.*

*Of the 5 small scale activities, 4 occur on parcels of less than 1 ha and 1 occurs on a parcel of 4 ha.*

*Both medium scale activities occur on parcels between 4 – 6 ha.*

## 7. Condition of ALR Lands

### PARCEL INCLUSION IN THE ALR

The inventory area included 2,294 ha of ALR on 430 parcels which is 98% of the ALR within the Southern Gulf Islands. The remaining 2% of the ALR was excluded from the inventory as it was outside of legally surveyed parcels, or was on parcels with less than 500 m<sup>2</sup> of land in the ALR.

ALR boundaries do not always align with parcel boundaries which results in many parcels having only a portion of their area in the ALR. To achieve an accurate picture of the ALR land within the Southern Gulf Islands, only parcels that meet the following criteria are included in this section of the report:

- parcels > 0.05 ha in size with at least half their area ( $\geq 50\%$ ) in the ALR, or
- parcels with at least 10 ha ( $\geq 10$  ha) of ALR land.

In total, 259 parcels, with 2,103 ha or 89% of the ALR land meets the above criteria and is included in the further analysis of the ALR. This includes 17 parcels with less than 50% of their area in the ALR, but each has greater than 10 ha of ALR land. These 17 parcels have a combined ALR area of 543 ha.

Table 35. Local trust areas with land in the ALR

| Local Trust Area                  | ALR area of parcels considered to be in the ALR (ha) | Number of parcels |
|-----------------------------------|------------------------------------------------------|-------------------|
| Galiano                           | 347                                                  | 48                |
| Mayne                             | 269                                                  | 43                |
| North Pender*                     | 310                                                  | 40                |
| North Pender Associated Islands*  | 639                                                  | 90                |
| South Pender                      | 133                                                  | 15                |
| Saturna                           | 341                                                  | 20                |
| Salt Spring Island (Prevost only) | 64                                                   | 3                 |
| <b>TOTAL</b>                      | <b>2,103</b>                                         | <b>259</b>        |

\* The North Pender Island Local Trust Area is comprised of North Pender Island and associated smaller islands. In this report, North Pender Island is presented separately from the associated islands.

Table 35 shows the area of ALR land in each SGI local trust area that meets one of the following criteria:

- Parcels > 0.05 ha in size with at least 50% of their area in the ALR, OR
- Parcels with at least 10 ha of ALR land

Figure 32. Parcel inclusion in the ALR



Figure 32 illustrates the distinction between parcels considered to be within or outside the ALR:

#### Considered to be within the ALR:

- lot A is completely in the ALR
- lot B has 50% or more of its area in the ALR.

#### Considered to be outside the ALR:

- lot C has less than 50% of its area and less than 10 hectares in the ALR
- lot D is completely outside the ALR.

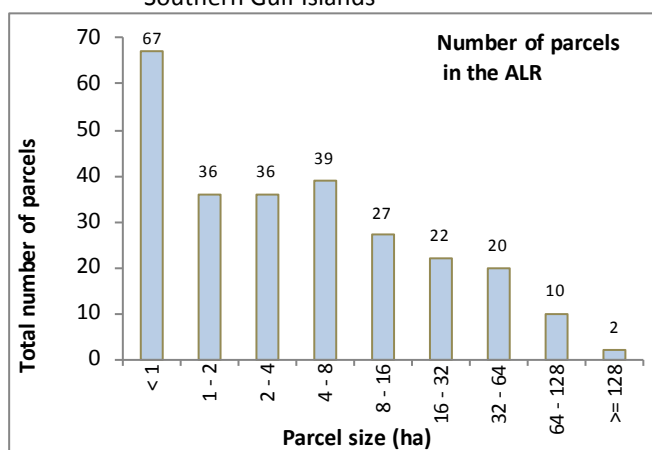
## PARCEL SIZE & FARMING IN THE ALR

Parcel size must be considered when determining the agricultural potential of a land parcel. Larger parcels usually allow farmers greater flexibility to expand or change their type of operation as the economy and markets change. Although some types of agriculture can be successful on small parcels (e.g. intensive market gardens, greenhouse operations, nurseries), smaller parcels generally have fewer viable options for farming.

A farming operation may utilize more than one parcel as a farm unit<sup>10</sup>, however, it is generally more efficient to run a farm on fewer larger parcels than on many smaller parcels. Larger parcels accommodate equipment more efficiently and reduce the need to move farm equipment on public roads. Smaller parcels are more impacted by bylaws designed to reduce potential land use conflicts, such as setbacks from lot lines and road allowances, and may encourage alternative land uses such as residential.

### Overview

Figure 33. Number of parcels in the ALR by parcel size – Southern Gulf Islands



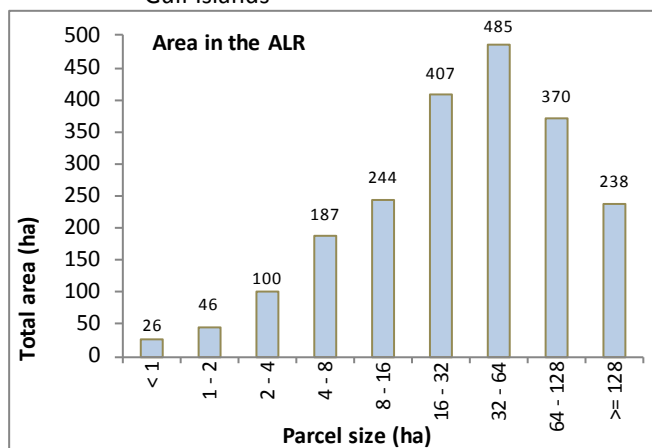
The average ALR parcel size is 13.6 ha and the median parcel size is 3.2 ha.

Figure 33 illustrates that of the 259 parcels the ALR:

- 26% (67 parcels) are less than 1 ha.
- 54% (139 parcels) are less than 4 ha.
- 15% (39 parcels) are between 4 and 8 ha.
- 10% (27 parcels) are between 8 and 16 ha.
- 21% (54 parcels) are greater than 16 ha.

Refer to Map 5 for more information.

Figure 34. Total area in the ALR by parcel size – Southern Gulf Islands



In the Southern Gulf Islands, the majority of the ALR area is in larger parcels.

Figure 34 illustrates that of the 2,103 ha in the ALR:

- 1% (26 ha) is on parcels less than 1 ha.
- 8% (172 ha) is on parcels less than 4 ha.
- 9% (187 ha) is on parcels between 4 and 8 ha.
- 12% (244 ha) is on parcels between 8 and 16 ha.
- 71% (1,500 ha) is on parcels greater than 16 ha.

<sup>10</sup>Farm Unit – An area of land used for a farm operation consisting of one or more contiguous or non-contiguous parcels, that may be owned, rented or leased, which form and are managed as a single farm.

Table 36. Number of farmed and not farmed parcels in the ALR – Southern Gulf Islands

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 61                | 24 %                    |
| Not used for farming                  | 198               | 76 %                    |
| <b>TOTAL</b>                          | <b>259</b>        | <b>100 %</b>            |

Table 36 demonstrates that of the 259 parcels in the ALR, only 61 parcels or 24% are “Used for farming”.

Figure 35. Number of farmed and not farmed parcels in the ALR by parcel size – Southern Gulf Islands

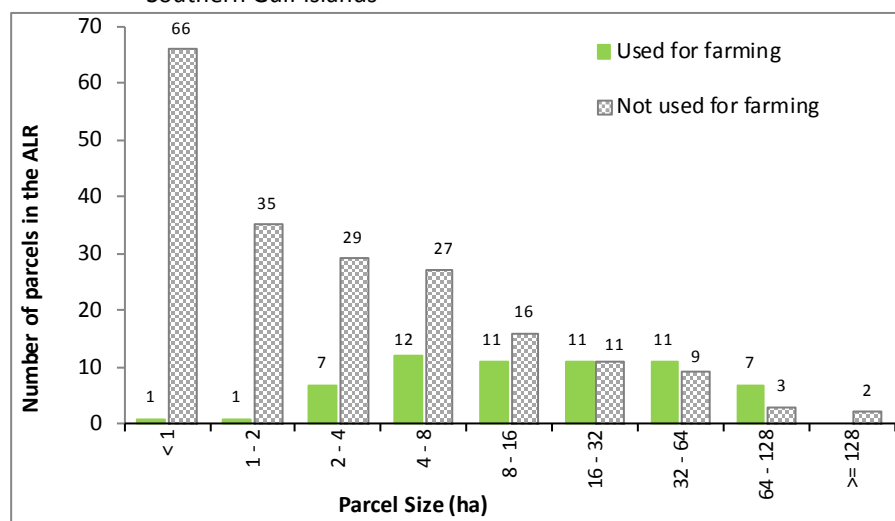


Figure 35 compares the distribution of “Used for farming” parcels with other parcels in the ALR.

The proportion of parcels that are “Used for farming” generally increases with parcel size.

There are two ALR parcels >128 ha; one parcels is on Sydney Island, the other is on Samuel Island, and both are “Not used for farming”.

Figure 36. Number of farmed and not farmed parcels in the ALR by parcel size (line chart) – Southern Gulf Islands

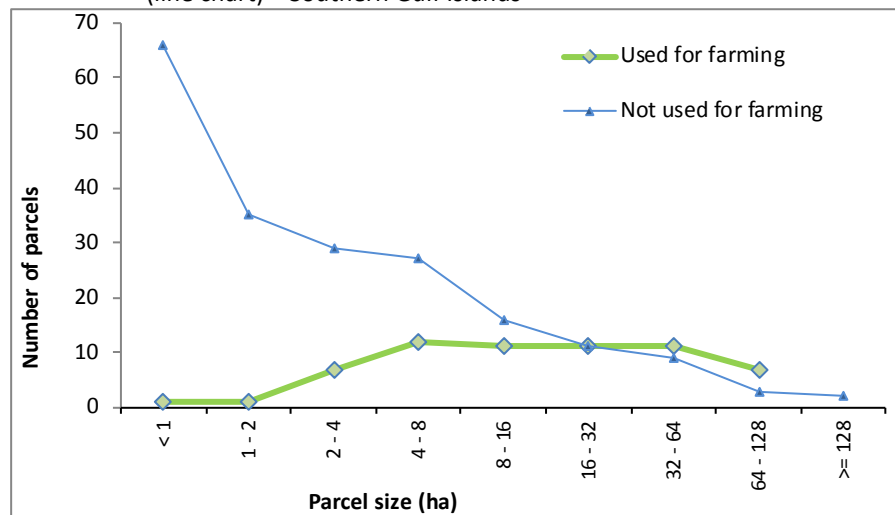


Figure 36 illustrates that although parcels of all sizes are “Used for farming”, small parcels have a much greater likelihood of being “Not used for farming”

Figure 37. Proportion of parcels farmed and not farmed by parcel size in the ALR – Southern Gulf Islands

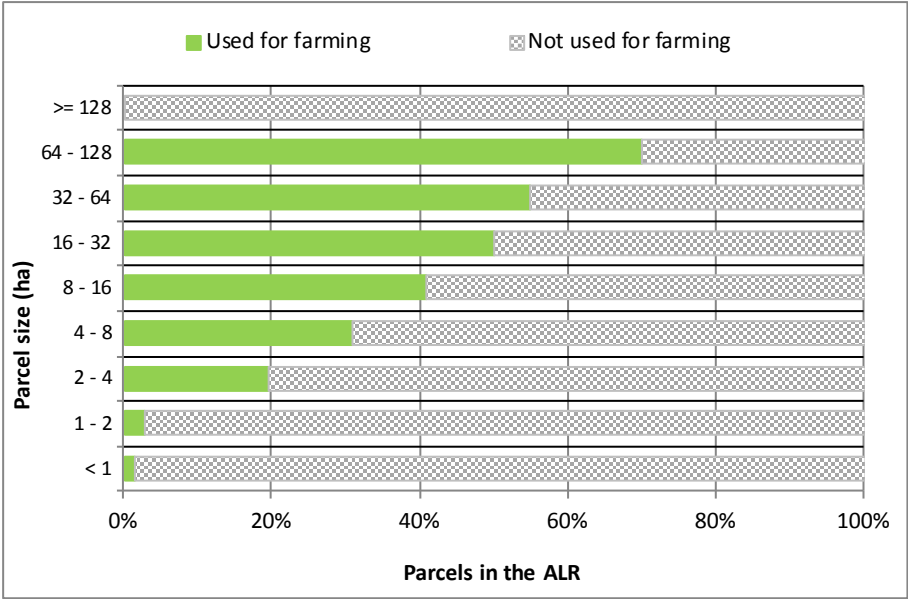


Figure 37 shows that the proportion of parcels “Used for farming” generally increases as the parcel size increases.

Only 1.5% of parcels less than 1 ha are “Used for farming”.

There are 2 parcels greater than 128 ha and in the ALR. Neither is “Used for farming”.

Figure 38. Proportion of land cover by parcel size in the ALR – Southern Gulf Islands

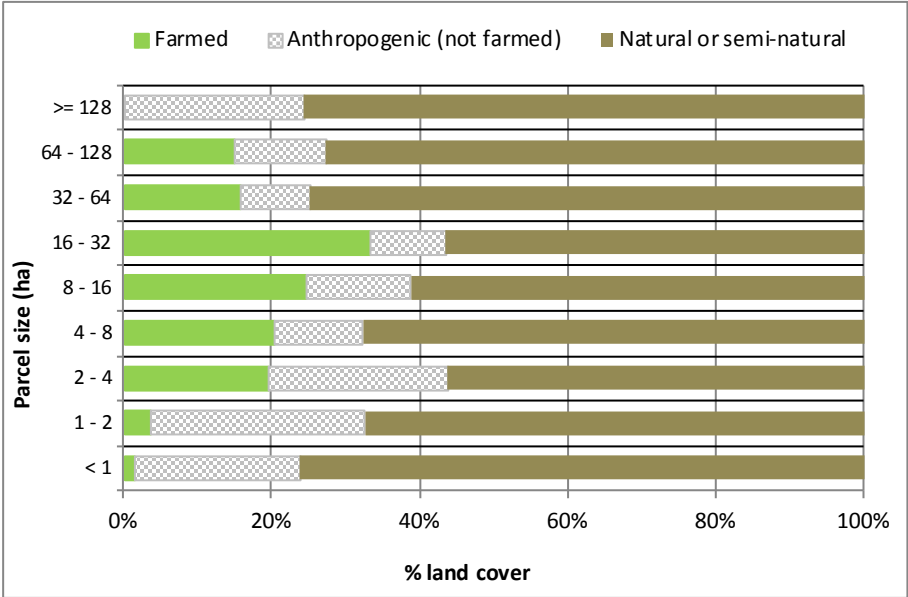
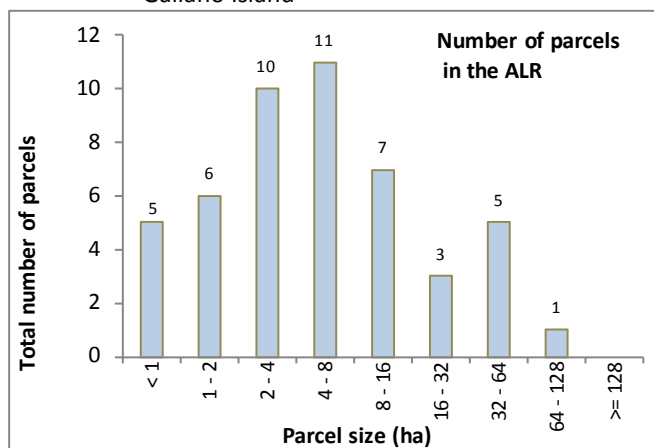


Figure 38 shows that there is a large proportion of “natural & semi-natural” land cover across all parcel size categories. There is also between 10 -20 % of “anthropogenic” (not farmed)” land cover across all parcels sizes.

This distribution of land cover type is representative of the islands rural character where human structures are often built among natural & semi natural vegetation.

## Galiano Island

Figure 39. Number of parcels in the ALR by parcel size – Galiano Island



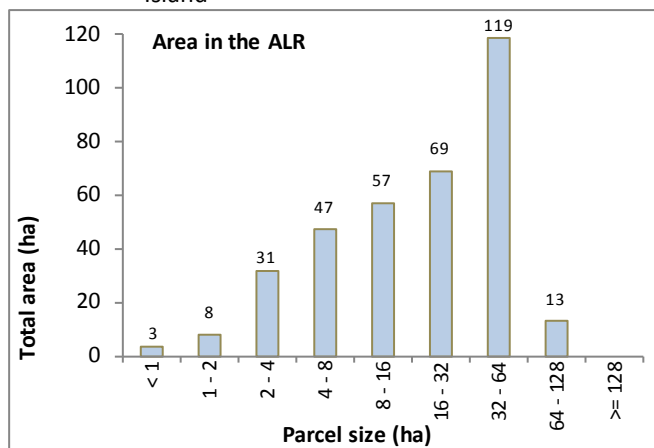
The average ALR parcel size on Galiano Island is 12.2 ha and the median parcel size is 4.1 ha.

Figure 39 illustrates that of the 48 parcels in the ALR:

- 10% (5 parcels) are less than 1 ha.
- 44% (21 parcels) are less than 4 ha.
- 23% (11 parcels) are between 4 and 8 ha.
- 14% (7 parcels) are between 8 and 16 ha.
- 19% (9 parcels) are greater than 16 ha.

Refer to Map 5 for more information.

Figure 40. Total area in the ALR by parcel size – Galiano Island



On Galiano Island, the majority of the ALR area is in larger parcels.

Figure 40 illustrates that of the 347 ha in the ALR:

- 1% (3 ha) is on parcels less than 1 ha.
- 12% (42 ha) is on parcels less than 4 ha.
- 14% (47 ha) is on parcels between 4 and 8 ha.
- 16% (57 ha) is on parcels between 8 and 16 ha.
- 58% (201 ha) is on parcels greater than 16 ha.

Table 37. Number of farmed and not farmed parcels in the ALR – Galiano Island

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 7                 | 15 %                    |
| Not used for farming                  | 41                | 85 %                    |
| <b>TOTAL</b>                          | <b>48</b>         | <b>100 %</b>            |

Table 37 demonstrates that of the 48 parcels in the ALR, only 7 parcels or 15% are "Used for farming".

Figure 41. Number of farmed and not farmed parcels in the ALR by parcel size – Galiano Island

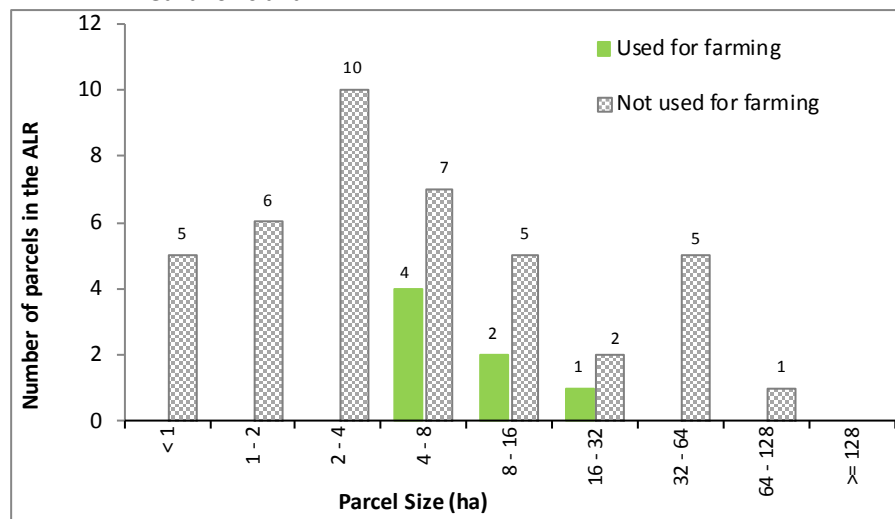


Figure 41 compares the distribution of “Used for farming” parcels with other parcels in the ALR.

On Galiano Island, all “Used for farming” parcels are greater than 4 ha.

Figure 42. Proportion of land cover by parcel size in the ALR – Galiano Island

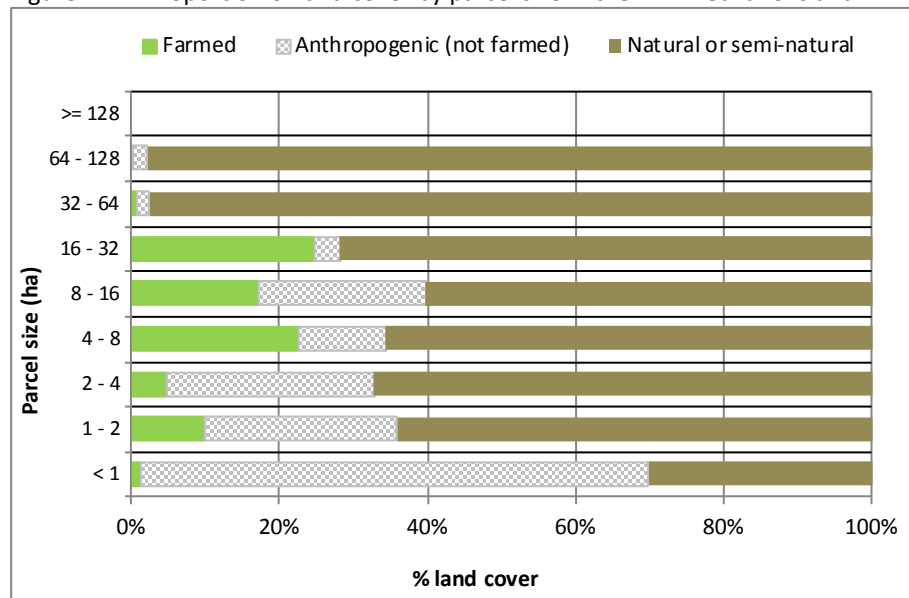


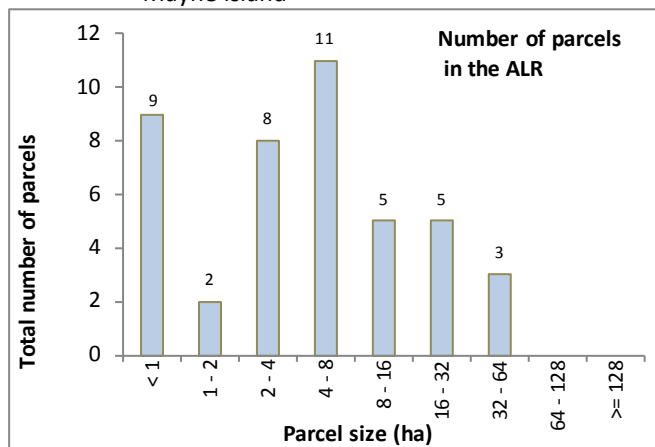
Figure 42 shows that there is a large proportion of “natural & semi-natural” land cover across all parcel size categories greater than 1 ha.

On parcels less than 1 ha, the majority of the land cover (68%) is in “anthropogenic (not farmed)” land cover. Parcels less than 1 ha comprise a total area of only 3 ha (refer to Figure 40).

## Mayne Island Local Trust Area

Mayne Island is the only island with ALR land in the Mayne Local Trust Area.

Figure 43. Number of parcels in the ALR by parcel size – Mayne Island



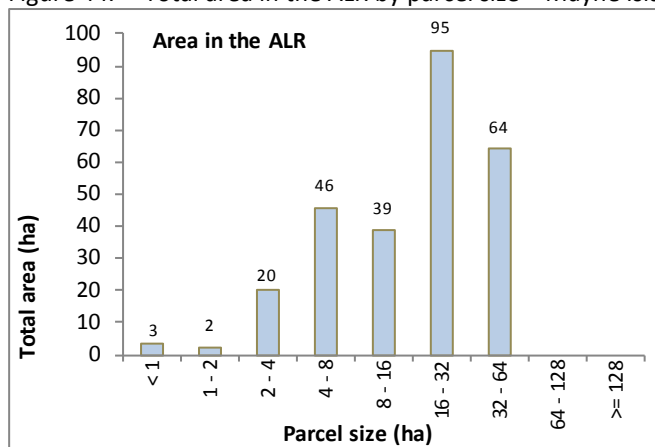
The average ALR parcel size on Mayne Island is 9.2 ha and the median parcel size is 4.0 ha.

Figure 43 illustrates that of the 43 parcels the ALR:

- 21% (9 parcels) are less than 1 ha.
- 44% (19 parcels) are less than 4 ha.
- 25% (11 parcels) are between 4 and 8 ha.
- 12% (5 parcels) are between 8 and 16 ha.
- 19% (8 parcels) are greater than 16 ha.

Refer to Map 5 for more information.

Figure 44. Total area in the ALR by parcel size – Mayne Island



On Mayne Island, the majority of the ALR area is in larger parcels.

Figure 44 illustrates that of the 296 ha in the ALR:

- 1% (3 ha) is on parcels less than 1 ha.
- 10% (25 ha) is on parcels less than 4 ha.
- 17% (46 ha) is on parcels between 4 and 8 ha.
- 14% (39 ha) is on parcels between 8 and 16 ha.
- 59% (159 ha) is on parcels greater than 16 ha.

Figure 45. Number of farmed and not farmed parcels in the ALR by parcel size – Mayne Island

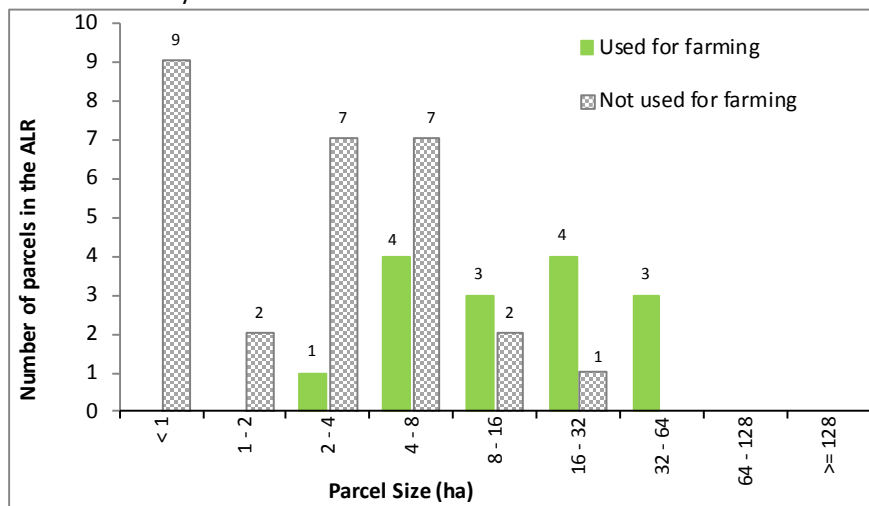


Figure 45 compares the distribution of “Used for farming” parcels with other parcels in the ALR.

On parcels greater than 8 ha, the proportion of “Used for farming” parcels is greater than the proportion of “Not used for farming” parcels.

There are no “Used for farming” parcels less than 2 ha. Small parcels are less likely to be farmed.

Table 38. Number of farmed and not farmed parcels in the ALR – Mayne Island

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 15                | 35 %                    |
| Not used for farming                  | 28                | 65 %                    |
| <b>TOTAL</b>                          | <b>43</b>         | <b>100 %</b>            |

Table 38 demonstrates that of the 43 parcels in the ALR on Mayne Island, only 15 parcels or 35% are “Used for farming”.

Figure 46. Proportion of parcels farmed and not farmed by parcel size in the ALR – Mayne Island

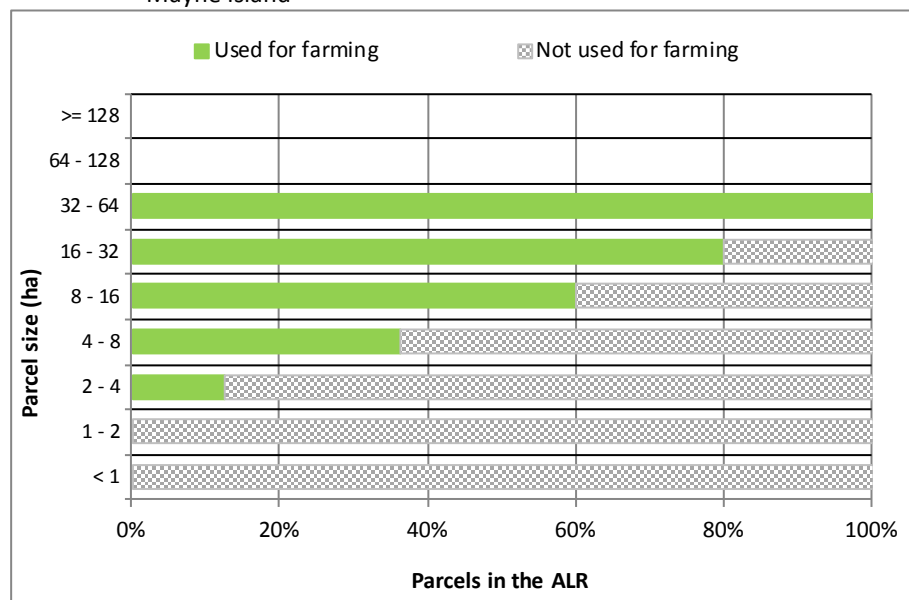


Figure 46 shows that the proportion of parcels “Used for farming” generally increases as the parcel size increases.

There are no parcels less than 2 ha that are “Used for farming”, and only 5% of the parcels in the 2 -4 ha parcel size category are “Used for farming”.

There are no parcels greater than 64 ha in the ALR on Mayne Island.

Figure 47. Proportion of land cover by parcel size in the ALR – Mayne Island

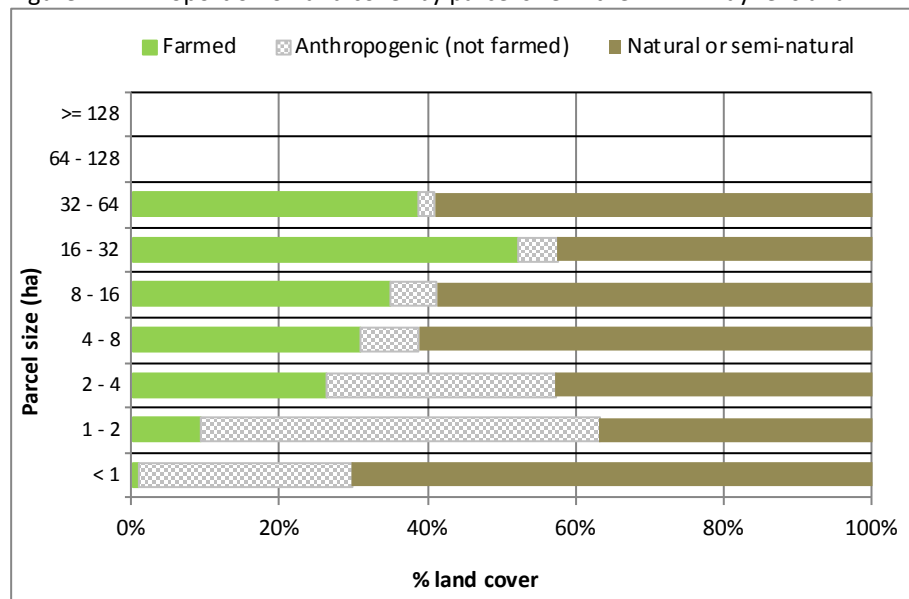
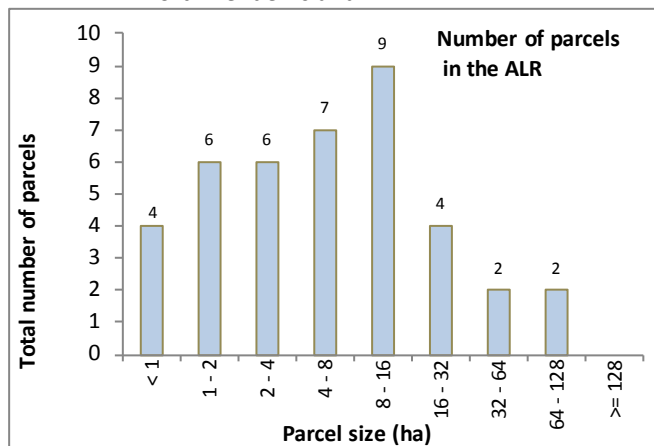


Figure 47 shows that the proportion of “Farmed” land cover generally increase with parcel size.

There are three ALR parcels greater than 32 ha that are “Used for farming” (refer to Figure 45); a large proportion of the land cover on these parcels (59%) is in “natural & semi-natural” land cover.

## North Pender Island

Figure 48. Number of parcels in the ALR by parcel size – North Pender Island



The average ALR parcel size on North Pender Island is 12 ha and the median parcel size is 6.6 ha.

Figure 48 illustrates that of the 40 parcels the ALR:

- 10% (4 parcels) are less than 1 ha.
- 40% (16 parcels) are less than 4 ha.
- 18% (7 parcels) are between 4 and 8 ha.
- 23% (9 parcels) are between 8 and 16 ha.
- 20% (8 parcels) are greater than 16 ha.

Refer to Map 5 for more information.

Figure 49. Total area in the ALR by parcel size – North Pender Island

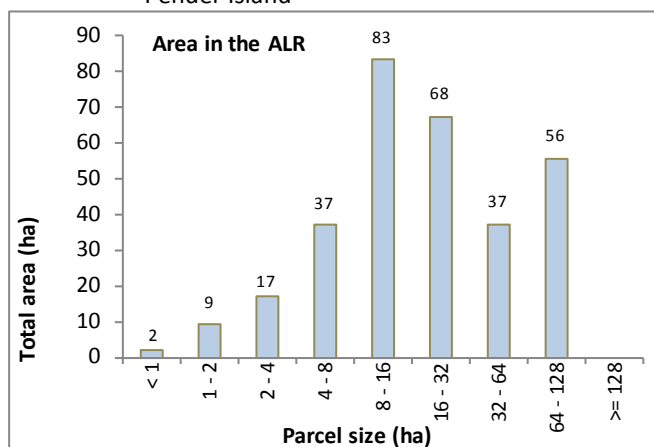


Figure 49 illustrates that of the 310 ha in the ALR on North Pender Island:

- 1% (2 ha) is on parcels less than 1 ha.
- 9% (29 ha) is on parcels less than 4 ha.
- 12% (37 ha) is on parcels between 4 and 8 ha.
- 27% (83 ha) is on parcels between 8 and 16 ha.
- 52% (161 ha) is on parcels greater than 16 ha.

Figure 50. Number of farmed and not farmed parcels in the ALR by parcel size – North Pender Island

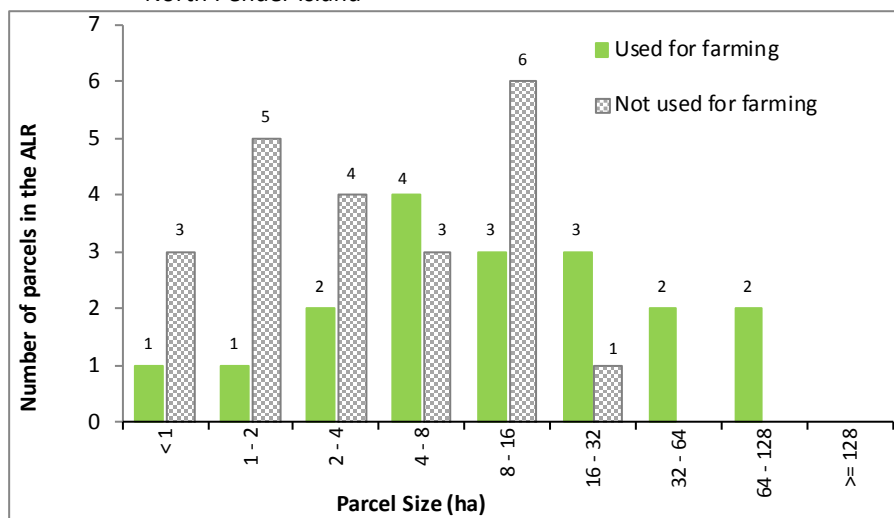


Figure 50 compares the distribution of “Used for farming” parcels with other parcels in the ALR.

The proportion of parcels that are “Used for farming” generally increases with parcel size.

Table 39. Number of farmed and not farmed parcels in the ALR – North Pender Island

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 18                | 45 %                    |
| Not used for farming                  | 22                | 55 %                    |
| <b>TOTAL</b>                          | <b>40</b>         | <b>100 %</b>            |

Table 39 demonstrates that of the 40 parcels in the ALR, 18 parcels or 45% are “Used for farming”.

Figure 51. Proportion of parcels farmed and not farmed by parcel size in the ALR – North Pender Island

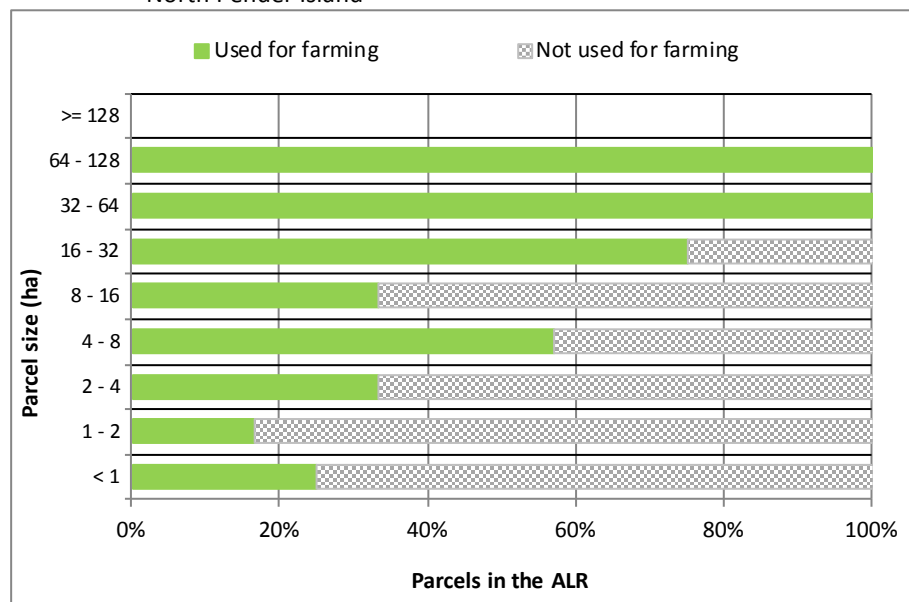


Figure 51 shows that the proportion of parcels “Used for farming” generally increases as the parcel size increases.

There are 4 ALR parcels greater than 32 ha on North Pender Island, all of which are “Used for farming”.

Small parcels are less likely to be farmed than larger parcels.

Figure 52. Proportion of land cover by parcel size in the ALR – North Pender Island

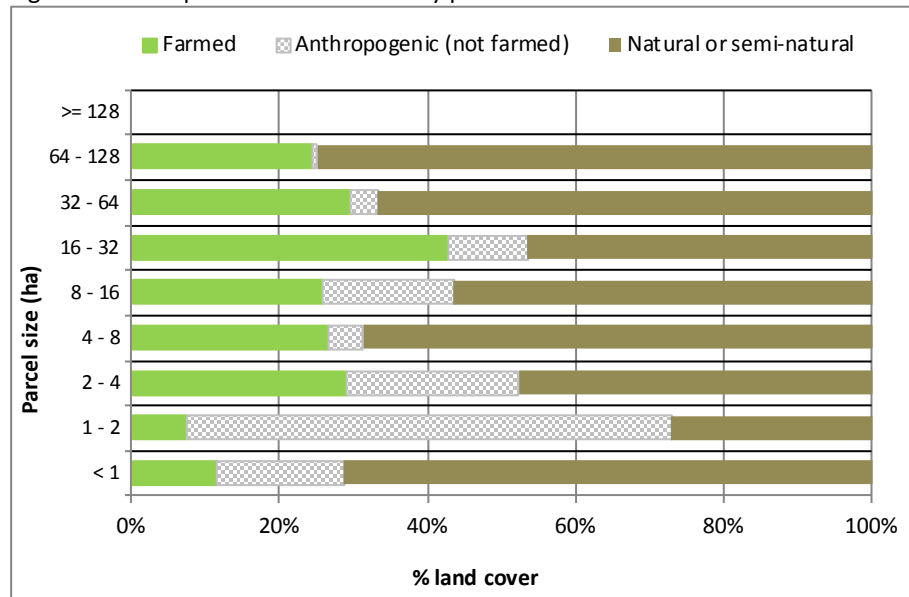


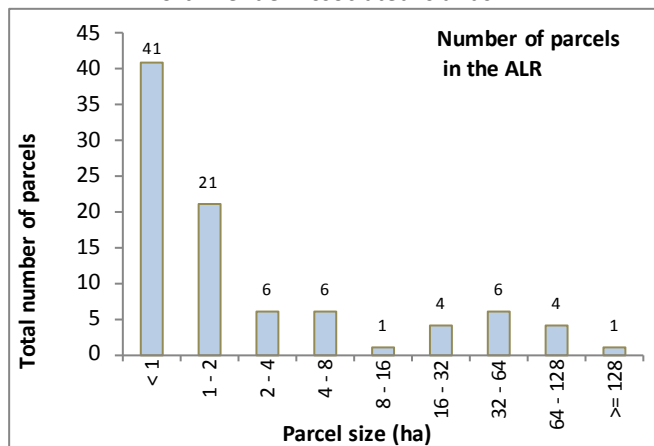
Figure 52 shows proportion of land cover types by parcel size in the ALR.

Most parcel size categories have a large proportion of land cover in “natural & semi-natural” vegetation.

The largest proportion of “anthropogenic (not farmed)” land cover occurs on parcels of 1 - 2 ha.

## North Pender Associated Islands

Figure 53. Number of parcels in the ALR by parcel size – North Pender Associated Islands



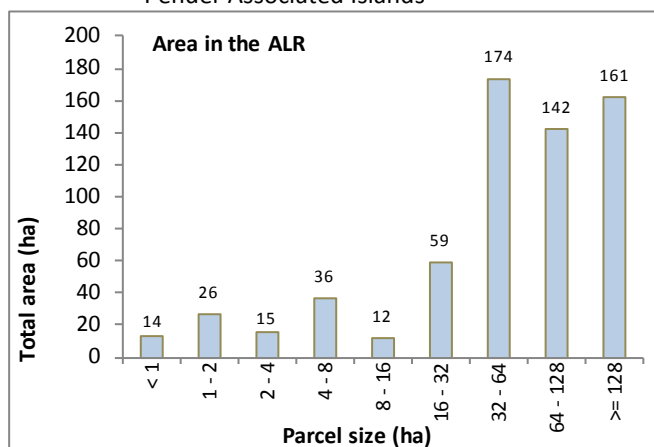
The average ALR parcel size on North Pender Associated Islands is 12.8 ha and the median parcel size is 1.1 ha.

Figure 53 illustrates that of the 90 parcels the ALR:

- 46% (41 parcels) are less than 1 ha.
- 75% (68 parcels) are less than 4 ha.
- 7% (6 parcels) are between 4 and 8 ha.
- 1% (1 parcels) are between 8 and 16 ha.
- 17% (15 parcels) are greater than 16 ha.

Refer to Map 5 for more information.

Figure 54. Total area in the ALR by parcel size – North Pender Associated Islands



Although there are a large number of small parcel on the North Pender Associated Island, the majority of the ALR area is in larger parcels.

Figure 54 illustrates that of the 639 ha in the ALR:

- 2% (14 ha) is on parcels less than 1 ha.
- 9% (55 ha) is on parcels less than 4 ha.
- 6% (36 ha) is on parcels between 4 and 8 ha.
- 2% (12 ha) is on parcels between 8 and 16 ha.
- 84% (536 ha) is on parcels greater than 16 ha.

Table 40. Number of farmed and not farmed parcels in the ALR – North Pender Associated Islands

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 7                 | 8 %                     |
| Not used for farming                  | 83                | 92 %                    |
| <b>TOTAL</b>                          | <b>90</b>         | <b>100 %</b>            |

Table 40 demonstrates that of the 90 parcels in the ALR, only 7 parcels or 8% are "Used for farming".

Figure 55. Number of farmed and not farmed parcels in the ALR by parcel size – North Pender Associated Islands

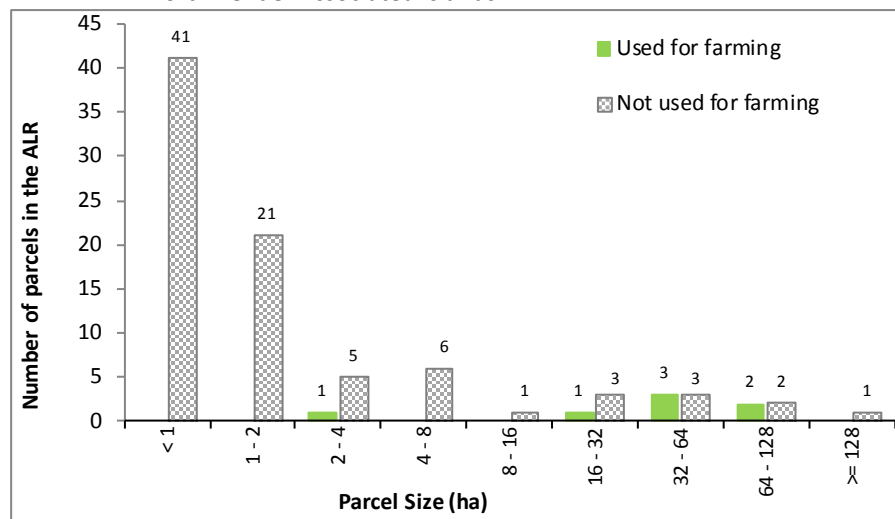


Figure 55 compares the distribution of “Used for farming” parcels with other parcels in the ALR.

Three-quarters (75%) of all “Not used for farming parcels are less than 2 ha.

Small parcels are less likely to be farmed on the North Pender Associated Islands.

There is one “Not used for farming” parcel of 332 ha on Sydney Island that is associated with a private airfield.

Figure 56. Proportion of land cover by ALR parcel size – North Pender Associated Islands

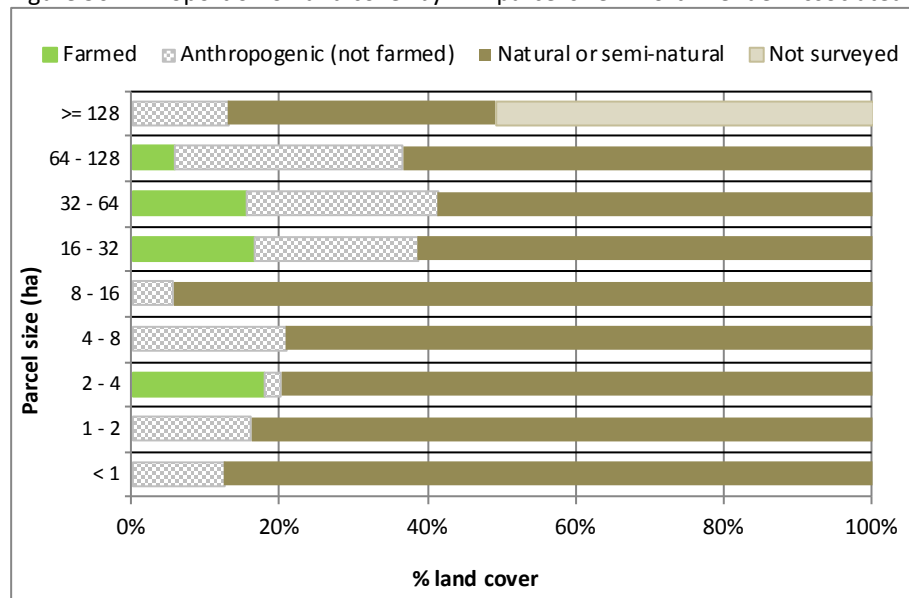
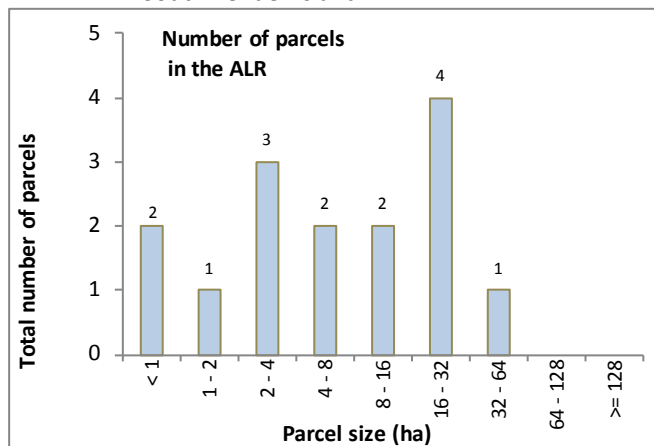


Figure 56 shows the proportion of land cover types by parcel size in the ALR.

There is a large proportion of “natural & semi-natural” land cover across all parcel size categories. There is also between 10 -30 % of “anthropogenic (not farmed” land cover across most parcels sizes.

## South Pender Island

Figure 57. Number of parcels in the ALR by parcel size – South Pender Island



The average ALR parcel size on South Pender Island is 10.8 ha and the median parcel size is 6.1 ha.

Figure 57 illustrates that of the 15 parcels in the ALR:

- 13% (2 parcels) are less than 1 ha.
- 40% (6 parcels) are less than 4 ha.
- 13% (2 parcels) are between 4 and 8 ha.
- 13% (2 parcels) are between 8 and 16 ha.
- 33% (5 parcels) are greater than 16 ha.

Refer to Map 5 for more information.

Figure 58. Total area in the ALR by parcel size – South Pender Island

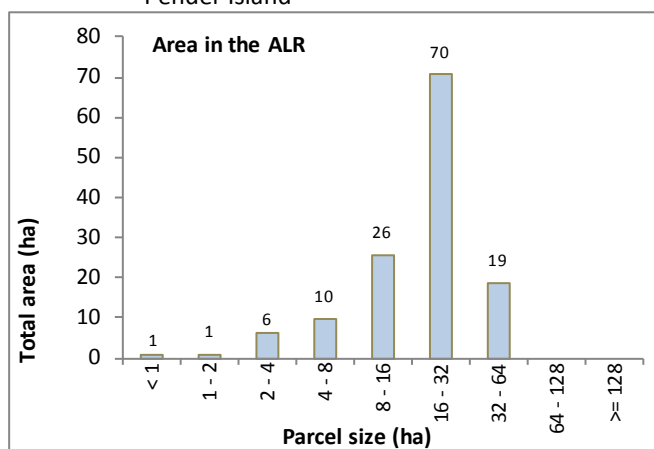


Figure 58 illustrates that of the 133 ha in the ALR on South Pender Island:

- 1% (1 ha) is on parcels less than 1 ha.
- 6% (8 ha) is on parcels less than 4 ha.
- 7% (10 ha) is on parcels between 4 and 8 ha.
- 19% (26 ha) is on parcels between 8 and 16 ha.
- 67% (89 ha) is on parcels greater than 16 ha.

Table 41. Number of farmed and not farmed parcels in the ALR – South Pender Island

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 4                 | 27 %                    |
| Not used for farming                  | 11                | 73 %                    |
| <b>TOTAL</b>                          | <b>15</b>         | <b>100 %</b>            |

Table 41 demonstrates that of the 15 parcels in the ALR, only 4 parcels or 27% are “Used for farming”.

Figure 59. Number of farmed and not farmed parcels in the ALR by parcel size – South Pender Island

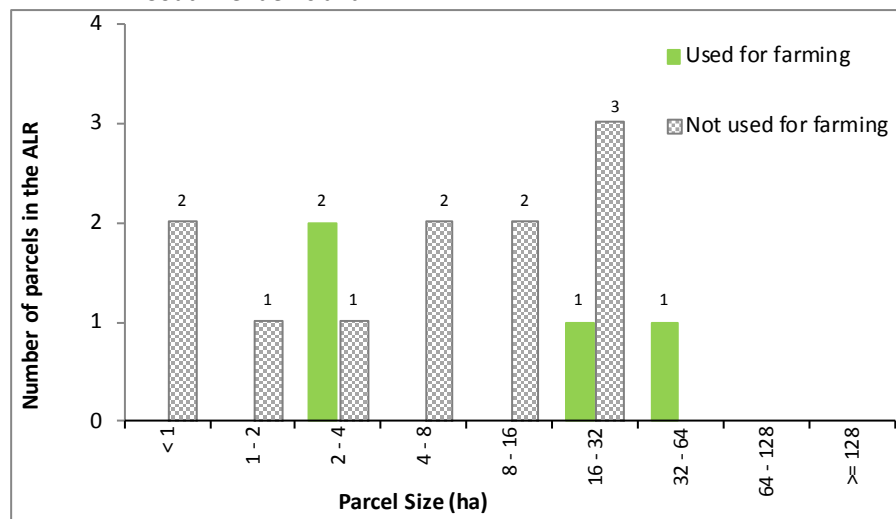


Figure 59 compares the distribution of “Used for farming” parcels with other parcels in the ALR.

All parcels that are “Used for farming”, are greater than 2 ha.

Figure 60. Proportion of land cover by parcel size in the ALR – South Pender Island

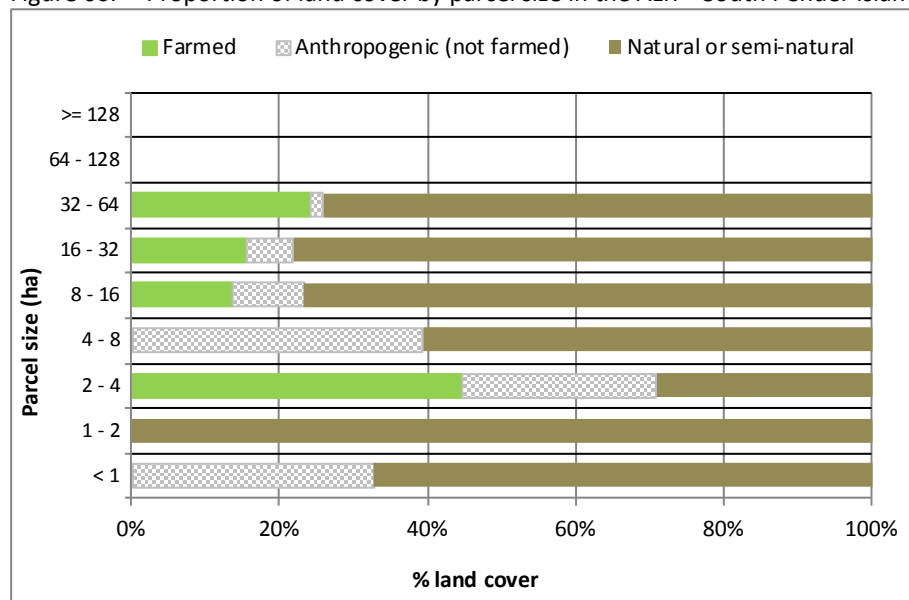
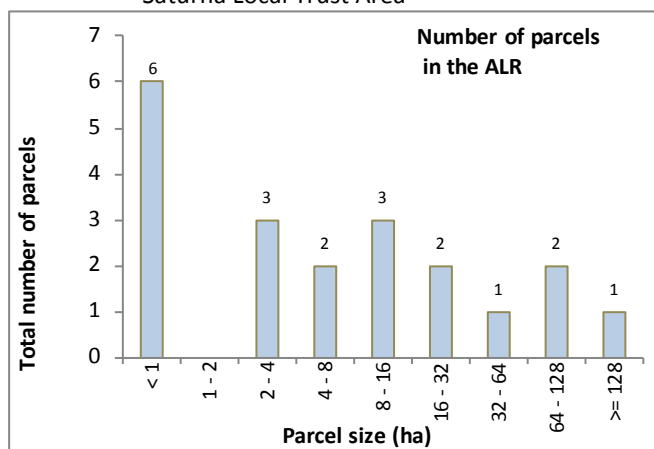


Figure 60 shows the proportion of land cover types by parcel size in the ALR.

## Saturna Local Trust Area

Within the Saturna Local Trust Area, there is ALR on Saturna and Samuel Islands.

Figure 61. Number of parcels in the ALR by parcel size – Saturna Local Trust Area



The average ALR parcel size in the Saturna Local Trust Area is 28.3 ha and the median parcel size is 6.3 ha.

Figure 61 illustrates that of the 20 parcels in the ALR:

- 30% (6 parcels) are less than 1 ha.
- 45% (9 parcels) are less than 4 ha.
- 10% (2 parcels) are between 4 and 8 ha.
- 15% (3 parcels) are between 8 and 16 ha.
- 30% (6 parcels) are greater than 16 ha.

Refer to Map 5 for more information.

Figure 62. Total area in the ALR by parcel size – Saturna Local Trust Area

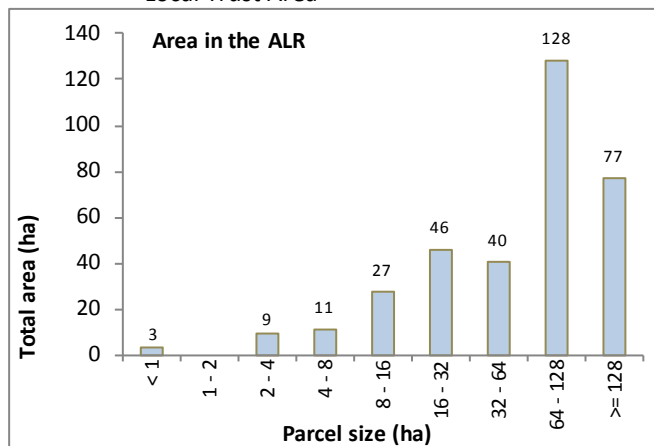


Figure 62 illustrates that of the 341 ha of ALR in the Saturna Local Trust Area:

- 1% (3 ha) is on parcels less than 1 ha.
- 3% (12 ha) is on parcels less than 4 ha.
- 3% (11 ha) is on parcels between 4 and 8 ha.
- 8% (27 ha) is on parcels between 8 and 16 ha.
- 85% (291 ha) is on parcels greater than 16 ha.

Table 42. Number of farmed and not farmed parcels in the ALR – Saturna Local Trust Area

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 7                 | 35 %                    |
| Not used for farming                  | 13                | 65 %                    |
| <b>TOTAL</b>                          | <b>20</b>         | <b>100 %</b>            |

Table 42 demonstrates that of the 20 parcels in the ALR, only 7 parcels or 35% are “Used for farming”.

Figure 63. Number of farmed and not farmed parcels in the ALR by parcel size – Saturna Local Trust Area

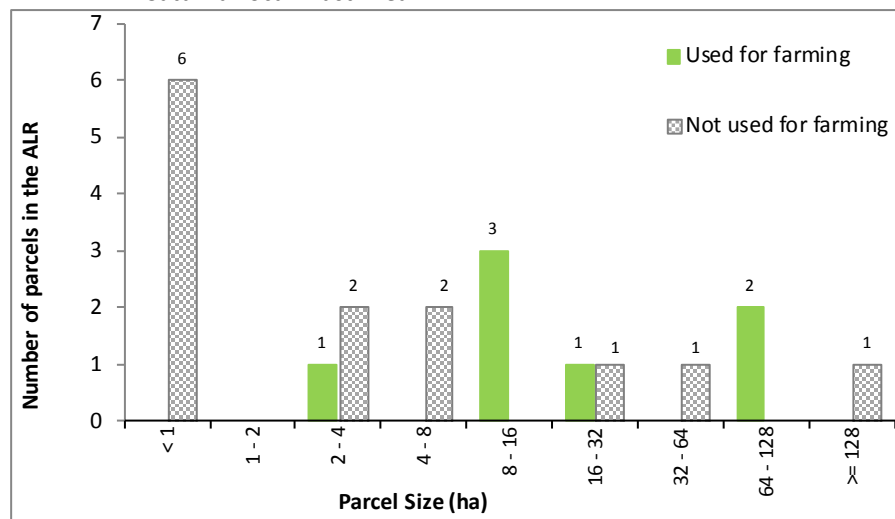


Figure 63 compares the distribution of “Used for farming” parcels with other parcels in the ALR.

Six of the seven (86%) of the “Used for farming” parcels are greater than 8 ha.

There are no “Used for farming” parcels less than 2 ha.

Figure 64. Proportion of land cover by parcel size in the ALR – Saturna Local Trust Area

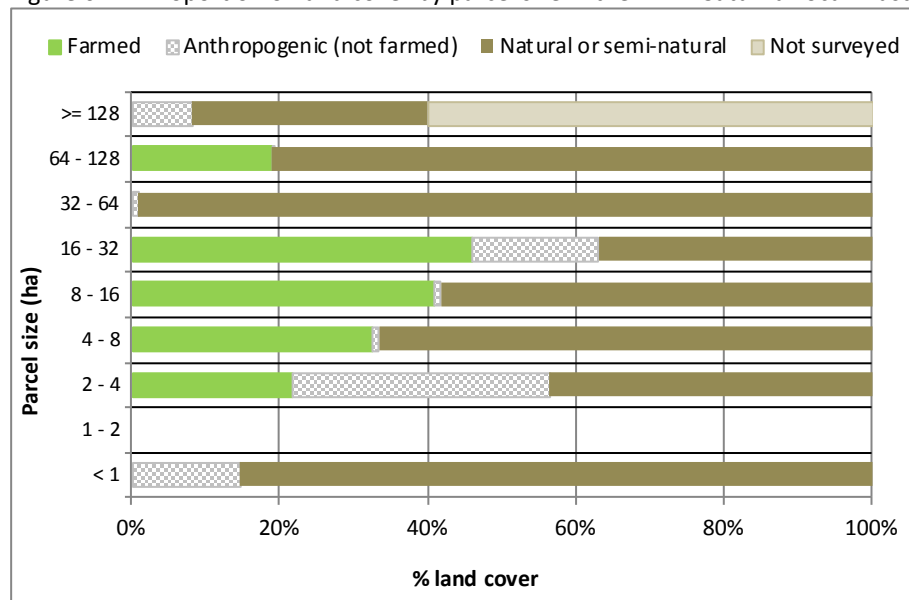


Figure 64 shows proportion of land cover types by parcel size in the ALR.

## Prevost Island

Figure 65. Number of parcels in the ALR by parcel size – Prevost Island

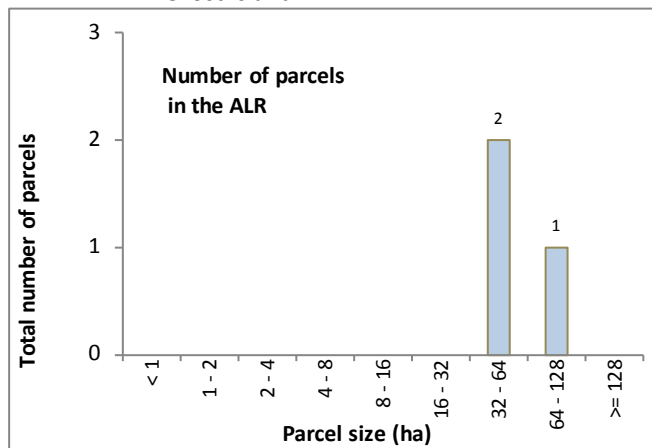


Figure 65 illustrates the number of parcels in the ALR on Prevost Island. Each of these parcels also has land outside of the ALR.

The 3 parcels have a combined ALR area of 64 ha:

- 33 ha of ALR is on parcels 32 - 64 ha, and
- 31 ha of ALR is on a parcel of 64 -128 ha

Table 43. Number of farmed and not farmed parcels in the ALR – Prevost Island

| Parcel status with respect to farming | Number of parcels | % of parcels in the ALR |
|---------------------------------------|-------------------|-------------------------|
| Used for farming                      | 3                 | 100 %                   |
| Not used for farming                  | -                 | -                       |
| <b>TOTAL</b>                          | <b>3</b>          | <b>100 %</b>            |

Table 43 demonstrates that all 3 ALR parcels on Prevost Island are “Used for farming”.

Figure 66. Proportion of land cover by parcel size in the ALR – Prevost Island

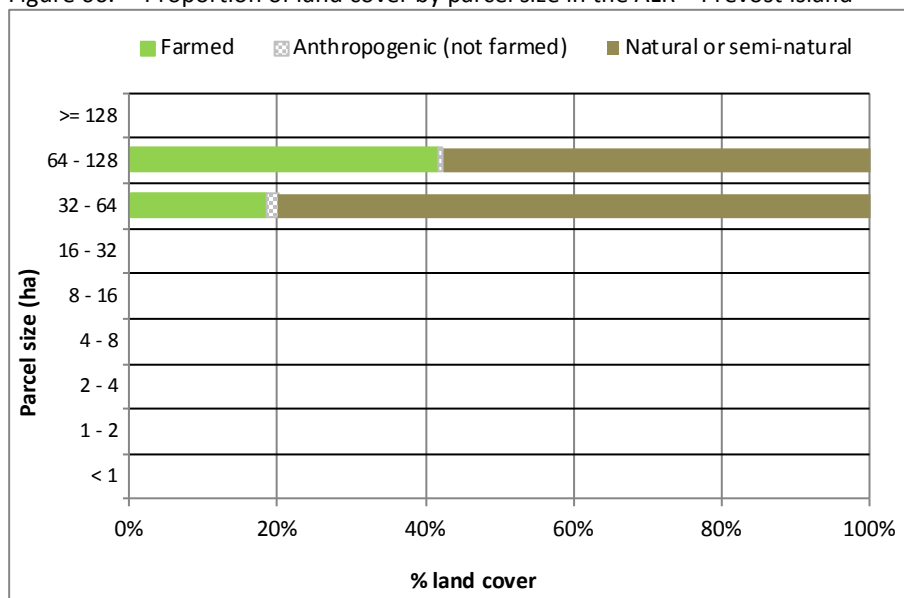


Figure 66 shows proportion of land cover types by parcel size in the ALR.

## Appendix A - Maps

Southern Gulf Islands 2014 [ALUI Maps](#)

- Map 1. Land cover & farmed area
- Map 2. Land use & farmed area
- Map 3. Availability of land for farming
- Map 4. Farming activities (cultivated crops, greenhouses, crop barns, irrigation, livestock)
- Map 5. ALR parcel size

Paper size: 18" x 59" landscape

<http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood>

Agricultural Land and Environment → Strengthening Farming → Planning for Agriculture →  
Agricultural Land Use Inventories → Vancouver Island

## Appendix B - Glossary

**Actively farmed** – Land cover considered **Farmed** but excludes unused / unmaintained field crops, and unmaintained greenhouses. Does not include natural pasture or rangeland.

**Agricultural Land Reserve (ALR)** – A provincial zone in which agriculture is recognized as the priority use. Farming is encouraged and non-agricultural uses are controlled.

**Animal Unit Equivalent** – A standard measurement used to compare different livestock types. One animal unit equivalent is approximately equal to one adult cow or horse.

**Anthropogenic** – The term *anthropogenic* describes an effect or object resulting from human activity. In this report, the term anthropogenic refers to land cover originating and maintained by human actions but excludes farmed land cover; cultivated field crops, farm infrastructure, and crop cover structures.

**Anthropogenic – Built up - Other** – Lands covered by various unused or unmaintained built objects (structures) and associated yards that are not directly used for farming.

**Anthropogenic – Managed vegetation** – Lands seeded or planted for landscaping, dust or soil control but not cultivated for harvest or pasture. Includes parklands, golf courses, landscaping, lawns, vegetated enclosures, remediation areas.

**Anthropogenic – Non Built or Bare** – Human created bare areas such as extraction or disposal sites. Includes piles, pits, fill dumps, dirt parking or storage areas.

**Anthropogenic – Residential** – Lands covered by built objects (structures) and their associated auxiliary buildings, yards, roads, and parking. Includes single family dwelling, multifamily dwellings, and mobile homes.

**Anthropogenic – Residential footprint** – Includes the main residence plus its associated yard, driveway, parking and any auxiliary buildings or structures. When two residences are on a property, areas associated to both (such as shared driveways, parking or yard), are assigned to the closest residence.

**Anthropogenic – Settlement** – Lands covered by built objects (structures) and their associated yards, roads, and parking. Includes institutional, commercial, industrial, sports / recreation, military, non linear utility areas and storage / parking.

**Anthropogenic – Transportation** – Lands covered by built objects (structures). Includes roads, railways, airports and associated buffers and yards.

**Anthropogenic – Utilities** – Lands covered by built objects (structures). Includes linear features such as pipelines or transmission lines.

**Anthropogenic Waterbodies** – Areas covered by water, snow or ice due to human construction. Includes reservoirs, canals, ditches, and artificial lakes - with or without non cultivated vegetation.

**Available for farming** – Parcels that can be used for agricultural purposes without displacing a current use. Includes all parcels that do not meet the “Unavailable for farming” criteria.

**BC Assessment** – The Crown corporation which produces annual, uniform property assessments that are used to calculate local and provincial taxation. The database purchased from BC Assessment

contains information about property ownership, land use, and farm classification, which is useful for land use surveys.

**Cadastral** – The GIS layer containing parcel boundaries, i.e. legal lot lines.

**Crop cover structures** – Land covered with built objects including permanent enclosed glass or poly structures (**greenhouses**) with or without climate control facilities for growing plants and vegetation under controlled environments, and barns used for growing crops such as mushrooms. Excludes non-permanent structures such as hoop or tunnel covers.

**Crown ownership** – Crown ownership includes parcels which are owned by provincial or federal governments. Parcel ownership is determined by the Integrated Cadastral Fabric maintained by the Parcel Fabric Section of the BC Government.

**Cultivated field crops** - Land under cultivation for harvest or pasture. Includes crop land, fallow farmland, unused forage or pasture, un-housed container crops and crops under temporary covers. Excludes natural pasture, rangeland, greenhouses, mushroom barns and other crop houses.

**Farm classification for tax assessment** – Applies to parcels producing the minimum dollar amount to be classified as a farm by BC Assessment. Local governments apply a tax rate to farmland which is usually lower than for other land. To receive and maintain the farm classification, the land must generate annual income from agricultural production.

**Farm infrastructure** – Land covered by farm related built objects (structures) and their associated yards, roads, parking. Includes barns, storage structures, paddocks, corrals, riding rings, farm equipment storage, and specialized farm buildings such as hatcheries. Excludes greenhouses, mushroom barns and other crop houses.

**Farm Unit** – An area of land used for a farm operation consisting of one or more contiguous or non-contiguous parcels, that may be owned, rented or leased, which form and are managed as a single farm.

**Farmed** – Land cover directly contributing to agricultural production (both actively farmed and inactively farmed). Includes land in **Cultivated field crops**, **Farm infrastructure** and **Crop cover structures** (see individual definitions). Does not include natural pasture or rangeland.

**Homesite (livestock)** – The homesite is the primary location of a farm unit or livestock operation where most livestock management occurs. It is the location of the main ranch or main barn of a **farm unit**.

**Inactively farmed** – Land cover considered “Farmed” but is currently inactive. Includes unused / unmaintained forage and pasture, unmaintained field crops, and unmaintained greenhouses or crop barns. Does not include natural pasture or rangeland.

**Intensive livestock** – Intensive livestock have specialized structures such as barns, feedlots, or stockyards designed for confined feeding at high stocking densities.

**Land use – Institutional & community** – Parcels with churches, cemeteries, hospitals, medical centers, education facilities, correctional facilities, or government and First Nation administration.

**Land use – No apparent use** – Parcel with no apparent human use; natural areas, long term fallow land, cleared land not in production, abandoned or neglected land, abandoned or unused structures.

**Land use – Protected area / park / reserve** – Includes provincial parks, other parks, and ecological reserves. Areas may have passive recreation such as hiking, nature viewing, or camping.

**Land use – Recreation & leisure** – Parcels with intensive recreation (such as zoos, rinks, courts, walking/biking trails), or extensive recreation (such as horseback riding, wilderness camping sites, fishing, hunting, skiing, etc.) Golf course are reported separately.

**Land use – Water management** – Areas used to actively or inactively manage water. Includes reservoirs, managed wetlands, dykes and land which provides natural flood/erosion protection (land outside dyke).

**Land use – Wildlife management** – Areas used to actively or inactively manage wildlife. Includes wildlife reserves, breeding areas, fishing areas, and fish ladders/hatcheries.

**Livestock operation scale** – See **Scale of livestock operations**.

**Natural and Semi-natural** – Land cover which has not originated from human activities or is not being maintained by human actions. Includes regenerating lands, and old farm fields.

**Natural and Semi-natural – Grass** – Land cover dominated by herbaceous plants with long, narrow leaves characterized by linear venation; including grasses, sedges, rushes, and other related species.

**Natural and Semi-natural – Herbaceous** – Land cover dominated by low, non woody plants such as ferns, grasses, horsetails, closers and dwarf woody plants. If greater than 50% cover is grass, the land is categorized as grass.

**Natural and Semi-natural – Natural bare areas** – Includes bare rock areas, sands and deserts.

**Natural and Semi-natural – Natural pasture** – Smaller fenced areas usually on private land with uncultivated (not sown) natural or semi-natural grasses, herbs or shrubs used for grazing domestic livestock.

**Natural and Semi-natural – Rangeland** – Larger areas usually on crown land with uncultivated (not sown) natural or semi-natural grasses, herbs or shrubs used for grazing domestic livestock.

**Natural and Semi-natural – Shrubs** – Land where less than 10% crown cover is native trees and at least 20% crown cover is multi-stemmed woody perennial plants, both evergreen and deciduous.

**Natural and Semi-natural – Treed - closed** – Land where between 60 and 100% of crown cover is native trees.

**Natural and Semi-natural – Treed - open** – Land where between 10 and 60% of crown cover is native trees.

**Natural pasture or rangeland** – Land with uncultivated (not sown) natural or semi-natural grasses, herbs or shrubs used for grazing domestic livestock. This land cover is considered “Used for grazing” and “Not used for farming” although usually these areas are extensions of more intensive farming areas.

**Non homesite (livestock)** – A location where livestock are present, but related infrastructure is minimal. Non homesites are used for pasturing and are secondary to the farm units primary (homesite) location.

**Non intensive livestock** – Non intensive livestock have the ability to graze on pasture and often utilize non intensive barns and corrals/paddocks.

**Not used for farming** – Parcels that do not meet the “Used for farming” criteria.

**Not used for farming but available** – Parcels that do not meet the “Used for farming” criteria but can be used for agricultural purposes without displacing a current use.

**Scale of livestock operations** – The scale system used in this report to describe livestock operations includes 4 levels:

- **“Very Small** Approximately 1 cow or horse or bison, 3 hogs, 5 goats or deer, 10 sheep, 50 turkeys, 100 chickens (1 animal unit equivalent)
- **“Small”** LESS THAN 25 cows or horses or bison, 75 hogs, 125 goats or deer, 250 sheep, 1250 turkeys, 2500 chickens (2 - 25 animal unit equivalents)
- **“Medium”** LESS THAN 100 cows or horses or bison, 300 hogs, 500 goats or deer, 1000 sheep, 5,000 turkeys, 10,000 chickens (25 - 100 animal unit equivalents)
- **“Large”** MORE THAN 100 cows or horses or bison, 300 hogs, 500 goats or deer, 1000 sheep, 5,000 turkeys, 10,000 chickens (over 100 animal unit equivalents)

**Potential for farming** – Land without significant topographical, physical or operational constraints to farming such as steep terrain, land under water, or built structures. For example, land with little slope, sufficient soils and exhibiting a natural treed land cover would be considered as having potential for farming. Areas less than 1 acre in size are considered to have limited potential for farming.

**Unavailable for farming** – “Not used for farming” parcels where future agricultural development is improbable because of a conflicting land use or land cover that utilizes the majority of the parcel area. For example, most residential parcels are considered unavailable for farming if the parcel size is less than 0.4 hectares (approximately 1 acre) since most of the parcel is covered by built structures, pavement and landscaping.

**Unmaintained field crops** – Land under cultivation for field crops which has not been maintained for several years and probably would not warrant harvest.

**Unmaintained forage or pasture** – Land under cultivation for forage or pasture which has not been cut or grazed during the current growing season and has not been maintained for several years.

**Unused forage or pasture** – Land under cultivation for forage or pasture which has not been cut or grazed during the current growing season.

**Used for farming** – See final page of glossary.

**Used for grazing** – Parcels “Not used for farming” with a significant portion of their area in natural pasture or rangeland and evidence of active grazing domestic livestock.

**Used for farming** – Parcels where the majority of the parcel area is farmed OR parcels which exhibit significant intensity of farming are considered “Used for farming”. Specifically, parcels that meet at least one of the following criteria:

- medium or large scale livestock, apiculture or aquaculture operations,
- at least 40% parcel area in cultivated field crops (excluding unused forage or pasture),
- at least 40% parcel area built up with farm infrastructure,
- at least 50% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure ,
- at least 25% parcel area built up with crop cover structures (excluding unmaintained structures),
- at least 25% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure and at least one small scale livestock, apiculture or aquaculture operations,
- at least 30% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure and any livestock, apiculture or aquaculture operations,
- at least 23% parcel area in cultivated field crops (excluding unused forage or pasture) and at least 45% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure,
- at least 10% parcel area in crop cover structures (excluding unmaintained structures) and at least 30% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure,
- at least 15% parcel area and at least 15 ha in cultivated field crops (excluding unused forage or pasture),
- at least 20% parcel area and at least 10 ha in cultivated field crops (excluding unused forage or pasture),
- at least 25% parcel area and at least 5 ha in cultivated field crops (excluding unused forage or pasture),
- at least 10% parcel area and at least 2 ha built up with crop cover structures (excluding unmaintained structures),
- at least 20% parcel area and at least 1 ha built up with crop cover structures (excluding unmaintained structures),
- at least 50% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure or natural pasture and any livestock, apiculture or aquaculture operations,
- at least 25% parcel area or 5 ha in cultivated field crops (excluding unused forage or pasture) or farm infrastructure and farm classification,
- at least 10% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure and at least 40% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure or natural pasture and farm classification,
- at least 50% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure or natural pasture and farm classification,
- at least 20% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure or natural pasture and at least one small scale livestock, apiculture or aquaculture operations and farm classification.