

# *Growing Knowledge*



Ministry of  
Agriculture

## *Land Use Inventory Report*

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## **District of Mission - Summer 2011 -**



Photo Credit: K. Sutherland, Ministry of Agriculture

**Strengthening Farming Program  
Sustainable Agriculture Management Branch  
Ministry of Agriculture**

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## Acronyms

AAC	Agricultural Advisory Committee
AAP	Agricultural Area Plan
AGRI	BC Ministry of Agriculture
ALC	Agricultural Land Commission
ALR	Agricultural Land Reserve
ALUI	Agricultural Land Use Inventory
GIS	Geographic Information Systems
FVRD	Fraser Valley Regional District



## Definitions

### General

**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.

**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.

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

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

**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 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.

### Land Cover

**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 and 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, 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, and 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.

**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.

**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 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.

**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 – Grassland** – 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 grassland.

**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 fenced area 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 – Shrubland** – 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.

**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.

## ***Livestock***

**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.

**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, 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)

## ***Land Cover and Farming***

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

**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.

**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.

**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.

## ***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.

**Resource protection & research** – Government or private research activities (including agriculture). Flood protection areas.

**Water management** – Areas used to actively or inactively manage water; reservoirs, dikes, ditches, managed wetland.

**Wildlife management** – Area used to actively or inactively manage wildlife. Includes wildlife reserves, breeding areas, fishing areas, fish ladders/hatcheries, and wild harvest.

## ***Land Use and Farming***

**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 45% parcel area in cultivated field crops (excluding unused forage or pasture)
- at least 50% parcel area built up with farm infrastructure
- at least 25% parcel area built up with crop cover structures (excluding unmaintained structures)
- at least 40% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure and small scale livestock, apiculture or aquaculture operations
- at least 33% parcel area in cultivated field crops (excluding unused forage or pasture) and at least 55% 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 40% parcel area in cultivated field crops (excluding unused forage or pasture) or farm infrastructure
- at least 20% parcel area and at least 20 ha in cultivated field crops (excluding unused forage or pasture)
- at least 25% parcel area and at least 10 ha in cultivated field crops (excluding unused forage or pasture)
- at least 30% 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)

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

**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.

**Unavailable for farming** – “Not used for farming” parcels where future agricultural development is improbable because of a conflicting land use that utilizes the majority of the parcel area. For example, most residential parcels are considered not available 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.

**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.

**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.

## Executive Summary

In the summer of 2011, the BC Ministry of Agriculture (AGRI) conducted an Agricultural Land Use Inventory (ALUI) in the District of Mission. The ALUI was funded in part by Mission Community Services Society (MCSS), and was completed with in-kind support from Fraser Valley Regional District.

ALUIs can be used to understand which agricultural activities are occurring in the surveyed area. Analysis of the data can be used to determine the capacity for agricultural expansion, and the amount of land within the Agricultural Land Reserve (ALR) that is not available for agriculture. The data can also be used to develop an agricultural water demand model for the surveyed area.

The ALUI for Mission was conducted using a drive-by inventory that recorded land cover and land use on a per-parcel basis, as a “snapshot in time.” Three categories of parcels were included: i) parcels completely or partially within the ALR; ii) parcels that were assessed as a farm by BC Assessment; and iii) parcels zoned to permit agriculture by District of Mission bylaws.

There are 1,539 ha of ALR land in Mission. Sixty-seven percent (67%) of the ALR was surveyed, consisting of a total of 1,034 ha and 272 parcels. The remaining 505 ha are in Indian reserves, rights-of-ways, unsurveyed land, foreshore, or parcels less than 100 square metres in size. An additional 1,771 ha were surveyed outside of the ALR bringing the total inventory area to 2,805 ha.

The data on each parcel was collected in two ways: land cover (the biophysical material at the surface of the earth) and land use (how people utilize the land). A parcel could have numerous land covers and was assigned up to two land uses. These two methods of data collection allowed different forms of analysis.

In terms of land cover in the ALR, a total area of 400 ha (26%) was farmed (both actively and inactively), 102 ha was anthropogenically modified (7%), and 532 ha was in a natural or semi-natural state (34%). As mentioned above, 505 ha (33%) was not surveyed, and was not available for farming. Farmed land cover types included cultivated field crops, farm buildings/structures, and greenhouses. It is important to note that some of the anthropogenically modified land covers may support farming, e.g. farm residences, vegetative buffers, and farm roads, but were not defined as “farmed” land covers for the purpose of this part of the analysis. An additional 236 ha outside of the ALR were farmed. See Table 1 and Map B1 for details.

In terms of land use, the entire parcel was examined and a “Used for farming” definition was applied based on the percentage and/or scale of the parcel in cultivated crops, farm infrastructure, and/or scale of livestock production. For a more detailed definition of “Used for farming” see the Definitions section. In terms of land use in the ALR, 458 ha (30%) was defined as “Used for farming”, and 575 ha (37%) was defined as “Not used for farming”. In this analysis, farm residential uses and farm roads, were included in the “Used for farming” subtotal (along with other mixed uses industrial, institutional, community, and commercial & service). As before, 505 ha (33%) was not surveyed, and was not considered to be available for farming. See Table 2 and Maps B3 and B4 for details.

A third way to analyze the data is to analyze how much land is available for farming and how much of that has the potential to be farmed. The characteristics of these two types of land are also examined. This involves looking at both land covers and land use. Land may be unavailable for farming because of existing land use (e.g. institutional, community, golf), land cover (e.g. residential footprint, wetlands) or may have limited potential for farming because of physical limitations (e.g. steep slopes).

Of the 1,034 ha in Mission's ALR, 505 ha (33%) was not surveyed, but would not be available to be farmed or have the potential to be farmed (e.g. it was in road rights of way, etc.). A further 138 ha (9%) was considered to be unavailable for farming due to existing land use or land cover (e.g. it was in institutional uses, golf courses, non-farm residential uses, etc.). Added to that was the 6 ha (< 1%) of the ALR that is used in farm support (e.g. farmhouse residential footprint, artificial water bodies such as farm reservoirs, and transportation such as farm roads). A further 263 ha (17%) was defined as having limited potential for farming due to site limitations (e.g. topography, soils, etc.). That left 398 ha (26%) of the ALR that was actively farmed, and 229 ha (15%) of the ALR that was available for farming. Of that 15%, 27 ha occurred on parcels that are already "Used for farming" and 202 ha occurred on parcels "Not used for farming". See Table 4, Figure 6, and Maps B5 and B6 for details.

On ALR parcels "Not used for farming", the largest gains for bringing more land into active agricultural production would come from clearing land with "Natural and Semi-natural" vegetation (163 ha), and bringing the 34 ha of "Anthropogenic managed vegetation" into production. See Figure 8 for details.

In terms of farming activities, cultivated field crops were examined in detail. The top two crops were forage & pasture at 540 ha (or 93% of all cultivated land), followed by nursery & tree plantations at 26 ha (or 4% of all cultivated land). Within the forage & pasture category, there were 252 ha of forage fields, 279 ha of pasture fields, and 8 ha of unused/unmaintained fields. See Table 7, Table 8, and Maps B7 to B9 for more information.

There are few greenhouses or irrigation systems in Mission. Poly greenhouses covered 1 ha of land in Mission. See Table 11 for more information. Irrigation use was captured by crop type and irrigation system type to aid in developing a water demand model for agriculture in Fraser Valley Regional District. Only 13 ha of land (or 2% of the cultivated crop area) were irrigated. This was almost exclusively by sprinkler system. See Table 12 and Map B10 for more information.

Livestock activities were also recorded, but are difficult to measure using a windshield survey method. Livestock may be in barns, may be mobile, and may utilize more than one 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. The Mission inventory results showed that equines were the most common type of livestock activity (with 84 out of 162 activities), followed by beef (22 out of 162 activities), and poultry (17 out of 162 activities). Two medium scale poultry operations comprised the only intensive livestock activities in Mission. No actual livestock numbers were obtainable through the survey, so the results were reported as a range in terms of animal unit equivalents for each parcel. See the Definitions section for more information, as well as Table 13 and Maps B11 to B14).

On-farm value added activities were observed on 8% of all parcels "Used for farming". These included: 1 parcel with agritourism (seasonal events), and 9 parcels with direct sales (e.g. permanent or seasonal retail stores, U-cut trees). See Figures 27 and 28 for more information.

In terms of condition of ALR lands, further analysis was conducted on 214 parcels with 1,009 ha or 66% of Mission's ALR land. This analysis found that while 78% of the parcels are less than 4 ha in size, they make up only 30% of the total area. Most of Mission's ALR is in larger parcels.

Residential uses occurred on 146 ALR parcels, and 116 of those parcels were "Not used for farming". Houses greater than 3,500 sq. ft. in size were found on 18 ALR parcels, and 11 of those parcels were "Not used for farming." See Tables 15 and 16 for more information.



## *Agrologist Comments*

European settlement in Mission, as in many areas, was characterized by the logging of the existing timber and followed by farming. Early agriculture in the region included a broad mix of dairy, beef, poultry, vegetables, berries, and forage and grain crops. In particular, Mission and the surrounding area became known as the “Home of the Big Red Strawberry” due to the size and quantity of the strawberries produced. The berries were shipped out by rail or processed into preserves locally. Mission’s well drained slopes have good sun exposure and are well-suited to growing high quality berries.

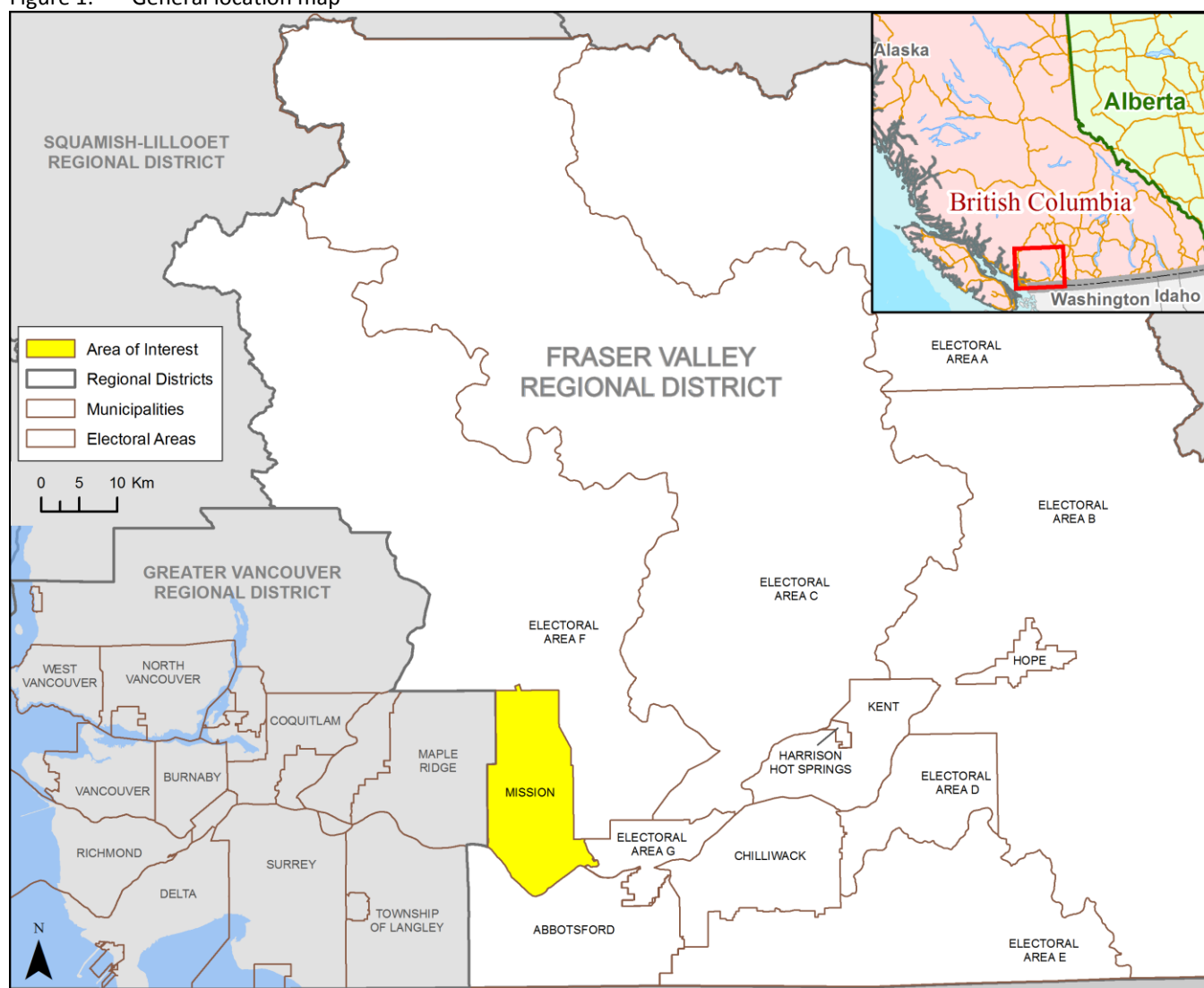
The amount of land designated for farming in Mission has decreased over the years. The ALR, however, is still significant and currently comprises nearly seven percent of the land area within the District of Mission. Agricultural operations include a variety of livestock and crops, with a greater number of smaller farms than larger operations. A significant proportion of parcels in the ALR are not currently being farmed, particularly among the smaller parcels. As farming activities intensify in the Lower Mainland, the Mission land base represents a valuable resource where some sectors of agricultural production can be expanded. Current trends indicate a growing consumer interest in local agri-food production and in family oriented “farm experiences”.



## General Community Information

The District of Mission is located in the Fraser Valley approximately 60 kilometers east of Vancouver. The District is situated on the northern bank of the Fraser River and is largely characterised by steep forested terrain. Mission is bordered by FVRD Electoral Area F and Electoral Area G to the east, Abbotsford to the south, and Maple Ridge to the west. The District of Mission is part of Fraser Valley Regional District (FVRD) and has a total area including water of 25,334 hectares<sup>1</sup>.

Figure 1. General location map



<sup>1</sup> Government of British Columbia; Ministry of Community, Sport & Cultural Development, Local Government Statistics  
[http://www.cscd.gov.bc.ca/lgd/infra/library/regional\\_stats11\\_summary.pdf](http://www.cscd.gov.bc.ca/lgd/infra/library/regional_stats11_summary.pdf)

## AGRICULTURAL LAND RESERVE

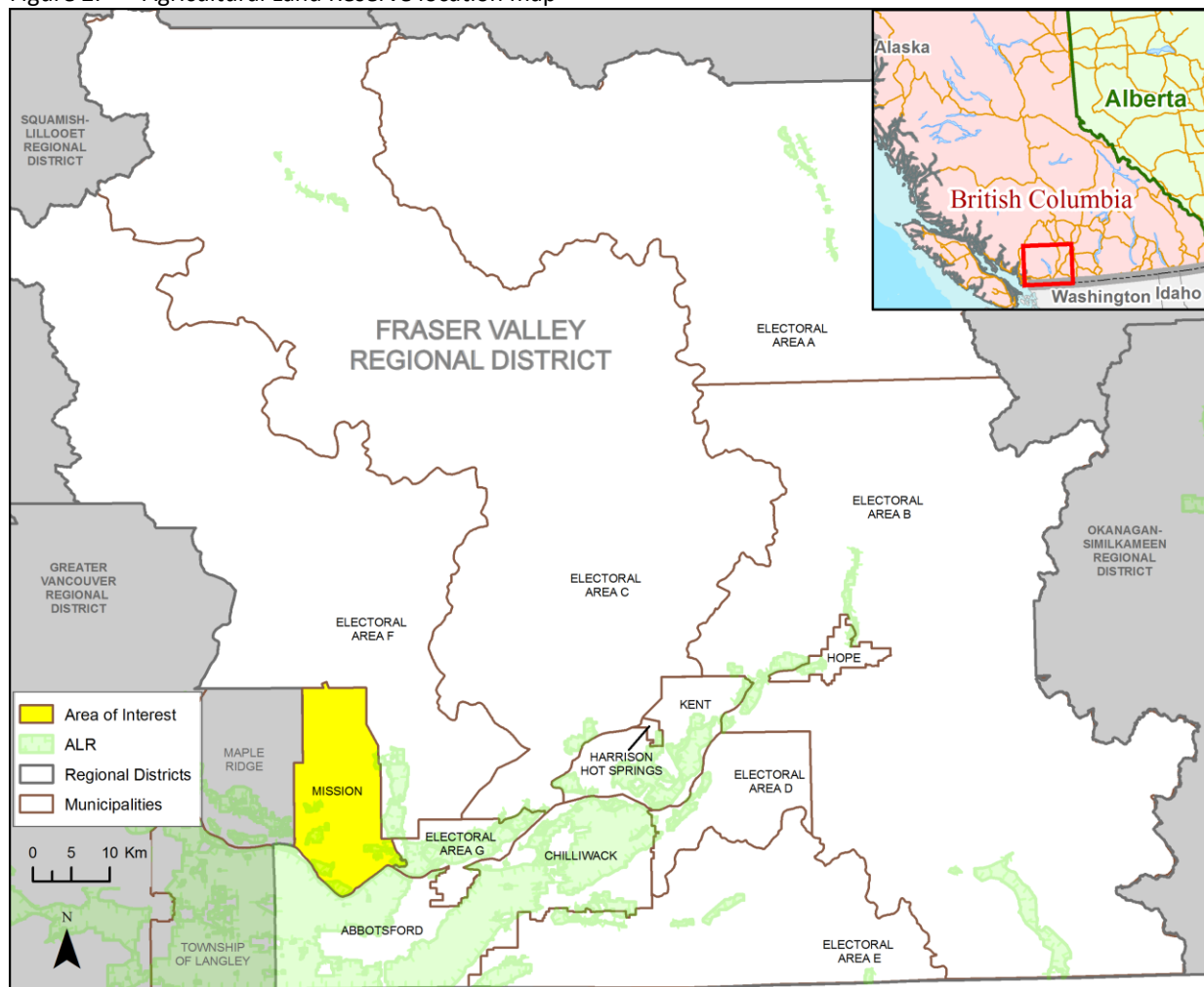
The Agricultural Land Reserve (ALR) is a provincial land use zone that was designated in 1973 in which agriculture is recognized as the priority use. Within the ALR, farming is encouraged and non-agricultural uses are controlled.

There are 71,685 hectares<sup>2</sup> of ALR land within the Fraser Valley Regional District (shown in Figure 2); 1,539 hectares<sup>3</sup> or 2% is within Mission.

The land area of Mission is 22,422 hectares<sup>4</sup>. With 1,539 hectares<sup>3</sup> in the ALR, nearly 7% of the land area of Mission is in the ALR. This area includes:

- 1,034 hectares in surveyed parcels
- 505 hectares outside surveyed parcels
  - 374 hectares of Indian reserves
  - 71 hectares of rights-of-way
  - 58 hectares of unsurveyed land
  - 1 hectare of foreshore
  - 1 hectare of parcels less than 100 sq m

Figure 2. Agricultural Land Reserve location map



<sup>2</sup> Provincial Agricultural Land Commission (ALC) Annual Report 2009/10 & 2010/11 Pg 39. [http://www.alc.gov.bc.ca/publications/Annual\\_Report\\_2009-10\\_and\\_2010-11.pdf](http://www.alc.gov.bc.ca/publications/Annual_Report_2009-10_and_2010-11.pdf).

<sup>3</sup> Agricultural Land Commission, ALR mapping, Land and Resource Data Warehouse, 2011-01-31 (area calculated in GIS).

<sup>4</sup> Calculated in GIS.

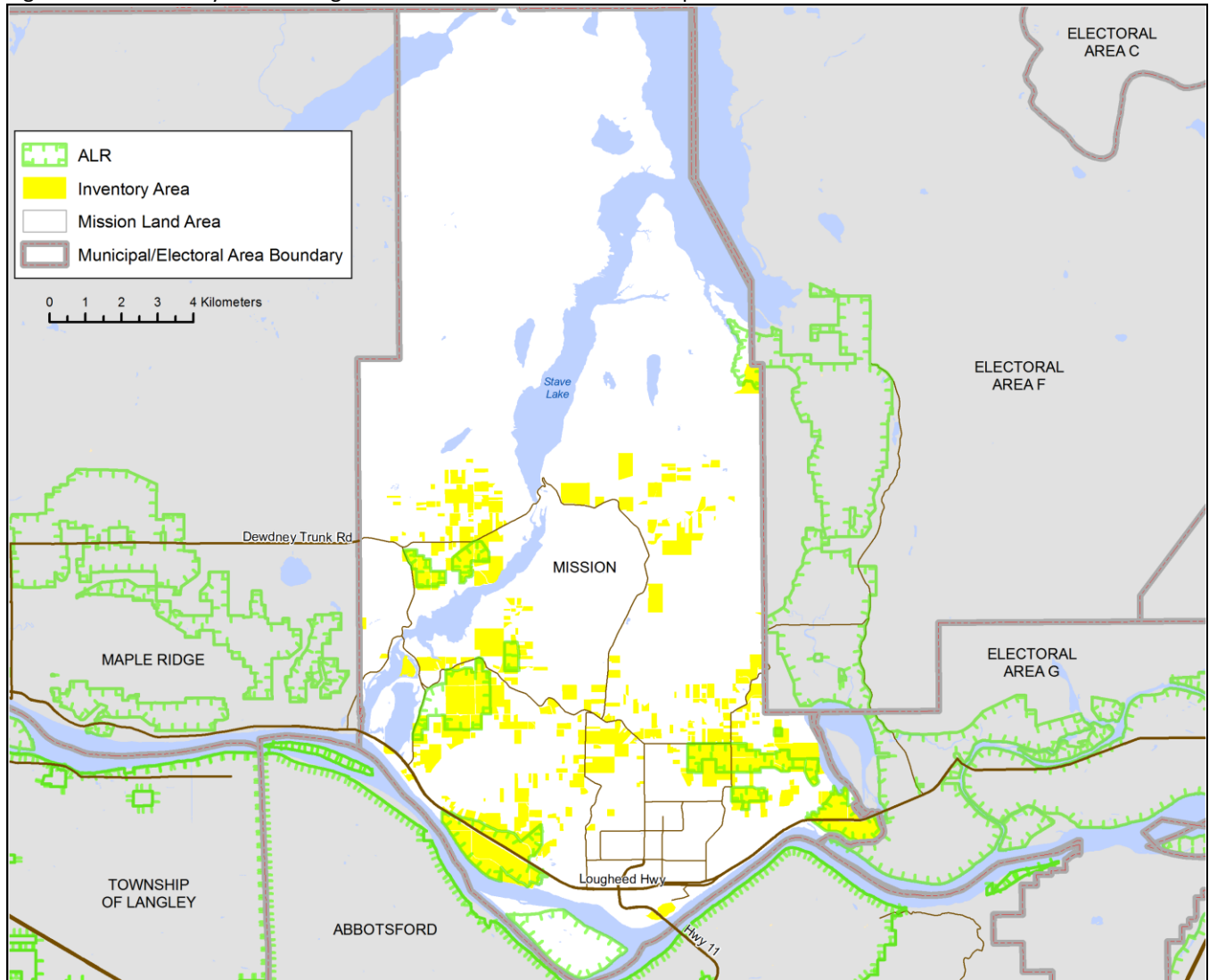
## INVENTORY AREA

The total inventory area encompasses 774 parcels with a combined area of 2,805 hectares, or 12.5% of the land area in Mission. Included are all parcels:

- completely or partially within the Agricultural Land Reserve
- classified by BC Assessment as having “Farm” status for property tax assessment
- zoned to permit agricultural use by District of Mission bylaws

The amount of ALR land included in the inventory area is 1,034 hectares located on 272 parcels. This area is over 67% of the ALR within Mission. The remaining 33% of the ALR was excluded from the inventory as it is in Indian reserves, designated rights-of-way, unsurveyed land, foreshore, and parcels less than 100 square metres.

Figure 3. Inventory area and Agricultural Land Reserve location map



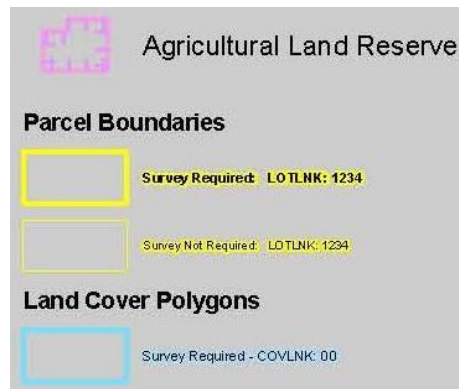
# Agricultural Land Use Inventory

## 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 Mission land use inventory was conducted in the summer of 2011 by a professional agrologist assisted by a GIS technician and a driver<sup>5</sup>. 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>5</sup> Vehicle and driver provided by the District of Mission.

<sup>6</sup> Cadastre mapping (2011) was provided by the Fraser Valley Regional District through the Integrated Cadastral Information Society



## 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.

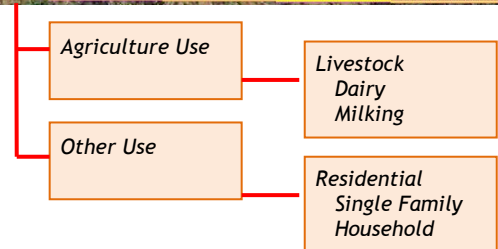
Once acquired through the survey, the data was brought into a Geographic Information System (GIS) to facilitate analysis and mapping. Digital data, in the form of a tabular database and GIS spatial layers (for maps), may be available with certain restrictions through a terms of use agreement.

### *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

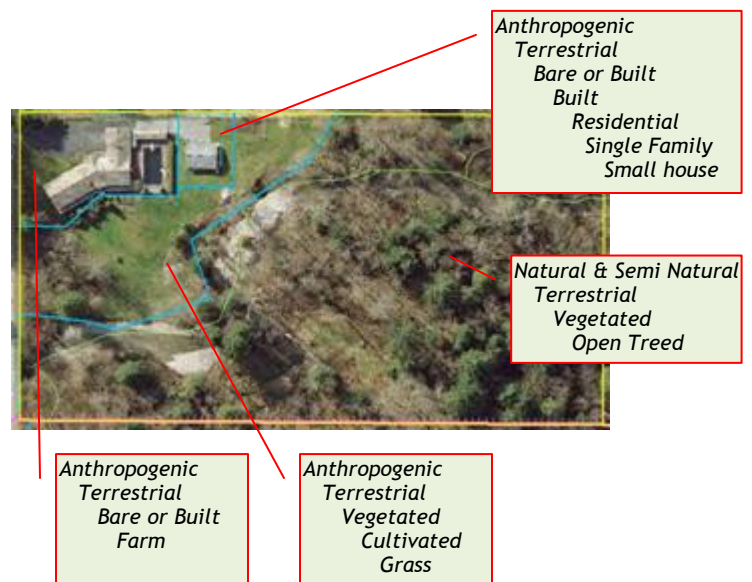
In addition, the availability of non-farm use properties for future farming was assessed based on the amount of potential land for farming on the property and the compatibility of existing uses with future farming activities.



### *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. Data values are rounded to the nearest whole number during the final formatting of the summarized tables and charts. As a result, data presented in the summarized tables and charts may not appear to add up correctly.

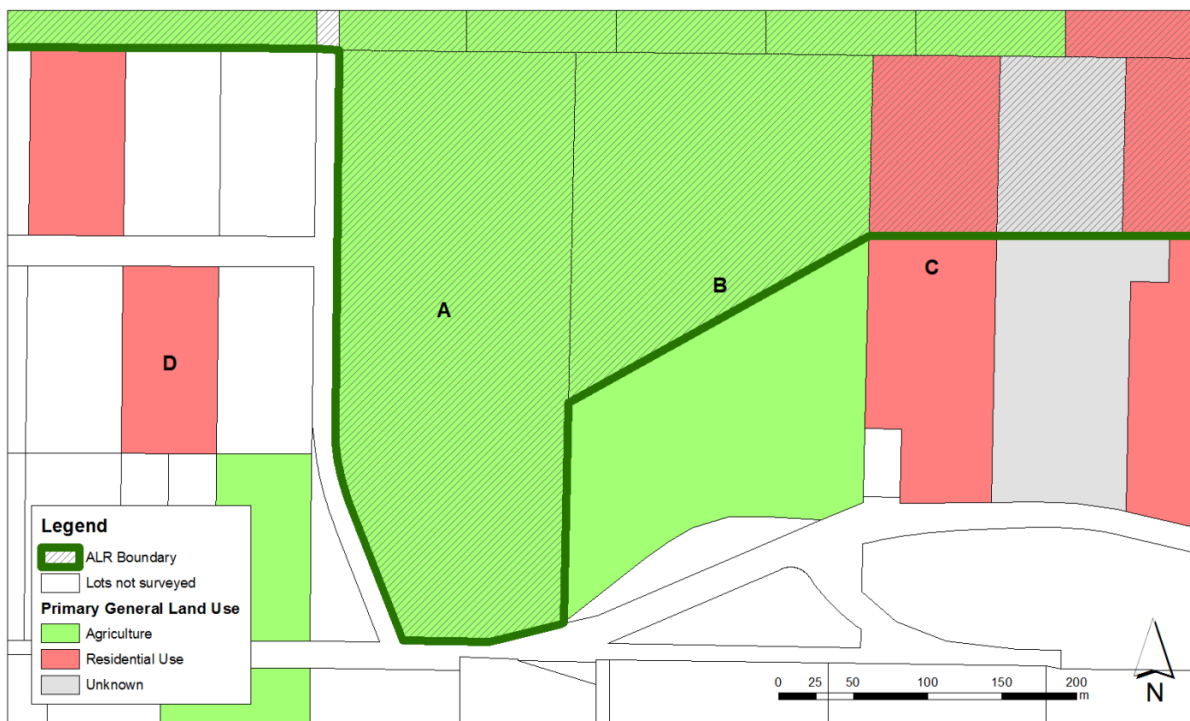
## DETERMINATION OF PARCELS WITHIN THE ALR

Since much of the following analysis is parcel based, it is important to note that the ALR boundaries are not always coincident 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





## 1. 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 2 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, anthropogenic wetland, 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”.

Table 1. Land cover and farmed area

Land cover		ALR		Outside ALR (ha)	Total area (ha)	% of inventory area
		In ALR (ha)	% of ALR			
Actively farmed	Cultivated field crops	382	25%	190	572	20%
	Farm Infrastructure	16	1%	37	54	2%
	Greenhouses	-	-	1	1	< 1%
Inactively farmed	Unmaintained field crops	2	< 1%	6	8	< 1%
	Unused forage or pasture	-	-	<1	<1	< 1%
<b>FARMED SUBTOTAL</b>		<b>400</b>	<b>26%</b>	<b>235</b>	<b>636</b>	<b>23%</b>
Anthropogenic (not farmed)	Managed vegetation	59	4%	119	178	6%
	Residential footprint	24	2%	104	128	5%
	Settlement	9	< 1%	45	55	2%
	Non Built or Bare	4	< 1%	19	23	< 1%
	Built up - Other	3	< 1%	6	9	< 1%
	Transportation	1	< 1%	5	6	< 1%
	Waterbodies	1	< 1%	<1	2	< 1%
	Utilities	<1	< 1%	<1	<1	< 1%
<b>SUBTOTAL</b>		<b>102</b>	<b>7%</b>	<b>299</b>	<b>401</b>	<b>14%</b>
Natural and Semi-natural	Vegetated	506	33%	1,204	1,710	61%
	Wetlands	19	1%	6	25	< 1%
	Waterbodies	5	< 1%	9	14	< 1%
	Natural pasture or rangeland	1	< 1%	11	13	< 1%
	Natural bare areas	-	-	7	7	< 1%
<b>SUBTOTAL</b>		<b>532</b>	<b>34%</b>	<b>1,237</b>	<b>1,769</b>	<b>63%</b>
<b>TOTAL</b>		<b>1,034</b>	<b>67%</b>	<b>1,771</b>	<b>2,805</b>	<b>100%</b>
Not surveyed	Indian reserves	374	24%			
	Rights-of-way	71	5%			
	Unsurveyed land	58	4%			
	Foreshore	1	< 1%			
	Parcels < 100 sq m	1	< 1%			
<b>SUBTOTAL</b>		<b>505</b>	<b>33%</b>			
<b>TOTAL</b>		<b>1,539</b>	<b>100%</b>			

Table 1 shows the extent of different land cover types across the entire inventory area.

In Mission, 636 hectares of land is in "Farmed" land cover although 8 of those hectares are "Inactively farmed" in unmaintained field crops.

Refer to Maps B1 and B2 in Appendix B for more information.

Figure 5. Land cover and farmed area in the ALR

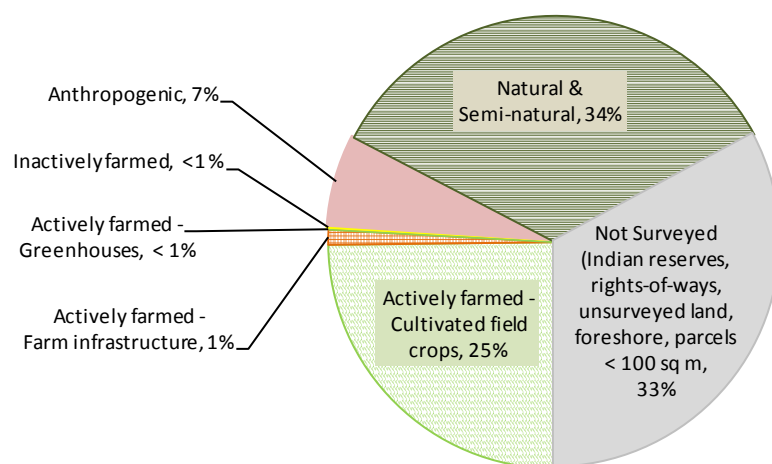


Figure 5 shows the proportions of the different land cover types across the ALR in Mission.

Of Mission's ALR land, 26% is "Actively Farmed" while < 1% is in unmaintained field crops ("Inactively Farmed").

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

## 2. 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. If one parcel is a hotel and the other is a retail store, they are both considered as “Commercial” land use.

Up to two general land uses (e.g. residential, commercial) are recorded for each parcel with each considered an equally important function of the 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 Definitions section of this report.

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 2. Land use and farming use by parcel

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		68	4 %	47	115	4 %	18	2 %	6
Used for farming - Mixed use	Residential	324	21 %	236	560	20 %	99	13 %	6
	Industrial	36	2 %	11	47	2 %	1	<1 %	47
	Institutional, community	29	2 %	< 1	29	1 %	2	<1 %	14
	Commercial & service	2	<1 %	18	20	<1 %	2	<1 %	10
<b>USED FOR FARMING SUBTOTAL</b>		<b>458</b>	<b>30 %</b>	<b>312</b>	<b>771</b>	<b>27 %</b>	<b>122</b>	<b>16 %</b>	
Not used for farming	Residential	467	30 %	1,315	1,781	64 %	626	81 %	7
	Institutional, community	88	6 %	69	157	6 %	13	2 %	12
	Golf	19	1 %	2	22	<1 %	1	<1 %	22
	Water management	1	<1 %	< 1	1	<1 %	1	<1 %	< 1
	Industrial	< 1	<1 %	2	3	<1 %	2	<1 %	1
	Transportation & communications	< 1	<1 %	-	< 1	<1 %	1	<1 %	< 1
	Commercial & service	-	-	4	4	<1 %	2	<1 %	2
	Wildlife management	-	-	4	4	<1 %	1	<1 %	4
	Recreation & leisure	-	-	58	58	2 %	4	<1 %	15
	Dumps & deposits	-	-	4	4	<1 %	1	<1 %	4
<b>NOT USED FOR FARMING SUBTOTAL</b>		<b>575</b>	<b>37 %</b>	<b>1,459</b>	<b>2,034</b>	<b>73 %</b>	<b>652</b>	<b>84 %</b>	
<b>TOTAL</b>		<b>1,034</b>	<b>67 %</b>	<b>1,771</b>	<b>2,805</b>	<b>100 %</b>	<b>774</b>	<b>100 %</b>	
Not surveyed	Indian reserves	374	24 %						
	Rights-of-way	71	5 %						
	Unsurveyed land	58	4 %						
	Foreshore	1	<1 %						
	Parcels < 100 sq m	1	<1 %						
<b>SUBTOTAL</b>		<b>505</b>	<b>33 %</b>						
<b>TOTAL</b>		<b>1,539</b>	<b>100 %</b>						

Table 2 shows that 458 hectares or 30% of Mission's ALR is on parcels "Used for farming".

Most "Used for farming" parcels are also used for other purposes with only 18 parcels, or 4% of the ALR area exclusively "Used for farming".

Refer to Maps B3 and B4 in Appendix B for more information.

Table 3. Parcel use and land cover in the ALR

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		55	4 %	< 1	<1 %	13	<1 %	68	4 %
Used for farming - mixed use	Residential	252	16 %	7	<1 %	65	4 %	324	21 %
	Industrial	34	2 %	< 1	<1 %	1	<1 %	36	2 %
	Institutional, community	19	1 %	3	<1 %	6	<1 %	29	2 %
	Commercial & service	2	<1 %	< 1	<1 %	< 1	<1 %	2	<1 %
SUBTOTAL		362	24 %	11	<1 %	85	5 %	458	30 %
Not used for farming		38	2 %	91	6 %	446	29 %	575	37 %
SUBTOTAL		400	26 %	102	7 %	531	34 %	1,034	67 %
Not surveyed	Indian reserves							374	24 %
	Rights-of-way							71	5 %
	Unsurveyed land							58	4 %
	Foreshore							1	<1 %
	Parcels < 100 sq m							1	<1 %
	SUBTOTAL							505	33 %
TOTAL ALR							1,539	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 Definition section of the report.

*Table 3 combines land use and land cover on ALR land in Mission. For example, parcels with the mixed uses "Used for farming" and "Residential" have a total of 252 hectares in "Farmed" land cover, 7 hectares in "Anthropogenic" (not farmed) land cover, and 65 hectares in "Natural & Semi-natural" land cover.*

*Although 458 hectares or 30% of Mission's ALR is on parcels "Used for farming" (refer to Table 2 ), only 400 hectares or 26% of the ALR is actually in "Farmed" land cover as many "Used for farming" parcels are also used for other purposes. In fact, the majority of the "Farmed" land cover in the ALR (16%) is on parcels also used for "Residential" purposes.*

### 3. Availability of Land for Farming

The demand for locally grown agricultural products is anticipated to grow as the population grows<sup>7</sup>. This demand along with a number of other factors, such as commodity types and farm management requirements (nutrient management, bio-security), will influence agricultural land needs in the future. Growth in extensive agriculture sectors such as dairy or berry will require large increases in land base which may not be available. 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 farming regardless of any existing non-farm use. In addition, properties with an existing use compatible with agriculture, such as Residential, are considered available for farming since the existing land use can be maintained.

Properties not currently farmed with an established non-farm use that is incompatible with agriculture are considered unavailable for farming. These properties also have very high land values making it unrealistic for a farmer to acquire and convert this land to farmland.

*In Mission, properties in the ALR and “Used for farming” have an average assessed value of \$43,610 per hectare, while properties in the ALR but unavailable for farming have an average assessed value of \$509,549 per hectare.*

(Calculated using 2011 BC Assessment database – total property value)

Land is further assessed for its farming potential based on physical and environmental characteristics. 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 farming. Areas covered with built structures, steep slopes or rocky soils and areas with operational constraints such as a very small size, are considered not to have potential for farming. For this analysis, it is assumed that removing built structures and fill piles, filling in water bodies or remediating slopes to create land with potential for farming would likely not occur.

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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 4. Status of the land base with respect to farming

Land status		ALR		Outside ALR (ha)	Total area (ha)	% inventory area
		In ALR (ha)	% ALR Area			
Actively farmed	Cultivated field crops	382	25 %	190	572	20 %
	Farm Infrastructure	16	1 %	37	54	2 %
	Greenhouses	-	-	1	1	<1 %
<b>ACTIVELY FARMED</b>		<b>398</b>	<b>26 %</b>	<b>229</b>	<b>627</b>	<b>22 %</b>
Anthropogenic areas supporting farming	Residential footprint	5	<1 %	12	17	<1 %
	Artificial Waterbodies	1	<1 %	< 1	1	<1 %
	Built up - Other	< 1	<1 %	< 1	< 1	<1 %
<b>SUPPORTING FARMING</b>		<b>6</b>	<b>&lt;1 %</b>	<b>13</b>	<b>18</b>	<b>&lt;1 %</b>
Unavailable for farming due to existing land use	Institutional, community	68	4 %	38	106	4 %
	Golf	16	1 %	1	17	<1 %
	Residential	< 1	<1 %	3	3	<1 %
	Industrial	< 1	<1 %	2	3	<1 %
	Transportation & communications	< 1	<1 %	-	< 1	<1 %
Unavailable for farming due to existing land cover	Residential footprint	20	1 %	90	110	4 %
	Wetlands	19	1 %	6	25	<1 %
	Built up - Other	8	<1 %	40	47	2 %
	Waterbodies	4	<1 %	10	14	<1 %
	Transportation	< 1	<1 %	3	4	<1 %
	Utilities	< 1	<1 %	< 1	< 1	<1 %
	Natural bare areas	-	-	7	7	<1 %
<b>UNAVAILABLE FOR FARMING</b>		<b>138</b>	<b>9 %</b>	<b>199</b>	<b>336</b>	<b>12 %</b>
Site limitations	Topography &/or soils	175	11 %	765	941	34 %
	Drainage	81	5 %	20	101	4 %
	Operational	6	<1 %	19	25	<1 %
<b>LIMITED POTENTIAL FOR FARMING</b>		<b>263</b>	<b>17 %</b>	<b>804</b>	<b>1,066</b>	<b>38 %</b>
Available & with potential for farming	Natural & Semi-natural - Vegetation	186	12 %	414	600	21 %
	Anthropogenic - Managed vegetation	38	2 %	100	137	5 %
	Anthropogenic - Non Built or Bare	2	<1 %	< 1	3	<1 %
	Unmaintained field crops	2	<1 %	6	8	<1 %
	Natural pasture or rangeland	1	<1 %	7	9	<1 %
	Unused forage or pasture	-	-	< 1	< 1	<1 %
<b>AVAILABLE &amp; WITH POTENTIAL FOR FARMING</b>		<b>229</b>	<b>15 %</b>	<b>528</b>	<b>757</b>	<b>27 %</b>
<b>TOTAL</b>		<b>1,034</b>	<b>67 %</b>	<b>1,771</b>	<b>2,805</b>	<b>100 %</b>
Not surveyed	Indian reserves	374	24 %			
	Rights-of-way	71	5 %			
	Unsurveyed land	58	4 %			
	Foreshore	1	<1 %			
	Parcels < 100 sq m	1	<1 %			
<b>SUBTOTAL</b>		<b>505</b>	<b>33 %</b>			
<b>TOTAL</b>		<b>1,539</b>	<b>100 %</b>			

Table 4 shows that 757 hectares or 27% of the inventory area is not farmed, but is available for farming, and is not limited by existing land cover, land use, or physical site limitations. Only one third of this, or 229 hectares, is ALR land.

There are 175 hectares or 11% of the ALR land in Mission that has topography and/or soil limitations. Although these lands have limited potential for agriculture, opportunities such as livestock grazing exist to bring the land into agricultural use. This report does not suggest that lands should be removed from the ALR.

Refer to Map B5 in Appendix B for more information.

Figure 6. Availability and potential of ALR lands for farming

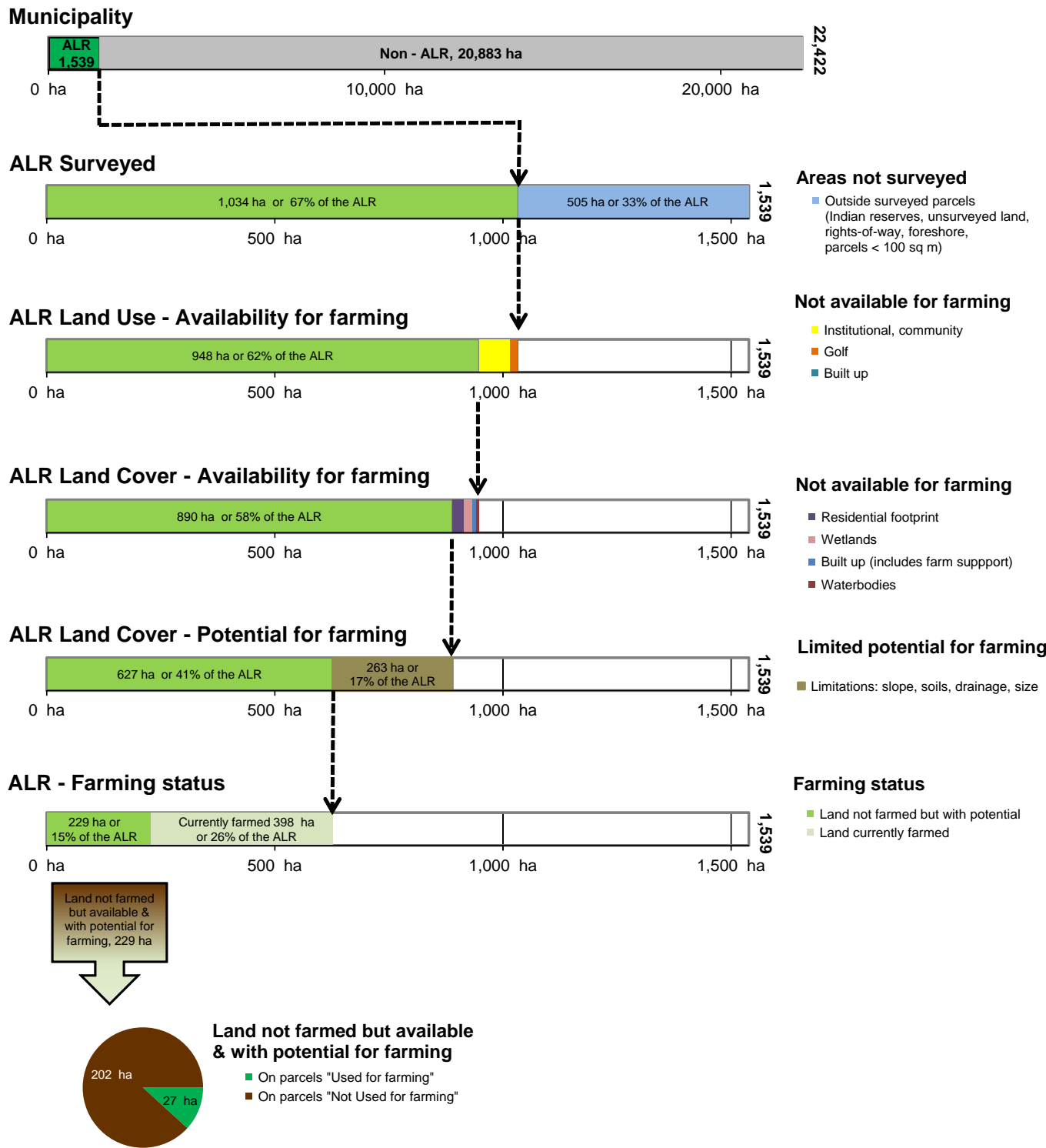


Figure 6 demonstrates that 627 hectares, or 41%, of Mission’s ALR is currently available for farming once Indian reserves, road rights-of-way, golf courses, residential footprints, waterbodies, and other land uses and land covers incompatible with agriculture are taken into account. Of those 627 hectares, 398 hectares are actively farmed and 229 hectares are available and have potential for farming.

Refer to Map B6 in Appendix B for more information.

## CHARACTERISTICS OF NOT FARMED BUT AVAILABLE ALR LANDS

The potential for future agriculture expansion is affected by the size of the area available. Small areas can effectively be used for some intensive agricultural operations such as mushrooms, floriculture, greenhouses, poultry, and container nurseries. Small areas may also be suitable for start-up farmers, horse enthusiasts, farmers testing new technologies, or established farmers wanting to expand through leases. Despite these opportunities, small areas provide fewer farming choices than large lots. They specifically exclude dairy, hogs, and vegetable greenhouses. For example, a dairy cow produces sufficient manure per year to fertilize 0.4 hectares of forage production which means a dairy operation consisting of 50 cows would require access to 20 hectares of land. 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.

### On Parcels “Used for Farming”

Table 5. Land use and cover on parcels “Used for farming” with land available for farming but not farmed

Mixed land use on "Used for farming" parcels	Number of parcels	Land not farmed but with potential for farming			Land currently farmed			% potential increase to total ALR farmed area
		In ALR (ha)	Outside ALR (ha)	Total area (ha)	In ALR (ha)	Outside ALR (ha)	Total area (ha)	
Residential	36	16	19	36	42	33	75	4 %
Used for farming only	7	7	5	12	35	6	41	2 %
Institutional, community	1	3	< 1	3	7	< 1	7	<1 %
Commercial & service	1	< 1	-	< 1	2	-	2	<1 %
<b>TOTAL</b>	<b>45</b>	<b>27</b>	<b>24</b>	<b>51</b>	<b>85</b>	<b>39</b>	<b>124</b>	<b>7 %</b>

Table 5 demonstrates that the largest potential increase in farmed land on parcels that are already “Used for farming” could come from properties that currently have “Residential” use.

Figure 7. Land cover available for farming but not farmed on ALR parcels “Used for farming”

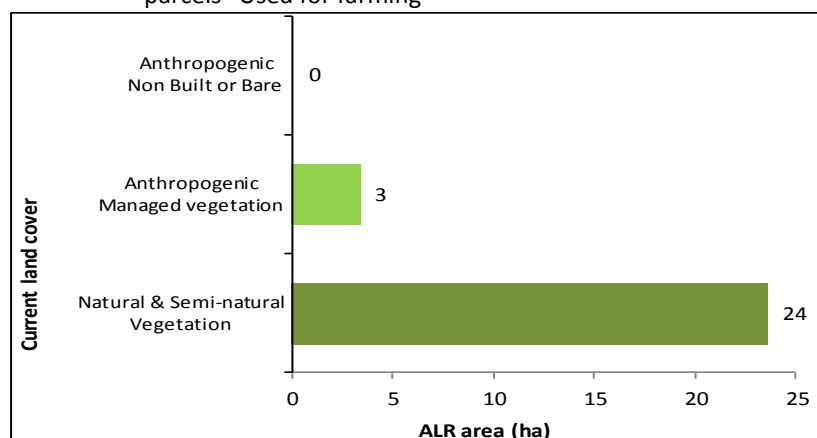


Figure 7 indicates that clearing land covered with “Natural & Semi-natural” vegetation would provide the greatest gains in farmed land on parcels that are already “Used for farming”.

## On Parcels “Not Used for Farming”

Table 6. Land use and cover on parcels “Not used for farming” with land available for farming

Parcel Land use		Number of parcels	Land not farmed but with potential for farming			% potential increase to total ALR farmed area
			In ALR (ha)	Outside ALR (ha)	Total area (ha)	
Not used for farming	Residential	295	168	390	559	42 %
	No apparent use	23	25	90	115	6 %
	Institutional, community	10	9	9	18	2 %
	Recreation & leisure	2	-	7	7	-
	Wildlife management	1	-	4	4	-
	Commercial & service	1	-	4	4	-
<b>TOTAL</b>		<b>332</b>	<b>202</b>	<b>503</b>	<b>705</b>	<b>51 %</b>

Table 6 illustrates that for parcels currently “Not used for farming”, the greatest potential for increasing actively farmed land would come from parcels with “Residential” use and parcels with “No apparent use”.

Figure 8. Land cover available for farming but not farmed on ALR parcels “Not used for farming”

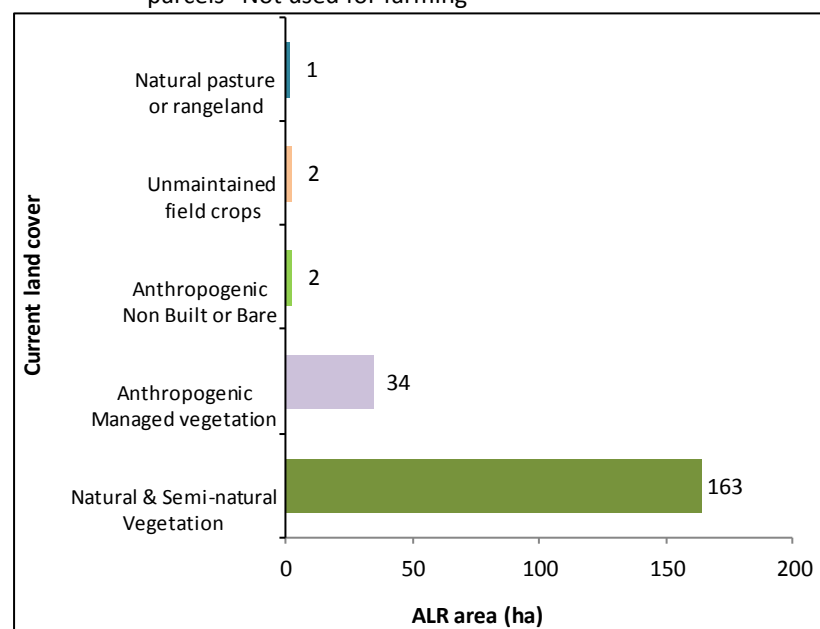


Figure 8 indicates that clearing land covered with “Natural & Semi-natural” vegetation would provide the greatest gains in farmed land on parcels currently “Not used for farming”.

Anthropogenic managed vegetation consists mainly of landscaping and lawns surrounding residential uses. Converting this to agricultural use may not be supported by landowners.

Figure 9. Size of areas available for farming but not farmed on parcels “Not used for farming”

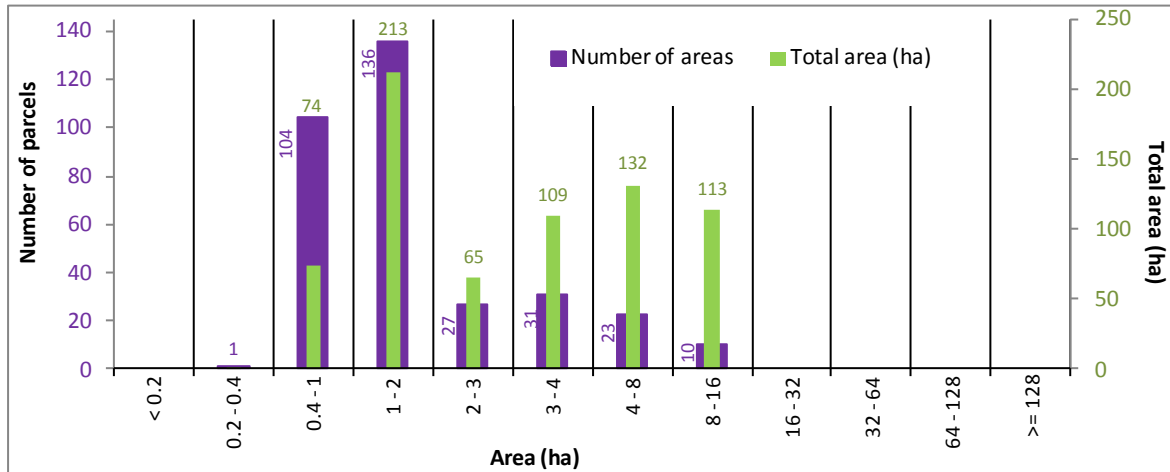


Figure 9 demonstrates that the majority of areas available for farming (241 of 332 or 73%) are less than 2 hectares in size. The smaller the area, the fewer options are available to efficiently farm. In general, areas should be 4 hectares or more to provide the widest range of farming options.

In Mission, there are 33 areas greater than 4 hectares in size with a combined area of 245 hectares that are available and have potential for farming. This is 35% of the 705 hectares (refer to Table 6) that are available and have potential for farming in the Mission inventory area.

## 4. 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 Mission are described by seven crop groupings:

- **Forage & pasture:** grass, forage corn
- **Nursery & tree plantations:** mixed nursery, cedar hedging, Christmas trees, holly
- **Vines & berries:** strawberries, blueberries, mixed berries, grapes
- **Mixed vegetables:** a variety of vegetable types cultivated in a field
- **Tree fruits**
- **Floriculture**
- **Other:** fallow land (cultivated land that has not been seeded or planted for one or more growing seasons) and cover grass (grass planted to manage soil moisture/erosion associated with a cultivated crop)

Table 7. Main field crop types by area

Type	ALR		Outside ALR (ha)	Total area (ha)	% of cultivated land
	In ALR (ha)	% of ALR			
Forage & pasture	374	24%	166	540	93%
Nursery & tree plantations	5	< 1%	21	26	4%
Vines & berries	4	< 1%	< 1	4	< 1%
Tree fruits	< 1	< 1%	< 1	1	< 1%
Other	< 1	< 1%	3	3	< 1%
Mixed vegetables	< 1	< 1%	1	2	< 1%
Floriculture	-	-	6	6	1%
<b>TOTAL</b>	<b>384</b>	<b>25%</b>	<b>197</b>	<b>581</b>	<b>100%</b>

Table 7 shows the 7 main field crop types produced on the 581 hectares of cultivated land in Mission.

“Forage & pasture” is the most common type of field crop accounting for 93% of all cultivated land and 24% of the ALR in Mission.

“Nursery & tree plantations” are the second most common type of field crop accounting for 4% of all cultivated land.

Refer to Map B7 in Appendix B for more information.

Figure 10. Main field crop types by percentage

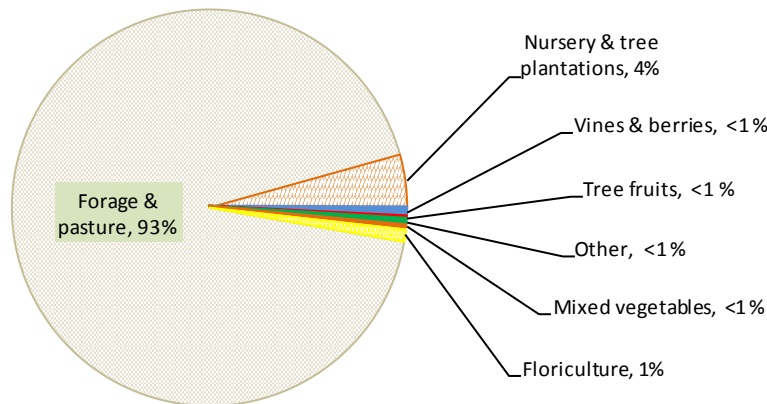


Figure 10 shows the proportion of main field crop types across Mission's cultivated land.

"Forage & pasture" combined with "Nursery & tree plantations" comprise 97% of all cultivated land in Mission.

Figure 11. All cultivated crop fields by size

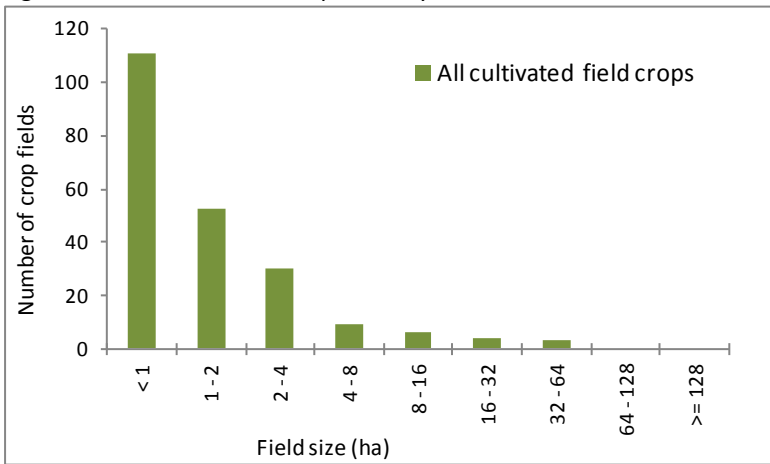


Figure 11 illustrates the number and size distribution of fields used for cultivated field crops.

In Mission, cultivated fields are most likely to be less than 1 hectare in size.

There are 216 individual crop fields with an average area of 3 hectares and median area of < 1 hectares.

Field crops occur on 206 parcels with an average parcel size of 6 hectares and a median parcel size of 2 hectares.

Refer to Table A1 in Appendix A for more information.

Figure 12. Forage & pasture, nursery & tree plantation, and vine & berry fields by size

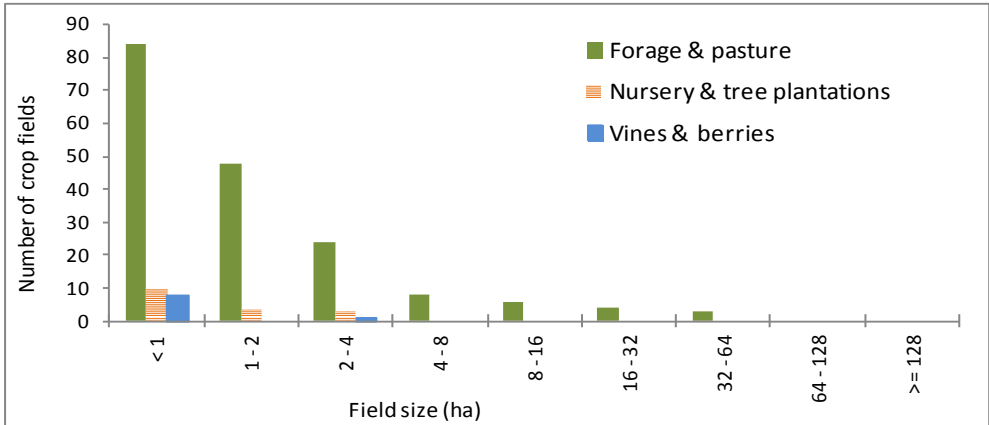


Figure 12 compares the top three main crop types by field sizes.

"Forage & pasture" fields occur on all field size categories with cultivated crops.

Refer to Table A1 in Appendix A for more information.



## Forage & pasture crops

Forage is a cultivated crop that is cut and made into silage or hay for livestock feed. Three levels of forage 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. Usually 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.

**Unknown** refers to forage or pasture crops where the level of management could not be determined

Table 8. Forage & pasture crops by area

Forage & pasture crops		ALR		Outside ALR (ha)	Total area (ha)	% of cultivated land
		In ALR (ha)	% of ALR			
Forage^	Grass	97	6%	18	114	20%
Forage (managed)	Grass	27	2%	-	27	5%
Forage (managed)	Forage corn	104	7%	-	104	18%
Forage (unmanaged)	Grass	6	< 1%	< 1	6	1%
Subtotal		234	15%	18	252	43%
Pasture^	Grass	83	5%	106	189	33%
Pasture (unmanaged)	Grass	54	3%	36	89	15%
Subtotal		137	9%	142	279	48%
Forage or pasture	Unknown	1	< 1%	< 1	1	< 1%
Subtotal		1	< 1%	< 1	1	< 1%
Unused	Grass	-	-	< 1	< 1	< 1%
Unmaintained	Grass	1	< 1%	6	7	1%
Subtotal		1	< 1%	6	8	1%
TOTAL		374	24%	166	540	93%

^ Forage or pasture where the level of management could not be determined.

Table 8 shows that although there is more forage than pasture in Mission's ALR, the total amounts of forage & pasture are similar.

Grass is the main forage & pasture crop type.

Refer to Map B8 in Appendix B for more

Figure 13. Forage & pasture fields by size

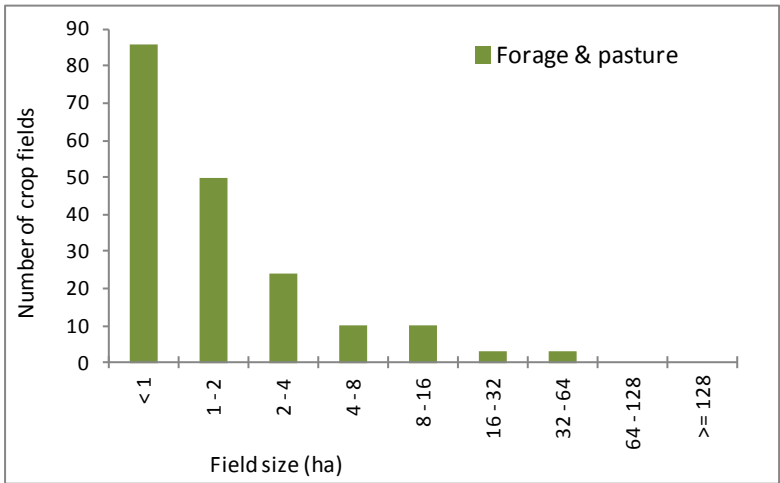


Figure 13 shows that “Forage & pasture” fields are most likely to be less than 1 hectare.

In Mission, there are 186 individual “Forage & pasture” fields with an average area of 3 hectares and median area of 1 hectare.

Forage and pasture fields occur on 177 parcels with an average parcel size of 6 hectares and a median parcel size of 2 hectares.

Refer to Table A2 in Appendix A for more information.

Figure 14. Forage & pasture fields by size and type

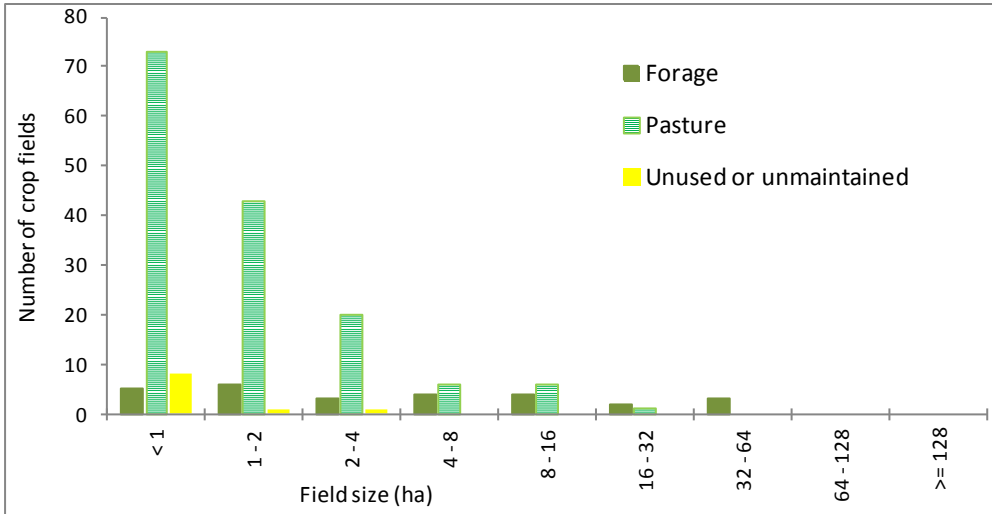


Figure 14 illustrates that there are far more pasture than forage fields in Mission.

There are 149 pasture fields with an average area of 2 hectares, a median area of 1 hectare, and an average parcel size of 4 hectares.

By comparison, there are 27 forage fields with an average area of 9 hectares, a median area of 3 hectares, and an average parcel size of 24 hectares.

Even though there are significantly more pasture than forage fields, each comprises a similar total area (see Table 8). Forage fields are generally larger than pasture fields mainly due to harvesting equipment requirements and fencing costs.

Refer to Table A2 in Appendix A for more information.

## Nursery & tree plantations

Table 9. Nursery & tree plantations by area

Nursery & tree plantations		ALR		Outside ALR (ha)	Total area (ha)	% of cultivated land
		In ALR (ha)	% of ALR			
Nursery	Nursery - mixed	2	< 1%	2	4	< 1%
	Cedar hedging	-	-	1	1	< 1%
Subtotal		2	< 1	4	6	< 1
Tree plantation	Trees plantation - unknown type	< 1	< 1%	5	6	< 1%
	Christmas trees	2	< 1%	5	7	1%
	Holly	-	-	< 1	< 1	< 1%
Subtotal		3	< 1	10	13	2%
Nursery or tree plantation - unknown		-	-	7	7	1%
Subtotal		-	-	7	7	1%
TOTAL		5	< 1	21	26	4%

Table 9 shows that Mission has a total of 26 hectares in nursery & tree plantations. The majority of this (81% or 21 hectares) is outside the ALR.

Refer to Map B9 in Appendix B for more information.

Figure 15. Nursery & tree plantations by size and type

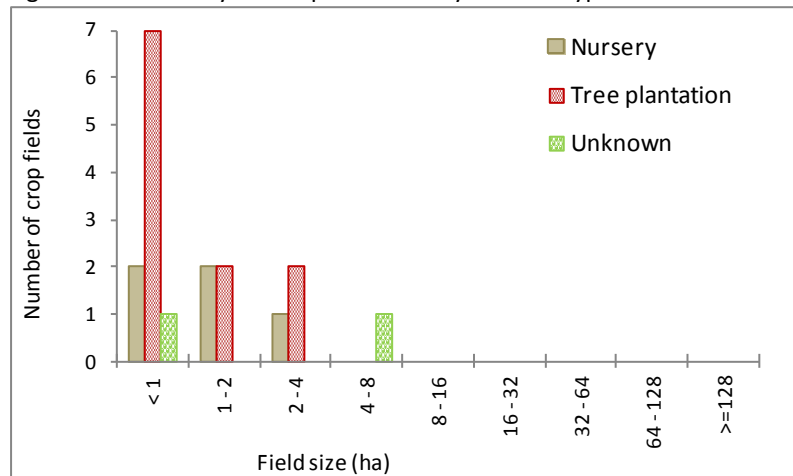


Figure 15 shows that all nursery & tree plantations in Mission are less than 8 hectares in size.

There are 18 individual nursery & tree plantation fields with an average area of 1 hectare and a median area of < 1 hectares.

Nursery & tree plantations occur on 18 parcels with an average parcel size of 7 hectares and a median size of 2 hectares.

Refer to Table A3 in Appendix A for more information.

## Top 20 Individual Crops

Table 10. Top 20 crop types by area

Cultivated field crop	ALR		Outside ALR (ha)	Total area (ha)	% of cultivated land
	In ALR (ha)	% of ALR			
Pasture^	83	< 1%	106	189	33%
Forage (managed)	131	< 1%	-	131	23%
Forage^	97	< 1%	18	114	20%
Pasture (unmanaged)	54	< 1%	36	89	15%
Unmaintained forage/pasture	1	< 1%	6	7	1%
Nursery or tree plantation	-	-	7	7	1%
Christmas trees	2	< 1%	5	7	1%
Forage (unmanaged)	6	< 1%	< 1	6	1%
Tree plantation	-	-	5	5	< 1%
Nursery	2	< 1%	2	4	< 1%
Floriculture	-	-	3	3	< 1%
Fallow land*	-	-	3	3	< 1%
Strawberries	3	< 1%	< 1	3	< 1%
Cut flowers	-	-	2	2	< 1%
Mixed vegetables	< 1	< 1%	1	2	< 1%
Forage or pasture	1	< 1%	< 1	1	< 1%
Cedar hedging	-	-	1	1	< 1%
Holly	-	-	< 1	< 1	< 1%
Tree plantation (unmaintained)	< 1	< 1%	-	< 1	< 1%
Unused forage/pasture	-	-	< 1	< 1	< 1%
<b>TOTAL</b>	<b>382</b>	<b>&lt; 1%</b>	<b>196</b>	<b>578</b>	<b>99%</b>

Table 10 shows the 20 individual crops that account for 99% of the cultivated land in Mission.

^ Forage or pasture where the level of management could not be determined.

\* Fallow land is cultivated land that has not been seeded or planted for one or more growing season.

Figure 16. Top 20 crop types by area

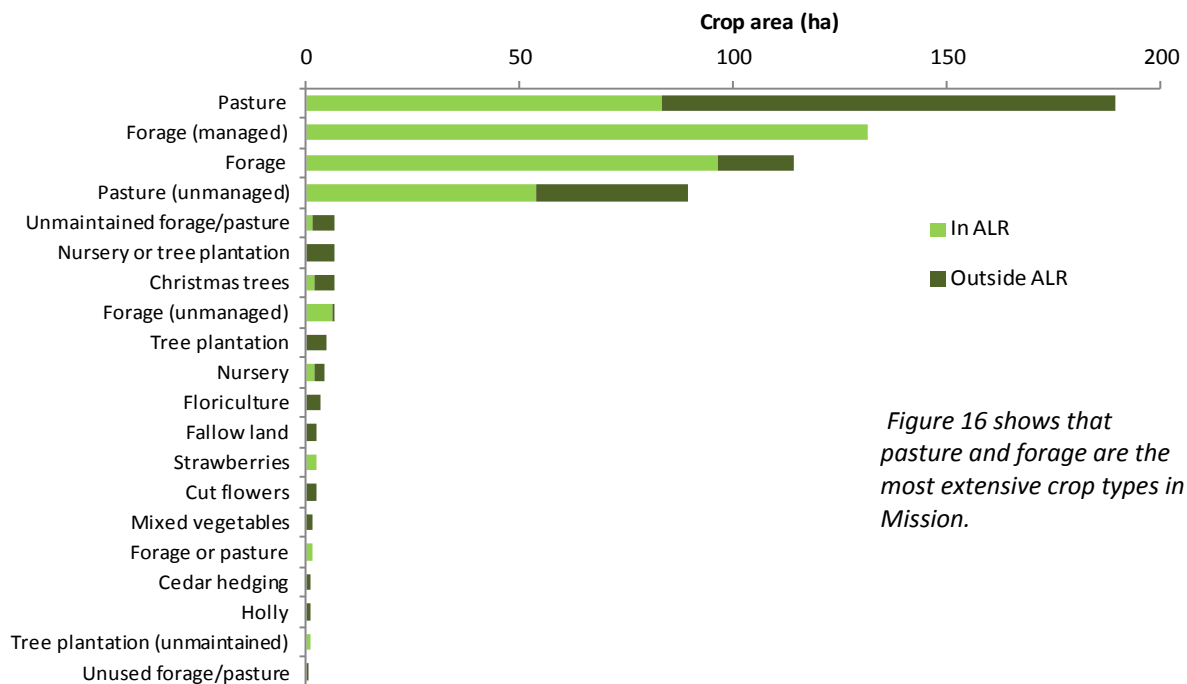


Figure 16 shows that pasture and forage are the most extensive crop types in Mission.

## GREENHOUSES & CROPS BARNs

Greenhouses are structures covered with translucent material and of sufficient size for a person to work inside<sup>8</sup>. They are permanent enclosed glass or polyethylene (poly) structures with or without climate control facilities for growing plants under controlled environments. Non permanent structures such as hoop covers are considered an agricultural practice and are not included here.

Crop barns are permanent structures with non-translucent walls that are used for growing crops such as mushrooms.

Table 11. Greenhouses by area<sup>9</sup>

Greenhouse type		ALR		Outside ALR (ha)	Total area (ha)	% of greenhouse area
		In ALR (ha)	% of ALR			
Poly greenhouse	Unknown	-	-	1	1	87%
	Nursery	-	-	< 1	< 1	8%
	Floriculture	-	-	< 1	< 1	5%
TOTAL		-	-	1	1	100%

Table 11 shows that 1 hectare of the inventory area is covered by poly greenhouses.

Eight poly greenhouses were reported, 6 with unknown crops, 1 with nursery crops and 1 with floriculture. All are less than 1 hectare in size.

No glass greenhouses or crop barns were recorded in Mission.

<sup>8</sup> Source: *Guide for Bylaw Development*, 1998 Issue (Working Copy) by Ministry of Agriculture and Food.

<sup>9</sup> The areas reported in this table exclude external yards, parking, warehouses and other infrastructure related to the greenhouse or crop barn operation. Poly refers to polyethylene.

## 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. High salinity or microbial contamination renders water unsuitable for irrigation. Insufficient water sources or water delivery infrastructure limits 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, the top 20 cultivated field crops are evaluated for percent of crop area under irrigation.

Table 12. Main crop types and irrigation

Cultivated field crop	Irrigation system in use (ha)			Total area irrigated (ha)	% of crop area irrigated
	Surface	Sprinkler	Trickle		
Nursery & tree plantations	-	5	-	5	26%
Forage & pasture	< 1	5	-	5	540%
Mixed vegetables	-	1	-	1	2%
Tree fruits	-	< 1	< 1	< 1	1%
Vines & berries	-	< 1	< 1	< 1	4%
<b>TOTAL FIELD CROP AREA IRRIGATED</b>	<b>&lt; 1</b>	<b>13</b>	<b>&lt; 1</b>	<b>13</b>	<b>2%</b>
Greenhouses - Mix of flood and trickle irrigation				1	100%

Table 12 illustrates that there is little irrigation use in District of Mission. Only 13 hectares or 2% of the crop area is irrigated. Nursery & tree plantations and forage & pasture crops each have 5 hectares of land irrigated by sprinkler systems.

Refer to Map B10 in Appendix B for more information.

## LIVESTOCK

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Livestock activities are very difficult to measure using a windshield survey method. 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.

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)

Table 13. Livestock activities

Livestock group	Livestock detail *	By parcel		Total activities	By activity type	
		Main type	Secondary type		Intensive	Non Intensive
Beef	Beef	21	-	21	-	21
	Beef (Sheep / lamb)	1	-	1	-	1
	Beef total	22	-	22	-	22
Dairy	Dairy total	1	-	1	-	1
Poultry	Chicken	11	4	15	2	13
	Chicken (Turkey)	-	1	1	-	1
	Turkey	1	-	1	-	1
	Poultry total	12	5	17	2	15
Swine	Swine total	1	-	1	-	1
Sheep / lamb / goat	Sheep / lamb	7	1	8	-	8
	Sheep / lamb (Goat)	2	-	2	-	2
	Goat (Sheep / lamb)	2	1	3	-	3
	Goat	1	-	1	-	1
	Sheep / lamb / goat total	12	2	14	-	14
Llama / alpaca	Llama	4	3	7	-	7
	Llama (Alpaca)	1	-	1	-	1
	Llama (Sheep / lamb)	1	-	1	-	1
	Llama / alpaca total	6	3	9	-	9
Deer, fallow	Deer, fallow total	1	-	1	-	1
Unknown livestock	Unknown livestock total	11	1	12	-	12
Inactive	Inactive total	1	-	1	1	-
Equine	Horse	43	3	46	-	46
	Horse (Miniature horse)	2	-	2	-	2
	Miniature horse	2	-	2	-	2
	Donkey, ass	1	-	1	-	1
	Donkey, ass (Horse)	1	-	1	-	1
	Equine - unknown type	32	-	32	-	32
	Equine total	81	3	84	-	84
TOTAL		148	14	162	3	159

\* When livestock type appears in parentheses, it indicates the livestock activity is a mixed herd or flock.

Table 13 shows that equine is the most common type of livestock activity in Mission accounting for 84 or 52% of all livestock activities. Beef is the second most common type of livestock with 22 activities or 14%, followed by poultry with 17 activities or 10%.

One former dairy was recorded as an inactive operation. Excluding the inactive operation, only poultry has intensive facilities in Mission.

Refer to Maps B11, B12, B13 and B14 in Appendix B for more information.



Figure 17. Livestock activities (excluding equine) by scale and type

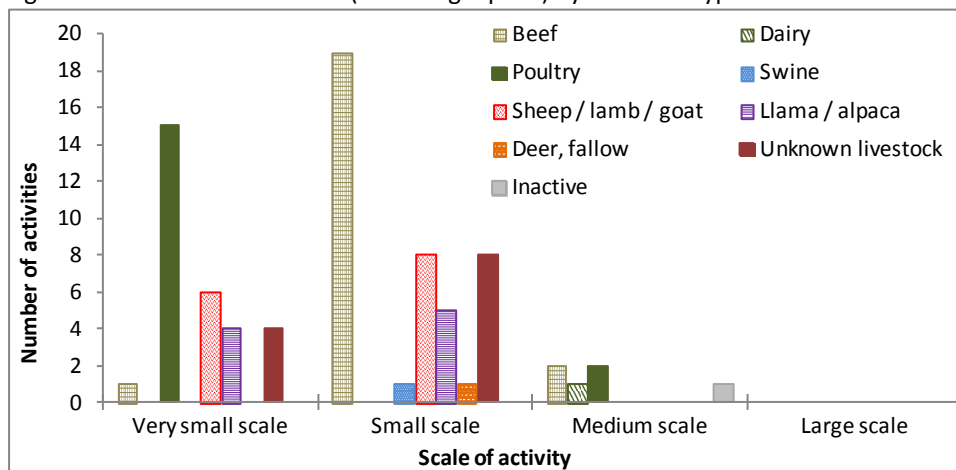


Figure 17 illustrates the scale of livestock activities (excluding equine) in Mission.

Most of the livestock activities are “small” or “very small” scale with only 5 active “medium” scale activities.

Beef and poultry each have 2 “medium” scale activities while dairy has 1.

Refer to Tables A5, A7, and A9 in Appendix A for more information.

Figure 18. Livestock and equine activities by scale

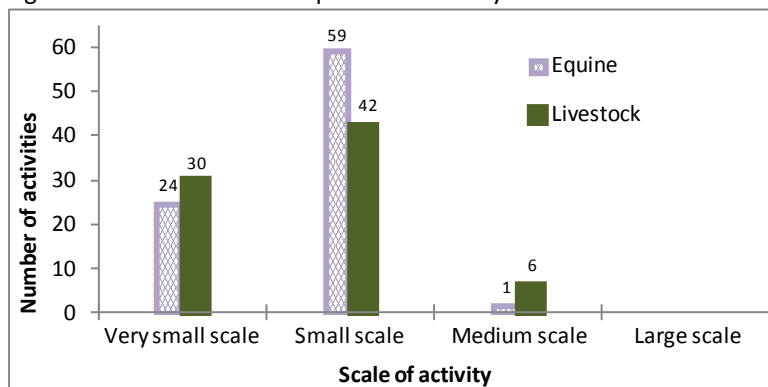


Figure 18 compares the scale of livestock activities with equine activities.

Even though 84 of the 162 livestock activities are equine, most are “small” scale. There is only 1 “medium” scale equine activity in Mission compared to 6 “medium” scale livestock activities (includes 1 inactive activity).

There are no large scale livestock or equine activities in Mission.

Refer to Tables A5, A7, A9 and A11 in Appendix A for more information.

Figure 19. Livestock activities (excluding equine) by parcel size and scale

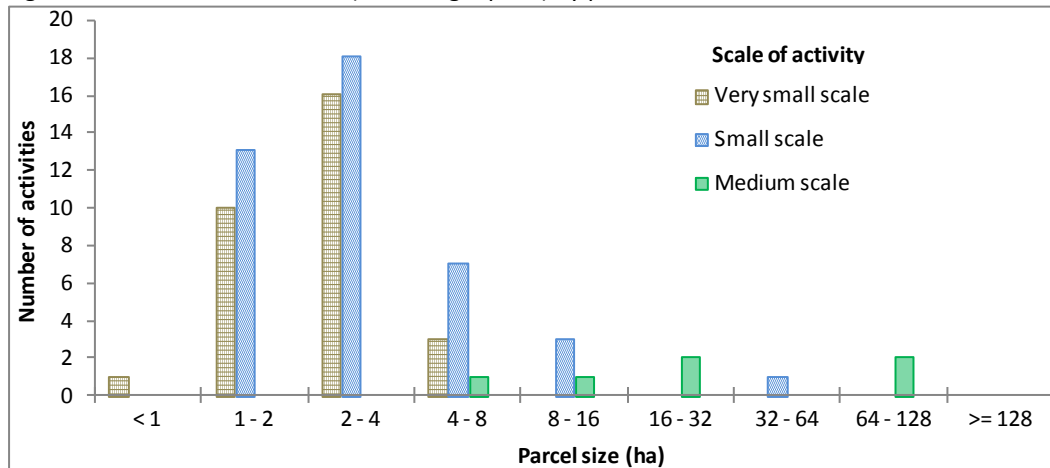


Figure 19 illustrates the distribution of livestock activities (excluding equine) by scale across parcel size categories.

“Medium” scale livestock activities occur exclusively on parcels greater than 4 hectares while “small” scale activities occur on a wide range of parcel sizes.

Refer to Tables A5, A7, A9 and Figures A1, A3, and A5 in Appendix A for more information.

Figure 20. Livestock activities (excluding equines) by parcel size and type

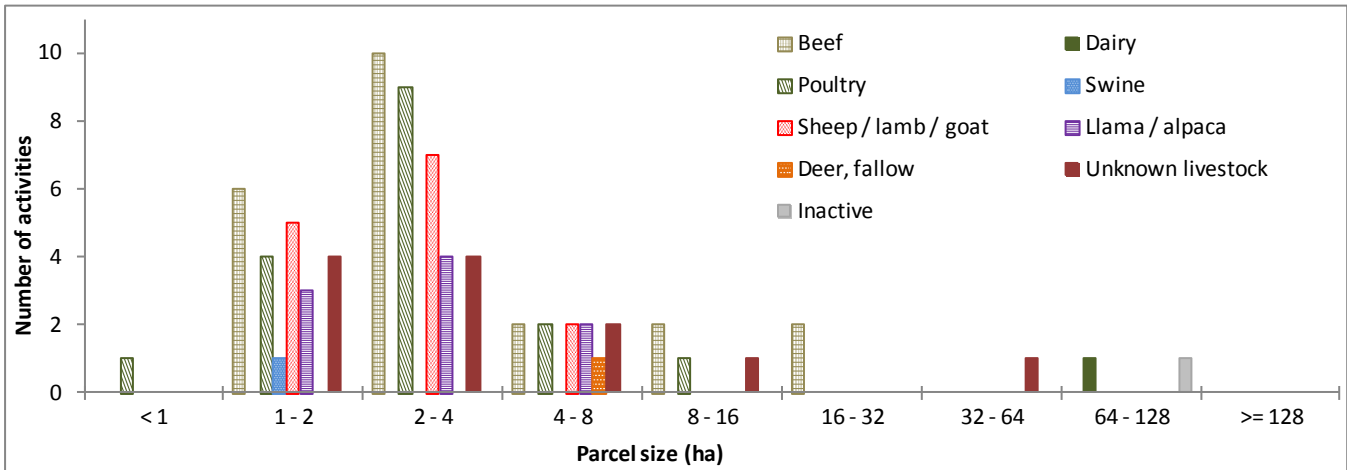


Figure 20 compares the distribution of different livestock types across parcel size categories. Poultry activities occur on all parcel size categories less than 16 hectares while beef and unknown livestock activities occur on a variety of parcels sizes. On parcels greater than 64 hectares, there is one dairy activity associated with the Westminster Abbey and one inactive operation.

Refer to Table A4 in Appendix A for more information.

Figure 21. Livestock and equine activities by parcel size

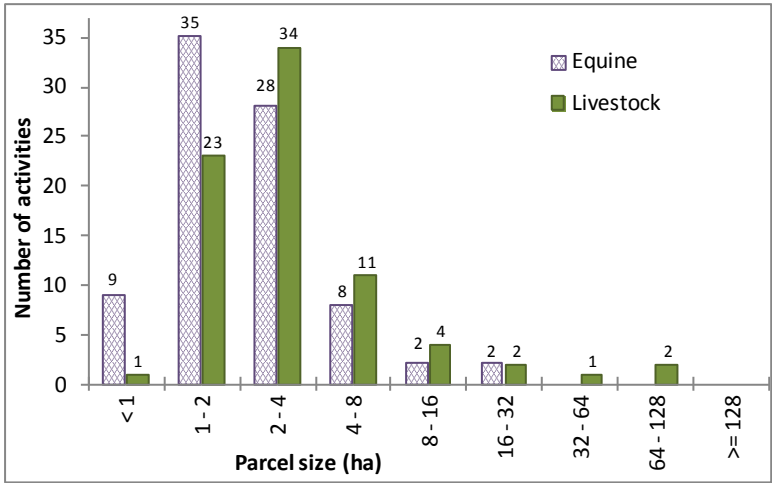


Figure 21 compares the distribution of equine and livestock activities across parcel size categories.

The majority of equine and livestock activities occur on parcels less than 4 hectares.

Nine equine activities occur on parcels less than 1 hectare compared to only 1 livestock activity.

There are no equine activities on parcels larger than 32 hectares while there 3 livestock activities.

Refer to Table A4 in Appendix A for more information.

Figure 22. Average area in forage, pasture, and farm infrastructure on parcels with livestock activities (excluding very small scale)

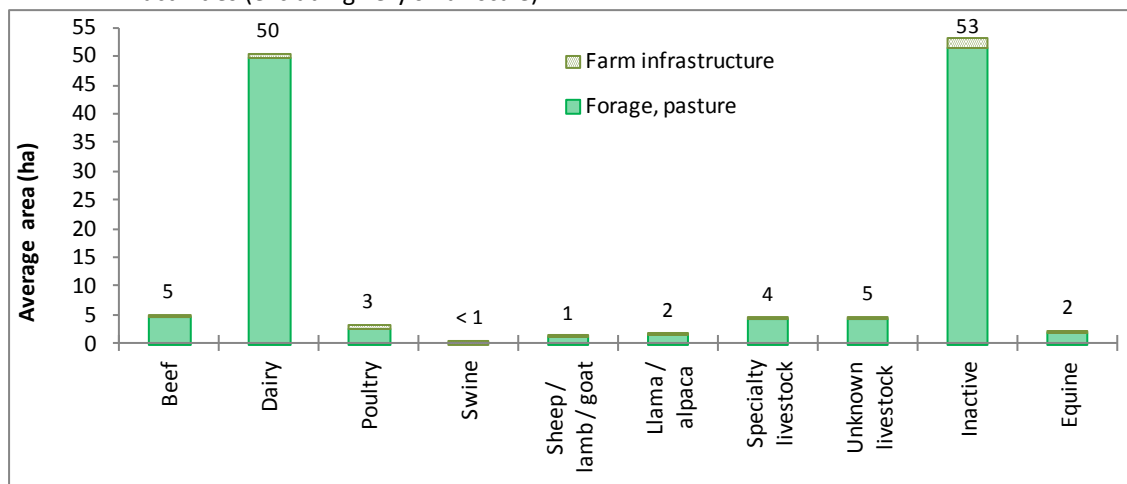
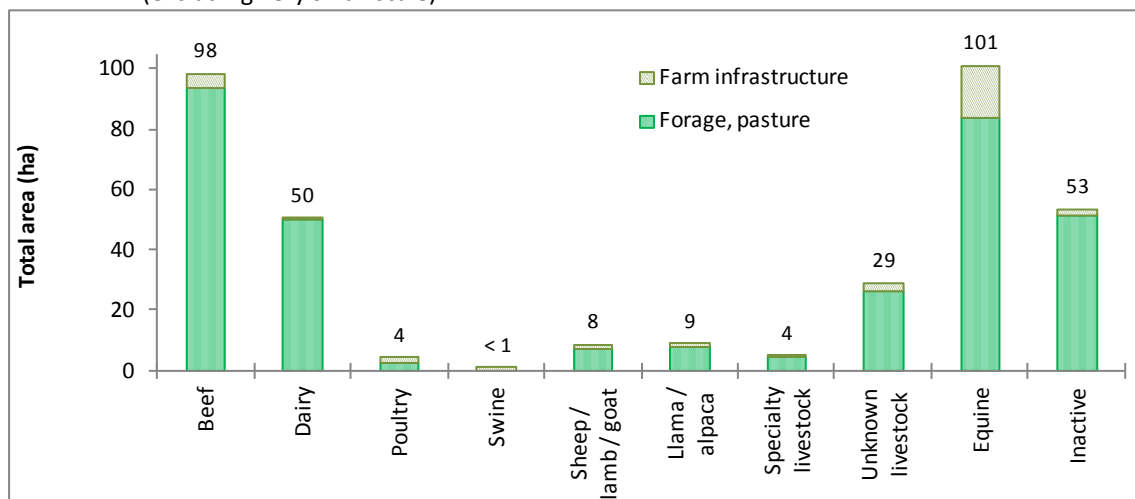


Figure 22 shows that on average, a dairy activity is associated with 50 hectares of forage and pasture land which is more than any other type of active livestock activity.

One inactive livestock activity is associated with 53 hectares of forage, pasture, and farm infrastructure.

Figure 23. Total area in forage, pasture, and farm infrastructure on parcels with livestock activities (excluding very small scale)



Even though the one dairy activity in Mission uses on average more forage and pasture than other livestock types (see Figure 22 above), Figure 23 shows that both equine and beef activities use greater total areas.

The actual forage area for dairy is often underestimated since not all dairy forage fields are located on the same parcel as the livestock.

Refer to Figures A2, A4, A6, and A8 in Appendix A for more information.

Figure 24. Percent of parcel area utilized for forage, pasture, and farm infrastructure on parcels with livestock activities (excluding very small scale)

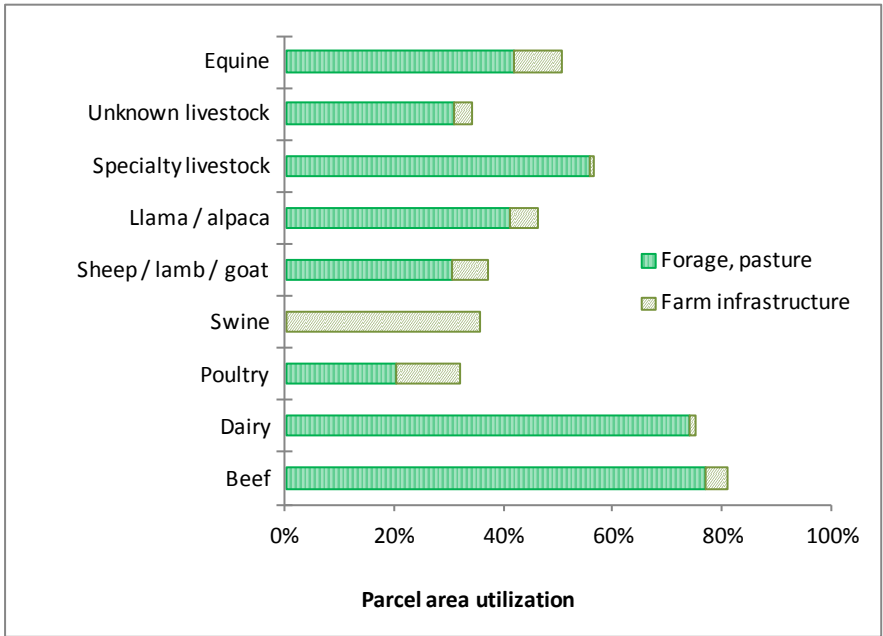


Figure 24 shows that on average, a beef activity in Mission utilizes 81% of its parcel area for forage, pasture, and farm infrastructure while a poultry activity only utilizes 32%.

Figure 25. Land cover on parcels with livestock activities (excluding very small scale)

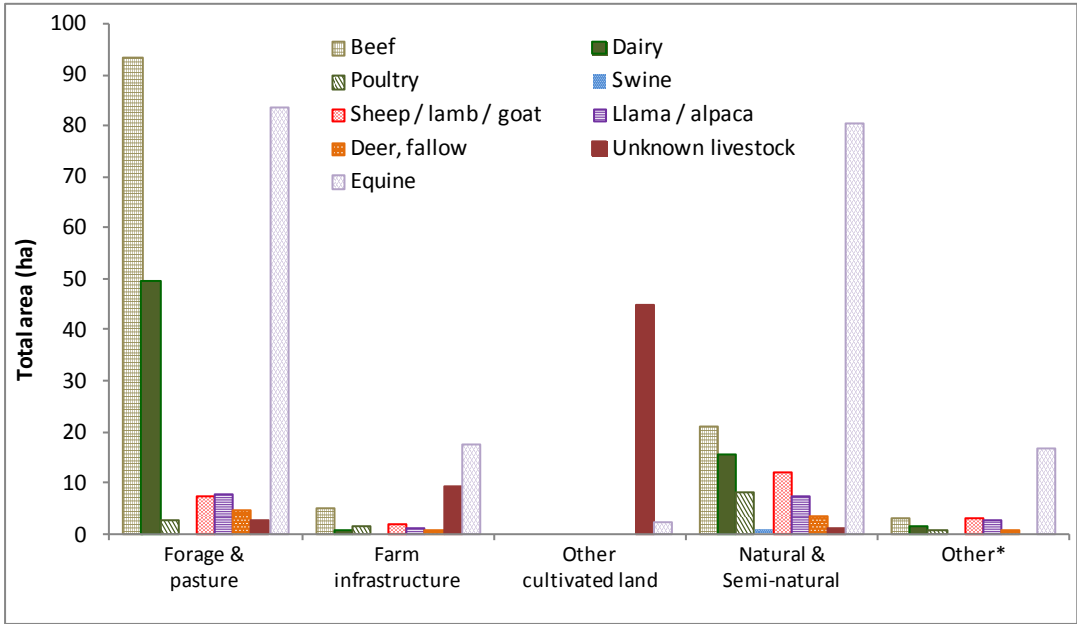


Figure 25 shows that the land cover associated with beef and dairy activities is primarily forage and pasture. These operations are growing some of their own feed. Equines are also associated with large amounts of forage & pasture.

Refer to Figures A2, A4, A6, and A8 in Appendix A for more information.

\* Other includes vegetated lands seeded or planted for landscaping, dust, or soil control but not cultivated for harvest or pasture, lands covered by built objects but not farm infrastructure, and bare areas such as piles, pits, fill dumps.

## ON-FARM VALUE-ADDED

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Activities which add value to raw commodities produced on the farm are reported in this section. At least 50% of the commodity utilized must be produced on farm<sup>10</sup> or the activity is considered non-agricultural. In many cases, local knowledge in combination with the field survey is used to determine if an activity meets the criteria to be considered on-farm value-added. The three main categories of value-added are: processing, direct sales, and agri-tourism.

Processing is an activity that maintains or raises the quality or alters the physical or chemical characteristics of a raw farm commodity, or adds value to it in any way. Processing includes grain mill or oilseed crushing, meat processing, wine or cider, kitchen / bakery, and canning. This category does not include crop washing and packaging.

Direct sales to the public occur through permanent stores, temporary stores such as fruit stands, U-pick, or restaurant / take out service located on the farm. Direct farm marketing sites are considered ambassadors of agriculture. Direct farm marketing engages the public's interest in food production and increases awareness of the benefits of local agriculture.

Agri-tourism promotes visits to the operation for the purpose of recreation, education or active involvement in the operation - a tourism experience. Agri-tourism must be in a farm setting and secondary to primary agricultural operation to be considered value-added. Included are corn mazes, petting zoos, bed & breakfasts, campsites, winery or orchard tours, guest ranches offering equestrian related activities, horse or donkey rental for trail riding / outfitting, and seasonal events such as farm festivals or pumpkin patches.

The scale system used to describe value-added activities reflects the human effort need to support the activity. The scale system includes 3 levels:

- “**Small**” scale represents a predominantly single household endeavour with management requiring less than one full time worker. Examples of small scale include a temporary roadside fruit stand, a small field u-pick, or egg sales from a backyard flock.
- “**Medium**” scale is sufficient to add value to on-farm products for sale to small local markets or serve a moderate number of people. It usually includes designated parking for customers and requires at least one full-time worker to manage. An example is 3-10 tourist accommodation spots.
- “**Large**” scale is intended to add value to large amounts of on-farm generated products or serve large numbers of people. It requires multiple workers to operate the value-added component of the farm operation. An example is more than 10 tourist accommodation spots.

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<sup>10</sup> On-farm refers to the farm unit which includes all the property belonging to the farm and may incorporate more than one parcel.

Figure 26. Percentage of parcels “Used for farming” with value-added activities

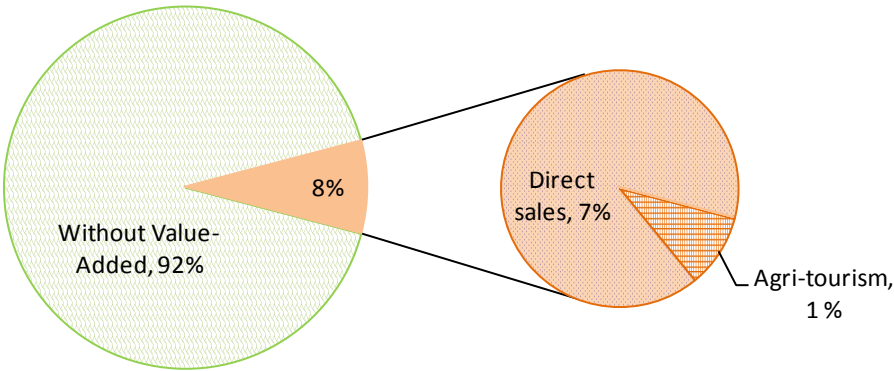
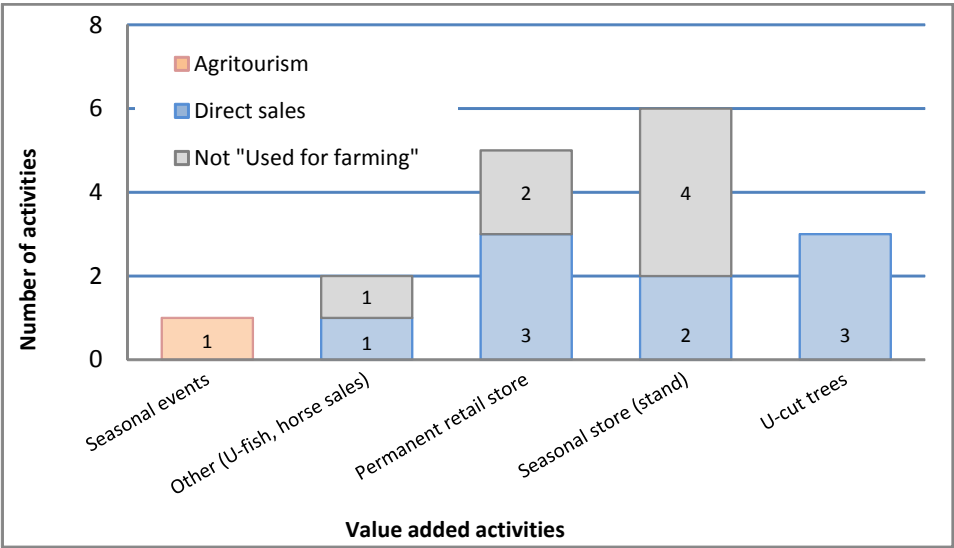


Figure 26. Only 10 parcels or 8% of all parcels “Used for farming” are also being used for value-added activities. Given the close proximity to a relatively large urban population, there are opportunities to increase activities such as agri-tourism and direct sales.

Figure 27. Number of parcels with farming and value-added activities



There were 17 value-added activities recorded in Mission. Seven activities are on parcels that do not meet the “Used for farming” criteria (refer to the Definition section of the report).

Figure 27 shows that the majority of the value added activities are seasonal and permanent retail stores.

Refer to Tables A13 through A16 in Appendix A for more information.

## 5. Condition of ALR Lands

This section presents a parcel based analysis of parcel size and residential uses in the ALR.

### **PARCEL INCLUSION IN THE ALR**

The inventory area included 1,034 hectares of ALR on 272 parcels, which is 67% of the ALR within Mission. The remaining 33% of the ALR was excluded from the inventory as it is in Indian reserves, rights-of-ways, unsurveyed land, foreshore, or parcels less than 100 square metres in size.

ALR boundaries are not always coincident 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 in Mission, only parcels that meet the following criteria are included in this section of the report:

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

In total, 214 parcels with 1,009 hectares or nearly 66% of Mission's ALR land area meets the above criteria and are included in the further analysis of the ALR. All 214 parcels have at least half of their area ( $\geq 50\%$ ) in the ALR.

Figure 28. Parcel inclusion in the ALR

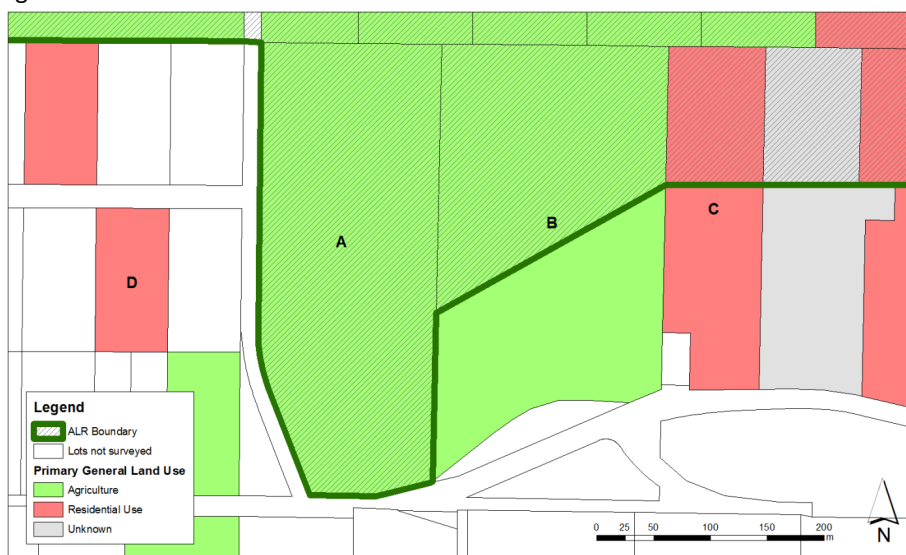


Figure 28 illustrates the distinction between parcels considered to be within or outside the ALR:

**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.

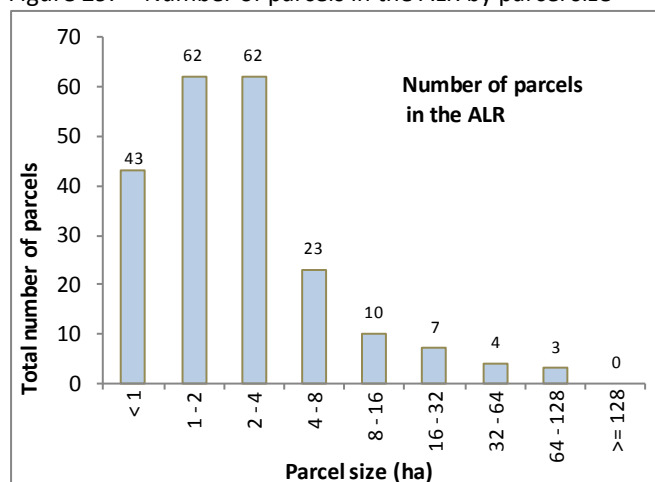


## PARCEL SIZE & FARMING IN THE ALR

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, such as intensive organic market gardens, greenhouse operations and nurseries, generally the smaller the parcel is, the fewer viable options there are for farming.

A farming operation may utilize more than one parcel as a farm unit<sup>11</sup>, however it is generally more efficient to run a farm on fewer larger parcels than 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.

Figure 29. Number of parcels in the ALR by parcel size



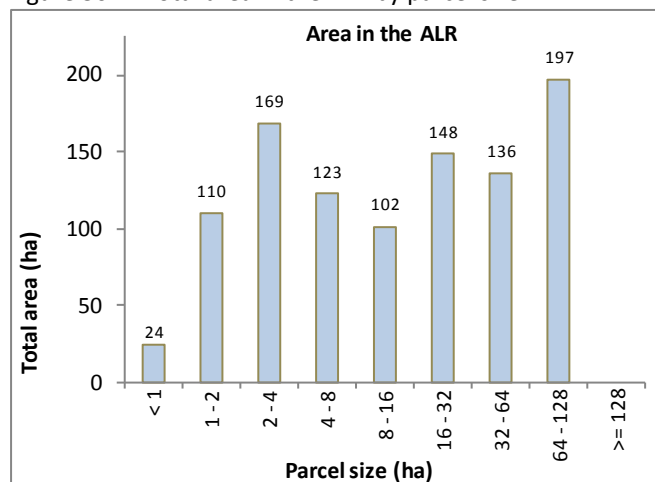
*Of Mission's ALR parcels, 20% are less than one hectare. The average ALR parcel size is 5.2 hectares and the median is 2 hectares.*

*Figure 29 illustrates that of the 214 parcels in the ALR:*

- 20% (43 parcels) are less than 1 hectare.
- 78% (167 parcels) are less than 4 hectares.
- 11% (23 parcels) are between 4 and 8 hectares.
- 5% (10 parcels) are between 8 and 16 hectares.
- 6% (14 parcels) are greater than 16 hectares.

*Refer to Map B15 in Appendix B for more information.*

Figure 30. Total area in the ALR by parcel size



*Even though Mission has a large number of small parcels, much of its ALR area is in larger parcels.*

*Figure 30 illustrates that of the 1,009 hectares in the ALR:*

- 2% (24 hectares) is on parcels less than 1 hectare.
- 30% (303 hectares) is on parcels less than 4 hectares.
- 12% (123 hectares) is on parcels between 4 and 8 hectares.
- 10% (102 hectares) is on parcels between 8 and 16 hectares.
- 48% (481 hectares) is on parcels greater than 16 hectares.

<sup>11</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 14. Number of farmed and not farmed parcels in the ALR

Parcel status with respect to farming	Number of parcels	% of parcels in the ALR
Used for farming	42	20 %
Not used for farming	172	80 %
<b>TOTAL</b>	<b>214</b>	<b>100 %</b>

Table 14 demonstrates that of the 214 parcels in the ALR, only 42 or 20% are "Used for farming".

Figure 31. Number of farmed and not farmed parcels in the ALR by parcel size

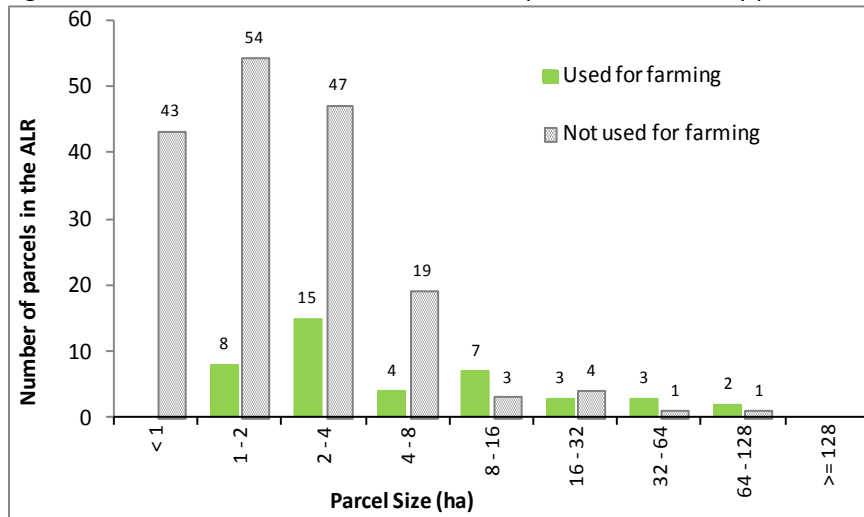


Figure 31 shows that of the 172 or 80% of parcels in the ALR "Not used for farming",

- 25% (43 parcels) are less than one hectare.
- 84% (144 parcels) are less than 4 hectares.

There are no parcels less than 1 hectare that are "Used for farming" in Mission.

Figure 32. Number of farmed and not farmed parcels in the ALR by parcel size (line chart)

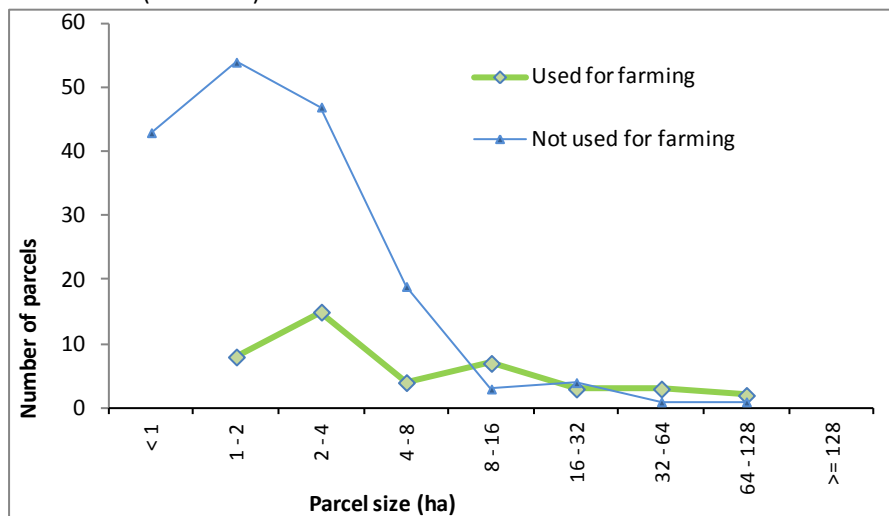


Figure 32 illustrates that although parcels of all sizes greater than one hectare are "Used for farming", smaller parcels are less likely to be farmed.

Figure 33. Proportion of parcels farmed and not farmed by parcel size in the ALR

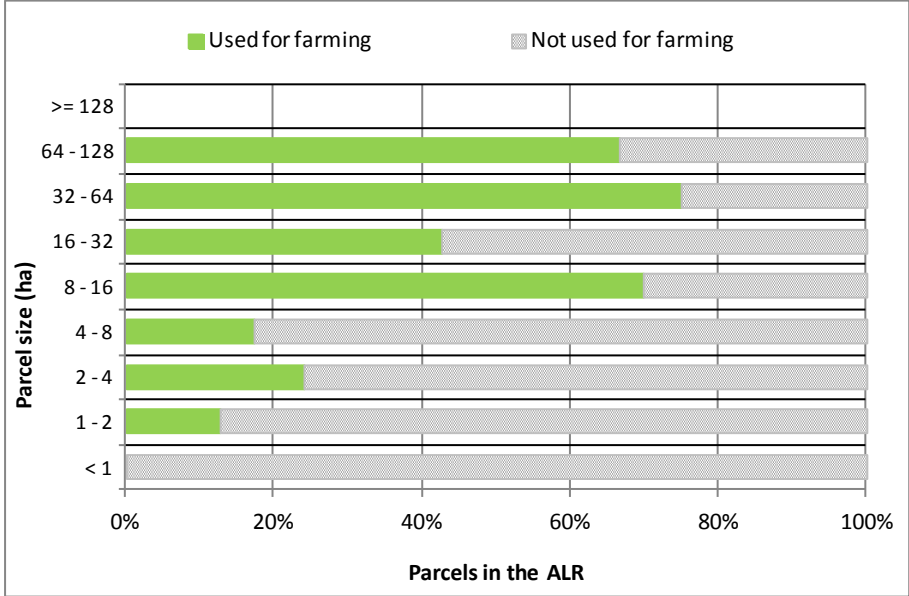
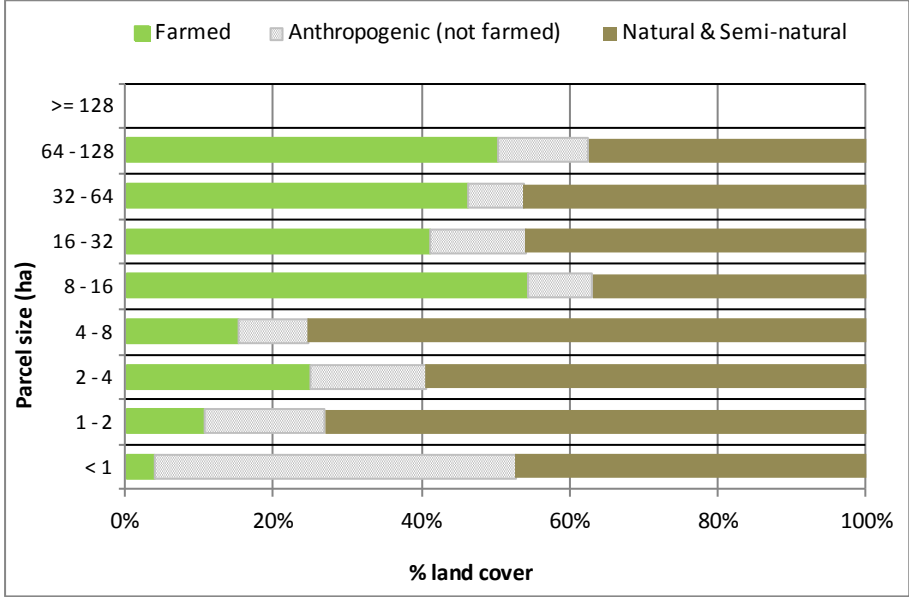


Figure 33 shows that parcels over 8 hectares are more likely to be “Used for farming” than parcels less than 8 hectares.

Figure 34. Proportion of land cover by parcel size in the ALR



Similar to Figure 33 above, Figure 34 shows that in Mission, parcels over 8 hectares have a higher proportion of farmed land cover than parcels less than 8 hectares.

Although 4% of the land cover on parcels less than 1 hectare is “Farmed”, none of the parcels are considered “Used for farming”. For a complete definition of “Used for farming”, refer to the Definition section of this report.

## RESIDENTIAL USE IN THE ALR

The ALR is a provincial zone in which agriculture is the priority use and some “Residential” use is considered a necessary accessory to the agricultural use of a property. However “Residential” use which is not an accessory to agriculture can effectively limit the ability of agriculture to grow, intensify and respond to market demands. When the primary motivation for ownership of ALR land is residential use, the residence is often placed to maximize privacy and views, with little consideration for agricultural opportunities on the parcel. Houses that are not adjacent to the frontage road alienate portions of land from future agriculture. If the occupants are non-farmers, they are more likely to be affected by noise or odour from neighbouring farm operations.

The size of the residence may be another factor to consider. Properties with larger residences have higher property values making it unrealistic for a farmer to acquire and convert this land to farmland in the future.

*Average land improvement values of Mission properties with residences in the ALR were as follows:*

- estate single family house \$502,000
- large single family house \$328,667
- medium single family house \$200,790
- small single family house \$130,082
- single mobile home \$45,900

*(Calculated using 2011 BC Assessment database - Last improvement value)*

In the following analysis cabins/cottages, mobile homes, single-family houses, duplexes, townhouses, apartments, motels, dormitories, and institutional living buildings are included. Single-family houses are further described by estimated size of the building:

- Small single-family house < 1,500 sq. ft.
- Medium single-family house 1,500 – 3,500 sq. ft.
- Large single-family house 3,500 – 5,000 sq. ft.
- Estate (very large) single-family house > 5,000 sq. ft.

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.

Table 15. Farming and residences in the ALR

Parcel status	With residence		Without residence		Total number of parcels
	Number of parcels	% of parcels	Number of parcels	% of parcels	
Used for farming	31	14%	11	5%	42
Not used for farming but available	113	53%	54	25%	167
Not used for farming and unavailable	2	< 1%	3	1%	5
<b>TOTAL</b>	<b>146</b>	<b>68%</b>	<b>68</b>	<b>32%</b>	<b>214</b>

Table 15 shows that 146 parcels or 68% of ALR parcels have residences and that 115 of these parcels are “Not used for farming”.

Table 16. Farming and residence type in the ALR

Parcel status	Residences *					Total residences	Total number of parcels
	Single mobile home	Small house	Medium house	Large house	Estate house		
Used for farming	3 ( 1)	14 ( 11)	12 ( 12)	7 ( 7)	-	36	31
Not used for farming but available	7 ( 1)	45 ( 41)	60 ( 60)	8 ( 8)	3 ( 3)	123	113
Not used for farming and unavailable	-	1 ( 1)	1 ( 1)	-	-	2	2
<b>TOTAL RESIDENCES</b>	<b>10</b>	<b>60</b>	<b>73</b>	<b>15</b>	<b>3</b>	<b>161</b>	
<b>TOTAL PARCELS</b>	<b>2</b>	<b>53</b>	<b>73</b>	<b>15</b>	<b>3</b>		<b>146</b>

\* xx ( yy) - xx indicates the number of residences and ( yy) indicates the number of parcels where the residence type is the largest on that parcel.

Table 16 demonstrates that there are 146 parcels in the ALR with 161 residences (some parcels have more than one residence). Most residences are small (<1,500 sq. ft) or medium (1,500 – 3,500 sq. ft) houses. Over 61% of all large (3,500 – 5,000 sq. ft.) and estate (>5,000 sq. ft.) houses are on parcels “Not used for farming”.

Figure 35. Total area in residential footprint by parcel size

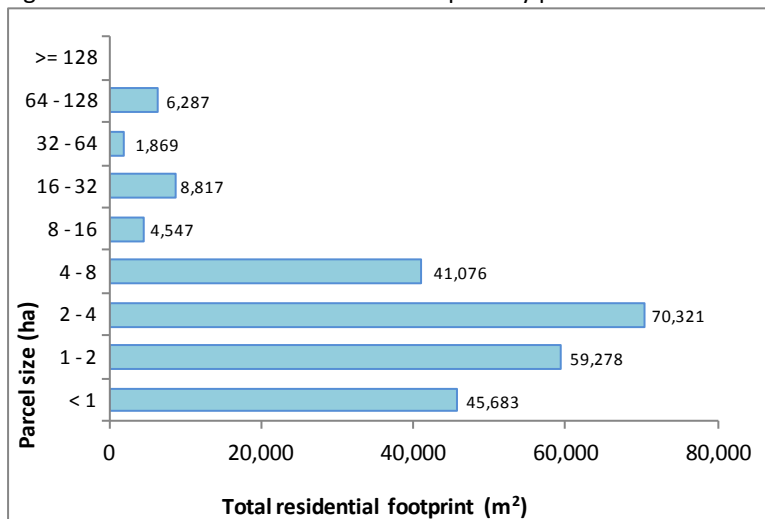


Figure 35 illustrates that there are nearly 24 hectares (237,878 m²) of ALR land in residential footprints distributed across all parcel sizes less than 128 hectares.

Forty-seven percent (47%) of the total residential footprint area is on parcels less than 4 hectares in size.

Figure 36. Proportion of parcels with residences by parcel size

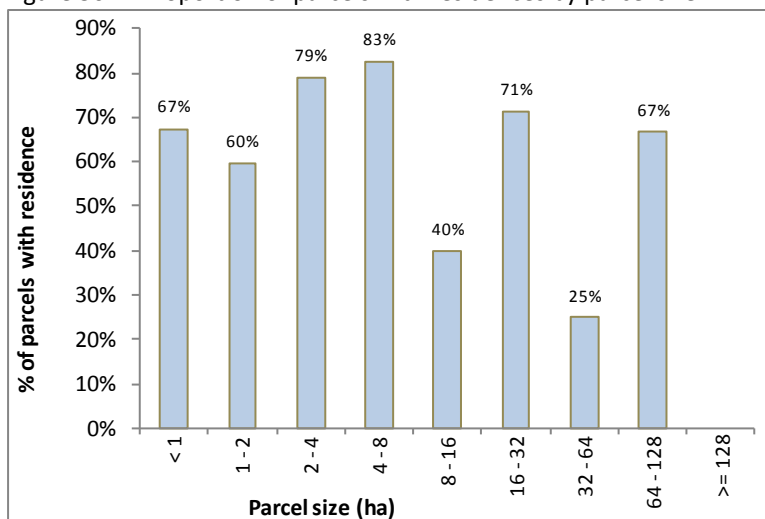


Figure 36 shows that there is a high proportion of parcels with residences across most parcel sizes in the ALR.

There are no parcels >=128 hectares.

Figure 37. Average percent of parcel area in residential footprint by parcel size

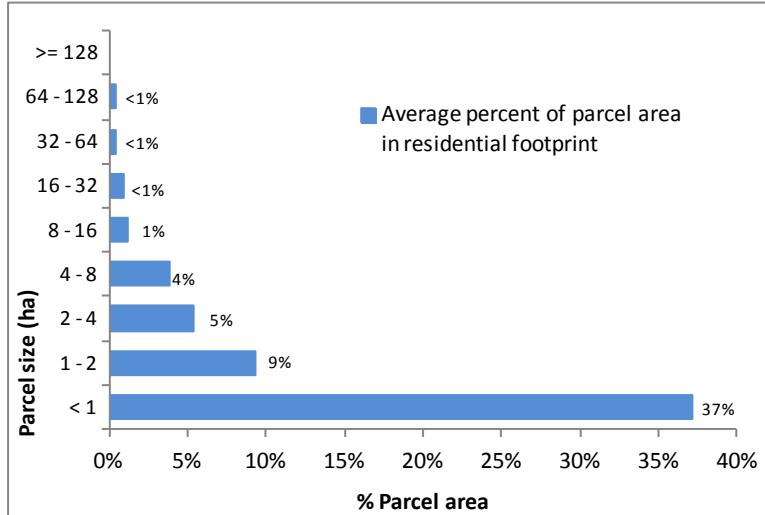


Figure 37 demonstrates that residential footprints on smaller parcels use a much greater proportion of the parcel area than those on larger parcels.

Figure 38. Average total area in residential footprint by parcel size

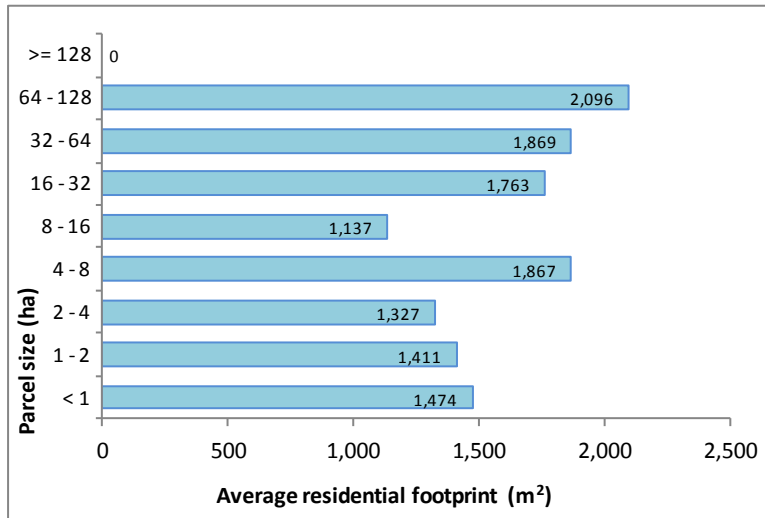
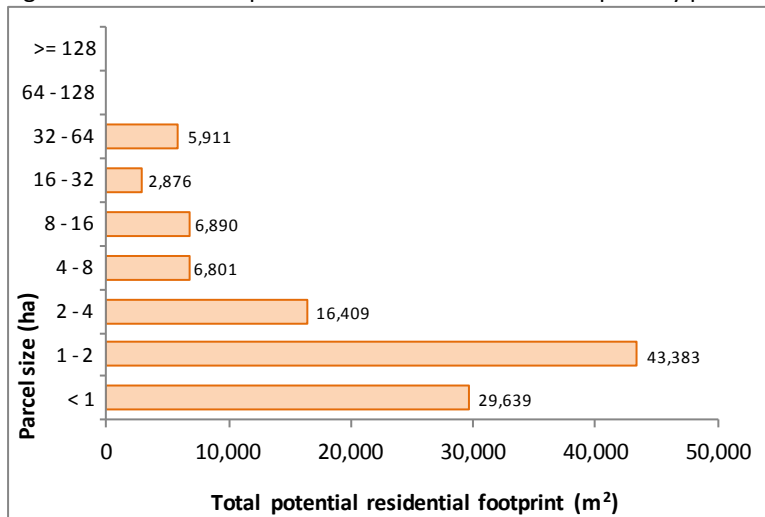


Figure 38 illustrates that even though residential footprints on small parcels use a greater proportion of the parcel area, the average size of the footprint is similar compared to the footprint on larger parcels.

Figure 39. Total and potential area in residential footprint by parcel size



There are 65 parcels in the ALR that are "Used for farming" or "Not used for farming but available" that do not yet have a residence (Refer to Table 15).

If all 65 parcels built a residence using the average percent of parcel area in residential footprint presented above, Figure 39 shows that an additional 11 hectares (111,909 m²) of ALR land would be permanently removed from potential production.

Table 17. Main agriculture activity and largest residence on parcels "Used for farming" in the ALR

Main agricultural activity	Largest residence on the parcel					Number of parcels
	Single mobile home	Small house	Medium house	Large house	Estate house	
Livestock	-	5	8	-	-	13
Forage & pasture	1	3	3	3	-	10
Equine	-	2	1	3	-	6
Nursery & tree plantations	-	1	-	-	-	1
Tree fruits	-	-	-	1	-	1
<b>TOTAL PARCELS</b>	<b>1</b>	<b>11</b>	<b>12</b>	<b>7</b>	<b>-</b>	<b>31</b>

There are 31 parcels with residences that are "Used for farming" in the ALR (refer to Table 16).

Table 17 shows that large houses occur most frequently on parcels with forage & pasture fields or equine activities as the main agricultural activity.

Table 18. Main agriculture activity on "Used for farming" parcels with large residences in the ALR

Main agricultural activity	Parcels with "Large" residences			
	Number of parcels	Crop area utilized (ha)	Average % of parcel area in crop	Average parcel area (ha)
Forage & pasture	3	20	83 %	8
Equine	3	11	89 %	4
Tree fruits	1	1	44 %	2
<b>TOTAL</b>	<b>7</b>	<b>32</b>		

Table 18 illustrates that there are 7 parcels with large residences in the ALR that are "Used for farming". These residences are associated with a combined area of 32 hectares of agricultural activity.



# Appendix A

## CULTIVATED FIELD CROPS

Table A1. Distribution of crop field sizes for all cultivated land

Crop area (ha)	Number of crop fields							Total number
	Forage & pasture	Nursery & tree plantations	Vines & berries	Tree fruits	Other*	Mixed vegetables	Floriculture	
< 1	84	10	8	3	1	3	2	111
1 - 2	48	4	-	-	-	-	1	53
2 - 4	24	3	1	-	1	-	1	30
4 - 8	8	1	-	-	-	-	-	9
8 - 16	6	-	-	-	-	-	-	6
16 - 32	4	-	-	-	-	-	-	4
32 - 64	3	-	-	-	-	-	-	3
64 - 128	-	-	-	-	-	-	-	-
>= 128	-	-	-	-	-	-	-	-
<b>TOTAL NUMBER OF FIELDS</b>	<b>177</b>	<b>18</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>216</b>
<b>AVERAGE CROP AREA (ha)</b>	<b>3 ha</b>	<b>1 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>2 ha</b>	<b>&lt; 1 ha</b>	<b>1 ha</b>	<b>3 ha</b>
<b>MEDIAN CROP AREA (ha)</b>	<b>1 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>2 ha</b>	<b>&lt; 1 ha</b>	<b>1 ha</b>	<b>&lt; 1 ha</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>6 ha</b>	<b>7 ha</b>	<b>5 ha</b>	<b>3 ha</b>	<b>3 ha</b>	<b>4 ha</b>	<b>2 ha</b>	<b>6 ha</b>

\* Other includes fallow land (cultivated land that has not been seeded or planted for one or more growing season) and land planted in cover grass to manage soil moisture/erosion associated with a cultivated crop.

Table A2. Distribution of forage & pasture fields

Field size (ha)	Number of forage & pasture fields				Total number
	Forage	Pasture	Unmaintained*	Unused **	
< 1	5	73	6	2	86
1 - 2	6	43	1	-	50
2 - 4	3	20	1	-	24
4 - 8	4	6	-	-	10
8 - 16	4	6	-	-	10
16 - 32	2	1	-	-	3
32 - 64	3	-	-	-	3
64 - 128	-	-	-	-	-
>= 128	-	-	-	-	-
<b>TOTAL NUMBER OF FIELDS</b>	<b>27</b>	<b>149</b>	<b>8</b>	<b>2</b>	<b>186</b>
<b>AVERAGE CROP AREA (ha)</b>	<b>9 ha</b>	<b>2 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>3 ha</b>
<b>MEDIAN CROP AREA (ha)</b>	<b>3 ha</b>	<b>1 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>1 ha</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>24 ha</b>	<b>5 ha</b>	<b>3 ha</b>	<b>1 ha</b>	<b>6 ha</b>

\* Unmaintained refers to forage or pasture which has not been maintained for several years.

\*\* Unused refers to forage or pasture which has not been cut or grazed during the current growing season.

Table A3. Distribution of nursery &amp; tree plantation fields

Field size (ha)	Number of nursery activities			Number of tree plantation activities				Nursery or tree plantation unknown	Total number
	Nursery	Cedar hedging	Nursery total	Tree plantation	Christmas trees	Holly	Plantation total		
< 1	2	-	2	2	4	1	7	1	10
1 - 2	1	1	2	1	1	-	2	-	4
2 - 4	1	-	1	1	1	-	2	-	3
4 - 8	-	-	-	-	-	-	-	1	1
8 - 16	-	-	-	-	-	-	-	-	-
16 - 32	-	-	-	-	-	-	-	-	-
32 - 64	-	-	-	-	-	-	-	-	-
64 - 128	-	-	-	-	-	-	-	-	-
>=128	-	-	-	-	-	-	-	-	-
<b>TOTAL ACTIVITY COUNT</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>18</b>
<b>AVERAGE CROP AREA (ha)</b>	<b>1 ha</b>	<b>1 ha</b>	<b>1 ha</b>	<b>1 ha</b>	<b>1 ha</b>	<b>&lt; 1 ha</b>	<b>1 ha</b>	<b>3 ha</b>	<b>1 ha</b>
<b>MEDIAN AREA (ha)</b>	<b>1 ha</b>	<b>1 ha</b>	<b>1 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>&lt; 1 ha</b>	<b>3 ha</b>	<b>&lt; 1 ha</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>5 ha</b>	<b>2 ha</b>	<b>4 ha</b>	<b>3 ha</b>	<b>4 ha</b>	<b>1 ha</b>	<b>3 ha</b>	<b>31 ha</b>	<b>7 ha</b>

## LIVESTOCK

Table A4. Distribution of livestock operations by type

Parcel size (ha)	Type of activity										Total number of activities
	Beef	Dairy	Poultry	Swine	Sheep / lamb / goat	Llama / alpaca	Deer, fallow	Unknown livestock *	Inactive	Equine	
< 1	-	-	1	-	-	-	-	-	-	9	10
1 - 2	6	-	4	1	5	3	-	4	-	35	58
2 - 4	10	-	9	-	7	4	-	4	-	28	62
4 - 8	2	-	2	-	2	2	1	2	-	8	19
8 - 16	2	-	1	-	-	-	-	1	-	2	6
16 - 32	2	-	-	-	-	-	-	-	-	2	4
32 - 64	-	-	-	-	-	-	-	1	-	-	1
64 - 128	-	1	-	-	-	-	-	-	1	-	2
>= 128	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL NUMBER OF ACTIVITIES</b>	<b>22</b>	<b>1</b>	<b>17</b>	<b>1</b>	<b>14</b>	<b>9</b>	<b>1</b>	<b>12</b>	<b>1</b>	<b>84</b>	<b>162</b>
<b>MEDIAN PARCEL SIZE (ha)</b>	<b>3 ha</b>	<b>67 ha</b>	<b>2 ha</b>	<b>1 ha</b>	<b>2 ha</b>	<b>2 ha</b>	<b>8 ha</b>	<b>2 ha</b>	<b>65 ha</b>	<b>2 ha</b>	<b>2 ha</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>6 ha</b>	<b>67 ha</b>	<b>3 ha</b>	<b>1 ha</b>	<b>3 ha</b>	<b>3 ha</b>	<b>8 ha</b>	<b>8 ha</b>	<b>65 ha</b>	<b>3 ha</b>	<b>5 ha</b>

\* Unknown livestock is where livestock structures were present but the specific type of livestock could not be determined.

Table A5. Beef activities

Scale of Beef Activity	By parcel		Total number of activities	By activity type	
	Main type	Secondary type		Intensive	Non Intensive
Very small scale (1 cow)	1	-	1	-	1
Small scale (2-25 cattle)	19	-	19	-	19
Medium scale (2-25 cattle)	2	-	2	-	2
<b>TOTAL</b>	<b>22</b>	<b>-</b>	<b>22</b>	<b>-</b>	<b>22</b>

"Main Type" and "Secondary Type" of livestock are determined by comparing the scale of different livestock activities on the parcel and does not represent primary agricultural activity.

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

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

Table A6. Distribution of beef activities by parcel size and scale

Parcel size (ha)	Scale of beef activities				Total number of activities
	Very small (1 cow)	Small (2-25 cattle)	Medium (25-100 cattle)	Large (> 100 cattle)	
< 1	-	-	-	-	-
1 - 2	-	6	-	-	6
2 - 4	1	9	-	-	10
4 - 8	-	2	-	-	2
8 - 16	-	2	-	-	2
16 - 32	-	-	2	-	2
32 - 64	-	-	-	-	-
64 - 128	-	-	-	-	-
>= 128	-	-	-	-	-
<b>TOTAL NUMBER OF ACTIVITIES</b>	<b>1</b>	<b>19</b>	<b>2</b>	<b>-</b>	<b>22</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>4 ha</b>	<b>4 ha</b>	<b>24 ha</b>	<b>-</b>	<b>6 ha</b>

Figure A1. Distribution of beef activities by parcel size and scale

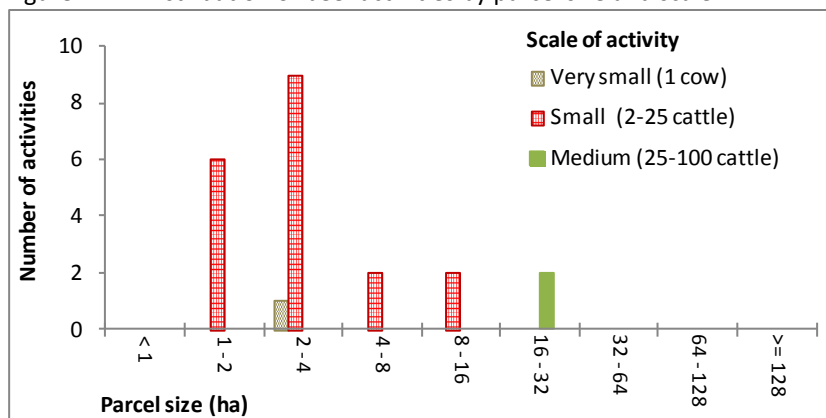
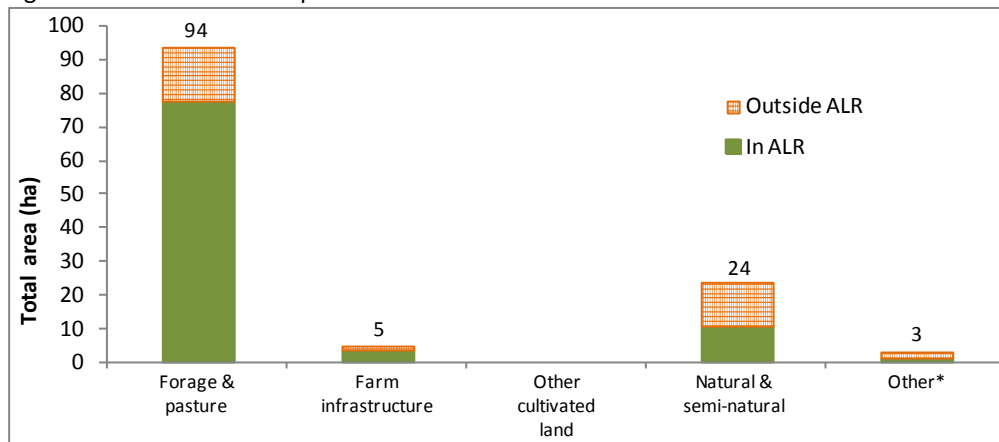


Figure A2. Land cover on parcels with beef activities



\* Other includes vegetated lands seeded or planted for landscaping, dust, or soil control but not cultivated for harvest or pasture, lands covered by built objects but not farm infrastructure, and bare areas such as piles, pits, fill dumps.

Table A7. Poultry activities

Poultry activity	Scale	By parcel		Total number of activities	By activity type	
		Main type	Secondary type		Intensive	Non intensive
Chicken	Very small scale (< 100 birds)	9	5	14	-	14
Chicken (broiler)	Medium scale (2,500 - 10,000 birds)	2	-	2	2	-
Turkey	Very small scale (< 50 birds)	1	-	1	-	1
<b>TOTAL</b>	<b>TOTAL</b>	<b>11</b>	<b>5</b>	<b>17</b>	<b>2</b>	<b>15</b>

"Main Type" and "Secondary Type" of livestock are determined by comparing the scale of different livestock activities on the parcel and does not represent primary agricultural activity.

"Intensive" livestock activities utilize specialized structures at high stocking densities.

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

Table A8. Distribution of poultry activities by parcel size and scale

Parcel size (ha)	Scale of poultry activities				Total number of activities
	Very small (< 100 birds)	Small (100 - 2,500 birds)	Medium (2,500 - 10,000 birds)	Large (> 10,000 birds)	
< 1	1	-	-	-	1
1 - 2	4	-	-	-	4
2 - 4	9	-	-	-	9
4 - 8	1	-	1	-	2
8 - 16	-	-	1	-	1
16 - 32	-	-	-	-	-
32 - 64	-	-	-	-	-
64 - 128	-	-	-	-	-
>= 128	-	-	-	-	-
<b>TOTAL NUMBER OF ACTIVITIES</b>	<b>15</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>17</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>3 ha</b>	<b>-</b>	<b>6 ha</b>	<b>-</b>	<b>3 ha</b>

Figure A3. Distribution of poultry activities by parcel size and scale

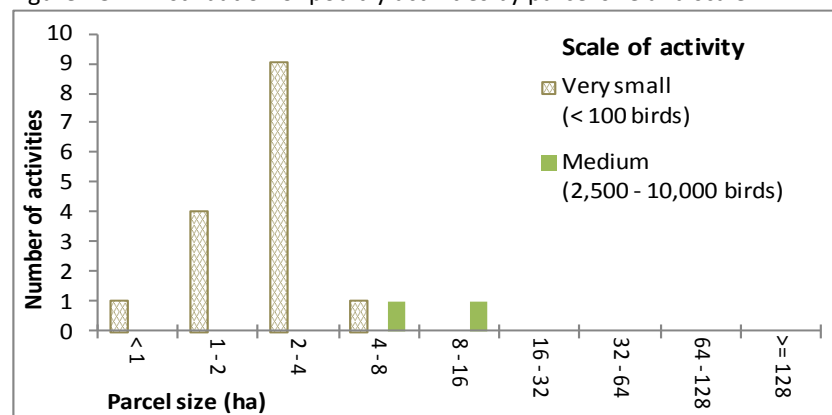
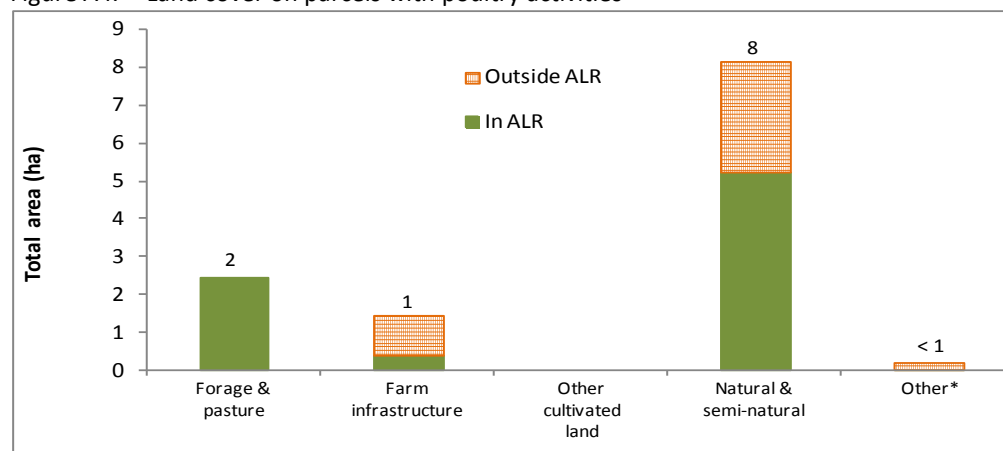


Figure A4. Land cover on parcels with poultry activities



\* Other includes vegetated lands seeded or planted for landscaping, dust, or soil control but not cultivated for harvest or pasture, lands covered by built objects but not farm infrastructure, and bare areas such as piles, pits, fill dumps.

Table A9. Sheep / lamb / goat activities

Activity	Scale	By parcel		Total number of activities	By activity type	
		Main type	Secondary type		Intensive	Non intensive
Goat	Very small scale (< 5 goats)	1	-	1	-	1
Goat	Small scale ( 5 - 125 goats)	3	-	3	-	3
Sheep / lamb	Very small scale (< 10 sheep)	3	1	4	-	4
Sheep / lamb	Small scale ( 10 - 250 sheep)	6	-	6	-	6
<b>TOTAL</b>	<b>TOTAL</b>	<b>13</b>	<b>1</b>	<b>14</b>	<b>-</b>	<b>14</b>

"Main Type" and "Secondary Type" of livestock are determined by comparing the scale of different livestock activities on the parcel and does not represent primary agricultural activity.

"Intensive" livestock activities utilize specialized structures at high stocking densities.

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

Table A10. Distribution of sheep / lamb / goat activities by parcel size and scale

Parcel size (ha)	Scale of sheep/ lamb/ goat activities				Total number of activities
	Very small (5 goats or 10 sheep)	Small (5-125 goats or 10-250 sheep)	Medium (125-500 goats or 250- 1000 sheep)	Large (>500 goats or >1000 sheep)	
< 1	-	-	-	-	-
1 - 2	1	4	-	-	5
2 - 4	3	4	-	-	7
4 - 8	1	1	-	-	2
8 - 16	-	-	-	-	-
16 - 32	-	-	-	-	-
32 - 64	-	-	-	-	-
64 - 128	-	-	-	-	-
>= 128	-	-	-	-	-
<b>TOTAL NUMBER OF ACTIVITIES</b>	<b>5</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>14</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>3 ha</b>	<b>3 ha</b>	<b>-</b>	<b>-</b>	<b>2 ha</b>

Figure A5. Distribution of sheep / lamb / goat activities by parcel size and scale

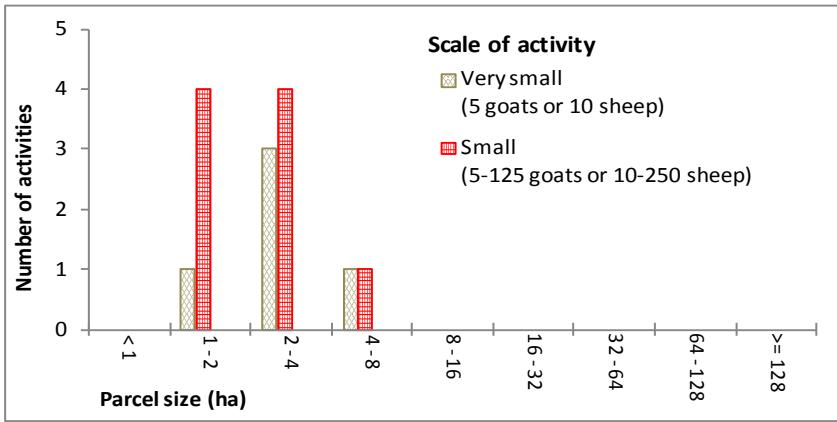
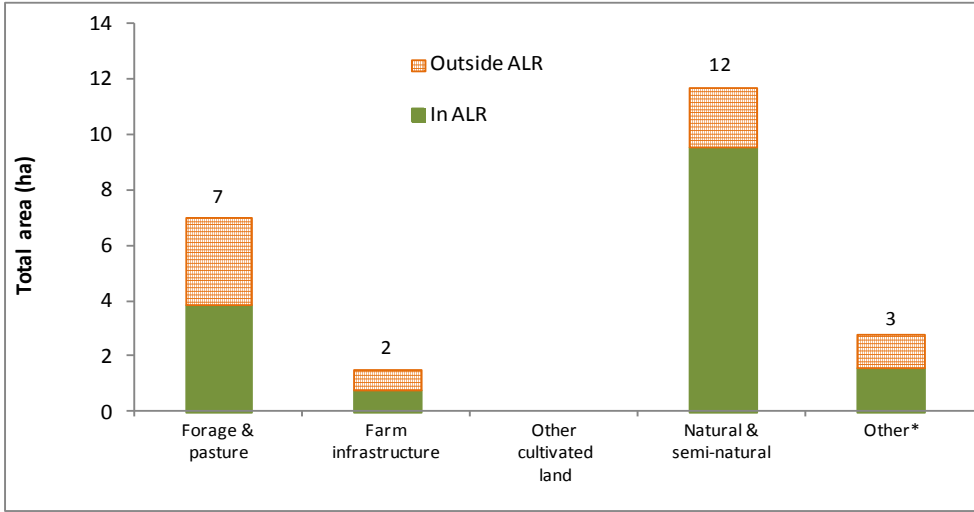


Figure A6. Land cover on parcels with sheep / lamb / goat activities



\* Other includes vegetated lands seeded or planted for landscaping, dust, or soil control but not cultivated for harvest or pasture, lands covered by built objects but not farm infrastructure, and bare areas such as piles, pits, fill dumps.

Table A11. Equine activities

Type of activity	Scale of equine activity	By parcel		Total number of activities	By activity type	
		Main Type	Secondary Type		Intensive	Non intensive
	Very small scale (1 horse)	22	2	24	-	24
	Small scale (2-25 horses)	57	1	58	-	58
Boarding	Small scale (2-25 horses)	1	-	1	-	1
	Medium scale (25 - 100 horses)	1	-	1	-	1
<b>TOTAL</b>	<b>TOTAL</b>	<b>81</b>	<b>3</b>	<b>84</b>	<b>-</b>	<b>84</b>

"Main Type" and "Secondary Type" of livestock are determined by comparing the scale of different livestock activities on the parcel and does not represent primary agricultural activity.

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

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



Table A12. Distribution of equine activities by parcel size and scale

Parcel size (ha)	Scale of equine activities				Total number of activities
	Very small (1 - 2 equine)	Small (2 - 25 equine)	Medium (25 - 100 equine)	Large (> 100 equine)	
< 1	3	6	-	-	9
1 - 2	11	23	1	-	35
2 - 4	10	18	-	-	28
4 - 8	-	8	-	-	8
8 - 16	-	2	-	-	2
16 - 32	-	2	-	-	2
32 - 64	-	-	-	-	-
64 - 128	-	-	-	-	-
>= 128	-	-	-	-	-
<b>TOTAL NUMBER OF ACTIVITIES</b>	<b>24</b>	<b>59</b>	<b>1</b>	<b>-</b>	<b>84</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>2 ha</b>	<b>3 ha</b>	<b>2 ha</b>	<b>-</b>	<b>2 ha</b>

Figure A7. Distribution of equine activities by parcel size and scale

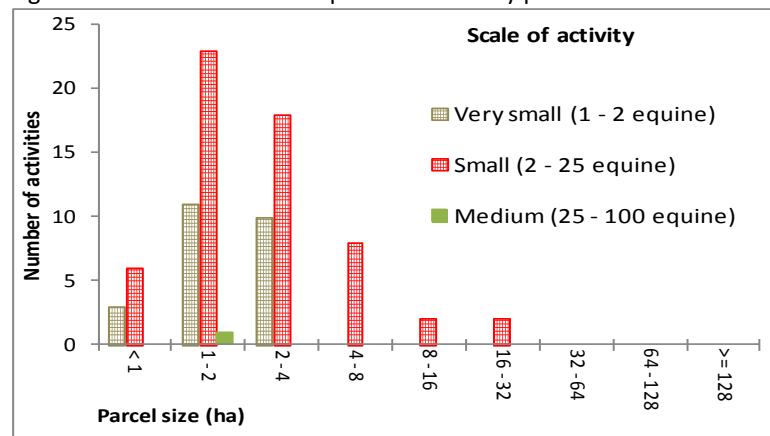
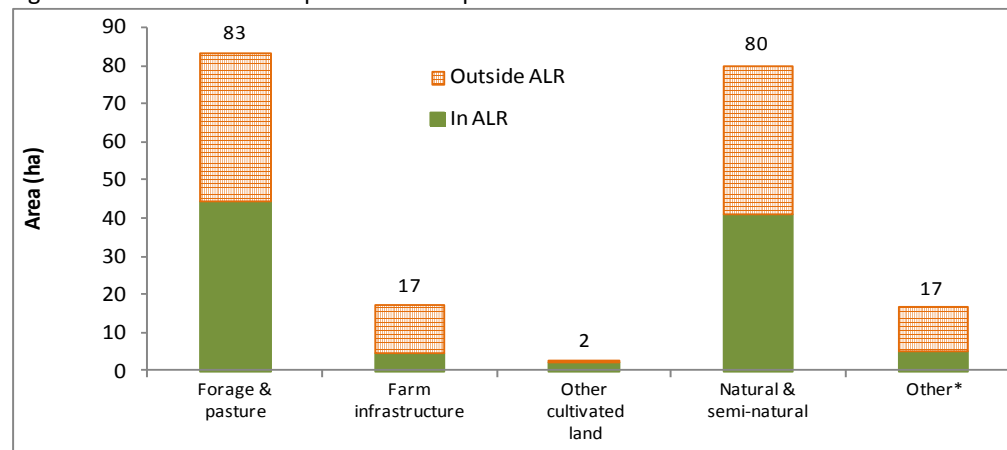


Figure A8. Land cover on parcels with equine activities



\* Other includes vegetated lands seeded or planted for landscaping, dust, or soil control but not cultivated for harvest or pasture, lands covered by built objects but not farm infrastructure, and bare areas such as piles, pits, fill dumps.

## VALUE ADDED

Table A13. Value added activities

Value added	Description	Scale of activity			Total number of activities	Average parcel size (ha)
		Small scale	Medium scale	Large scale		
Agritourism	Seasonal events	1	-	-	1	2
Direct sales	Other (U-fish, horse sales)	-	2	-	2	3
Direct sales	Permanent retail store	2	3	-	5	3
Direct sales	Seasonal store (stand)	6	-	-	6	2
Direct sales	U-cut trees	-	3	-	3	3
TOTAL NUMBER OF ACTIVITIES		9	8	-	17	13

Table A14. Distribution of value added activities by parcel size

Parcel size (ha)	Agri-tourism	Direct Sales				Total number of activities
	Seasonal events	Permanent retail store	Seasonal store (stand)	U-cut trees	Other (U-fish, horse sales)	
< 1	-	-	-	-	-	-
1 - 2	1	-	1	2	-	4
2 - 4	-	4	5	-	1	10
4 - 8	-	1	-	1	1	3
8 - 16	-	-	-	-	-	-
16 - 32	-	-	-	-	-	-
32 - 64	-	-	-	-	-	-
64 - 128	-	-	-	-	-	-
>= 128	-	-	-	-	-	-
TOTAL NUMBER OF ACTIVITIES	1	5	6	3	2	17
AVERAGE PARCEL SIZE (ha)	2 ha	3 ha	2 ha	3 ha	3 ha	3 ha

Table A15. Distribution of direct sales by parcel size and scale

Parcel size (ha)	Permanent retail store		Seasonal store (stand)		U-cut trees	Other*	Total number of activities
	Small scale	Medium scale	Small scale	Medium scale	Medium scale	Medium scale	
< 1	-	-	-	-	-	-	-
1 - 2	-	-	1	-	2	-	3
2 - 4	1	3	5	-	-	1	10
4 - 8	1	-	-	-	1	1	3
8 - 16	-	-	-	-	-	-	-
16 - 32	-	-	-	-	-	-	-
32 - 64	-	-	-	-	-	-	-
64 - 128	-	-	-	-	-	-	-
>= 128	-	-	-	-	-	-	-
TOTAL NUMBER OF ACTIVITIES	2	3	6	-	3	2	16
AVERAGE PARCEL SIZE (ha)	3 ha	3 ha	2 ha	-	3 ha	3 ha	3 ha

\* Other includes one U-fish and one horse sale value-added activity.

Table A16. Distribution of agritourism events by parcel size and scale

Parcel size (ha)	Seasonal events	Total number of activities
	Small scale	
< 1	-	-
1 - 2	1	1
2 - 4	-	-
4 - 8	-	-
8 - 16	-	-
16 - 32	-	-
32 - 64	-	-
64 - 128	-	-
>= 128	-	-
<b>TOTAL NUMBER OF ACTIVITIES</b>	<b>1</b>	<b>1</b>
<b>AVERAGE PARCEL SIZE (ha)</b>	<b>2 ha</b>	<b>2 ha</b>