

Gabriola Island Community Profile



April 2010

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ACKNOWLEDGEMENTS

Malaspina University-College, located in Nanaimo, BC, operates a well respected Geography program that includes a concentration in urban growth management. In January 2008, members of the geography faculty at Malaspina and staff of the Island Trust arranged an opportunity for the senior level students of Geography 446, Issues in Urban Growth Management, to undertake a real community project. The project was to research and construct a community profile for Gabriola Island that would serve as background information for the formal review of the Gabriola Island's Official Community Plan.

Malaspina University-College and its students and faculty have expressed thanks to the Islands Trust and Planner Chris Jackson for the opportunity to participate in this project. The Islands Trust has also expressed thanks to the Geography 446 students and Malaspina University-College (now Vancouver Island University) for the arrangement and compilation of an insightful and comprehensive profile.

This Community Profile is a revised version of the original created by the students of Geography 446. It has been revised to reflect additional comments and suggestion from the Advisory Planning Commission, input from consultation with Gabriola Islanders and updated statistics and figures where available. It has been reorganized to be better used in the Official Community Plan Review process which will prepare issue papers related to the various topics addressed in this profile.

This report also acknowledges the Snuneymuxw First Nation and the Coast Salish people and the traditional territory of these people and their contribution to the history of the area and their contribution to this document.



Figure 1

Official Community Plan

1. INTRODUCTION

The purpose of this Community Profile is to identify key characteristics and background information to support the review of Gabriola's Official Community Plan (OCP). Each community in the Province of British Columbia periodically reviews their OCP to ensure that future plans for the community reflect current needs, address relevant issues and work towards community goals for the future. This document provides information to aid this community deliberation.

Gabriola Island forms a part of the traditional territory of the Snuneymuxw First Nation (SFN). Gabriola Island is home to many important historic and archaeological sites of the Snuneymuxw First Nation. The SFN also have many active and current interests on Gabriola, including: reserve lands, aquaculture licenses, treaty negotiations, archaeological/cultural concerns, recreational, educational, food security, housing, water, community planning and community networking and support. Gabriola has been identified within the SFN's Statement of Intent for Treaty Negotiations.

Albeit there is not a Coast Salish name for the island of Gabriola itself, there are many Coast Salish place names for the attributes on Gabriola. Sadly, for a variety of reasons, the use of these names is disappearing. The name of Gabriola Island is an adaptation of the Spanish name Punta de Gaviola, which first appeared on the 1791 Eliza chart drawn in San Blas (Mexico). Although the naming is frequently attributed to José Narvaez, this article argues the case for it having been assigned by Juan Bodega y Quadra. It was probably named after Simon de Gaviola y Zabala. That Gaviola is a corruption of Gaviota (sea gull) is a 20th-century myth. (ref. SHALE No.13 (June 2006))

In 1792, two more Spanish explorers, Galiano and Valdez, took refuge from a storm in a bay they named Cala Descanso, Small Bay of Rest, for the help it had given them. The exploration by the Spanish navy has been noted as the first written contact on Gabriola with the Snuneymuxw peoples and non-natives. In these early days, the explorers commented on both the beauty of the island and the lack of water.

Gabriola is home to approximately 4,500 full-time residents and double that amount of seasonal residents and visitors during the warm, dry summer months. The island topography ranges from sandy beaches to forested hillsides. There are 45 kilometres of

shoreline, three provincial parks, regional parks, a nature reserve and a plethora of community parks located on the island. These bountiful recreation opportunities are accompanied by local farms, a thriving arts and culture community and a diverse range of small businesses. This document will offer some insight into the unique features of this dynamic and beautiful island.

2. SETTING

2.1 Location

Gabriola, the northernmost southern Gulf Island, is located in the Strait of Georgia, between Vancouver Island and the mainland of British Columbia. The closest major city is the City of Nanaimo located 6 kilometres away by a 20 minute ferry ride.

The island has an area of 5,256 hectares and is approximately 14 kilometres in length and 4.2 kilometres wide. The maximum elevation on the island is at 160 metres above sea level. This high point is found on Stony Ridge near the centre of the island in a 707 acre regional park.

Gabriola is separated from Vancouver Island on the southwest side by Northumberland Channel, Mudge Island in the middle, and a short crossing between Mudge and Gabriola known as False Narrows. From the northern most tip of Gabriola, Entrance Island and Snake Island are visible. Entrance Island is located approximately two kilometres north and is equipped with a light station to direct ferries into Departure Bay on Vancouver Island. Gabriola Passage separates the southeast tip of Gabriola from Valdes Island. The Flat Top Islands and Breakwater Island are located southeast of Gabriola and provide a picturesque backdrop for Silva Bay.



Figure 2
Gabriola Island
Salish Sea

2.2 Coastline

Gabriola has a number of distinct bays. Clockwise starting from the southeast they are:

- Silva Bay which houses the island's two marinas; Silva Bay Marina and Resort, a small motel and retail stores and Paige's Marina
- Drumbeg (a provincial park) and Degnen Bay to the southwest
- Descanso Bay, home of the BC Ferries terminal in the northwest
- Descanso Bay regional campground encompasses three beautiful bays east of the ferry terminal
- Taylor Bay and Pilot Bay on the north end are affectionately known as Twin Beaches and together form Gabriola Sands Provincial Park
- Clarke Bay to the northwest frames the northern views from in front of historic Surf Lodge along Berry Point Road
- Leboeuf and Lock Bay provide inland detours just around the corner from Orlebar Point
- Beyond Orebar Point, the shoreline straightens out and provides long stretches of sand beach at Sandwell Provincial Park and Whalebone Beach

2.3 Physical Characteristics

The island has three provincial parks which highlight the exquisite physical environment of Gabriola.

- Gabriola Sands Provincial Park is located on the northwest shore on an isthmus that divides the two sandy beaches of Taylor Bay and Pilot Bay.
- Sandwell Provincial Park is located south of Lock Bay on the northwest coast of the island and includes a long beach with shoreline features that range from small pebbles to smooth sand. This park offers beautiful views of the Strait of Georgia.
- Drumbeg Provincial Park is located on the southeastern side of the island and overlooks Gabriola Passage. It features sandstone outcroppings and a small pebbly bay. This park is a protection zone for Garry Oak trees and other sensitive species.

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In addition to the Provincial Parks, Gabriola has regional parks, nature reserves and community parks.

- Descanso Bay Regional Park is located just northwest of the BC Ferry terminal offers sandstone formations and a tidal mudflat.
- Malaspina Galleries can be found around the corner further northeast from this regional park. These galleries are home to the famous sandstone formations that have made their way into definitive postcards and images of the island.
- The Elder Nature Reserve is a 645 ha public forest.

There are many community parks and paths that link communities and provide beach and ocean access such as the community parks in the Whalebone area.

The interior of Gabriola Island alternates between Douglas fir / Cedar forests and cleared agricultural land / open meadow. Salal is a predominant low lying shrub throughout. The Douglas fir offers a distinctive sweet vanilla smell in the heat of the summer. There are a few wetlands scattered throughout the island and one lake close to the southwestern shore just below the golf course called Hoggan Lake. There are no permanent streams but many smaller seasonal watercourses.



From Flickr: pinkcanoe's photostream
<http://www.flickr.com/photos/hgillis/2619912082/>

Figure 3.
Terrain and Surface Water

2.4 Geology

The Island of Gabriola has many unique geologic features shaped by a few different physical processes.

The island is believed to have formed over 55 to 42 million years ago as plate tectonic activities transformed the region. These plate movements pushed seabed sediments towards the mainland with massive pressure. As a result, Gabriola's geology has a characteristic bent U shape.

The numerous cliffs, points, and bays are attributed to past glacial activity and erosional processes. The Fraser glaciation event influenced the region between 11,000-13,000 years ago, long after the island was formed.

Gabriola is entirely made up of sedimentary rocks, ranging from sandstone to shale, which formed on the sea floor over a period of millions of years during the late Cretaceous Period. These sedimentary rocks form the Nanaimo Group and are divided into four formations:

- The Northumberland formation is a massive mudstone layer with thinner imbedded sandstone layers. This formation forms the base of the island and is visible along parts of the coast.
- The Geoffrey formation, found above the Northumberland formation, includes a massive conglomerate imbedded with medium-grained sandstone and mudstone layers.
- The Spray formation, found above the Geoffrey formation, is composed of thick mudstone layers parallel to underlain massive sandstone beds.
- The Gabriola formation is the upper-most layer of the island and is visible in most rock outcrops found near the centre of the island. The Gabriola formation is similar in composition to the conglomerate of the Geoffrey formation, but has thinner sandstone layers.

The Malaspina galleries, located at the northwest tip of the island, offer a glimpse of the unique layers within the island sandstone as well as the erosional effects of wave action.

The geology of Gabriola is of extreme importance in understanding issues of groundwater supply. Natural Resources Canada developed a waterscapes poster to graphically explain how to manage land use in ways that protect our water supply. A version of this poster can be found online: http://geoscape.nrcan.gc.ca/h2o/gulf/index_e.php.



From Flickr: Danthon's photo stream
<http://www.flickr.com/photos/danthon/2265899842/>

Gabriola Community Profile

Figure 4.

Gabriola Geology

2.5 Climate

Gabriola Island's climate data can be dated back to 1967 but the recordings show several inconsistencies. The data recorded from 1967-1983 is only for total monthly precipitation which includes rainfall and snowfall. The earliest temperature recordings obtained are from March 1983. The tables in this section that represent yearly precipitation and temperature fluctuations depict information for years that data was available in order to provide a broad context. For some time climate data was captured on an Environment Canada station on the north end of Gabriola Island, until that station was closed for budgetary reasons. Island specific climate data is still collected on the south end of the island by a local resident. Information recorded at Environment Canada's Nanaimo station as found in the Canadian Climate Normals 1971-2000 database provides the source of information that guides the discussion portion of this document.

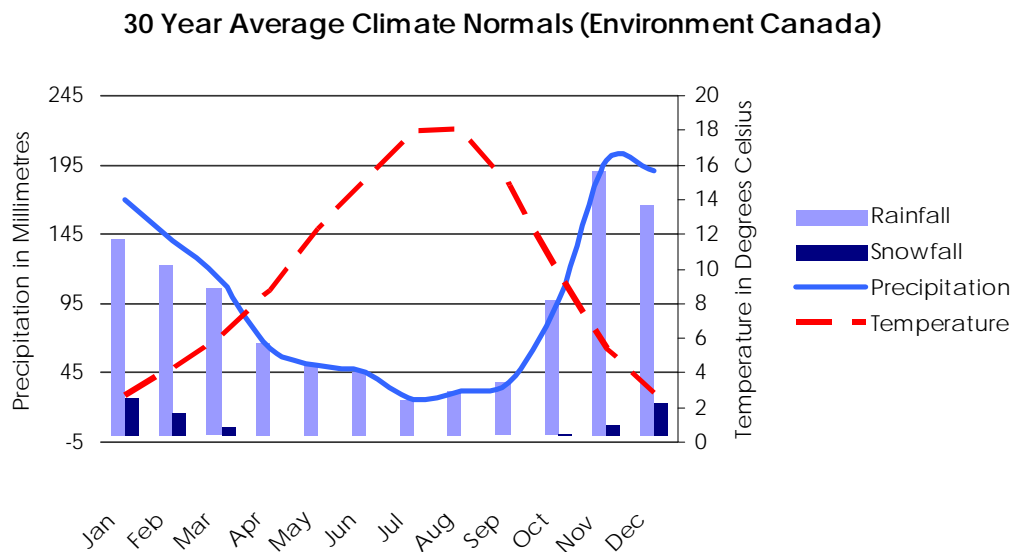


Figure 5: Average climate profile for Gabriola Island

The figures from the Nanaimo station are not wholly representative of Gabriola's climate as Gabriola receives both milder winters and summers because of the surrounding ocean's moderating effects. Gabriola also contains many distinctive microclimates from the cooler interior forested areas that receive more winter snow, to the southern regions with southerly aspects

that receive more sun, and because of this exposure, earlier blooms in the spring and a longer growing season. Gabriola is a fairly “dry” island because Mount Benson offers a localized rain shadow effect and many storms pass-by until they reach the higher altitude hills and mountains of the mainland.

Gabriola Island has a mild temperate climate that is characterized by cool winters and mild-to-warm summers. On average, the Island receives approximately 924mm of precipitation (Figure 1), usually as rainfall and, in some cases, as trace snow amounts. The temperatures remain relatively consistent year-to-year, depending on the time of year, and rarely reaching extreme temperatures. It has a similar climate to that of Nanaimo; its temperature only slightly warmer during the winter and cooler in the summer due to the ocean’s moderating effect. See Figure 2 for climate trends.

Winter temperatures are cool with wet weather, and bring approximately 373mm of precipitation. Snowfall represents only a trace amount of the total, with an approximate total of 39.7cm. The daily average temperature during the winter months is 3.4°C, with recorded values as low as -16°C (January 1996) and as high as 15°C (February 1986). The variable winter climate could be related to recent climate change or periodic trends, such as El Nino.

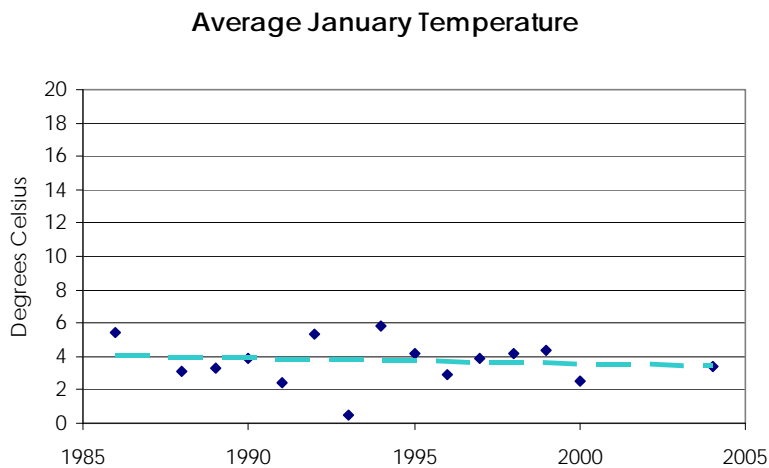


Figure 6 Average January Temperature for Gabriola Island

The spring months on Gabriola are mild, and bring about 189mm of precipitation. Snow has been seen in March, but in very little amounts and little accumulation. The daily average temperature for the spring is 8.7°C. The temperatures increase during the spring up to an average of 11.7°C by the end of May.

Average March Temperatures

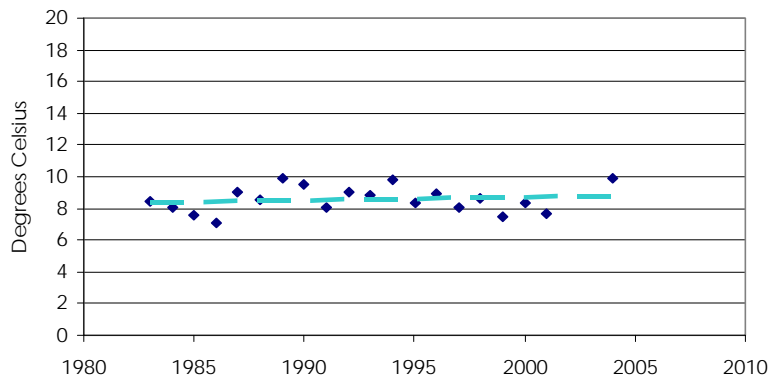


Figure 7 Average March Temperatures for Gabriola Island

The summer months are warm and bring minimal amounts of precipitation as compared to the rest of the year. Average monthly rainfall in the summer reaches a total of approximately 95.1mm. The most precipitation occurs in June, and the remainder falls equally spread out over the rest of the summer months. The daily average temperature of Gabriola during the summer is 16°C and rarely reaches above 22°C. A maximum recorded temperature of 32°C occurred in July of 1994.

Average July Temperatures

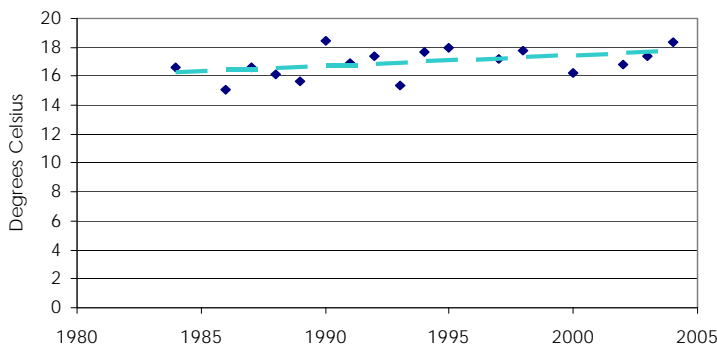


Figure 8 Average July Temperatures for Gabriola Island

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September remains generally mild with a daily average temperature of 13.8°C. The average temperature for the fall season is around 9.5°C. Precipitation levels increase in October, and bring approximately 266mm of precipitation. As temperatures get cooler precipitation occasionally begins to fall as snow.

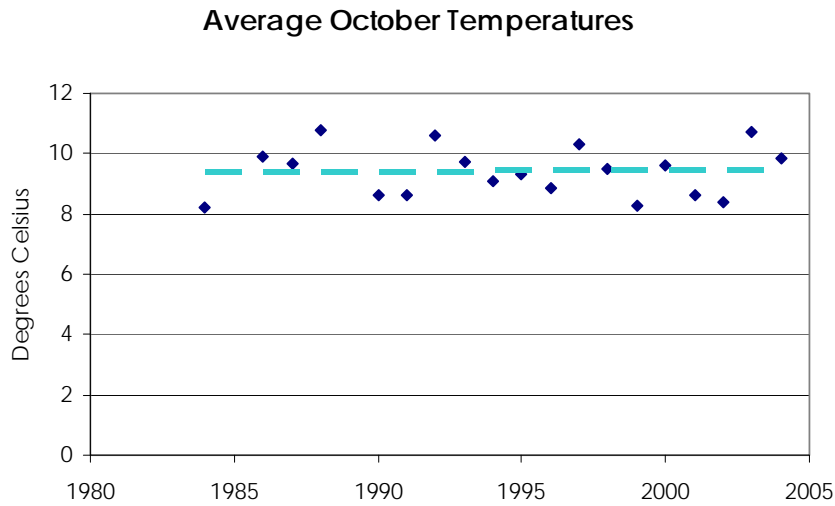


Figure 9 Average October Temperatures for Gabriola Island



2.6 Environment

2.6.1 Local Species

Sea creatures near Gabriola include orcas, sea lions, seals, otters, wolf eels, octopuses, and salmon, as well as a variety of shellfish including oysters, mussels, and clams. In the winter months, the coast of Gabriola is visited by many species of waterfowl such as the Scoter, Bufflehead, Barrow’s Goldeneye, and Harlequin Duck. Shorebirds such as the Black Turnstone and Ruddy Turnstone frequent the island as do garden birds such as the Ruby-crowned Kinglet, Golden-crowned Kinglet, Thrushes, Warblers, Pileated Woodpeckers, and Flickers. The Bald Eagle, European Starling, and Turkey Vulture are common year round, and the Island features a heron rookery.

Gabriola’s geographical location is on the Pacific Flyway, which is a migratory path for bird species traveling between their southern wintering areas and their northern breeding grounds. Favourable climatic conditions and available habitat make it an important wintering area for many species of water birds. More than 250 bird species live in or migrate through the Nanaimo– Gabriola area.

Terrestrial wildlife includes deer which forage on roadsides and the understorey of young forests, raccoons and the native Douglas fir squirrel. Gabriola is also home to the Red-legged frog and tree frogs.



2.6.2 Parks and Environmentally Sensitive Areas

The main protected areas with sensitive environmental features on Gabriola Island include the Bachmann Covenant, Coats Millstone Nature Reserve, Reid Chapman Covenant, Elder Cedar Nature Reserve, and Drumbeg Provincial Park. There are other provincial and regional parks and other areas on the island that also have protected status. As of 2006, 10% of the island had some form of protected status.

There are many ways to protect natural areas. Dedication as passive park reserve is the most certain. Covenants offer a means to protect significant features on private land. In the Gabriola Land Trust Area, Thetis Land Trust Area, Gambier Land Trust Area and the Southern Gulf Islands any landowner wishing to covenant a portion of their land can apply for the Natural Area Protection Tax Exemption Program. This program offers the ability for taxes to be reduced by 65% on areas of high ecological value that are designated under conservation covenants.

The Bachmann Covenant is a private 2.1 hectare area that provides home for sensitive wildlife such as the Red-legged frog and includes a mature woodland of Douglas fir and Arbutus trees.

The Coats Millstone Nature Reserve is a public 0.248 hectares area located along ridge rising above Descanso Bay. It was once used as a quarry and the remnant quarry holes offer a unique habitat refuge for aquatic species.

The Reid Chapman Covenant is private property that is home to a significant marshland that lies between two coves. The marsh area is a mix of both fresh and salt water and provides habitat to various sea creatures, plants, animals, and birds.

The Elder Cedar Nature Reserve, a 65 hectare public forestland, is composed of young and mature forests and wetlands. It is home to the endangered Western screech owl and Townsend's big-ear bat.

Drumbeg Park protects Garry oak ecosystems, undeveloped Douglas fir forest landscapes and a diverse marine environment. Garry oak ecosystems are among the most endangered in Canada and only occur on southeastern Vancouver Island and the Gulf Islands.

Drumbeg Provincial Park is a favourite spot for diving, hiking, nature viewing and picnicking. Overlooking the Gabriola Passage

on the southeast end of the Island, Drumbeg offers excellent views of the broken islands to the southeast and Valdez to the southwest. The park contains a kilometre-long sand and pebble beach with sandstone and conglomerate rock formations. The park protects endangered Garry oak ecosystems, undeveloped Douglas fir forest landscapes and a diverse marine zone. Species such as Bald eagles, Great Blue herons, harbour seals and American oystercatchers can be seen here, along with a number of intertidal creatures. Facilities at this day-use only park include a grassy field, pit toilets, picnic tables, hiking trails and an information shelter.

Species such as Bald eagles, Great Blue Herons, harbour seals and American oystercatchers can be found along the shoreline. The parks foreshore protects salt water marine values along the edges of fast moving Gabriola Passage.

This passage is part of a rock cod conservation area that was designated to protect rock fish rearing, extensive eel grass, over 230 species of algae, sponges, molluscs, sea stars, crustaceans, worms, fish and marine mammals.

Gabriola Sands Park, also known as Twin Beaches, features two sandy beaches and a large open field. This small day-use only park is a very popular local destination for swimming, picnicking, organized sporting activities and special events, including an annual fireworks display on Hallowe'en. The park's two sandy beaches form an isthmus that divides Taylor Bay and Pilot Bay. This isthmus provides important ecosystems for migratory and breeding shorebirds and many marine invertebrates that live in the sand. Sandwell Provincial Park has long beach with southern sandy portions and northern pebbly portions. It offers views of the Strait of Georgia and is a favourite destination for residents and visitors to Gabriola Island. Sandwell beach is accessed by a short walking trail through the woods.

2.6.3 Ecosystem Mapping

The ecosystems of Gabriola Island have been mapped in order to understand the extent of significant natural systems such as: Mature Forests, Cliff areas, Wetlands, Herbaceous zones and other sensitive ecological complexes that define the island habitat. Map 5: Ecosystem mapping shows a view of the distribution and extent of these natural ecosystems. This information helps with parks and protected areas planning and provides the ability to track the health of the natural environment over time.

Gabriola Community Profile



Figure 10
Ecosystem Mapping on Gabriola Island.

3 PEOPLE

3.1 First Nations

Gabriola Island has a rich history, beginning with the First Nations inhabitants. Both physical evidence and oral history indicate that the First Nations had permanent and seasonal occupation of Gabriola Island prior to European contact. Villages on Newcastle Island and Gabriola were home to the First Nations people as they gathered food from ample supplies of shellfish, cod and other resources from the bountiful ocean. Deer and Elk were hunted on the island. Degnen Bay and Indian Point (known as t'hit'hw'utquson in the Hul'qumi'inum language) are two locations where settlement was well defined.

3.1.1 General

Gabriola Island and surrounding areas form part of the Snuneymuxw First Nation (SFN). The Snuneymuxw are a Coast Salish people who speak the Hul'qumi'inum language.

The SFN has a core Traditional Territory of approximately 98,000 hectares located primarily in the Nanaimo River watershed and including islands on the coast of Nanaimo. A further 100,000 hectares of land comprises territory shared with other First Nations. Of this Traditional Territory, the SFN has 266 hectares of Indian Reserve Land: four located on Vancouver Island and two located on Gabriola Island near Degnen Bay.

3.1.2 Historic

SFN has had a significant historic past on Gabriola. Gabriola has been home to Snuneymuxw for approximately four thousand years.

The Traditional Territory includes several village sites, of particular importance is an especially large village on Gabriola Island and Mudge Island at the False Narrows. Evidence of this village is in the historic records as well as the prehistoric records with evidence of large shell middens along the shoreline of the Narrows. In historic times, Snuneymuxw used this village as a

seasonal resource site during the summer months, but also as a more permanent winter village and burial ground.

Aside from this village site, there are a large number of archaeological and heritage sites throughout Gabriola and Mudge Islands that reveal the extensive use of this area by the Snuneymuxw. These sites include large and small shell middens, cooking and hunting pits and very rare petroglyph sites. Significant issues exist today over the protection of these sites on Gabriola. Although the artifacts and burial remains are held sacred by the Snuneymuxw and receive legal protection under the Heritage Conservation Act, many sites are still destroyed by development. In the past, several development permits have been issued by various provincial agencies and the Regional District of Nanaimo without full mitigation and protection of the cultural heritage. Often new comers to the area are unaware of the need to include a search of BC Archaeological Branch records for information regarding development and land use applications.

3.1.3 Current Interests

Snuneymuxw continues to have many current active interests on Gabriola Island. These interests include: reserve lands, aquaculture licenses, treaty negotiations, archaeological/cultural concerns, recreational, educational, food security, housing, water, community planning and community networking and support. As well, SFN's interest in fishing, hunting and medicinal plant gathering remain important.

Through a variety of government processes, such as treaty negotiations and specific claims resolution, it is anticipated that SFN will be a large landowner on Gabriola Island in the future. As such, a variety of lands are being held by the federal government on behalf of Snuneymuxw. At this time, Snuneymuxw has not developed any plans for these lands and are participating in the current OCP review process.

3.1.4 Intergovernmental Relationships

Snuneymuxw First Nation has a protocol agreement with the Islands Trust that outlines the government-to-government relationship between the two and how they will work together.

A committee was struck in 2009 and discussions are currently underway on issues of common concern.

SFN also has a protocol with the Regional District of Nanaimo (RDN) and is working with the RDN in relation to parks and other matters on Gabriola Island.

3.1 European History

The Spanish sited Gabriola in 1791 and took refuge in Descanso Bay in 1792. During this visit to Descanso Bay, the Spanish traded with the First Nations people and gained their help to find fresh water. Settlement by non-First Nations people did not occur until later when Nanaimo's coal industry started booming.

Two Irishmen, Robert Gray and Thomas Degnen, were the first Europeans to settle on Gabriola. Both came over from Nanaimo in the 1860s. They were interested in having their own land and did not care for coal mining work. Both men married First Nations women and benefitted greatly from the local knowledge brought to the marriage by their inlaws. Many later settlers followed their example—by the late 1870s, all but one of the pupils in Gabriola schools were the children of such mixed marriages. Since then, Gabriola has provided a home to people wanting escape from the urban areas and the ability to live an alternative lifestyle. [See SHALE No.2: Barman, Jean. Island Sanctuaries—early mixed-race settlement on Gabriola and nearby coastal islands.]

Thomas Degnan preempted large portions of land (about 600 acres by the time he was done) to grow food and raise livestock. Degnen lamb was famous in Nanaimo. Robert Gray became the first lighthouse keeper on Entrance Island. Settlement of Gabriola continued and the 1901 census lists 20 married farmers, most with children, and another 5 widows or widowers with children, as well as 6 single male farmers, all of whom had pre-empted.

The following chart demonstrates the demographic characteristics of Gabriola in 1901.

Number	Gender	Median Age
57	Female	19
105	Male	22

162 Total Population

Figure 11 Demographic Breakdown for Gabriola Island in 1901

The majority of the population was engaged in farming (32 farmers, 17 farmer's wives, 18 farm labourers), with fishing and quarrying being the next largest employers.

Many of the original settlers were from the United Kingdom and Ireland and one, John Silva (the namesake of Silva Bay) originated from Portugal. From the beginning, islanders worked hard at whatever work they could to be able to stay on the island. They logged, farmed and fished. In 1887 a sandstone quarry was located near Descanso Bay. It produced building blocks for Victoria and later giant grind stones for crushing logs in pulp mills. A brickyard (today's Brickyard Hill) employed many Chinese workers until its closure in 1945.

Starting in the 1920's, Vancouver residents sought summer cottages on the Island. The north end of Gabriola offered extensive waterfront for reasonable prices. In recent years, the population of Gabriola Island has increased rapidly, resulting in blacktopped roads and subdivisions. A growing population has enabled an increase in amenities including community halls, public services, and commercial development.

This was a young population—the families who succeeded here had lots of kids to share in the work. Single men were much less successful. The 1901 census offers a striking contrast with the age and sex distribution of the 2001 & 2006 census. Note also that the median age of the women was considerably younger than the men. There was a sizeable population of single male adults, many of them older, and wives tended to be 5-10 years younger than their husbands.

Food sources for the First Nation included; smoked clams, camas root, herring, berries and much more. The early settlers and farmers planted orchards of apple, peach and cherry, planted, raspberries & strawberries, tomatoes, cabbages, turnips, onions, celery, rhubarb, wheat and corn, all from beds well dressed with manure from sheep, cows, pigs and poultry. Gabriola produce won ribbons at fairs as far south as Cowichan, for vegetables, poultry and eggs. Islanders also cut and sold logs to the Nanaimo mines to be used as pit props.

3.2 Present Day Demographics

According to the 2001 Federal census, approximately 4,000 people call Gabriola their full time home and a large number of people make Gabriola their second home on weekends, especially during the summer season. In the summer the population is know to double with the addition of tourists.

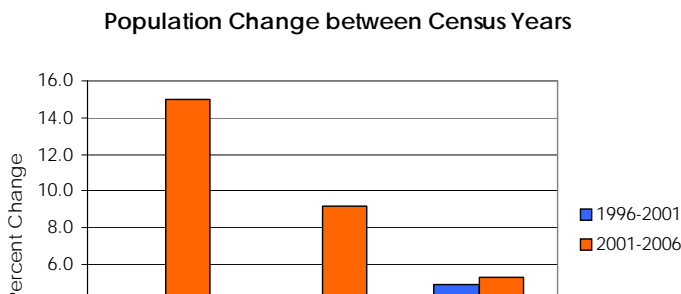
3.2.1 Population

Gabriola Island has seen an increase in population since 2001 by approximately 528 people, according to the 2006 Census Data. The median age of Gabriola residents also increased from 49.3 years old to 52.9 years, and the percentage of the population 15 years and older increased by 2.1% during the same five-year period.

YEAR	TOTAL POPULATION	MEDIAN AGE	% POPULATION 15 YEARS AND OLDER	POPULATION DENSITY PER KM ²
2001	3522	49.3	86.7	61.1
2006	4050	52.9	88.8	70.3

Figure 12 Demographic Change between 2001 and 2006

The changes in population for Gabriola Island were higher than the Regional District of Nanaimo (RDN), and considerably higher than the BC average growth between 2001 and 2006. While Gabriola Island grew at a slower pace than BC and the RDN between 1996 and 2001, its growth rate was nearly triple that of the province between 2001 and 2006 (Figure 3).



The increase in population on Gabriola Island can be mainly attributed to the two age groups that represent residents 45 years or older. (Figure 4).

The largest demographic represented on Gabriola Island are those between the ages of 50 and 70. Residents with these ages account for 44 percent of the total population on Gabriola. This age range is also substantially higher for Gabriola than both the RDN and the province. The population distribution for ages below 50 has notably lower percentages on Gabriola than it does in the RDN or in BC (Figure 5).

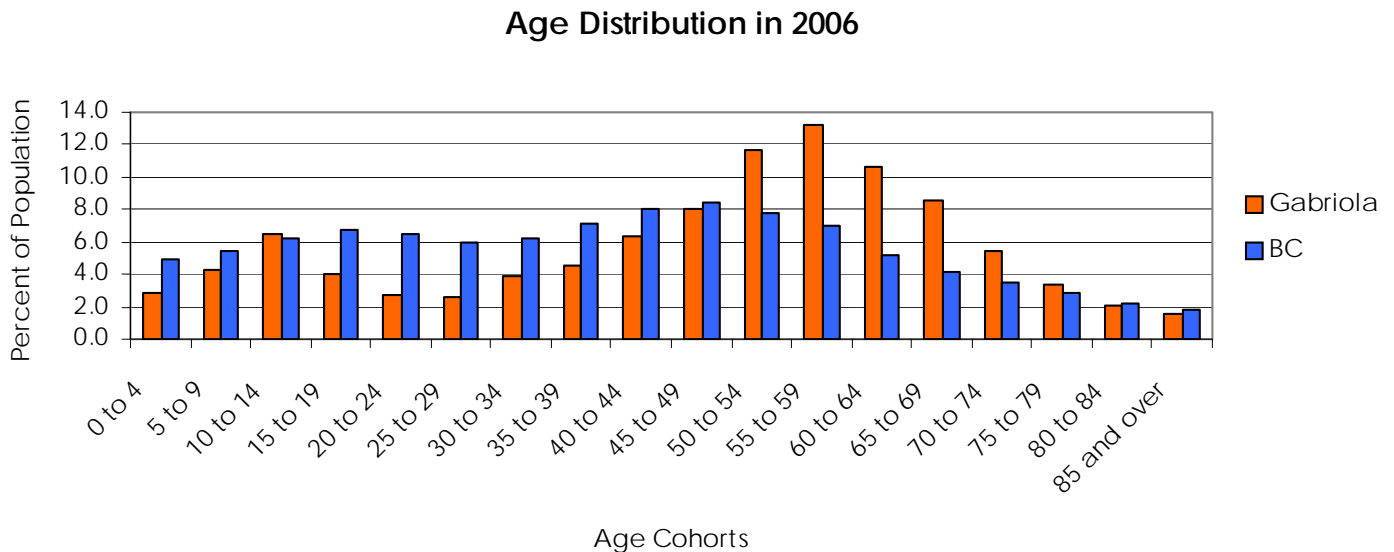


Figure 15 Age Distribution in 2006

3.2.2 Marital Status

As illustrated by the table below from Statistics Canada (Table 3), the majority of residents on Gabriola Island are legally married and not separated, with the second largest representation being those that have never been legally married, followed by divorced, widowed, and separated (but still legally married) people. These distributions follow the same general pattern found in the RDN and in BC.

Gabriola Community Profile

	NANAIMO AREA B			RDN			BRITISH COLUMBIA		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Total Population 15 Years and Older	3,593	1,735	1,860	118,765	56,975	61,975	3,433,880	1,665,240	1,768,640
Never Legally Married (single)	910	480	435	32,120	17,210	14,900	1,102,395	591,495	510,905
Legally Married (and not separated)	1,830	920	910	61,575	30,795	30,780	1,730,480	863,210	867,275
Separated, But Still Legally Married	140	70	75	4,080	1,830	2,245	110,575	48,710	61,860
Divorced	520	220	300	12,300	5,220	7,075	285,860	120,815	165,045
Widowed	195	50	145	8,690	1,910	6,780	204,570	41,015	163,555

Figure 16 Comparative Legal Marital Status

3.2.3 Immigrant Status

Gabriola Island has a higher percentage of immigrants than the RDN, but a lower percentage than BC.

	NANAIMO AREA B			RDN			BRITISH COLUMBIA		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Total Population	4,050	1,950	2,100	137,150	66,665	70,485	4,074,385	1,998,385	2,076,000
Non-immigrants	3,085	1,540	1,545	113,380	55,485	57,895	2,904,240	1,443,245	1,460,995
Immigrants	925	380	545	22,915	10,740	12,175	1,119,215	531,345	587,865
Before 1991	775	310	465	18,470	8,780	9,690	605,680	291,490	314,190
1991 to 2000	100	30	70	2,580	1,700	1,470	335,695	156,855	178,835
2001 to 2006	50	40	15	1,865	855	1,015	177,840	83,005	94,840
Non-permanent Residents	40	30	10	850	440	415	50,925	23,795	27,130

Figure 17 Comparative Immigrant Status for Gabriola

3.2.4 Income

In Figure 6, the percentage of population with income levels between \$1,000 and \$10,000 is higher on Gabriola than in BC, while the percentage of population income levels higher than \$15,000 is consistently lower.



Figure 18: Average Income in 2005 - Gabriola Island and BC

Between 1996 and 2001, the percentage of population earning over \$60,000 tripled. Figure 7 represents a comparison of the distribution of income between 1996 and 2000 for the Gabriola Island Local Trust Area which includes Mudge and DeCourcy Islands.

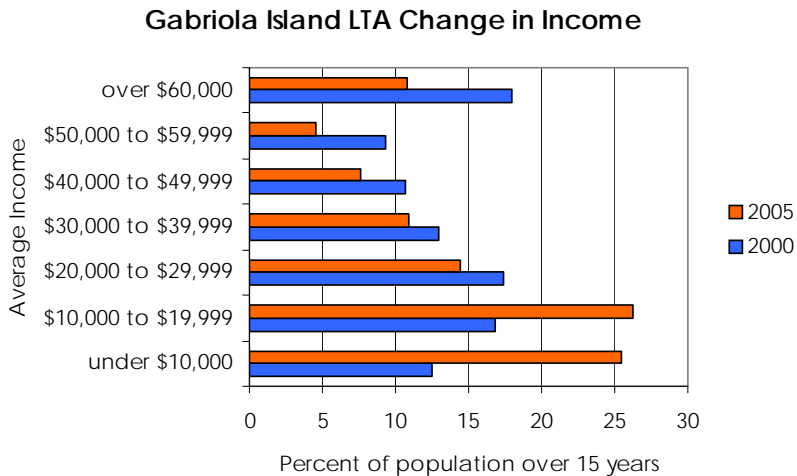


Figure 19 Gabriola Island Local Trust Area: 2001 – 2005 Income Change

3.2.5 Education

A higher percentage of the population holds a university certificate, diploma, or degree on Gabriola than in BC. The education level with the highest percentage in BC is High School certificate or equivalent, while on Gabriola the highest percentage is people with Bachelor's degrees. The percent of the population with no certificate, diploma, or degree is smaller on Gabriola than in BC (Figure 8).

There were 166 students registered in the K-7 Gabriola elementary school for the 2007-08 school year. Home schooling students can be supported by a selection of programs that support self-organized and collective activities. High school students can attend Nanaimo District Senior Secondary or study at home.

Gabriola offers some unique learning opportunities with the only fulltime traditional boat building school in Canada and a timber frame and log home building school. The Haven Institute and Resort has been offering workshops and courses that enhance personal growth, health and wellness for 25 years.

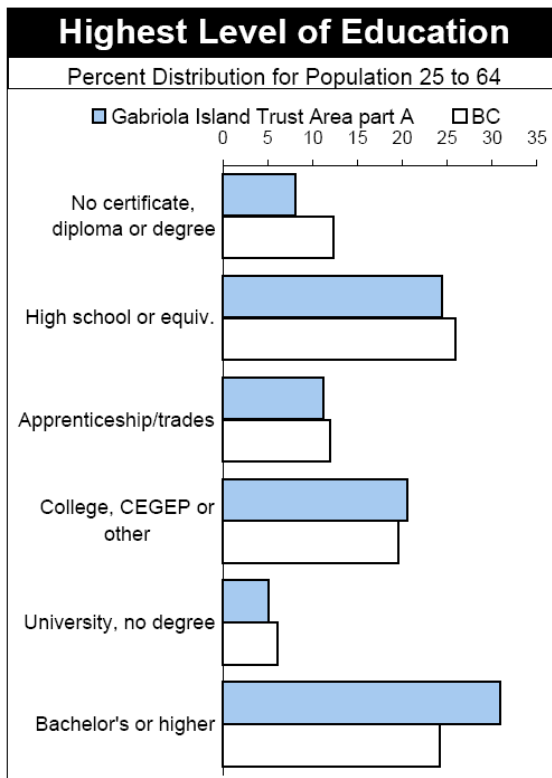


Figure 20 Education Levels for Ages 15 and Over

4 WATER

On Gabriola water is supplied from individual wells and/or rainwater harvesting. There is also a water delivery service on island that provides a backup supply when wells run dry, insufficient amounts of water have been harvested or for homes that have ad their well fail, rainwater harvesting system. Wells which draw water from shallow depths are numerous and these wells are more likely to be impacted by seasonal variations in water quality and quantity. Deep wells tend be characterized by a more consistent availability of water. Many factors, including geologic conditions, soils, vegetation cover, sewage disposal methods, agricultural runoff and proximity to the sea can influence the quality and quantity of the island's water supply.

The lack of rainfall during Gabriola's dry summer lessens the ability for the island's aquifers to recharge and also hinders the ability of rainwater harvesters to gather significant amounts of water during the summer months. Coincidentally, the summer is also the time that the population doubles. This combination of low water levels and high number of people, requires all people on the island to be aware of the finite water supply. In recognition of this finite supply of water, many individuals on the Island practice water conservation methods, with onsite water storage, low water use appliances, and the reuse of grey water. Uses that require a great deal of water are discouraged in the summer months.

4.1 Results of the GGMS Water Survey

The Gabriola Groundwater Management Society conducted a water use survey in the spring of 2007 and received 276 responses – 1/5 of the population.

Use Group	Wells	Rainwater	Water
A	72%		
B	11%	11%	
C		15%	
D	1%		1%
E		1%	1%
Total	84%	27%	2%

Figure 21 Water Sources used by Residents

Respondents indicated that they use rain water for the following:

- Drinking/cooking water 23%;
- Garden water use (horticultural and agricultural) 54%;
- Washing vehicles 20%;
- Flushing toilets 28%;
- Washing clothes 25%; and
- Other uses 9%.
- No response 9%

Many respondents indicated that they have some form of a filtration system on their water:

- Of all the respondents 39% have water purification systems.
- Of these systems 15% are whole house systems*.

The question do you purchase bottled water resulted in the responses:

- Never 48%;
- Occasionally 24%;
- Every week 26%;
- Two responses left blank (no answer).

Other points raised included:

- 7% of the group have well watchers and 90% do not.
- 30% of the respondents re-use greywater.

Note: Greywater is considered a health hazard for surface application

- 21% of the respondents have had their well go dry.

In summary, over a quarter of Gabriolans gather water through rainwater capture. The Groundwater Management Society is hopeful that more residents use rainwater as a water source. Sourcing water via rainwater catchment provides an opportunity to lessen our demands on the ecosystem. It is costly to install a rainwater catchment system and the GGMS is keen to lobby the provincial government for supportive funding, rebates or grant opportunities.

Currently, the Vancouver Island Health Authority does not accept cisterns and rain water harvest as valid potable water for development. Local groups are lobbying to require a rainwater system to be installed for every new home. The Regional District of Nanaimo indicates that 75% of new homes built since 2003 have cisterns installed as part of the

house construction. The Regional District is developing a program to encourage this form of construction. This is the legislation in Bermuda. In many parts of Australia it is illegal to garden with municipally supplied water and the only people that do garden source the water from rain or are connected to a treated wastewater reuse system.

5 Agriculture and Food

There is a tradition of farming on Gabriola Island and Gabriola is still in many ways an agricultural community. With 5,256 hectares (12,987 acres) of land in total on the Island, seventeen major parcels of land are designated Agriculture in the Official Community Plan and these lands offer a base of protected land for horticulture, agriculture and a golf course. Some properties outside of the ALR are also designated as Agricultural in the OCP. All residential property can be used in some capacity for horticulture or agriculture as per zoning bylaw No. 177. Small scale farming is a common practice as a means to augment low incomes, reduce the expenses associated with living on an island and as a way to be more self-sufficient and grow fresh food close to home. A copy of the Gabriola Official Community Plan Land Use Designation Map found at the beginning of this document.

Agriculture on Gabriola Island comes in many forms. There are several larger (20 hectare) farms, raising livestock and poultry, orchard fruits, berries, greenhouse products and exotic livestock such as alpacas. At the time this report was prepared, a local vineyard offered wine and an eating area for picnics and events. At least one large-scale poultry grower ships live birds off island for processing. Food can be purchased locally from numerous small scale operations that offer eggs, free range turkey, chicken, geese or duck. One farm raises cattle for local beef. Seasonal market gardens provide fresh food in season. This pattern of small farm development has been dubbed “rurban development” and matches recent trends in BC for small scale “niche farming.”

A local food security group is working hard to support local food, food security and preservation of local and small farms. Community members have identified some difficulties associated with farming on Gabriola Island. Among the most common were:

- Shortage of water
- Lack of labour pool
- Affordable housing for farm labour,
- Communication among the farmers,

EXCERPTS FROM SALT SPRING ISLAND COMMUNITY PROFILE

Frequency and volume of local food purchases by Salt Spring residents:

- 68% purchase local produce weekly
- 23% once or twice a month
- 7% less than once a month

Key Findings:

- Sixty percent (26) of the farmers who responded to the survey said they are interested in increasing production, some by increasing intensity and some by bringing additional available land on their farms into production.
- The study found that commercial produce farmers on Salt Spring Island are growing only a very small proportion of the total amounts of produce that people on Salt Spring purchase in a year.
- SaltSpring commercial produce farmers grow a wide range of produce. The range literally spans A to Z— asparagus to zucchini.
- Some of the vegetables and fruits are more difficult to grow than others. This variety supports the notion that there is good potential for Salt Spring produce to meet a significant proportion of the nutritional needs of the community.
- Major issues exist in terms of insufficient quantities and seasonal availability.
- Most of the produce is available only through the spring, summer and early fall.
- Farmers identified 26 different types of vegetables and 13 types of fruits that they grow commercially.

Figure 22 Excerpt from Salt Spring Community Profile re Local Food

- Provincial politics that limit opportunity (recent changes to livestock processing licences),
- A ferry service that does not provide service to and from the Island in a timely manner, and
- High costs of transportation of goods to market.

Local farmers have worked hard and paid dearly to satisfy new provincial rules for meat processing and some animals raised on island can now be processed on island. The Island is not currently self-sufficient in food production. In the absence of statistics specific to Gabriola, it is difficult to provide exact breakdowns of the agricultural sector. It is possible to extrapolate similar information from a recent survey of Salt Spring Island. Although Salt Spring is a much larger island, its proximity to a large commercial centre and the similar concentration of rural land and residents may be used to approximate the impact of agriculture on the island.

Gabriola has an active Agricultural Hall Association, Farm Team and the residents of the island joined together to purchase the Gabriola Commons – a piece of land open to the community for farming, public events and a variety of programs and services. The provision of emergency food supplies through a ‘community garden’ and food depot is in the process of being developed.

The seasonal Gabriola Farmer’s Market running on Saturdays from May to October provides an outlet for vendors. As well, farm gate sales are common along the rural roadways. Visitors to the island can visit and shop at leisure. They can use a guide or scan the frequent bulletin boards to find products.

There is a local buying club called Supply Line Organic Foods Buying Club that fosters the sourcing of foods from growers and suppliers close to home <http://www.buyingclubbc.com/>. The organizers of this same club are involved in a project to map agricultural potential on Gabriola with the interest of developing land use arrangements that promote maximum productivity from historical as well as newly found agricultural lands.

Figure 23

Agricultural Capability and ALR Designated Lands

6 Power

The intended purpose of this section was to give an overall summary and review of Gabriola Island’s residential electricity use. However, at the time of this writing, the statistical data needed to conduct a comprehensive report and analysis is not available. Repeated contacts with BC Hydro’s community relations manager yielded no data. As a result, a brief summary of current information about Gabriola’s electricity use will be given, as well as a list of recommendations for what data needs to be collected to do an in-depth analysis of Gabriola’s energy use. No power audit was completed for this study.

6.1 Previous Initiatives

On May 3rd, 2005, more than 300 volunteer residents on Gabriola Island participated in an energy conservation demo known as “Beat the Peak”. The purpose of the demonstration was to have residents conserve as much energy as they could between the peak hours of 4:30 pm and 7:30 pm. BC Hydro installed a black box to measure Gabriola’s energy usage for the period of April 4, 2005 until the day of the demo on May 3rd, 2005. Data gathered prior to the day of the demonstration was used as a baseline to compare to the results of May 3rd. In the end, Gabriola residents were able to reduce the island’s power load by 25%.

The success of this demonstration was shared with BC Hydro and politicians, and could possibly have played a role in the cancellation of the Duke Point Power Project. BC Hydro is the sole provider of electricity to Gabriola Island. The cable supply comes from Vancouver Island by way of Mudge Island and crosses both Dodds and False Narrows. Many islanders heat their homes in the winter with either wood or propane stoves as a heat source. The use of renewable energy sources such as solar, geothermal or wind is not substantially prevalent. Exploration into local renewable energy sources would support island self-sufficiency.

Gabriola Load 4:30 to 7:30 PM

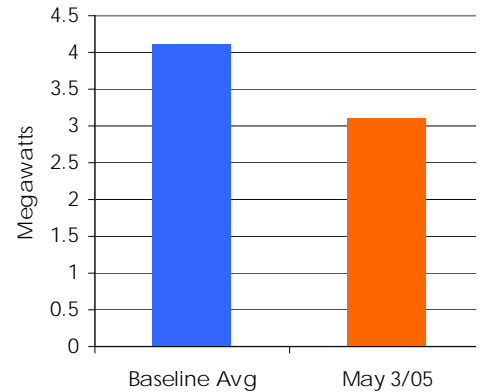


Figure 24: Gabriola’s Baseline Load, May 3, 2005

7 Housing

Gabriola Island offers a different and unique island setting with many waterfront properties at a lower expense than elsewhere. The total number of private dwellings occupied by permanent residents is 1,995. The majority of these dwellings are single-detached houses, and make up 93% of the total occupied private dwellings. The rest of the dwellings are semi-detached houses (2%), apartments and duplexes (0.8%) or other dwellings (3%). There are two senior's housing developments.

The majority of these private dwellings are owned rather than rented. Owned residences number 1,700 of the total dwellings compared to 290 rented dwellings. The majority of dwellings (1,035) were constructed before 1986. The remaining 960 were constructed between 1986 and 2006. This signifies major development pressure in this current time frame.

Another attractive part of housing on Gabriola is the large lot sizes. Most homes on Gabriola are on lots of a half-acre to five acres or more in size.

7.1 Gabriola Affordable Housing Needs Assessment

There is a Gabriola Affordable Housing Needs Assessment in the final stages of completion. The goal of this study is to provide the community, the Islands Trust, profit and non-profit housing providers a comprehensive view of the housing situation Gabriola. Initial findings identify the key challenges and opportunities as:

- **Housing Security** – the only legal rentals are either a full house, rental accommodation above commercial space in the village or a cottage on a lot larger than 5 acres. Secondary suites and the rental of cottages on lots smaller than 5 acres are not currently permitted by Islands Trust bylaw. Many rentals are seasonal as non-Gabriolan homeowners often ask tenants to vacate their premises for some time during the summer months.
- **Housing Affordability** – there is often a gap between income and the rising cost of rent. This affordability issue often affects single parent families, youths and college students and seniors.
- **Environmental Considerations** – Water is scarce during the dry summer months and creative conservation must be factored in

when an increase in number of people will draw from a similar well. The only sewage treatment on island is either personal septic systems or pump n' haul tanks. These require dedicated maintenance.

- **Supported Living** – Support for adults with special needs and seniors can require special organization and extra funding due to the logistics of ferry travel and semi-remoteness of rural island life.
- **Substandard Housing** – Because of remoteness and lack of rental housing many renters are forced to take residence in substandard homes.
- **Homelessness** – The number of homeless on Gabriola is unknown, but agencies are aware of some single people and families that need to travel around and rely on friends for a place to stay.
- **Location / Transportation** – Because there is no public transit on the island, getting to the village for groceries or the ferry for work and other needs can be a challenge.
- **Diversity** – There is a sense that the demographics are changing and it is harder for first time buyers and renters to find opportunities.
- **Housing Organization** – A need for a housing organization, was first identified as next steps by the Housing Solutions Forum, held on Gabriola in 2007 and highlighted again during the housing needs assessment.
- **Underground Network** – People often hear about rental accommodation through friends, employers, email lists, family and the grapevine. There is an underground network of communication.

The real estate market on Gabriola has shown steady growth since 2000. Prices are often more affordable than nearby urban centres in BC, but they have risen drastically since the 1990s. The island setting is beautiful, peaceful and remote. There is a steady attraction for people to buy on the island for retirement, recreation and primary residence. The close ferry proximity to Nanaimo makes commuting possible.

7.2 Building Permit Data

The following provides a summary of the building permit data for the decade between 1996 and 2007:

- The number of residential building permits peaked in 1996, declined to a low in 2000, followed by a second peak in 2004, followed by a second low in 2006.
- The average number of residential building permits issued each year was 46 and the average number of commercial building permits issued each year was 4.
- The average total value of residential construction each year was \$7,799,529 and the average total value of commercial construction each year was \$567,258.

	Permits for the Construction of Residential and Commercial* Buildings: Area B*					Value of Construction \$		
	Single Family	Multi Family	Mobile Homes	Seasonal Homes	Residential: Total	Commercial: Total	Residential Construction	Commercial Construction
1996	63	0	4	0	67	0	8 417 280	371 497
1997	56	0	1	0	57	0	7 143 074	476 389
1998	38	0	3	1	42	4	4 930 947	307 704
1999	32	0	1	0	34	2	5 395 010	2 134 300
2000	28	1	2	0	32	8	6 813 472	144 157
2001	31	0	3	0	35	5	5 015 822	284 711
2002	34	0	2	1	37	5	5 056 832	541 371
2003	43	0	3	1	49	7	7 964 922	405 145
2004	67	0	0	1	70	6	11 668 246	454 311
2005	44	0	0	1	45	3	9 832 629	385 356
2006	34	0	4	1	39	2	9 609 308	785 046
2007	38	0	0	1	39	5	11 746 802	517 114
Total	508	1	23	7	546	47	93 594 344	6 807 101

Figure 25 Building Permits and Construction: 1996-2007

*Commercial includes industrial and public building permits.

*Area B includes Gabriola and nearby islands such as Mudge.

7.3 Real Estate Sales from 1996-2007

As with all communities, real estate has peaks and valleys on Gabriola. The following identifies some of the peaks:

- House and lot sales peaked between 2002 and 2003 with just under 90 homes and 90 lots sold. Sales have declined since then and in 2007 approximately 65 homes and 38 lots were sold.
- The average value and total value of property sales have experienced significant growth since the early 2000's and in 2007, the average price for a home was around \$330,000 and the average cost for a lot was approximately \$140,000.

7.4 BC Assessment 2008

While housing prices reflect the general economy, the following illustrates some of the average increases in assessment on Gabriola.

Residential, Vacant Land & Acreage:	avg increase of 8.7%
Residential Non-Acreage:	avg increase of 15.3%
Residential Acreages & Acreages:	avg increase of 15.9%
Waterfronts:	Increases from 5-15%
Total increase:	\$129,212,000

(total increase includes new construction as well as increased market value)

The total residential assessed value:	\$1,111,026,000
---------------------------------------	-----------------

8 Infrastructure

There is no sewer or water service on Gabriola; many people have wells and septic fields. There are power, cable, and telephone services, including high-speed Internet, on the Island. Roads are maintained by an on-island contractor (EMCON) to the Ministry of Transport.

8.1 Liquid Waste

Sewage disposal on Gabriola Island is primarily taken care of through in-ground septic field disposal systems. These systems were historically approved through a permit system by the Ministry of Environment and are now administered by the Ministry of Health in combination with a self-regulating system that include a code of practice to be followed by certified installers. For larger systems, the Ministry of Environment will still be part of the application and maintenance process. Alternative methods of disposal are also in use on the Island and it is likely that the use of innovative treatment methods will increase as the cost of these innovative systems becomes less prohibitive and the cost of standard septic systems increases.

The Regional District of Nanaimo provides a 'Pump and Haul' program which allows residents to install a liquid waste holding tank on their property, which is emptied on a regular basis by a mobile unit. This system is available to residents who cannot host an in-ground septic and field disposal system.

Since groundwater from wells is the principle source of drinking water, the safe disposal of all effluent is essential. Equally important is the need to prevent sewage seepage into the Island's marine or surface waters. It is also critically important to ensure that sewage outfall does not damage marine waters or surface water on the Island.

8.2 Solid Waste Management

The Regional District of Nanaimo provides garbage and blue box recycling services on Gabriola. The Gabriola Island Recycling Organization (GIRO) operates a recycling depot and a re-use centre. Residents on Gabriola are considered to be good reducers, reusers, and recyclers. The development of an on-Island landfill is not supported by residents.

8.3 Other Services

- Policing services are provided by the Royal Canadian Mounted Police and there is a detachment on Island.

- Fire protection services are provided by the two firehalls operated by the Gabriola Island Volunteer Fire Department, which also provides first responder services on certain medical calls in addition to services provided by the BC Ambulance Service.
- School District 68 supports an elementary school on the Island; from grades 8-12, students travel daily to Nanaimo.
- There is also a Regional Library, Museum, a Community Hall, and Post Office. Medical, dental and veterinary services are available on the Island.

9 ECONOMY

The economy of Gabriola is diverse and dynamic with a broad range of services and products that provide most of what is needed so island life need not be too remote. This section provides a brief glimpse of a few prominent economic sectors. For a more complete listing of local businesses, please visit the Chamber of Commerce’s website

There are many factors to consider with Gabriola’s economy. The most influential is the island setting: the cost of the ferry and the cost of housing are two determinants that strongly effect who lives on the island and the labour pattern these residents generate. High ferry costs make it harder for people to commute to Nanaimo or run a business that requires regular trips off-island. Increasingly higher housing costs make it harder to house workers that earn lower wages.

9.1 Labour Force

The 2006 Census data for Gabriola Island found that the labour force participation rate was 57.3% with a 6.3% unemployment rate. English is the predominant language in the workplace, and 88% of the population that are 15 years of age or older reported having an income in 2005.

In 2005, the median after tax income of a person 15 years or older was \$21,167 – an increase from \$16,489.00 in 2000. Government transfer payments in 2005 composed 14.2% of the total income – a decrease from 17.9% in 2000. The median household after tax income in 2005 was \$33,676 – an increase from \$30,809.00 in 2000. As seen in the “Top 8 Industries by Labour Force” table, the industry distribution of workers on Gabriola is fairly evenly distributed with a slight emphasis on construction and professional technical services.

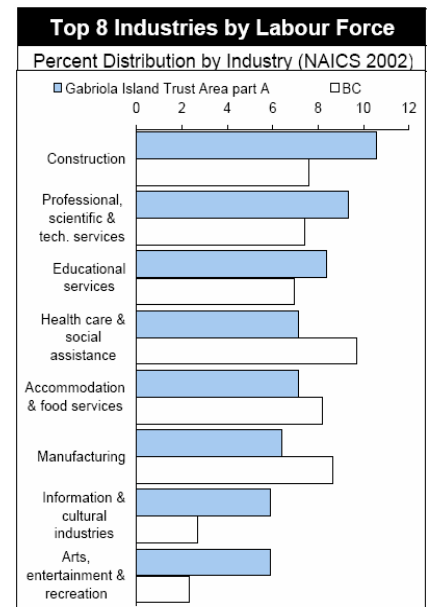


Figure 26 Top 8 Industries by Labour Force

In the labour force, 26% of people worked in the same census area, 34% worked from home, and 16% worked at no fixed address in 2005. As seen in the “Top 8 Detailed Occupations”, the distribution of occupations is quite evenly distributed.

As displayed in the “Workplace & Transportation” table the predominant method of commuting is driving, followed by walking and then passenger of a vehicle.

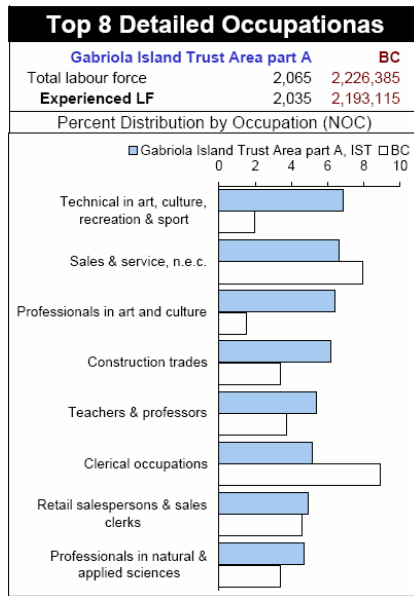


Figure 27
Top Detailed Occupations

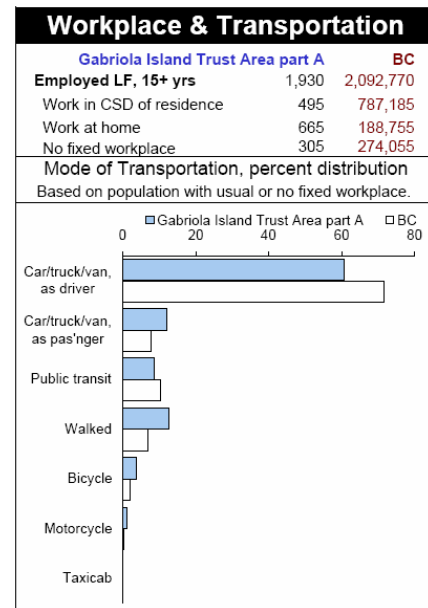


Figure 28
Workplace and Transportation

9.2 Markets

There are two markets on Gabriola. The first is the Farmers Market held at the Ag Hall every Saturday in the summer season from May until October, starts at 10am and ends at noon. Wares include baked goods, locally grown fruits and vegetables, preserves and arts and crafts. The second market is held at Silva Bay on Sundays between 10 am and 2 pm from July 1st to Labour Day. This market provides more crafts and arts and some baked or preserve products.

There are many small producers on the island and a few medium size producers of vegetables and meat products. It is possible to supply the majority of fresh unprocessed food products on island (in the summer at least). Local meat and baked goods are distributed year round in the

island's Village Market. Fresh vegetables, eggs and fruit can be purchased at the Saturday market or at the farm site.

9.3 Tourism

Tourism is a huge contributor to the Gabriolan economy. People visit the island for the parks, beaches and ocean activities such as kayaking, canoeing, diving and swimming. People are drawn to the island at all times of the year for a retreat, to view and purchase local art, to take part in the Saturday market, as a sailing destination and to relax and enjoy the Gulf Island experience. Several locations provide a variety of retreats and educational courses. Arts and crafts draw thousands of people to the island up to and including the Thanksgiving Studio Tour for artisans.



9.4 Accommodation

The table below shows the maximum, existing and potential numbers of tourist accommodation units on Gabriola Island based on the Gabriola Island Official Community Plan, 1996, Bylaw No. 166.

Campsites/Campgrounds are not included on this chart. There are two campsites; Descanso Bay Regional Park which has 32 campsites spread out over 40 acres of land and Paige's Marina which is smaller in size and located at the south end of the island. Additionally, there are 17 independently owned and operated bed and breakfast establishments.

Tourist Accommodation	Lot Area (ha)	Maximum # of Units	Existing # of Units	Potential # of Units
The Haven	2.77*	30	44	0
Pages Marina	2.09	27	5	22
Silva Bay Resort	1.72	22	0	22
Silva Bay Inn	0.81	10	3	7
Dragons Keep Lodge	2.10	27	15	12
Surf Lodge	3.47**	39	13	89
TOTALS:	12.95	155	80	89

Figure 29 Tourist Accommodation on Gabriola

*information derived from the Islands Trust website;

**on 11 separate lots

9.5 Artists and Artisans

The arts scene flourishes on Gabriola and a significant portion of the population (5.8%) is involved in artistic pursuits. There is a live performance theatre, movie house, various venues, pubs and house concerts to enjoy music. For visual arts, there are art galleries in the Village and the south end near Silva Bay and numerous home based studios, many of which can be visited at any time of the year with a Grand Studio Tour during the October Thanksgiving weekend. Gabriola is affectionately dubbed as the “Island of the Arts”.

9.6 Fish and Shellfish

Herring bring the waters to life in early spring and oysters, clams and muscles cover the beaches most of the year. Crabs and prawns as well as ling cod and other rock fish can be harvested in the various bays and offshore areas. Although Gabriola is not a centre for commercial fishing, it is an idyllic place to stop on a sport fishing trip and as a departure point for a casual day on the ocean.

There are commercial shellfish licenses issued for Gabriola waters.

9.7 Home Businesses

The 2006 census records indicate that approximately 1/3 of the population works from home. Gabriola’s Land Use Bylaw supports

home-based occupation with some restrictions mainly related to visual and noise impact.

9.8 Post Office and Protective Services

Many standard services are available on island including: post office, library, community centre, agricultural hall, elementary school, health clinic, volunteer fire department, ambulance support and a full time RCMP detachment.

9.9 Restaurants

There are several eating and drinking establishments on the island, including: White Hart Pub, Twin Beaches Bakery and Café, Surf Lodge Dining Room and Pub, the Golf Club, the Haven, Suzy's, Razberry's, Harvest Thyme, The Ole A Frame, and the Silva Bay Resort.

9.10 Food Services

There are three areas with shopping available; the Village, the south end near Silva Bay and Twin Beaches.

9.11 Home Services

A good number of the homes on Gabriola are occupied seasonally or intermittently and to serve the needs of absentee owners, a wide range of home maintenance services are available.

9.12 Recreational Business

There are two marinas; Page's and Silva Bay, one golf course and a number of recreational service providers. There are kayak rentals and tours, guided diving tours and sailing trips and wooden boat excursions all available from Gabriola's shores.

The Golf and Country Club is a nine-hole golf course that has demanding twisting fairways with rolling greens, and provides a challenge for even the best golfers. Its hours of operation vary depending on the year and the day of the week, with Fridays having the longest hours of operation. The Golf and Country Club also offers breakfast every Sunday, hosts Ladies' Day every Tuesday starting at the beginning of April, Juniors' Day on Wednesdays in July and August, Men's Day on Thursdays starting at the end of the March, line dancing every Thursday night during the fall/winter season, and darts night every Friday night during winter.

9.13 Builders and Contractors

Many Gabriolans take their time to build their dream home or grab an older house/cabin and nurse it back to health. A good portion of the workforce earns a living to help these home dreams become a reality. Arbutus Building and Supply and Garry Oak Tool Rentals supply all the tools and materials. The rest can be accomplished with experienced island workers who are knowledgeable in the trademark island issues such as rocky soil and rainwater harvesting systems.

10 GOVERNANCE

10.1 Islands Trust Act

Adopted in 1974, this document outlines the mandate of the Trust: “The object of the trust is to preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the trust area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia.” While the Act provides a very clear mandate, it also provides very limited authority for the Islands Trust, related to land use planning only and does not include issuing building or development permits or any other bylaw or service provision. These services are provided generally by the Regional District, and in the case of Gabriola, the Regional District of Nanaimo.

10.2 Local Government Act

Implemented in 1974, this document provides local governments with a legal framework and foundation to function; the powers and abilities to carry out their purpose; and flexibility to deal with unique issues found in their communities.

10.3 Islands Trust Policy Statement

Both the Islands Trust Act and the Local Government Act provide authority to the elected trustees of which there are two on each island trust area. These trustees meet four times a year for a Trust Council to discuss issues in common to all islands. In order to provide a common vision to guide the decision making for all Local Trust Areas, the Trust Council consolidated a policy statement. This document applies to the entire Islands Trust jurisdiction and provides guiding principles for the creation, adoption, and enforcement of local planning principles and bylaws.

Some of the categories that the Islands Trust Policy Statement includes are:

- Purpose and Implementation of the Trust Policy Statement, including Roles and Responsibilities;
- Islands Trust’s Object and Guiding Principles;
- Ecosystem Preservation and Protection, including policies for forest, freshwater and wetland, riparian, and coastal ecosystems;

- Stewardship of Resources including policies for agricultural land, forests, wildlife and vegetation, freshwater resources, coastal areas and marine shorelands, and soils; and
- Sustainable Communities with policies including aesthetics, growth and development, transportation and utilities, disposal of waste, recreation, cultural and natural heritage, economic opportunities and health and well-being.

10.4 Gabriola Island Official Community Bylaw

(Bylaw No. 166)

Adopted in 1997 and amended 12 times since, most recently in 2006, this is a visionary document providing planning policies and guidelines for Gabriola Island.

The categories that the Gabriola Island Official Community Plan covers are:

- Community Goals;
- General Land Use and Residential Development, including residential, small rural residential, large rural residential, special needs/seniors multi-family affordable housing, single-family affordable housing, and home occupation;
- Economic Activities, including commercial activity, village commercial, district commercial policies, local and tourist communities, tourist recreational, industrial land use, and temporary light use commercial permits;
- Institutional, Parks and Outdoor Recreational Uses;
- Resource Lands, including forestry, agriculture, and aggregate resources;
- Environmental, Marine, and Heritage Resources, including environmentally sensitive areas, marine resources, and heritage and archaeological resources;
- Development Permit areas, including natural environment, hazardous conditions, and objectives for form of commercial/ industrial/multi-family residential development;
- Transportation and Servicing including land, water, and air transportation, water supply, and liquid and solid waste management.

10.5 Gabriola Island Land Use Bylaw

(Bylaw No. 177)

Adopted in 1999 and amended 21 times since, most recently in 2007, this document provides specific planning and development regulations in the following areas:

- Administrative Provisions, including jurisdiction, interpretation, and compliance;
- General regulations including uses, buildings, structures, siting requirements, home occupations, signs, parking, and miscellaneous regulations;
- Establishment of Zones including division of zones, official zoning map, and interpretation of boundaries;
- Zoning, which is comprised of:
 - Residential (Small Rural, Large Rural, and Seniors and Special Needs),
 - Resource (Agriculture, Forestry, Forestry/Wilderness Recreation 1, Resource, Resource Conservation, Resource Residential, and Gravel Pit)
 - Commercial and Industrial Zones (Village Commercial 1, Village Commercial 2 – Professional Centre, District Commercial 1, Industrial – Light)
 - Local Commercial 1 – Neighbourhood Pubs, Local Commercial 2 – Restaurants, Local Commercial 3 – Garden Centres, Ferry Parking,
 - Tourist Commercial 1, Tourist Commercial 2 – Campground,
 - Recreation and Institutional Zones (Parks 1 – Provincial and Regional Park, Parks 2 – Passive Recreation Community Parks, Parks 3 – Active Recreation Community Park, Institutional 1, Institutional 2, Institutional 3, Yacht Club Outstation – Upland)
 - Water Zones (Water General, Water Commercial 1 – Marina, Water Commercial 2 – Mariculture, Water Commercial 3 – Marine Transportation, Water Industrial 1 – Shipyard, Water Industrial 2 – Log Storage, Water Industrial 3 – Bulk Marine Transport, Water Protection 1, Water Protection 2 – Park, Water Protection 3 – Lake, Water Yacht Club Outstation);

- Subdivision; Sign Regulations; and Parking Requirements.

10.6 Snuneymuxw and Islands Trust Protocol Agreement

As noted earlier, the Snuneymuxw First Nation and the Islands Trust has a protocol agreement, meets regularly and the SFN is participating in the Official Community Plan review process. The protocol agreement can be found on the Islands Trust web site at www.islandstrust.bc.ca under Trust Council Agency Agreements. For more information on Snuneymuxw, please go to www.snuneymuxw.ca.

10.7 Other Planning and Regulatory Agencies

Some other Development Regulations that might be considered include:

- Agricultural Land Reserve (B.C. Agricultural Land Commission)
- Fish Protection Act – Riparian Areas Regulation (B.C. Ministry of Environment)
- Sewage Waste Disposal (Vancouver Island Health Authority)
- Mines/Quarries (B.C. Ministry of Energy and Mines)
- Highway Access Permit (B.C. Ministry of Transportation)
- Crown Land Tenures (B.C. Ministry of Agriculture and Lands)
- Subdivision Approvals (B.C. Ministry of Transportation/Islands Trust)
- Liquor Control and Licenses (B.C. Liquor Control and Licensing Branch)
- National Parks (Parks Canada)
- Provincial Parks (BC Parks)
- Regional Parks (Regional District of Nanaimo)
- Local Parks (Regional District of Nanaimo)
- Communications Towers (Industry Canada)

11 CIVIC LIFE

11.1 Recreation

Gabriola Island has a number of formal and informal recreation opportunities including sporting activities for youth (including soccer teams for a variety of ages) and a slow-pitch baseball league. The Gabriola Golf and Country Club is a social and cultural mainstay on the island.

Walking and hiking is a very popular activity on the island. The Gabriola Land and Trails Trust (GaLTT) aims to conserve and connect the natural areas and neighbourhoods of Gabriola. In their newsletter from 2005, they had proposed two new trail developments – the Elder Cedar Nature Reserve and the “707 Acre Community Park”. The Elder Cedar Nature Reserve is located on North Road across from Degnen Road and is held by the Islands Trust Fund. The main trail runs northerly to connect with an old forest service road, and then runs easterly and southerly to connect to an undeveloped road access off the end of Windecker Drive. The trail has several windfalls down, a stream crossing and some significant wet areas in winter but is generally passable on foot. There is no further information on the GaLTT website on whether this trail has been completed or not.

The “707 Acre Community Park” is accessible from the end of Rickie Road, Fisher Road, off North Road in the tunnel, and from Coats Road. A new trail is planned along the undeveloped road access across from Tin Can Alley will lead into the northwesterly corner of the park in the future. The existing network of trails is complex which makes it easy to get lost in this large area of the Island. This park is held by the Regional District of Nanaimo. As of December 2007, GaLTT reports that the RDN is continuing to work on security issues to curtail vehicle dumping access. A Management Plan will help to select trail routes to mark and maintain.

Figure 30 Parks and protected places

11.2 Community Service Groups

Gabriola has a population rich in volunteer spirit, well educated and keenly interested in keeping this island a very special place to live. These people also recognize that not everyone is as healthy or as wealthy as some. This has spawned the creation of many community service groups who provide a multitude of services, including; The Rollo Centre for Seniors, The Lions Club, People for a Healthy Community (providing a Food Depot and free lunches), the Commons, and many other organizations that contribute to the social and physical well-being of Gabriola Island.

There are 6 churches on Gabriola:

- Calvary Chapel of Gabriola
- The Church on the Rock
- St. Martin of Tours Church (Anglican/Lutheran)
- Our Lady of Victory Mission
- Gabriola United Church
- Gabriola Fellowship Church

11.3 Arts and Culture

Gabriola is known as the “Isle of the Arts” and has a vibrant arts community that includes everything from painting to theatre and poetry to music. The Island is home to a growing list of award winning literary, musical and performing artists. The local Arts Council strives to create an environment of artistic support. It is apparent from the number of events going on any week how important the arts and culture are to the social health and wellbeing of the island. In a report on Artists in Small and Rural Municipalities in Canada by Hill Strategies Research, Gabriola ranked 5th highest in the country with a percentage of 5.8% of the labour force identified as artists compared to a national average of 0.8%. As stated in the report, this high percentage “demonstrates that the arts contribute to the quality of life and the social and economic vitality of many small and rural communities in Canada.”

A branch of the Vancouver Island Regional Library is located in the main commercial district at Folklife Village. The Gabriola Museum is open to the public on weekends from April through October with weekday openings from June to August.

The Gabriola Sounder and the Flying Shingle are Gabriola Island's newspapers, the former publishes on a weekly basis and the latter is a bi-weekly community newspaper. Currently there is interest in developing a community radio station at the Gabriola Common.

Like every community, Gabriola has an evolving list of organizations and associations that are working on various initiatives that are important to the citizens of the island. Volunteerism is an important component of a healthy arts and culture community.

Gabriola's Chamber of Commerce hosts a website with a list of annual events. The events range from the Annual Salmon Barbeque, to Gabriola Elementary School's Christmas concert hosted by their Parent Advisory Council. The annual Salmon Barbeque held in August has been happening for over 50 years.

12 TRANSPORTATION

A Transportation survey was conducted in September 2008 to understand the needs and wishes of island residents with a guiding interest to develop a community transportation system. Charted results of the survey are included in Appendix A.

A brief summary of findings indicates that the majority of people need to get around for shopping and medical reasons and to get to community events. The next movement priorities are commuting for work and then school respectively. Although the use of private vehicles for mobility is fairly predominant at 73% drivers and 41% passengers, active transportation choices were also fairly high at 32% walking and 18% biking.

A huge push for early morning commutes (54%) is just before 8:00 AM for the 7:50 AM ferry. This major exodus is shadowed on either side; 18% at 6:45 AM and 21.7% at 8:55 AM. The return home is more spread out between 3:30 and 6:00 PM. The need for potential bus use is fairly evenly distributed throughout the week with a concentration Tuesday through Friday. The request for use is predominantly every 2 hours (66%) and secondly for AM/PM commutes (44%).

12.1 Water

The Gabriola ferry is a car and foot passenger ferry that runs approximately every hour between downtown Nanaimo and Descanso Bay on Gabriola Island. The crossing time is approximately 20 minutes and covers 3.7 nautical miles. The route is serviced by the BC Ferries vessel Quinsam with a car capacity of 70 vehicles and passenger capacity of 290 persons. The vessel entered service in 1982, and has a maximum speed of 12 knots. It has no amenities other than a passenger seating area, washrooms and vending machines. The Nanaimo Downtown terminal features limited amenities including washrooms, pay telephone and vending machines. The amenities at the Gabriola Terminal include a waiting room, washrooms and a pay telephone. The Gabriola Island route does not permit reservations.

In the past decade BC Ferries has increased its fares on several occasions, passing increased costs of operations to passengers and slowly reducing the subsidization of the Gabriola ferry route. Continued increases in the price of oil coupled with BC Ferries goal of limiting subsidization of smaller routes will likely result in continued increases in ferry rates for Gabriola residents and visitors. Additionally, the age of facilities at both terminals and the age of the vessel used on

the run will necessitate capital investments in the coming years. Increasing costs of access to the Island in the next decade is an issue importance to residents, business and government alike.

Late in 2008 the suggestion of a bridge connection to Gabriola resurfaced and a survey was conducted by Malaspina College in early 2009 to explore this option. 65% of Gabriolans denounced the idea of a bridge connection to Vancouver Island. Other issues were explored in this survey: 61% of people saw the connection with the regional transit system as the top priority, 41% of people were interested in a larger ferry and 38% support the current ferry size is just fine. A unanimous response by ferry users discounted any notion of connecting Gabriola Island to Duke Point.

The amount of ferry traffic can be unpredictable, but the normal surges occur morning and evening during the weekdays for commuters and school children going to high school in Nanaimo. During the last week of May 2009, some morning commuters were left on island because an elementary school group traveled during the same time as the high school students and the passenger capacity was reached. There can be weekend increases on Friday PM, Sunday PM and Monday AM due to weekender traffic.

Ferry traffic increases by 50% in the summer season as the tourists and seasonal residents come for the warm season. (Figure 16) The trend of the ferry traffic graph on Figure 16 shows a small decline in ridership since 2005. This decrease could be attributed to less need for people to commute or an increase in fares that might lessen interest in the extra expense for a vacation. There is also a water taxi to Mudge Island.

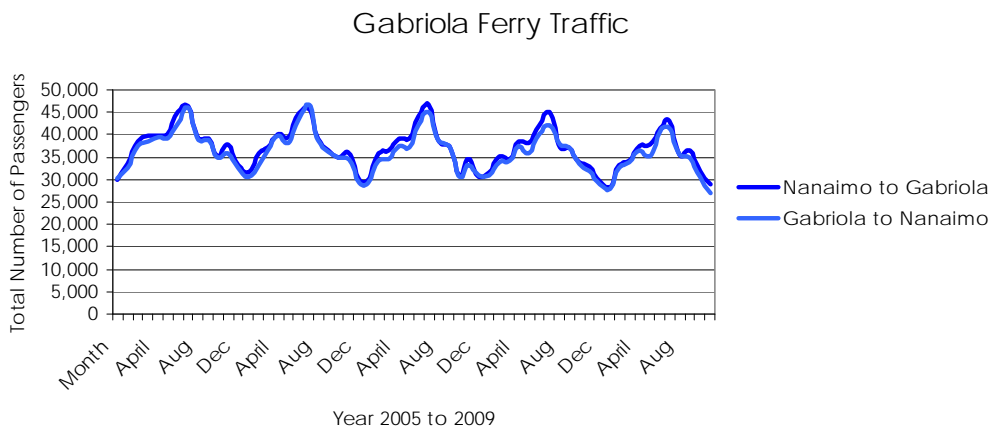


Figure 31 Gabriola Ferry Traffic

12.2 Air

Tofino Air operates a daily float plane service from Silva Bay on the south end of the Island to the float plane terminal by the Vancouver International Airport.

There are three scheduled return flights per day in the morning, midday and late afternoon. The flight lasts approximately 25 minutes and costs \$134 plus taxes for a return fare. Tofino Air provides frequent flyer discounts for commuters who use the service on a daily or weekly basis.

12.3 Land

The road infrastructure around Gabriola Island is fairly well-developed. The walking and biking trails throughout are minimal and less developed. There is a dependency of automobile transportation on the island. The low road density also reflects the rural residential development of Gabriola. The main roads, which extend throughout most of the land, are paved and are in fair to poor condition. Vehicle movement is often unimpeded on these main roads due to limited traffic and vehicles are able to travel these routes quickly – often people drive too fast. Secondary roads are mostly unpaved graveled surface. The construction and maintenance of street infrastructure is under the jurisdiction of the Ministry of Transportation (MOT). This Ministry is therefore responsible for repairs to the potholes and surface of the roads, and contracts this work to an island company EMCON.

The road infrastructure is not accommodating for cycling or walking. There are very few paved or unpaved shoulders, sidewalks nor bicycle lanes on either the main or secondary streets extending throughout the island. There are some dirt walking trails which connect forests and parks, but they do not facilitate travel throughout the Island.

The Gabriola Island Taxi runs a small scale taxi service taking passengers to destinations across the island. This service has proved to be a useful resource for tourists and Island visitors. There is no public transportation on Gabriola Island.

Figure 32 Road Network

13 ECOLOGICAL FOOTPRINT

Ecological footprint is a measure of human demand on the Earth's ecosystems.. It compares human demand with the planet's ecological capacity to regenerate. It represents the amount of biologically productive land and sea area needed to regenerate the resources a human population consumes and to absorb and render harmless the corresponding waste. Using this assessment, it is possible to estimate how much of the earth (or how many planet Earths) it would take to support humanity if everybody lived a given lifestyle.

In order to calculate the ecological footprint, Mathis Wackernagel and William Rees (in their book *Our Ecological Footprint: Reducing Human Impact on the Earth*) organized human consumption into five major categories. The footprint analysis offers an objective look at how out of step we are with the earth's carrying capacity.

For an introductory survey of how life on Gabriola Island relates to the Ecological Footprint five aspects of human life are considered: Food, Housing, Transportation, Consumer Goods, and Waste and Recycling. These five aspects relate directly to day-today life and the resulting consumption patterns influence how large an earthly footprint Gabriola Islanders require.

13.1 Food

Vegetated lands account for 61% of Gabriola Island Land Trust Area (LTA). In the years between 1996 and 1999 Gabriola Island has shown a 12% increase in shellfish harvesting closures. Food security is a big issue on and island that has to bring most of its food over on a ferry.

- There are many active farms growing produce and raising livestock. An effort is underway on the island to map all viable agricultural land and strategize how to organize land parcels or arrange for lease agreements to facilitate increased agricultural production.

13.2 Housing

The Gabriola Island Trust's population increased from 3,522 in 2001 to 4,050 in 2006 showing a 15% increase. There are 1,995 households in the Nanaimo B electoral area. The majority of these dwellings are couples without children in 885 total dwellings of the 1,995. There are 675 one-person households; therefore 78.20% of households in Nanaimo B house one to two people. The majority of private dwellings are single detached homes.

- There is currently underway a Gabriola Affordable Housing Needs Assessment intended to provide the community, the Islands Trust, housing providers, both profit and non-profit, with a comprehensive view of the housing situation.
- The housing footprint would be reduced by the inclusion of denser residential development with shared walls, more energy efficient construction and renewable energy sources for electricity and heating are needed.

13.3 Transportation

Roads on Gabriola have relatively low traffic volumes. Virtually no new roads were constructed between 1996 and 2002 (one additional kilometer). Density of housing has increased from 0.0276 kilometres per hectare to 0.0278 kilometres per hectare. Per capita length has decreased from 0.0425 kilometres per person to 0.0415 kilometres per person.

The road density average in the Trust Area is 0.0163 kilometres per hectare. In 1996, the ratio of road kilometers to persons was equal to the average in the Trust Area of 0.049 kilometres per person. In comparison, in 2001 it was 0.051 kilometres per person signifying that the permanent population of Gabriola is growing.

According to the Gabriola Transportation Study the majority of the population 73% drives a vehicle to work. 41% people are passengers and carpool to work, 50% walk or bike and 23% use a taxi, hitchhike or catch a school bus. *Note: Percentages do not total to 100% as people responded with more than one mode of transportation.*

- The Gabriola Public Transit Task Force is working with the results of the Transportation Survey conducted in the fall of 2008 and continuing discussion and research into the development of a public transit/bus route proposal. An application for funding the trial run through the Federal Government's MOST (Moving on Sustainable Transportation) program was submitted this March. There

has been exploration by the RDN in regards to being involved with public transit on Gabriola Island.

- Recent work on Gabriola has been done to organize a Biodiesel project to power the public transit bus by reusing cooking oil from restaurants on the island.
- Enhancing safe opportunities for Gabriolans to exercise active transportation options with improved bike lanes and pedestrian trail networks would assist in decreasing private automobile use.
- Limiting personal air flights will also decrease the transportation related footprint.

13.4 Consumer Goods

Research in this section is inconclusive. Gabriola has many local retail operators that service the island. However, Gabriolans very often go off island to use the larger retail and big box stores in the City of Nanaimo.

- A further exploration about how to shop with a lighter footprint could be carried out as a personal and community exercise and resource information can be found at the World Wildlife Fund's footprint calculator <http://footprint.worldwildlife.org.uk/>. This site offers many helpful and innovative ideas to lessen personal footprints.

13.5 Waste and Recycling

Gabriola is active with reuse (Gabriola Island Recycling Organization offers many opportunities to move unwanted products to those who can use them) and recycling (the RDN collects all recyclables once every two weeks). One key area for improvement would be attention to the first option reduce is the most important.

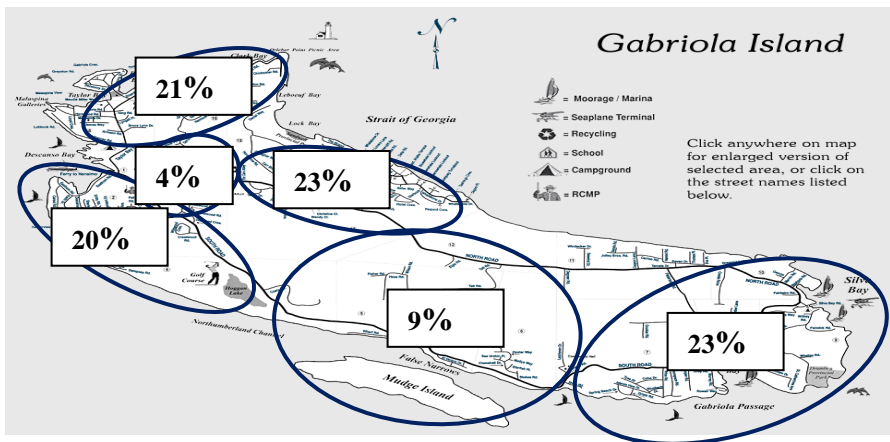
- Most Gabriolans compost and have limited garbage recycling pick-up every two weeks. This infrequent service acts as a prime motivator.
- Further collaboration and awareness building on island with the help of GIRO and RDN's zero waste program could help spread awareness of which consumables have future recycling potential and which do not.

Appendix A

Results of the Gabriola Transportation Survey

The Gabriola Transportation survey was mailed to Gabriola households September, 2008. The survey was also available on-line and copies were available at the local Library. Four hundred households responded, representing 799 residents. This response indicates that responses are accurate within + or - 4.3%. Population estimates are based on 2006 census plus 7.5% growth for a total of 4354. The results were as follows:

1. Street Address or Nearest Intersection



2. Describe uses of transportation for each person in your household:

Purpose	%	Gabriola residents (est.)
Attend School	11%	479
Attend Post Secondary	3%	131
Work outside the home full time	18%	784
Travel to community activities	72%	3135
Travel to work	33%	1437
Travel for shopping & medical appt.	87%	3788

3. What time do you arrive at your Gabriola destination (if going to Nanaimo – time for ferry that you would catch)? If your time is always different leave blank.

4.

263 left this question blank, 136 responded. The following describes the commuter hours for those that responded:

Gabriola Community Profile

<i>Time</i>	<i>% of respondents</i>	<i>Gabriola residents(estimate)</i>
5:20ish	5.6%	41
6:45ish	18%	133
7:50ish	54.7%	405
8:55ish	21.7%	161

5. What approximate time do members of your household arrive home for the day? If your time is always different leave blank.

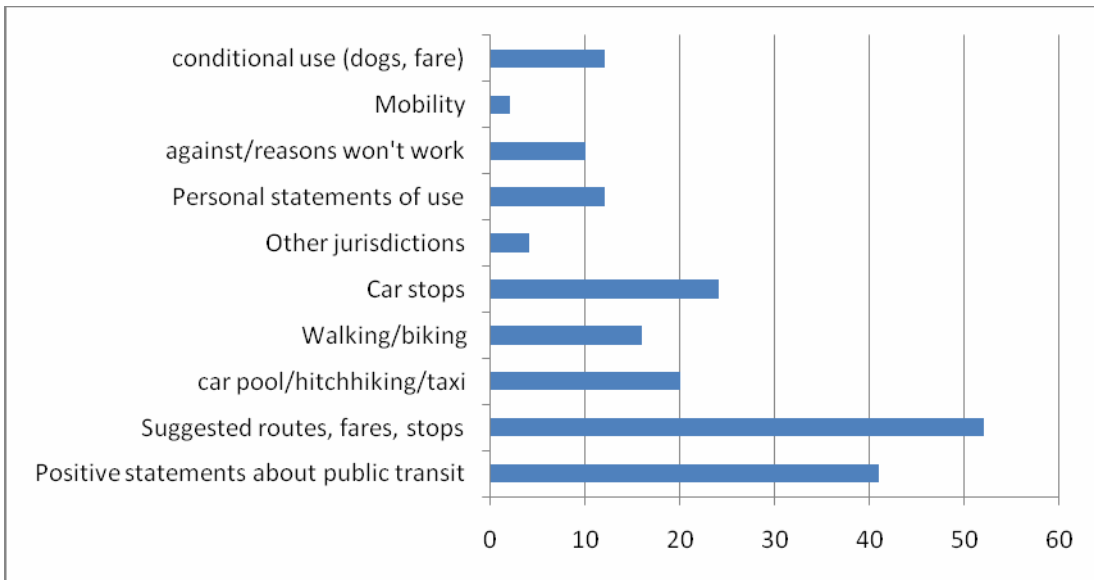
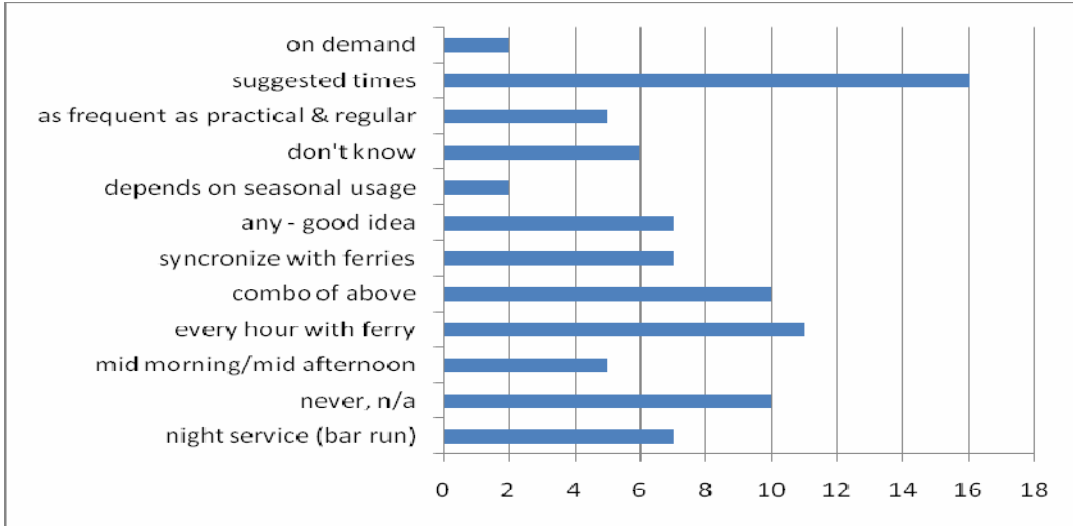
274 left this question blank 125 responded. The commuter hours for those that responded:

<i>Time</i>	<i>% of respondents</i>	<i>Gabriola residents (estimate)</i>
3-3:25	9%	61
3:30-3:50	13%	88.5
4-4:20	16%	108
4:30ish	19%	129
5ish	12%	82
5:15-5:45	23%	156.5
6-6:30	7%	48

6. Describe the most common type of transportation used by each person

<i>Type</i>	<i>Number resp.</i>	<i>%</i>	<i>Gabriola residents (est.)</i>
Vehicle (driver)	586	73%	3178
Vehicle (passenger)	327	41%	1785
Bicycle	144	18%	784
Walk	256	32%	1393
Taxi	32	4%	174
Hitchhike	49	6%	261
Elementary School bus	37	4.5%	196
Motorcycle/scooter	45	5.6%	244
Secondary school bus	20	2.5%	109

Gabriola Community Profile



Appendix B

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