

# Salt Spring Island Community Profile & Data Inventory November 2006



References:: Kevin Oke Photography ([http://www.gulfislandsguide.com/maps/Salt\\_Spring.htm](http://www.gulfislandsguide.com/maps/Salt_Spring.htm))

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Institute for Sustainability Education & Action (I-SEA), November 2006  
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## Table of Contents

<b>1.0 Executive Summary .....</b>	<b>4</b>
Introduction.....	4
1. Purpose of Project.....	4
2. Overview of Salt Spring Island.....	5
A. Governance .....	5
B. Geography .....	5
C. Climate .....	5
D. Natural Environment.....	6
E. Economy.....	7
3. Salt Spring Island Community Profile – Challenges .....	7
<b>2.0 Demographics.....</b>	<b>8</b>
1. Population .....	8
2. Residency.....	8
3. Census Data Summary: 2001 .....	9
A. Population and Households.....	9
B. Diversity .....	10
C. Road Density .....	11
D. Change in Population.....	12
E. Number of Parcels/Folios on SSI & Property Taxes Net (2005) <sup>1</sup> .....	12
4. School Enrollment 5 Year Trends.....	12
5. Waste Management.....	14
A. Liquid Waste Management .....	14
B. Sewage Outfalls Compliance Monitoring.....	14
C. Liquid Waste processing at Burgoyne Bay .....	15
D. Ganges Wastewater Treatment Plant .....	15
E. Solid Waste Management.....	16
<b>3.0 Agriculture.....</b>	<b>18</b>
1. Status of Farmland on Salt Spring Island .....	18
2. Produce Production on Salt Spring Island .....	18
A. Summary of Findings from Report .....	19
B. Key Findings .....	19
C. Farmland in commercial produce production Salt Spring Island, 2004-05 .....	22
D. Zoning of the Farmland farmed by commercial produce farmers, 2004-05.....	22
E. Summary of farming practices .....	23
F. Income from Produce Farming.....	23
G. Water Usage.....	23
3. 2006 Economic Impact of Farmer’s Markets on Salt Spring Island.....	24
4. Meat Processing on Salt Spring Island .....	25
<b>4.0 Water.....</b>	<b>26</b>
1. Groundwater .....	26
A. Interaction of surface water and ground water.....	26
B. Well Water Record Information.....	26
2. Groundwater conditions within Ground water regions.....	26
A. Focus On: Fulford Harbour Region .....	27

B. Focus On: Ganges Harbour Region .....	27
3. Household Water Use .....	28
A. Summary of Water District Responses .....	28
B. Household Water Use Survey Summary of Water District Responses.....	28
C. Household Water Use Survey Summary of Water District Responses.....	29
D. Household Water Use Survey Summary of Water District Responses .....	29
4. Reclaimed Water on Salt Spring Island.....	29
5. Future Water Supply and Demand.....	30
6. Water Mapping On Salt Spring Island.....	31
<b>5.0 Housing .....</b>	<b>32</b>
1. Introduction.....	32
2. Building Permit Data .....	32
A. Building Permits Granted for all Residential (Singe-Family, 2 Family, Multi Unit, Mobile Home and Move-In) & Commercial .....	32
B. Data Table for all Building Permit Types: Residential vs. Commercial.....	33
3. Census Data: 2001 .....	33
4. Community Housing.....	34
A. Summary of Findings.....	34
B. Monthly rents reported by tenants, 2005.....	35
C. Availability of Single Family Housing .....	35
D. Community Housing .....	35
E. Current Rental Situation .....	36
5. Real Estate Market Housing .....	36
A. Summary .....	36
B. Real Estate Sales to Date.....	37
C. Housing Type breakdown, 2001 Census Data .....	40
D. Private Dwelling Statistics.....	40
<b>6.0 Natural Environment .....</b>	<b>42</b>
1. Overview of Ecosystems.....	42
2. Resources on Ecosystems on Salt Spring Island.....	43
3. Top 10 Natural Environment Data Sources for Salt Spring Island.....	43
4. Crown Land Profiles of Salt Spring Island .....	44
5. Environmental Sustainability Indicators: Environment.....	48
6. Protected Status of SSI Lands.....	49
7. Protected Areas on Salt Spring Island by Type .....	51
8. List of Conservation Lands (ha) .....	52
9. Red/Blue List of Species: Updated Summer 2006 .....	52
10. Marine Environment .....	54
11. PARC Parkland and Trails.....	55
<b>7.0 Economy, Jobs &amp; Tourism.....</b>	<b>57</b>
1. Chamber of Commerce .....	57
2. Labour Force & Income.....	57
A. Trust Area Average Income .....	59
B. Employment Income, Total Income and Family Income.....	59
C. Salt Spring Island Employment and Income Dependency: 2001.....	60
3. Tourism.....	61

4. Tourist Accommodations, 2004.....	63
5. Traveler Information Sources .....	64
6. Salt Spring Island Tourism Case Study .....	64
7. Salt Spring Island Visitor Center Statistics, Chamber of Commerce, July 2006 .....	65
A. Number of Individual and Group Visitors to Visitor Center January 2005-July 2006....	65
B. Visitor Origins, January, 2005 to July, 2006.....	66
C. Buses by Month visiting Salt Spring Island, January 2005-July 2006.....	66
<b>8.0 Energy &amp; Transportation.....</b>	<b>67</b>
1. Energy .....	67
A. Summary of Findings.....	67
B. Electrical energy consumption .....	68
C. GHG Emissions.....	68
D. Energy consumption in the residential sector .....	69
2. Island Vehicles' Fuel Consumption.....	70
A. Summary .....	70
B. Medium and Heavy Commercial Vehicle Fuel.....	71
3. BC Ferry Corporation, Salt Spring Traffic and Fuel Data.....	73
A. Overview .....	73
B. Traffic on BC Ferries to Salt Spring Island.....	73
C. Visitor Vehicles.....	75
D. Estimated visitor and resident vehicles, BC Ferries, 1998—2002 .....	75
E. Ferry Fuel Usage .....	76
4. BC Ferry Visitor Statistics, March 2006 <sup>2</sup> .....	78
A. Route 4: Swartz Bay to Fulford Harbour .....	78
B. Route 6: Crofton to Vesuvius.....	79
C. Route 9: Tsawwassen to Salt Spring Island: Long Harbour .....	80
5. Indirect energy associated with grocery purchases.....	82
<b>Appendix A: General Salt Spring Island Statistics.....</b>	<b>83</b>
<b>Appendix B: Additional Resources &amp; Reports .....</b>	<b>84</b>

# 1.0 Executive Summary

## Introduction

### 1. Purpose of Project

The purpose of this study is to inventory key facts, data and information about Salt Spring Island. The project was commissioned and funded by the Islands Trust of Salt Spring Island, and the data compilation was completed by the Institute for Sustainability Education & Action (I-SEA), also on Salt Spring Island.

This document will serve as a resource to the community during the current Official Community Plan process. It will also become a living, evolving document that could be maintained in a format to make it easy to update annually. By providing this single-point-of-access to Salt Spring related information the community will be both better informed and better able to make decisions.

Naturally, there are gaps in the following report, as data is not available, only available in hard-copy, or not available at this time. All attempts were made to obtain the most up to date information in electronic formats. The data contained in this report have been summarized from many sources. Where possible, all references are noted so that readers may read the full reports, where available, and are encouraged to do so as this report is a high-level summary, or excerpt, of most references.

I-SEA would like to thank all the organizations and people responsible for providing this data. No new data was created for this report, no new research or surveys were conducted. Every effort was made to present data from reputable sources that could be easily tracked down, i.e. Government Agency and Island Trust sources. This is not a complete, comprehensive inventory, but the beginning of what could be a complete community profile for Salt Spring Island.

The reader should be aware of certain factors when reading this report:

- 2001 data was used, as the 2006 census data is not yet available;
- Full-time residents, not part-time residents are represented in census data;
- Census reports round to the nearest 0 or 5. This explains the slight differences in totals in some tables;
- Typically 5 year trends were provided, where possible, but the ideal is to have data trends over much longer periods, where possible;
- Often the data is for the SSI Local Trust Area, which includes not only Salt Spring Island, but the other 'associated' islands that are in the same Local Trust Area (i.e. Piers, Prevost, Goat, Norway, etc., etc.). The population of these 'associated' islands is very low, and may have a negligible impact.

## 2. Overview of Salt Spring Island

### **Population:**

Approximately 9,279 (2001)

### **Size:**

18,534 hectares (45,798 acres)

See Appendix A: General Salt Spring Island Statistics

### **A. Governance**

Salt Spring Island is the largest of the 13 main Gulf Islands; there are also 450 smaller islands, and these form what is called the Islands Trust Area.

The Islands Trust was created by the province over 30 years ago 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 the province' (<http://www.islandstrust.bc.ca/>). This unique governance body only has jurisdiction over land-use, and must work in cooperation with regional districts such as the CRD (Capital Regional District), other municipalities and the government of British Columbia (Ministry of Environment, Ministry of Transportation, etc.).

Each of the 13 Trust Areas elects 2 Island Trustees, who are voted in every three years, for a total of 26 trustees. These people form the Islands Trust Council. These islands, with the exception of Bowen Island, are not municipalities.

### **B. Geography**

Salt Spring Island is located off the east coast of Vancouver Island in the Strait of Georgia. Ganges Harbour on Salt Spring Island is located approximately 80.5 kilometres (50 miles) north of Victoria, B.C. The island is 18,534 hectares (45,789 acres) in size, 27.3 kilometres (17 miles) in length and 14.5 kilometres (9 miles) wide at its widest point. Salt Spring Island is heavily forested with primarily second and third growth fir, cedar, and alder. Many active farms are also located on the island. The highest elevation is Bruce Peak at 704 metres (2310 feet).<sup>1</sup>

### **C. Climate**

The climate of the island is characterized by cool dry summers and humid mild winters. The Gulf Islands generally receive about 800mm of precipitation per year (31.5 in), about half of the City of Vancouver<sup>2</sup>.

July, August and September are the warmest and driest months on Salt Spring Island. The average air temperature between July and September is 17 degrees C with less than 8 percent of the annual precipitation occurring over these months. The wettest period is between November and January when almost 50 percent of the annual

precipitation occurs. Between October and April, 80 to 85 percent of the annual precipitation occurs on Salt Spring Island.<sup>3</sup>

During the winter, temperatures at night may fall to -10 degrees C, and snow is not uncommon 2-3 times a year.

**References:**

1. Islands Trust, Salt Spring Island (<http://www.islandstrust.bc.ca/ltc/ss/projects.cfm>)
2. *The Green Pilgrim's Guide to the Southern Gulf Islands*, Brenda Guiled, Kimea Books, Victoria, B.C., [www.greenpilgrims.com](http://www.greenpilgrims.com)
3. Ministry of Environment, Water Stewardship Division ([http://www.env.gov.bc.ca/wsd/plan\\_protect\\_sustain/groundwater/library/Salt\\_Spring/Salt\\_Spring.html#exec](http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/library/Salt_Spring/Salt_Spring.html#exec))

**D. Natural Environment**

Salt Spring Island, the largest of the Southern Gulf Islands and the most populated, lies within the Coastal Douglas-fir Zone, one of 14 biogeoclimatic zones of British Columbia. The Coastal Douglas fir zone is the smallest zone and it has one of the highest levels of biodiversity.

The dominant tree species on the islands is the Douglas Fir, which is interspersed with Gary Oak and Arbutus in the drier regions, and Western Red Cedar and Grand Fir in the moister regions. Lower growing plants include Salal, Oregon Grape, Wild Rose, Sword Fern, and Salmonberry.<sup>1</sup>

The natural environment; forested land, wetlands, estuaries, and the riparian zones along streams, lakes, and seashores, have all been disturbed or lost to provide residential housing, employment, recreation, and transportation for people living on the island.<sup>2</sup>

Similar to interior regions, the soil climate of Salt Spring Island is semi-arid. This is because of the long dry summers. Fire hazard on the island therefore, are extremely high in the summer and 'No Burn' restrictions are common in July through to September<sup>3</sup>.

Salt Spring Island has eight freshwater lakes, the largest are: St. Mary Lake, Stowell Lake, Blackburn Lake, Cusheon Lake, and Weston Lake. The island also has some of the highest peaks in the Gulf Islands: Mount Bruce, Mount Maxwell, and Mount Tuam.

**References:**

1. The Southern Gulf Islands Atlas, <http://www.shim.bc.ca/gulfislands/islands.cfm>
2. *British Columbia's Coastal Environment: 2006*, Ministry of Environment, Strategic Policy Division, <http://www.env.gov.bc.ca/soe/bccea/>
3. *The Green Pilgrim's Guide to the Southern Gulf Islands*, Brenda Guiled, Kimea Books, Victoria, B.C., [www.greenpilgrims.com](http://www.greenpilgrims.com)

## E. Economy

Salt Spring Island may be known as a tourist and retirement destination, but it also has a vibrant economy rooted in the arts & crafts industry and anchored by the largest employers; public service organizations (government and healthcare); tourism; and, the construction industry. However, by far the largest source of income on Salt Spring Island is from 'Non-Employment Sources' like pensions and investment income.<sup>1</sup>

Many residents depend to some extent on tourists for income. The height of the tourist season falls roughly between June and September; with the highest number of visitors during July and August.<sup>2</sup> In fact, most of the businesses that belong to the Chamber of Commerce are accommodations, specifically, Bed & Breakfast establishments.

Salt Spring Island Dollars are available on a one-to-one exchange with the Canadian Dollar and accepted on Salt Spring on the same basis as the national currency. The goal of the local currency, which was introduced to the Island in September 2001, is to raise funds for worthwhile community projects while promoting local commerce and goodwill<sup>3</sup>.

### References:

1. Salt Spring Island Employment and Income Dependency, 2001, <http://www.islandstrust.bc.ca/poi/pdf/forumssiemploymentandincomdependency.pdf>
2. Salt Spring Chamber of Commerce, Tourist Information Center Statistics, <http://www.SaltSpringtoday.com/>
3. Island Monetary Fund (IMF) of Salt Spring Island, <http://www.SaltSpringdollars.com/>

## 3. Salt Spring Island Community Profile – Challenges

Like many small communities that are highly desirable destinations to live and visit, Salt Spring Island must come to terms with many development and growth trends that may conflict with the Islands Trust mandate to “*preserve and protect*”.

Some of the most pressing issues include:

- Potable Water
- Affordable Housing
- Unsustainable Development & Growth
- Transportation Methods
- Energy Usage
- Protection of the Natural Environment
- State of Agriculture
- Economic Development and Tourism

Over the next several months, Salt Spring Island residents will be addressing many of these issues as the Official Community Plan (OCP) review process gets underway with named Focus Groups, presentations and events on these topics.

This document is to serve as a resource document for all islanders but specifically for the Focus Groups participants. Every attempt was made to reference data and information accurately in the hope that many readers will delve deeper into the data to find out more than the snapshots provided herein.



## 2.0 Demographics

Data and analysis is based on 2001 Statistics Canada Census since the 2006 Census results are not yet available.

### 1. Population

Salt Spring's population in 2001 was 9,279. Between 1991 and 2001 the population increased 17.89%, or about 1.79% per year.

Changes in the demographics from 1991 to 2001 suggest trends in how the population changed.

They include:

- Dominant age range was slightly older in 1996 than in 1991 (45 to 49 years versus 35 to 44 age range in 1991) and older still in 2001 (50 to 54 years).
- There was a slight increase in average number of children per family in 1996 than in 1991 (.9 versus .8) and in 2001 a slight drop again to .8 per family.
- In 2001 approximately 20% of the population was over 65 (1895) and 6% was under 15 years of age (570).
- Households consisting of non-family members increased from 30% of households in 1991 to 33% in 1996, and have since dropped to 19% in 2001.
- Lone parents - increase in number to 12% of families in 1996 and even higher increase to 15% in 2001.

### References:

- 2003 BC Community Dependency Model based on 2001 Census data. BC STATS, February 3, 2004
- Profiles for Salt Spring, Southern Gulf Islands, Galiano, Mayne, Pender & Saturna, 2001 Census of Canada, Regional Planning Services, 2001
- 2001 Community Profiles, Capital F, British Columbia, Stats Canada, 2001

### 2. Residency<sup>1</sup>

- Calculations are based on the number of parcels not by the number of property owners (excluded are Crown land, parks, schools and institutional owners).
- Data was derived from 2005 BC Assessment Authority's property owners mailing address information.

<b>SALT SPRING ISLAND 2005*</b>		<b>Residency</b>
# of properties		Permanent Residency
3975	69.4	Salt Spring
993	17.3	BC
294	5.2	Canada
320	5.6	USA/overseas
149	2.5	mixed
5731	100	Total
*includes surrounding islands in LTC area except Piers		

<b>Comparative Residency 1991-2001</b>					
<b>Salt Spring 2001</b>		<b>Salt Spring 1996</b>		<b>Salt Spring 1991</b>	
Full year/Full-time	Seasonal/Part-time	Full year/Full-time	Seasonal/Part-time	Full year/Full-time	Seasonal/Part-time
69%	31%	62%	35%	75%	25%

#### References:

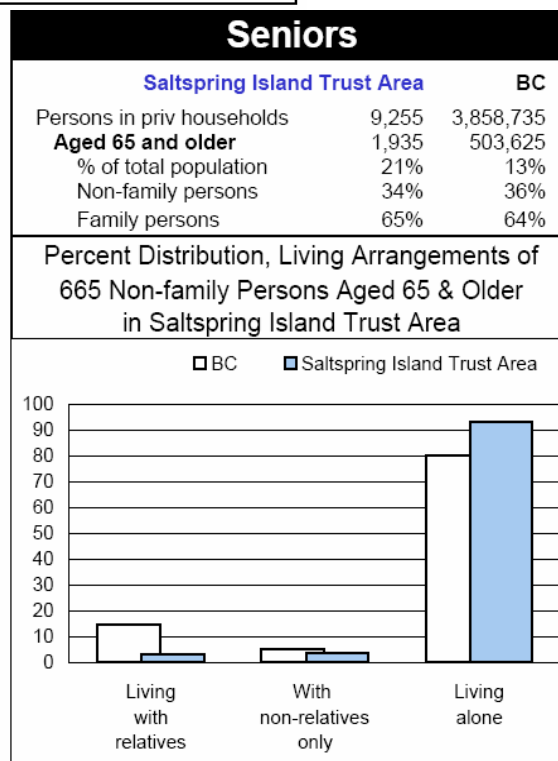
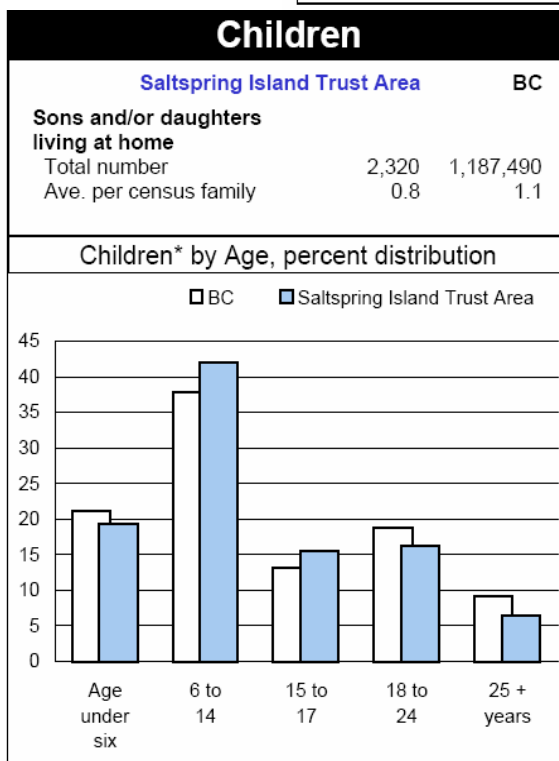
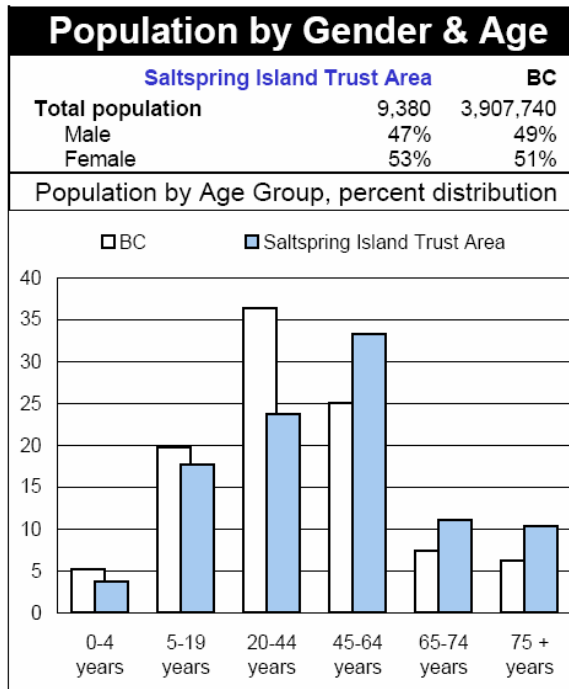
1. Residency of Property Owners (by Mailing Address) of selected islands in the islands Trust Area, Islands Trust, 2005

### 3. Census Data Summary: 2001

The following graphics are from the PDF file: 2001 Census Profile of British Columbia's Regions: Salt Spring Island Trust Area, 2001. This data is for the entire Salt Spring Island Local Trust Area which includes a number of associated islands such as Piers, Prevost, Wallace, Secretary, Norway and the Shoal Islands. For this reason, the following total population figures are slightly higher for the Salt Spring Island Trust than for Salt Spring Island itself. More information can be found at: <http://www12.statcan.ca/english/Profil01/PlaceSearchForm1.cfm>

#### A. Population and Households

- In 2001 the population of Salt Spring Island was 9,279
- In 2001 the largest demographic on Salt Spring Island was 45-65 years of age.
- The majority of households were made up of two persons.
- Over 40% of children were aged 6-14 years of age.
- The vast majority of seniors, 65 and older, lived alone.

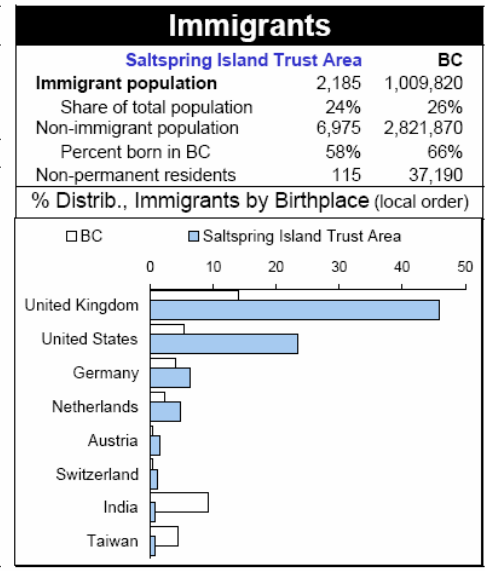
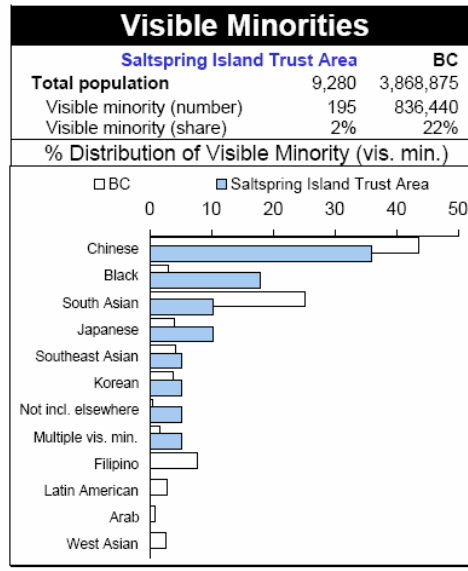


## B. Diversity

- Of the 2001 population on Salt Spring Island 215, were of Aboriginal Identity.
- The majority of visible minorities were approximately 2% of the population.

- Immigrant share of the population was 24% in 2001.

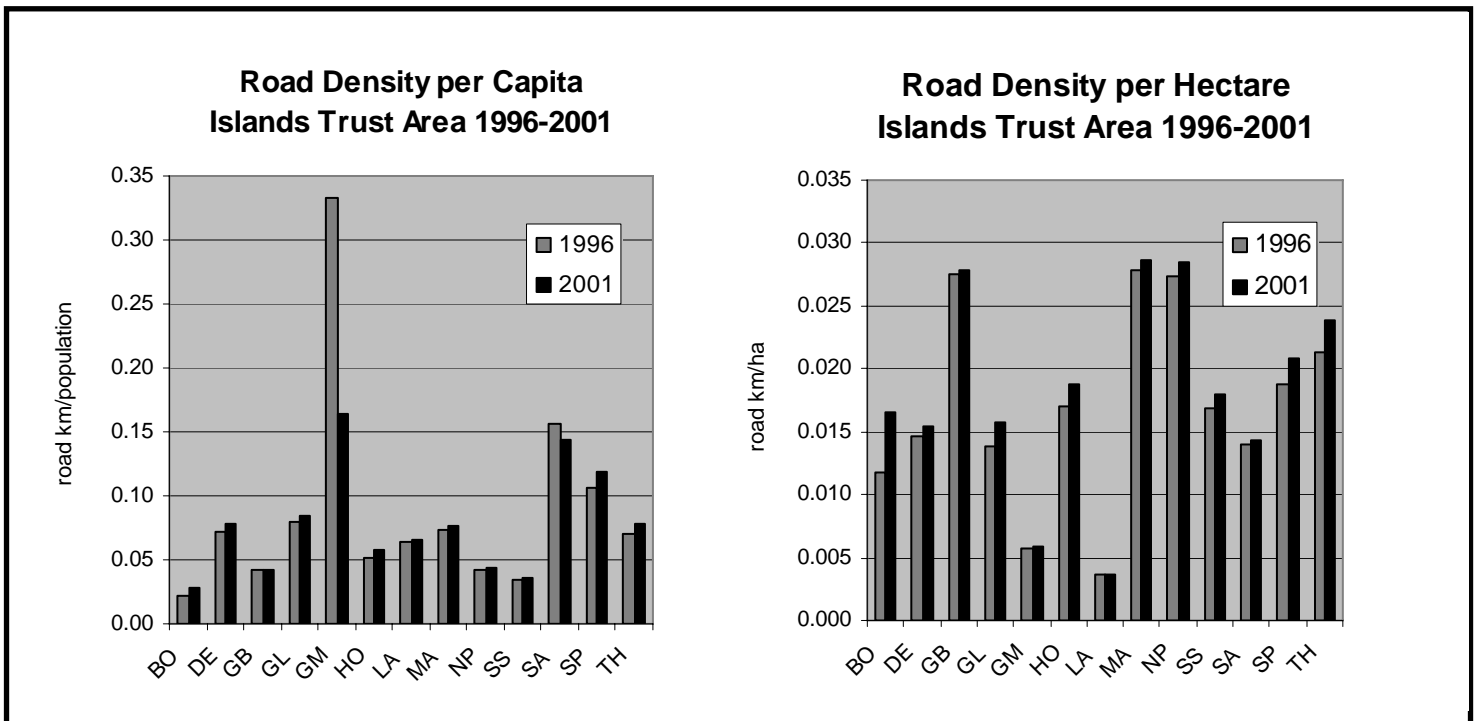
First Nations		
Saltspring Island Trust Area		BC
Total population	9,275	3,868,875
<b>Aboriginal identity</b>	215	170,025
Share of total population	2%	4%
North American Indian (*si...	60	118,290
Metis (*single response)	140	44,270
Inuit (*single response)	10	805
Multiple Aboriginal response	0	1,170
Other Aboriginal response	10	5,490
<b>Aboriginal ethnic origin</b>		
<b>Single response</b>	65	87,355
North American Indian	15%	90%
Metis	38%	10%
Inuit	46%	0%
<b>Multiple response</b>	315	134,980
North American Indian	76%	71%
Metis	24%	28%
Inuit	0%	1%
1996 & 2001 Census had question on Aboriginal identity. Origin data is more comparable with previous censuses.		



### C. Road Density

The following sections reflect data from the CRD Demographic Atlas 2004, Capital Regional District Regional Planning Service, 2004.

- The length of public roads on Salt Spring increased from 314 to 333 km between 1996 and 2002.



Legend:		
BO = Bowen	DE = Denman	GB = Gabriola
GL = Galiano	GM = Gambier	HO = Hornby
LA = Lasqueti	MA = Mayne	NP = North Pender
SS = South Pender	SA = Saturna	SP = Salt Spring

**D. Change in Population**

- Density of the population is also the highest in the Southern Gulf Islands at 50.9 /sq km.
- The population growth is forecast at 6% from 2001 to 2026.
- The largest growth of the population, 19.4%, expected between the ages of 45-54.

**References:**

- CRD Demographic Atlas 2004, Capital Regional District Regional Planning Service, 2004

**E. Number of Parcels/Folios on SSI & Property Taxes Net (2005)<sup>1</sup>**

- Of the total trust area, Salt Spring Island has approximately 46.8% of the population (as of 2001), and contributes 42.6% of all property taxes paid in the Trust Area.

Percent of Total Trust Area	Population (2001)		Property Taxes (2005)		Number of Folios		Assessed Net Tax Value (2006)	
	#	%	\$	%	#	%	(\$,000)	%
	<b>Salt Spring Island</b>	9,279	46.80%	\$1,585,153	42.60%	5,878	28.70%	\$2,661,993

**References:**

1. 2001 Island Trust Area Statistics, Islands Trust, 2005

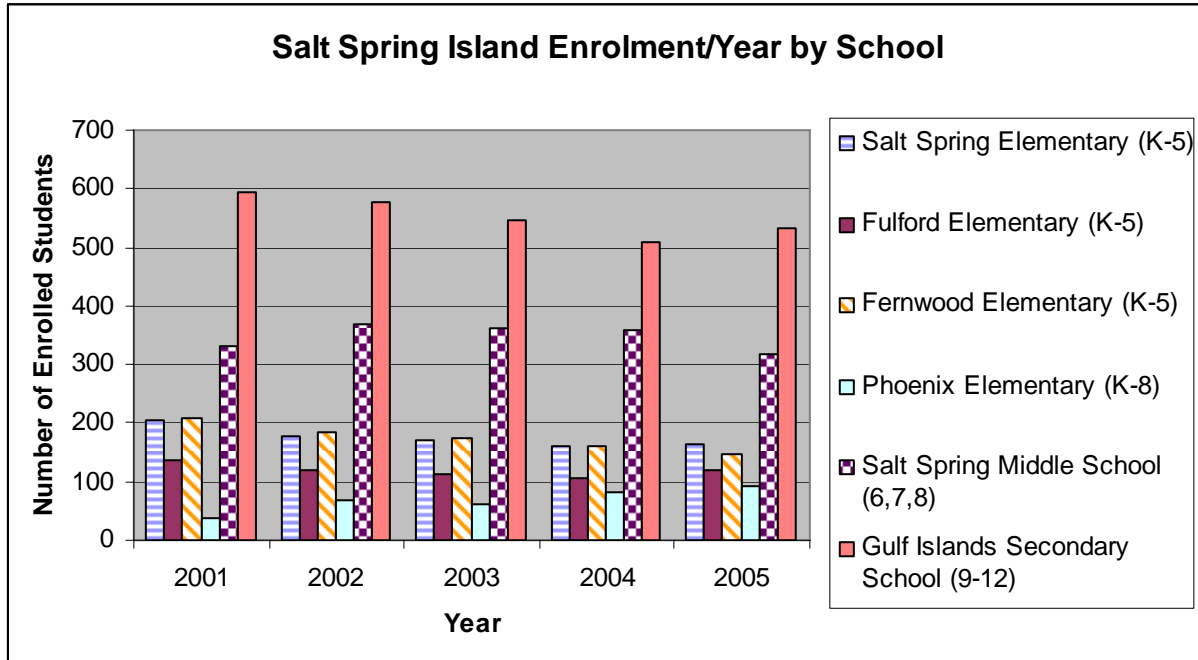
**4. School Enrollment 5 Year Trends<sup>1</sup>**

- Between September of 2001 and September of 2005 total enrolment (Full-time Equivalent FTE) dropped by approximately 10% from 1513 to 1372.

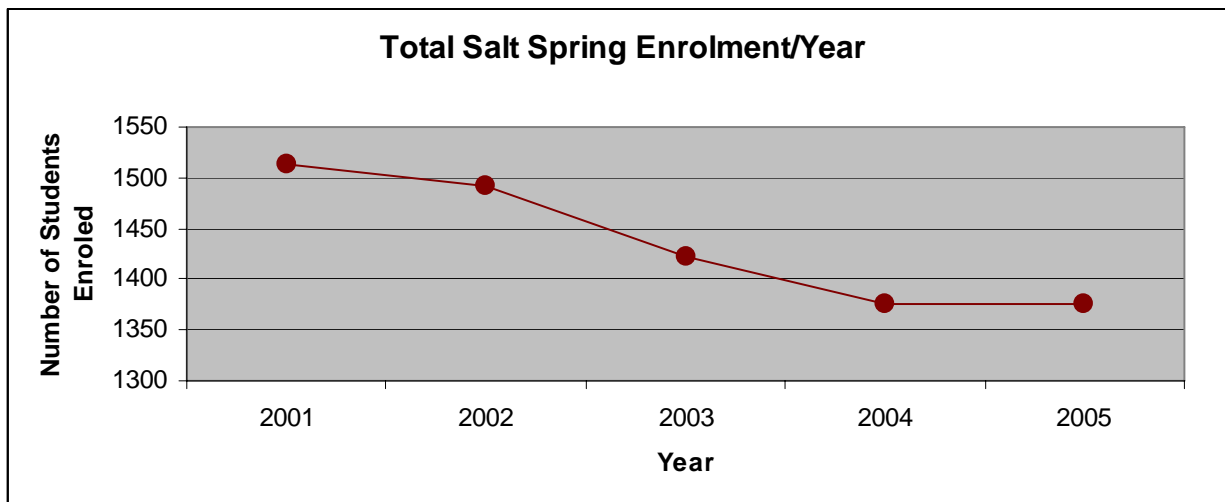
School Name	Funded FTE*/Year				
	30-Sep-01	30-Sep-02	30-Sep-03	30-Sep-04	30-Sep-05
Salt Spring Elementary (K-5)	205	177	172	161	163
Fulford Elementary (K-5)	136	119	113	107	119
Fernwood Elementary (K-5)	207	184	174	160	146
Phoenix Elementary (K-8)	38	68	60	81	92
Salt Spring Middle School (6,7,8)	332	368	361	357	318
Gulf Islands Secondary School (9-12)	595	576	546	510	534
Totals All Grades/Year	1513	1492	1426	1376	1372

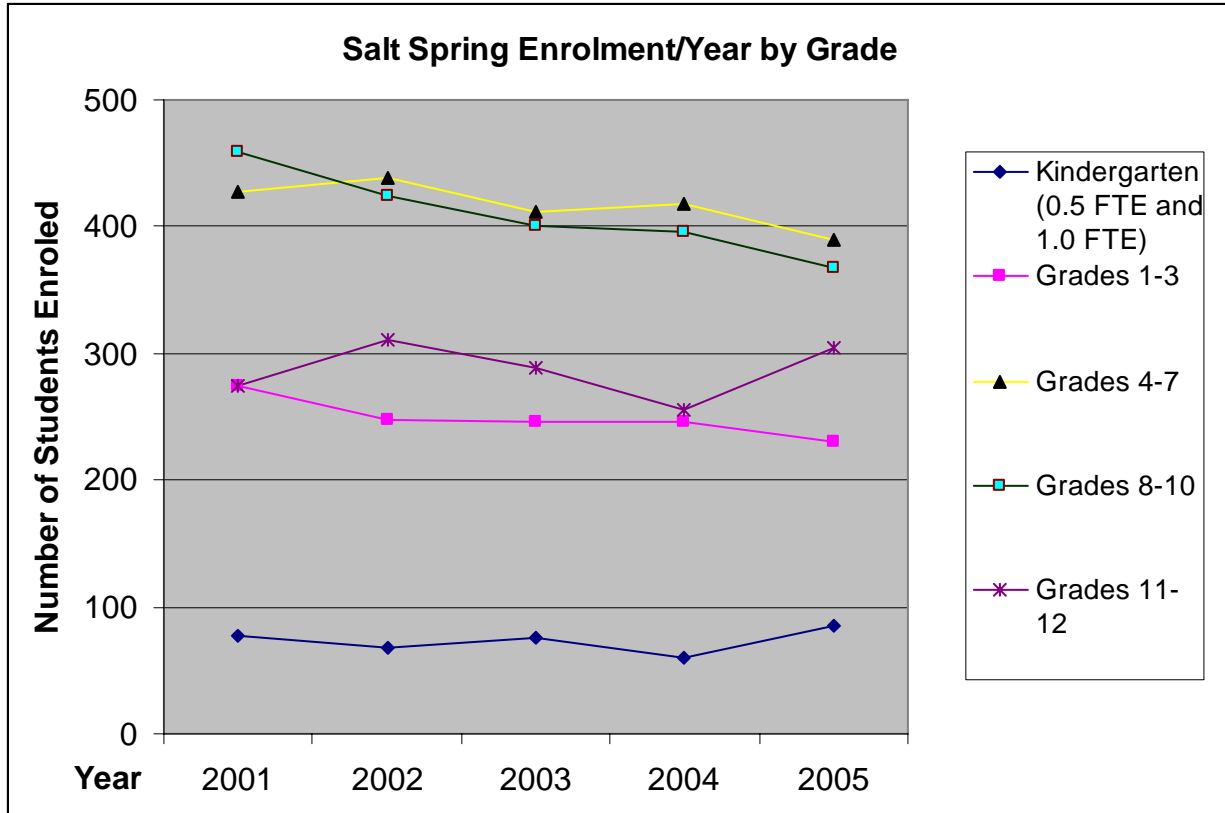
\*Excluding Homeschool

- There has been a steady but slight decline in enrolment over the past 5 years with a slight increase from 2004 to 2005.
- Approximately 60-70 international students are registered per year in the Middle School and GISS. They originate from Japan, Korea, South America, and Germany.
- In 2006 the Phoenix School enrolment will fall under the GISS, not the Middle School.



- All Grades are generally decreasing in attendance with a slight increase in Kindergarten.





**References:**

1. Form 1701 (2001-2005) Funded Enrolment as of Sept. 30<sup>th</sup> for Schools Funded within the F.A.S., Ministry of Education, Data Management and Student Certification.

**5. Waste Management**

**A. Liquid Waste Management<sup>1</sup>**

- Ganges, Salt Spring Island, has secondary treatment, wastewater disinfected before discharge.
- This wastewater is currently discharged into Ganges Harbour.
- In 2006 a feasibility study was done to determine if there was demand from commercial enterprises and the GISS along Rainbow Road to purchase the water (greywater).
- There is a second tertiary treatment plan at the north end of the island, Maliview Sewage Treatment.

**B. Sewage Outfalls Compliance Monitoring<sup>2</sup>**

- This section references a 2003 report. Please refer to the following Section D for the 2006 report.

**References:**

1. State of Environment Indicators in BC's Capital Region, 2006, pg. 51  
<http://www.crd.bc.ca/rte/report2006/documents/SOEI2006final.pdf>
2. CRD Environmental Services. 2003. Compliance monitoring for sewage outfalls operated by the Capital Regional District of British Columbia, Canada.  
[http://www.crd.bc.ca/es/environmental\\_programs/wastewater\\_marine/gulf\\_renfrew/documents/2003compmon\\_000.pdf](http://www.crd.bc.ca/es/environmental_programs/wastewater_marine/gulf_renfrew/documents/2003compmon_000.pdf)

**C. Liquid Waste processing at Burgoyne Bay:**

	<u>Sewer sludge</u> (imperial gallons)	<u>Septage</u> (imperial gallons)
2003	543,368	363,280
2004	393,228	498,346
2005	352,672	607,776
2006 est.	339,000	530,000

- Salt Spring Island's liquid waste disposal site is located off Burgoyne Bay Road and is operated by the Capital Regional District.
- It receives septage primarily from Salt Spring Island, but also from other Southern Gulf Islands. It also receives waste secondary sewage sludge from the Ganges and Maliview wastewater treatment plants.
- The liquid filtrate is treated through a membrane process to a very high quality and discharged to a ground disposal bed.
- The resulting solids are transported in a specially-constructed bin to a composting operation in Cobble Hill when operational, or to the regional landfill at Hartland Road on Vancouver Island.
- The significant decline in sewer sludge received at the plant is the result of technical improvements made at the Ganges treatment plant, which dewater the sludge to a greater degree.

**Reference:**

- CRD

**D. Ganges Wastewater Treatment Plant (2006)**

- The Ganges wastewater treatment plant, operated by the Capital Regional District dewateres sewage using a membrane technology and thickens the sludge using a separate membrane system.
- The liquid outfall is released by pipe well out into Ganges Harbour. In 2006 outfall from the Ganges plant had 100% permit compliance, and the plant had no odour complaints.



- In 2005 the Ganges treatment plant served 332 taxable folios, about 424 single family equivalents, and processed 170,000 cubic metres of sewage, about 37.4 million imperial gallons.

**Reference:**

- CRD

**E. Solid Waste Management**

**Recycling on SSI**

- Recycling services, and the local depot, on SSI are provided by Salt Spring Island Community Services Society, under contract with the CRD.
- Both residents and non-residents use the recycling depot and services.
- Non-resident material brought to the island depot accounts for 10% of material/year.
- Volume received at the depot by residents is approximately 115kg/capita/year.
- In 2004, the CRD paid \$187,914 to Community Services for the depot operation, a cost of \$160/tonne, or \$33.20/household/year.

**Salt Spring Island Depot collects the following:**

- Products Accepted Aluminum
- Aluminum Foil and Plates
- Appliances (white goods)
- Batteries (automotive)
- Box Board
- Brass
- Bronze
- Car Radiators
- Cardboard
- Cast Iron
- Copper
- Corrugated Cardboard
- Drink Boxes
- Drywall (gypsum board - some limits may apply)
- Envelopes, Fine Paper, Office Paper
- Glass (non-refundable food/beverage)
- Glass (refundable beverage)
- Gypsum Board
- Lead
- Mixed Paper
- Newspaper
- Paint
- Paper

- Pizza Boxes (no food residue or inserts)
- Plastic Containers
- Plastic Containers (refundable beverage)
- Plastics (phone for details)
- Steel
- Tetra Paks (refundable)
- Tin Cans (food and beverage non-refundable)
- Zinc

**Materials Collected at the SSI Depot**

<b>Material Category</b>	<b>Material Collected at SSI Depot</b>	<b>Quantity Received in 2004 (Tonnes)</b>
<b>Paper Fibers</b>	Old Corrugated Cardboard	232
	Mixed Waste Paper (including newspaper)	350
<b>Containers</b>	Rigid Plastic Containers (#1-#7)	27
	Glass Bottles & Jars	104
	Metal Cans	41
	Tetrapak and gable top	Included in mixed waste paper
<b>Other Materials</b>	Ferrous Metal	194
	White Goods	115
	Batteries	11
	Drywall	83
	Tires	11
	<b>TOTAL</b>	<b>1168</b>

**References:**

- Final Report, CRD , Salt Spring Island Recycling Services Assessment; Submitted to: Tom Watkins, Snr Solid Waste Programs Planner, Environmental Services Dept. Submitted by: Earth Tech, Conrad Fichtner, November 25th, 2005
- CRD: Forum of Councils “Changing People, Changing Spaces: Future Dimensions for Managing Change in the Capital Region”, by Andrew Ramlo, Urban Futures: Strategic Research to Manage Change.

## 3.0 Agriculture

### 1. Status of Farmland on Salt Spring Island

<b>Statistics on Salt Spring Island Farmland<sup>1</sup></b>	<b>1994</b>	<b>2004</b>
<b>Number of Parcels Classed as Farm</b>	294	303
<b>Area of land classified as farm</b>	10, 429 Ac.	9642 Ac.
<b>Number of Parcels in ALR</b>	450	424
<b>Area of Land in the ALR</b>	10,755 Ac.	10,051 Ac.
<b>Number of parcels classified as farm and in the ALR</b>	157	143
<b>Area of land classified as farm AND in the ALR</b>	6,297 Ac.	6,144 Ac.

- Estimated loss of farmland is 704 acres
- According to the BC Assessment there appears to be 4400 acres of ALR land without Farm Class Status that could be put into production.

#### References:

1. Farmers Institute Director, SSI, Letter to Islands Trust (handout), May 28/06  
1994 data-John Woodward Letter, 2004 data Doug Randell CEO and Commissioner BC Assessment
2. Letter, Farmer's Institute, BC Assessment Data for Salt Spring Island, May 2006.

### 2. Produce Production on Salt Spring Island

Excerpts from:

Salt Spring Island Local Produce Study: Final Report, Island Natural Growers Gulf Islands Chapter of Canadian Organic Growers, November 2005, Patricia Reichert

In March 2005, Island Natural Growers launched an eight-month study of commercial produce Agriculture on Salt Spring Island. These are some of the findings.

## **A. Summary of Findings from Report**

- Numbers of acres of farmland in commercial produce production, Salt Spring Island, 2004-05 is 90 acres, a small proportion of total farmland on the island.
- This represents about 1% of the total amount of active farmland (9600 acres) on Salt Spring Island and about 6% of total acreage on the farms that are currently engaged in commercial produce production (1440 acres).
- In summary:
  - 6% of the total acreage on product farms,
  - 1% of total active farmland on the island, and,
  - 1% of the total land in ALR.
- 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

## **B. 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.
- In 2004, commercial producers grew approximately 232,700 pounds or just under 105,800 kilograms of produce, consisting of: 129,220 pounds of vegetables including culinary herbs; 102,180 pounds of fruit; and 1270 pounds of nuts in the shell.
- Salt Spring 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 are growing commercially.

<b>The top 10 vegetable crops and top 5 fruit crops from 2004</b>	
Salad Crops and Lettuce	Apples
Tomatoes	Grapes
Garlic	Strawberries
Carrot	Plums
Winter Squash	Melons
Potatoes	
Asparagus	
Cucumbers	
Beats	
Onions	

- A small amount of the produce is available through most of the year, growers use greenhouses to extend the season.
- There is not a lot of produce commercially available between October and April.
- Winter production is very limited in quantity and variety.
- 60% of the commercial produce farmers involved in this study expressed an interest in increasing their vegetable and fruit production 38% expressed an interest in reintroducing grains for human food into their production mix.
- The study found that while there is significant potential for increasing produce production on Salt Spring Island it will require careful planning involving farmers, grocers and other food service buyers and the general public.
- 80% of the producers in the study said that access to farmland is not an obstacle to increasing production but did identify several significant and complex issues that need to be considered. These factors are obstacles affecting the feasibility of expansion.

<b>Possible Obstacle</b>	<b>Significant Obstacle</b>	<b>Somewhat of an obstacle</b>	<b>Not an obstacle</b>	<b>N/A</b>
Availability of/access to agriculture land	1 (4%)	3 (12%)	21 (81%)	1 (4%)
Availability of resources to bring land into production	2 (8%)	11 (42%)	11 (42%)	2 (8%)
Availability of financing	4 (16%)	11 (42%)	8 (31%)	3 (12%)
Availability of farm workers	9 (35%)	8 (28%)	8 (31%)	1 (4%)
Availability of farming information	1 (4%)	4 (16%)	19 (73%)	2 (8%)
Availability of equipment	2 (8%)	7 (27%)	16 (61%)	1 (4%)
Availability of quality water	3 (12%)	6 (24%)	16 (61%)	1 (4%)
Access to marketing opportunities	4 (16%)	14 (54%)	7 (27%)	1 (4%)
Availability of storage	7 (27%)	15 (58%)	3 (12%)	1 (4%)
Security of land	2 (8%)	2 (8%)	20 (77%)	2 (8%)

- 92% of commercial produce farmers on Salt Spring are interested in exploring ways of coordinating various aspects of operations with other producers.
- 66% of producers said they are interested in exploring ways of coordinating the promotion and marketing of local produce.
- 50% said they are interested in looking at options for coordinating storage.
- 50% expressed an interest in the possibilities of coordinating transportation, sharing equipment and coordinating wholesale distribution.
- Fewer expressed an interest in sharing inputs, such as compost, or coordinating crop planning.
- A small number said that shared land use may be of interest to them.

**C. Farmland in commercial produce production Salt Spring Island, 2004-05**

<b>Number of farms</b>	<b>Total farm acreage</b>	<b>No. of acres in vegetables</b>	<b>No. of acres in fruit</b>	<b>No. of acres in nuts</b>	<b>No. of acres in other edible crops</b>	<b>Total no. of acres in produce</b>
44	1440	39.7	47.3	3.6	1.6	<b>92 acres (6% of total acres)</b>

- About 90% of the farmers own the land they are farming. The remaining 10% either rent the land they are farming or are farming in a shared owner-tenancy arrangement.
- The farms range in size from .5 of an acre to 200 acres; the median size of the farms is 10 acres.
- 41% (18) of the farms are 5 acres or smaller; 27% (12) are 25 acres and larger; 16% (7) of the farms are over 100 acres.

**D. Zoning of the Farmland farmed by commercial produce farmers, 2004-05**

<b>Agriculture Land Reserve (ALR)</b>	<b>ALR + Rural</b>	<b>ALR + Rural &amp; Residential</b>	<b>Rural</b>	<b>Watershed</b>	<b>Residential &amp; Residential Rural</b>	<b>Unknown</b>	<b>Total</b>
550	299 acres	117.7 acres	287.5 acres	47 acres	9.7 acres	128.9 acres	<b>1440 acres</b>

- At least 69% of the commercial produce farmland is located completely or partially in the ALR.
- Another 20% of the land is zoned rural.

## E. Summary of farming practices

Half or mostly mechanized	Mostly hand labour	Certified Organic	Organic (not certified)	Use chemicals
15%	85%	23%	60%	20%

- 70% of producers said they use a greenhouse for various purposes and 34% said they use the greenhouse year-round.
- On average the producers have been farming almost 11 years on Salt Spring, ranging from 1 year to 28 years.

## F. Income from Produce Farming

- 76% of farmers said that their income from produce sales is less than 35% of their total family income; 11% said it represents up to 75% of their family income; and 5% said it is more than 75% of the total family income. 8% of respondents declined to answer this question.
- 63% said their income from produce is increasing.
- 24% said it is staying the same.
- 11% said it is declining.
- Producers stated that they rarely have excess produce. They are able to market most of the commercial produce they grow.
- Only 2% of respondents in the survey said that they regularly have excess produce and most of the excess is apples.
- Commercial producers sell almost 60% of all their produce directly from the farm, markets and farm stands.
- Only 30% is sold through local grocers, restaurants and caterers.
- 45% of respondents said that the produce they grow supplies more than one-half the produce they eat in their home.

## G. Water Usage

- About 55% of the farmers are using wells to water their produce crops and 47% use ponds.



- Less than 15% also use creek, lake, waterworks and/or spring water. Only 20% of the farmers said they use catchments tanks.

### 3. 2006 Economic Impact of Farmer's Markets on Salt Spring Island

The following summary provides current economic impact of the Saturday Market and Tuesday Farmer's Market.

Excerpts from:

UNBC Economic and Community Impact Assessment, Salt Spring Island Farmers Markets: Market in the Park Tuesday Farmers Market  
Salt Spring Island, BC: Preliminary Report, September 19, 2006, School of Environmental Planning, University of Northern British Columbia, Prince George, British Columbia, Canada

URL: [www.unbc.ca/planning](http://www.unbc.ca/planning)

- Shopping patterns of Farmers Market shoppers
  - 30% spent over \$40
  - 41% spent 20\$ or under
- Economic Impact of Tuesday Farmers Market shoppers
  - Annual economic impact: \$177,000
- Economic Impact of Saturday Market
  - Annual economic impact: \$2.8 million
- Economic Impact of Saturday Market in Ganges Area, total
  - Annual economic impact: \$3.1 million
- Visitors to Tuesday Farmers Market
  - The estimated number of market customers 966
- Visitors to Saturday Farmers Market
  - The estimated number of market customers 4,968
- Frequency of locations where shoppers buy local produce
  - Respondents shop at the farmers markets about once every two weeks. They shop more frequently at small grocery stores and health food stores
- Frequency that respondents see local produce in grocery stores
  - 41% always see it
  - 39% see it once in a while
  - 18% never see it
  - 3% don't know

#### 4. Meat Processing on Salt Spring Island

Excerpts from:

Gulf Islands Livestock Processing Feasibility Study, Final Report

April 14, 2005 PM Associates Ltd, Management, Financial, Engineering and Design Consultants, Winnipeg Manitoba

- Meat Processing Capacity
  - Currently there are not any processing facilities available on Salt Spring Island or any of the Gulf Islands
  
- Meat Processing Facilities: Portable and Stationary
  - Currently 3 processing options under review:
    1. A fixed facility for slaughter and further processing
    2. Development of a portable facility that would be moved from island to island.
    3. Development of a transportation infrastructure to access off island plants
  
- Meat Processing: Waste Issues
  - Wastes issues vary depending on what approach is taken for slaughtering. Obviously if the animals are slaughtered off island the waste is disposed of by the facility. On island solid waste cannot be disposed of in a landfill and liquid waste is even more of an issue as local governments, like municipalities, will not allow the effluent into the water system untreated.
  
- Meat Processing: Water Use
  - Along with the disposal of liquid effluent, the amount of water used in slaughter, which will be turned into waste water, is significant. Averages range from 5-22 gallons of water per lamb.

## 4.0 Water

### 1. Groundwater

Excerpts from the *Groundwater Conditions on Salt Spring Island*: By, WS Hodge P. Geo, Groundwater Hydrologist, Groundwater Section Hydrology Branch, Water Management Division, March 1995

#### A. Interaction of surface water and ground water

- Surface water and ground water have been found to be interdependent and changes to one may affect the other.
- Historically the two have been studied independently but the key is coordinated management and development.
- Groundwater discharge impacts creek and water flow at different times of the year and may impact local wells.
- Further study of watersheds and drainage basins and their impact on each other is needed.
- Recommendations included installing seepage meters in the bottom of lakes, to design and construct peizometers to obtain rate and direction of ground water flow and do water quality sampling of ground and surface water.

#### B. Well Water Record Information

- The number of wells, in use or not, is unknown on Salt Spring because submitting water well records is not mandatory.
- Wells previously used may not be in use for a variety of reasons including abandonment and inadequate water quality.
- Many residents formerly on well water may now be on a community surface water system
- Well yields are estimated by drilling contractors from bail tests or during well construction but may not be as accurate as data from pumping tests. A bail test is the instantaneous change of the ground water level in a well or borehole.

### 2. Groundwater conditions within Ground water regions

The boundaries between water regions are marked by topographic dividers between natural basins and in most areas they correspond with surface drainage watersheds.

The main water regions on Salt Spring Island are as follows:

- Musgrave Region
- West Fulford Harbour Region
- Burgoyne Bay Region
- Fulford Harbour Region
- Stowell and Weston Lakes Region
- King Road Region
- Eleanor Point Region
- Cusheon Cove Region
- Beaver Point Region
- Lake Maxwell Region
- Cushoen Lake region
- Booth Bay Region
- Ganges Harbour Region
- Scott Point Peninsula Region
- St Mary Lake Region
- Long Harbour Region
- Trincomali Channel Region
- Houston Region

#### **A. Focus On: Fulford Harbour Region**

- 6168 acres of land with over 100 wells drilled between 1977 and 1996, the deepest, at that time, was 700 feet. Many wells located at lower elevations are completed below sea level and may be susceptible to sea water contamination during late summer or early fall when the demand for groundwater is high and replenishment is low.
- Water quality data is available for shallow dug wells only. Deeper wells in this area have not been tested for water quality.
- Because of the proximity of wells to Fulford Creek, surface/groundwater conflicts are possible.

#### **B. Focus On: Ganges Harbour Region**

- This area consists of 1581 acres.
- Surface water and groundwater community water supply systems and individual wells service residents of this region.
- Two water districts service Ganges. Residents and commercial buildings in and around the village of Ganges obtain water from St Mary and Maxwell lakes while the surrounding area and southern boundaries are supplied by Cusheon Lake.
- Smaller groundwater systems supply domestic and irrigation needs within the boundaries of the Ganges region.
- Between 1977 and 1996, 43 wells including 8 springs were drilled or dug. The deepest well in this region as well as on the whole of Salt Spring, is 825 ft with the average around 125ft.
- Groundwater demand versus ground water storage doubled from 1977 to 1996.

- On waterfront properties wells are subject to sea water intrusion during the late summer and early fall when the demand is highest. Other wells in the area may be subject to poor water quality where saline springs are located.

### 3. Household Water Use

This section is from the draft report from the 'Household Water Use Survey', DRAFT JUNE 23, 2006 conducted by Bob Burgess and Dick Stubbs, The Rainwater Connection.

#### A. Summary of Water District Responses

Water Districts Surveyed	2005 No. of Connections	Increase in Past 10 Years	Anticipated Next 25 Yrs.	Reasons for Increased Connections
North Salt Spring Water District (NSSWD)	1710	212	800 –up 47%	Development of vacant lots and new lots being developed
Maracaibo (Salt Spring Island)	70	20	25 –up 36%	Expect 100% build-out of vacant lots

#### B. Household Water Use Survey Summary of Water District Responses

Water Districts Surveyed	Recent Annual Household Water Use	Summer Vs. Winter Hsld. Water Use	Reasons for Seasonal Increase	Estimated Non Potable water Use in Summer
North Salt Spring Water District (NSSWD)	1995:261,000 L 2000:217,000 L 2005: <b>277,000 L</b> (61,000 gal)	140%	Added Occupants Added Irrigation B&B, small farms	Most of summer increase  25% of total summer water use
Maracaibo (Salt Spring Island)	1995: 193,000 L 2000: 161,000 L 2005: <b>153,400 L</b> (33,738gal)	205%	Pop. doubles in peak months Some large Irrigation users	Possibly ½ of summer increase 25% of total summer water use

Notes: Percentage increase of average summer monthly use (May-Sept) compared to average winter monthly use.

**C. Household Water Use Survey Summary of Water District Responses**

<b>Water Districts Surveyed</b>	<b>Changes In Hshld. Water Use Past 5-10 years</b>	<b>Reasons for Past Changes in Hshld Water Use</b>	<b>Est. Changes in Hshld. Water Use Next 25 years</b>	<b>Reasons for Estimated Future Changes in Hshld. Water Use</b>
<b>North Salt Spring Water District (NSSWD)</b>	6% increase over past 10 years	More “city” homes Higher outdoor use despite restrictions and stepped rates	About the same	Summer use restrictions and stepped water rates
<b>Maracaibo (Salt Spring Island)</b>	20% decrease over past 10 years	Stepped rates; more organized; improved attitudes	Continued decrease	Growing conservation ethic; water efficient gardening, rainwater

**D. Household Water Use Survey Summary of Water District Responses**

<b>Water Districts Surveyed</b>	<b>Current Water Conserving Policies</b>	<b>Public Acceptance of Water Conservation</b>	<b>Proposed Future Water Conservation Actions</b>
<b>North Salt Spring Water District (NSSWD)</b>	Meters, variable water rates, education, letters to high users, some restrictions	Overall acceptance but some resistance	More restrictions and bylaw enforcement
<b>Maracaibo (Salt Spring Island)</b>	Meters, variable water rates, education, published list and letters to high users	Overall acceptance but high users will pay higher price	More education

**4. Reclaimed Water on Salt Spring Island**

- The CRD is updating a feasibility study of the use of reclaimed water from the plant.

- An initial study was completed after School District 64 on SSI expressed an interest in this resource as a means to meet their irrigation needs while reducing costs.
- The initial study determined that in order for the reclaimed water to be sold to the school at a cost less than village water supplied by NSSWD (North Salt Spring Water District), an increase in demand for this resource was necessary.
- Reclaimed water is highly treated wastewater that many communities use for a variety of non-potable (non-drinkable) water uses including landscape irrigation, agricultural irrigation, industrial uses, toilet flushing and fire protection.
- The water from the Salt Spring Island treatment plant is of very high quality.
- While not considered suitable for drinking water or other potable uses, it significantly exceeds the raw water quality in most of the island's lakes, and meets all provincial requirements for reclaimed water use.

## 5. Future Water Supply and Demand

Excerpts from:

Future Water Supply and Demand on Salt Spring Island, Paper, Mike Larmour, May 2006.

Note: NSSWD is preparing a new Supply and Demand Study for the District service area, expected to be released in December, 2006

- All the island's water resources are derived from precipitation that falls on the island.
- Annual precipitation varies unpredictably from year to year. There may be a series of years with above or below historical average precipitation.

### Variability of Precipitation (Table 1 of Paper)

<b>1914-1995</b>	<b>Average</b>	<b>902 mm</b>
<b>1990-1991</b>	<b>Water year (wet)</b>	<b>1213 mm</b>
<b>1922-1945</b>	<b>Average</b>	<b>806 mm</b>
<b>1 in 50 drought year</b>		<b>566 mm</b>

- On average, only about 16.1% of annual precipitation fall during the period from May to September, a time in which water consumption, evaporation from lake surfaces, and evapotranspiration from land are at their height.
- In 2005, there were 1,700 connections in the North Salt Spring Waterworks District (NSSWD), including:
  - Single family dwellings,
  - Multiple family dwellings,
  - Commercial,
  - Institutional, and,
  - Industrial.
- NSSWD sources of water are Maxwell Lake and St. Mary Lake, with peak day withdrawal licenses totaling 500,000 gallons per day and 943,500 gallons per day, respectively.

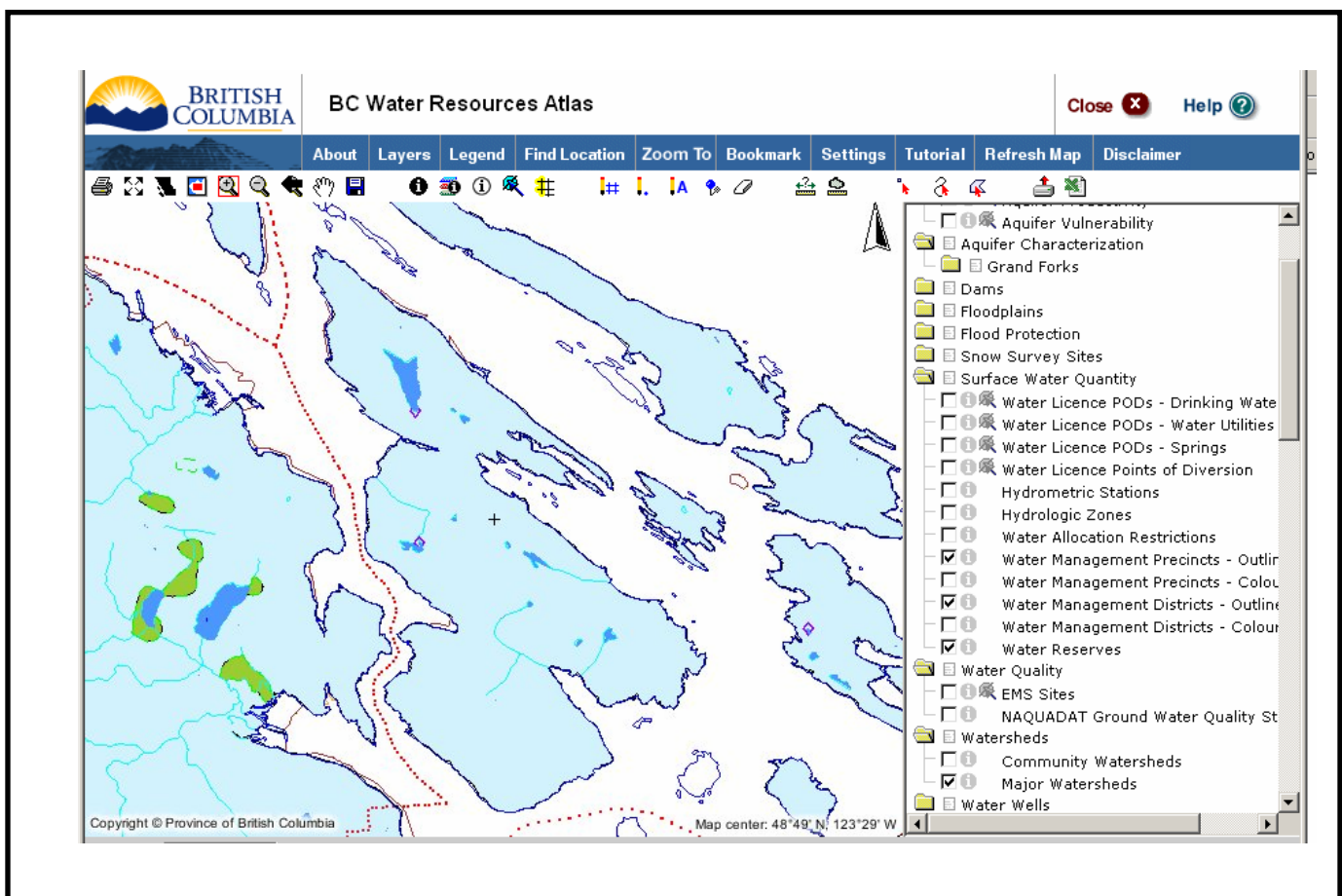
- Based on data from NSSWD:
  - Estimated Safe Yield (imperial gallons/year)
    - St. Mary – 140,000,000
    - Maxwell – 85,000,000
    - Total Safe Yield – 225,000,000

**References:**

- Future Water Supply and Demand on Salt Spring Island, Paper, Mike Lamour, May 2006

**6. Water Mapping On Salt Spring Island**

The following URL: <http://srmapps.gov.bc.ca/apps/wrbc/> accesses the BC Water Resources Atlas, a useful tool, though limited data exists for Salt Spring Island, to assist with water management.





## 5.0 Housing

### 1. Introduction<sup>1</sup>

- Salt Spring's population in 2001 was 9,279 (StatsCan census data) and 7,871 in 1991. Between 1991 and 2001 (StatsCan census data) the population increased 17.89%, or about 1.79% per year.
- There are several agencies that estimate dwelling units, including, 2001 StatsCan census data, CRD Regional Planning data, Salt Spring CRD Building Permit Office and BC Hydro Residential Accounts. To minimize confusing this report uses 2001 data provided by the 2001 StatsCan Census data of 4,913.
- The average number of residents per dwelling unit is steadily declining and has been less than two since 2001.

#### Population and dwelling Units<sup>2</sup>

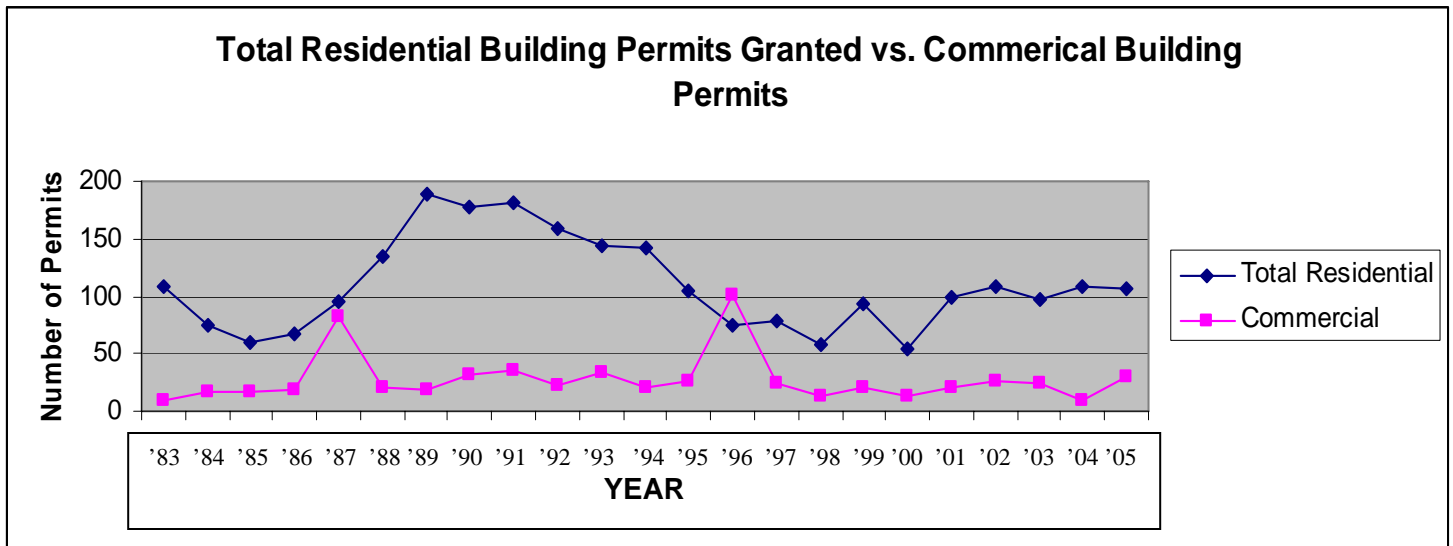
	Year	1991	1996	2001
Population (1)		7,871	9,247	9,279
Dwelling Units, census (2)			4,014	4,913
Residents per Dwelling Unit			2.30	1.89

1. StatsCan census 1991, 1996, 2001, Salt Spring Electoral Area.
2. CRD Regional Planning Services: Stats Can census data for 1996 and 2001.

### 2. Building Permit Data

Data from CRD Building Permit Office, Ganges, Salt Spring Island, July 2006

#### A. Building Permits Granted for all Residential (Single-Family, 2 Family, Multi Unit, Mobile Home and Move-In) & Commercial



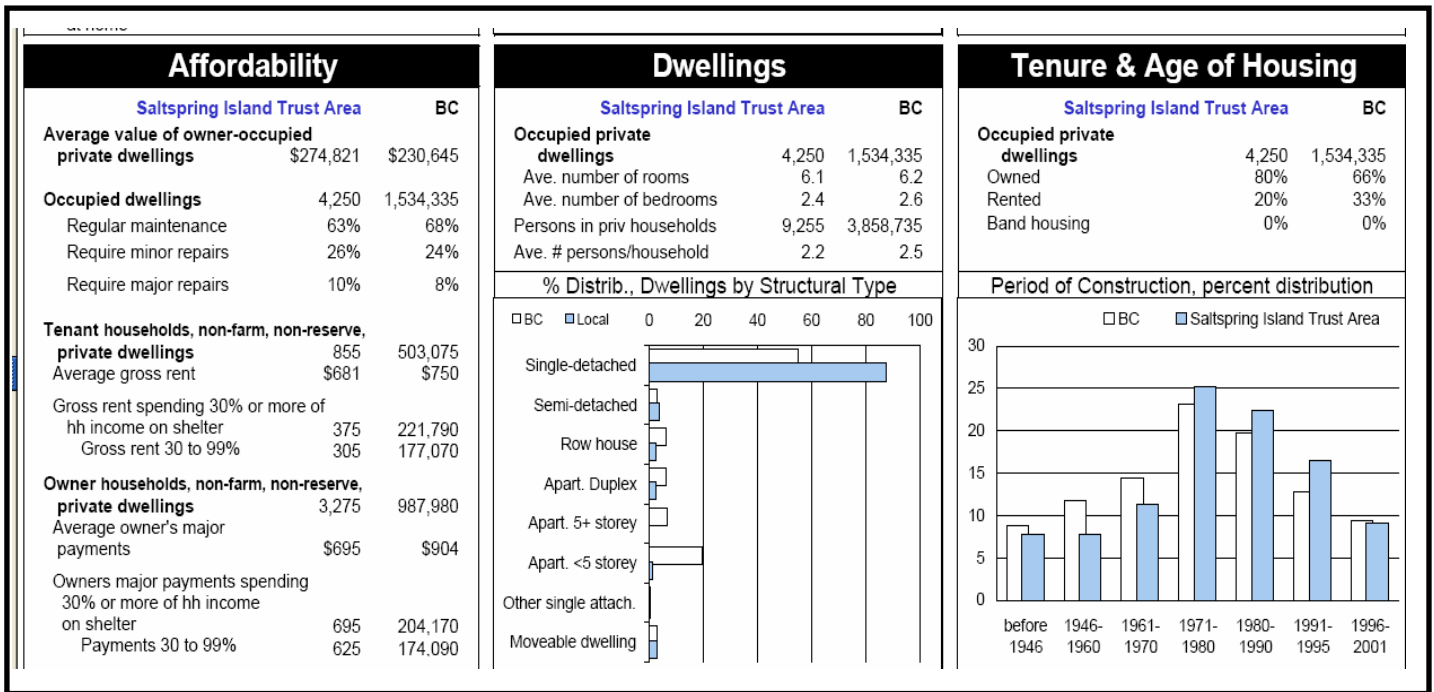
**B. Data Table for all Building Permit Types: Residential vs. Commercial**

	Single-Family	2 Family Dwelling	Multi Unit Dwelling	Mobile Home	Move-In	Total Res	Commercial
1983	99			6	4	109	10
1984	46		22	7		75	17
1985	49			10		59	16
1986	53	1		14		68	19
1987	81			15		96	83
1988	75	14	21	22	2	134	21
1989	125	2	25	25	11	188	19
1990	125	5	3	43	2	178	32
1991	137	2	8	32	2	181	36
1992	130	1	15	8	4	158	22
1993	116		21	5	2	144	33
1994	121		13	3	5	142	21
1995	89		11	3	2	105	27
1996	65	1	5	3		74	101
1997	74			3	2	79	25
1998	53			4	1	58	13
1999	81		5	4	4	94	20
2000	54			1		55	14
2001	82	2	8	1	6	99	20
2002	66		38	5	0	109	26
2003	82		11	2	2	97	25
2004	73	5	25	2	3	108	10
2005	62	1	40	2	1	106	29
<b>TOTAL</b>	1938	34	271	220	53	<b>2516</b>	<b>639</b>

**3. Census Data: 2001**

The following graphics are from the PDF file: 2001 Census Profile of British Columbia's Regions: Salt Spring Island Trust Area, 2001

More information can be found at: <http://www12.statcan.ca/english/Profil01/PlaceSearchForm1.cfm>



#### 4. Community Housing

Excerpts from:

Background Report & Recommendations, Prepared for the Islands Trust  
 SSI Local Trust Committee, By the Salt Spring Community Housing Task Force  
 December 7, 2005

##### A. Summary of Findings

- In the Spring of 2004, a Salt Spring Island Housing Survey was done. Of the 860 usable surveys, 636 were homeowners, 224 were renters and 26 reported alternate accommodation (boat, homeless, worktrade etc.).
- This represents a ratio of 72% owners, 25% renters and 3% alternate. For comparison, the StatsCan 2001 ratio is 80% homeowners to 20% renters. The responding households represent about 16% of the estimated 5,350 dwelling units on Salt Spring. The survey data provided a reasonable snapshot of the housing situation on Salt Spring in the Spring of 2004.
- Homeowner respondents reported 70 suites and 51 cottages currently in long-term rental. If these numbers represent 16% of the total for Salt Spring, there are currently about 440 suites and 320 cottages in long-term rental.
- The large majority—186 (89%) of 209—of renter households report their total household income to be less than the median household income for SSI of \$48,948 (StatsCan

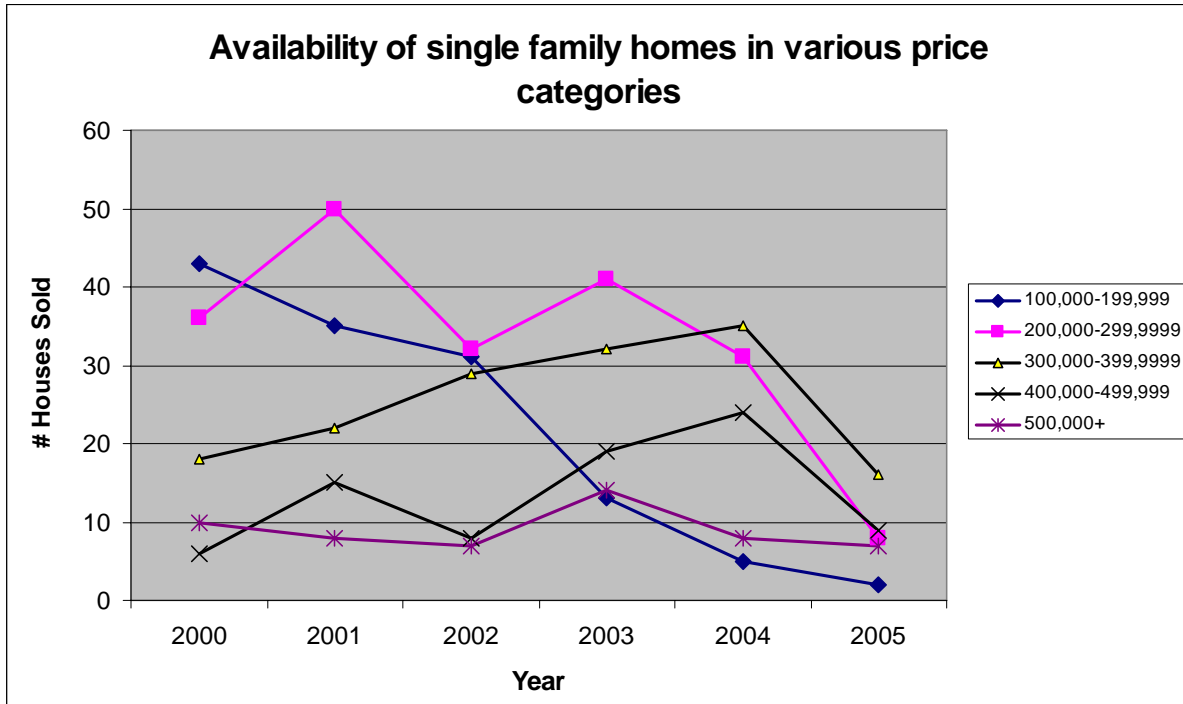
2000). 73 (36%) of 204 renter households are spending more than 30% of their total income on housing.

**B. Monthly rents reported by tenants, 2005**

# Bedrooms	Studio	One	Two	Three	Four
Average \$	\$472	\$561	\$752	\$842	\$952
Median \$	\$450	\$600	\$750	\$825	\$900
Total Renters	10	73	69	43	12

- Availability of houses in the \$100,000—\$200,000 price range has undergone a dramatic decline in the last five years; availability of houses in the \$200,000—\$300,000 range is also declining rapidly.<sup>1</sup>

**C. Availability of Single Family Housing**



1. Source: MLS Database. Single family homes, all types of structures, on freehold lots.

**D. Community Housing**

- The following is a list of Salt Spring’s Community Housing projects. Existing community housing projects are targeted to seniors.

- **Pioneer Village** – Apartments for seniors over 60 who have limited incomes. It has 18 one bedroom units with rents subsidized by government starting from \$335.00 and starting from \$280.00 for bachelor units.
- **Croftonbrook** – 20 units of subsidized housing for seniors (age 55+); currently has 50 people on the wait list.
- **Meadowbrook** – housing with supportive services for semi-independent seniors; full with wait list; waitlist for 10 subsidized units is held by the Vancouver Island Housing Authority.
- **Heritage Village** – residence with supportive services for seniors.
- **Proposed** – Norton Road Development - 26 units of homeowner units.
- **Proposed** – Murakami Rainbow Road Development – between 26-30 rental units – (proposed)

#### **E. Current Rental Situation**

- There has been no needs assessment of renters on Salt Spring Island.
- A 2004 survey (by Neddy Harris), of 300 that were currently renting, over half were determined to be in core need (paying over 30% of their income in housing costs).
- Rental housing has always been scarce and many units are inadequate.
- In addition, rental situations are made unstable by illegal secondary suites and cottages

### **5. Real Estate Market Housing**

#### **A. Summary**

- Real Estate activity on the Island is primarily in the sale of residential houses and lots or acreages.
- Commercial buildings, sales and leases and property management services represent a small portion of the revenue generated and activities.
- In 1999, 250 properties sold for a total of 65 million dollars. The average selling price of residential properties has increased from \$238,000 in 1999 to \$283,000 in 2000.
- In 2000, 215 properties sold for a total value of 60 million.
- There was almost a 40% increase in the number of waterfront properties sold in 2000 compared to 1999.

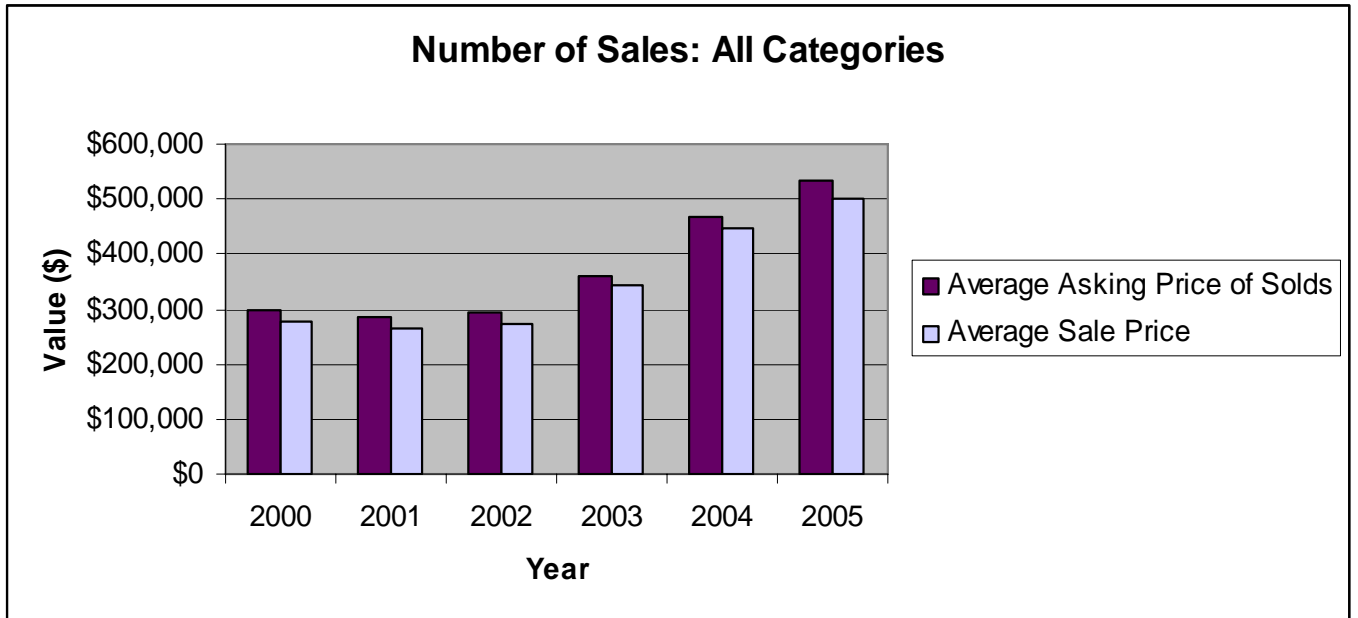
#### **References:**

- “A Window of Opportunity, Economic Profile of Salt Spring Island, 2000”, Ellen Garvie, March 2001

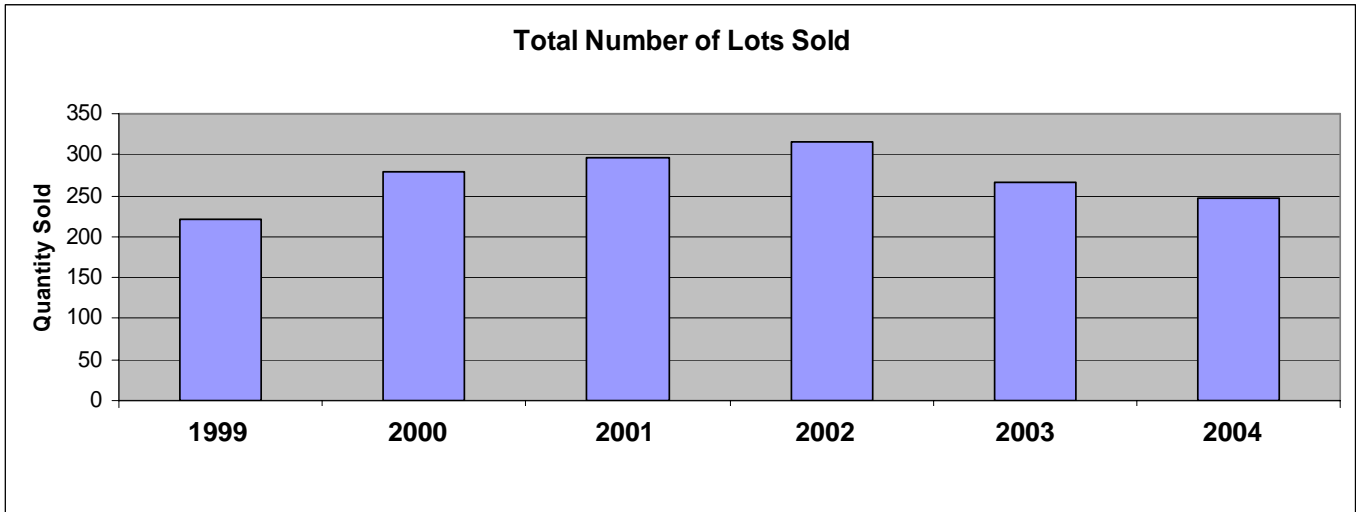
## B. Real Estate Sales to Date

All the following data is compiled by Tom Navratil, Realtor on Salt Spring Island, from the Victoria Real Estate Board as well as locally compiled island statistics, and upon request, provided for this Report.

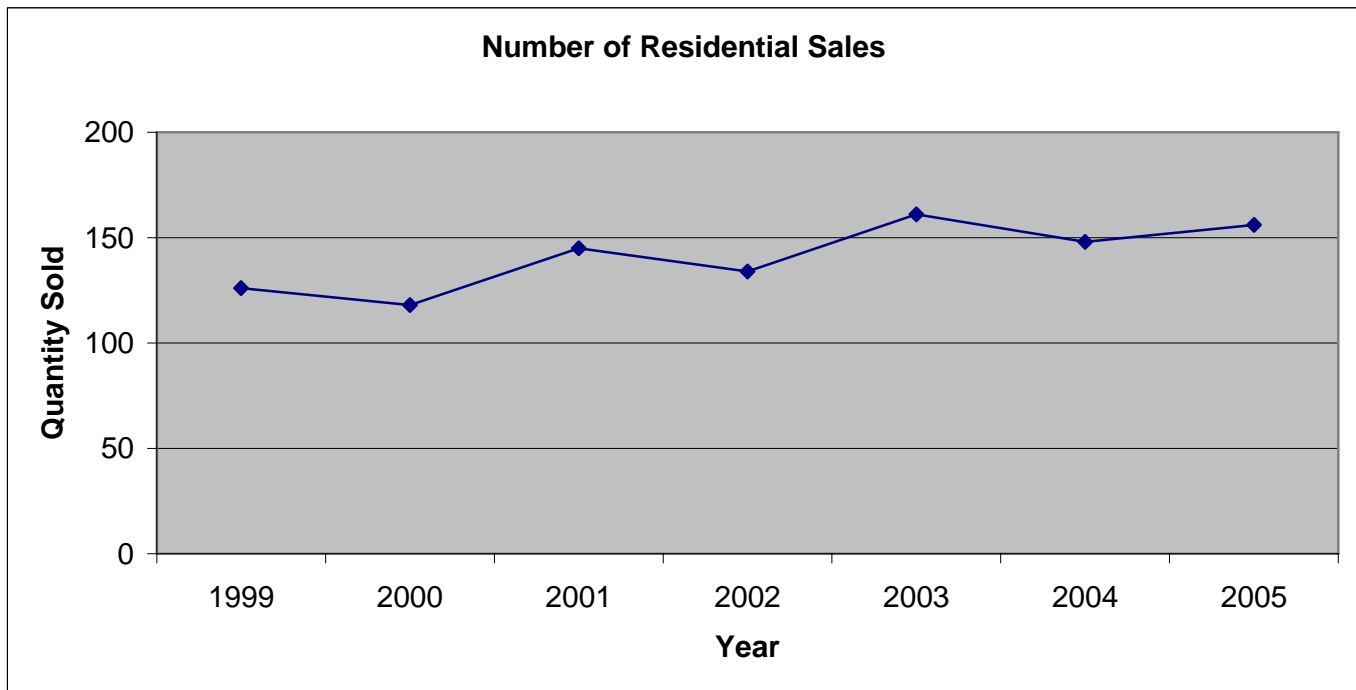
- **All Properties (All Categories) Sold To Date: January 2006 to July**
  - Total Value: \$55,728,675 Average Sold/List Ratio: 95.0%
  - Average Asking Price: \$484,739
  - Average Sale Price: \$460,568
  - Total # of sales: 121
- **Residential Properties On the Market To Date: January 2006 to July**
  - Total Value: \$97,082,821
  - Total number of listings this category: 151
  - Average price: \$642,933
- **Number of House Sales: All Categories 2000-2005**



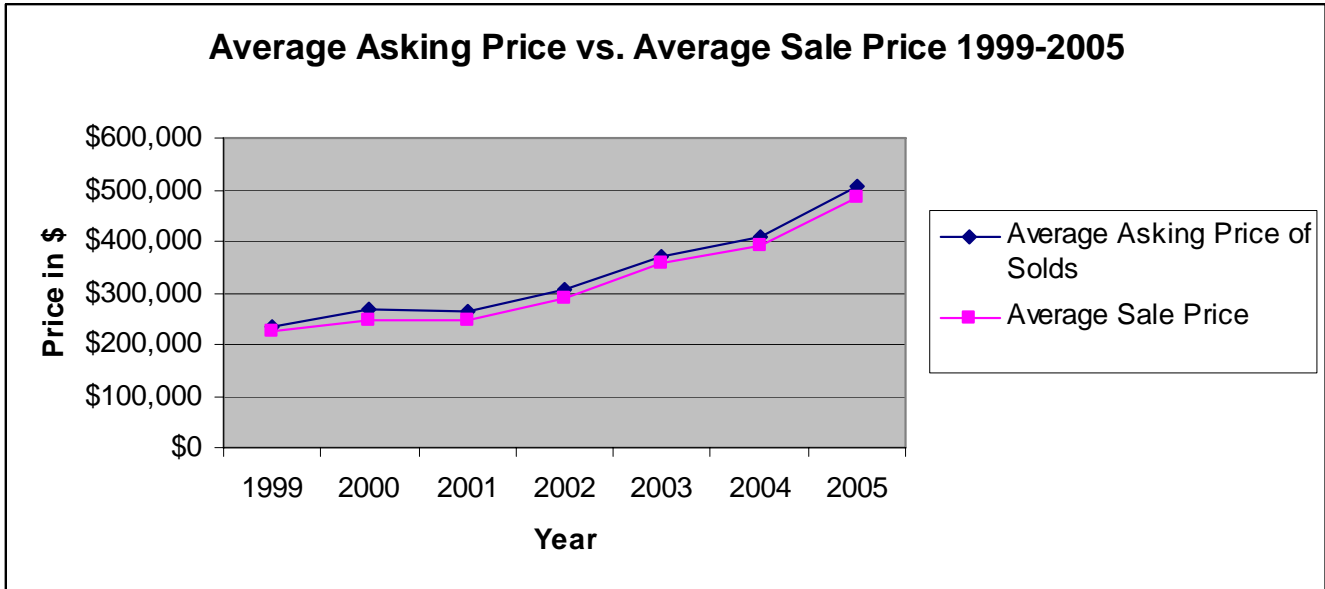
- **Total Number of Lots Sold, Non-waterfront**



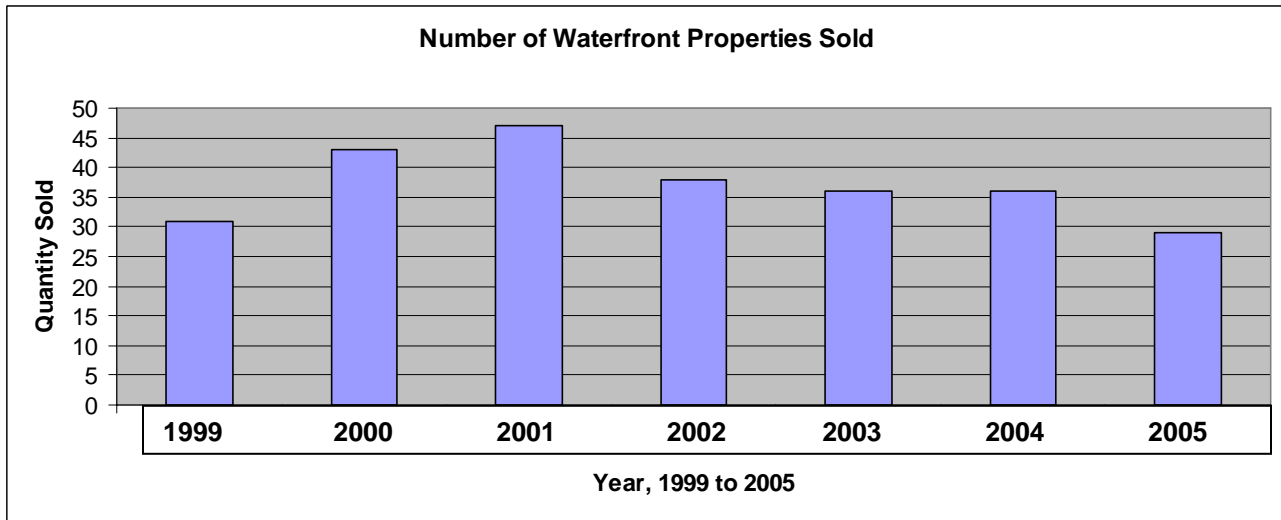
- **Number of Residential Detached House Sales (Excluding Townhouses and Mobiles/Modulars on leased pad)**



- Average Asking Price of Solds and Average Sale Price

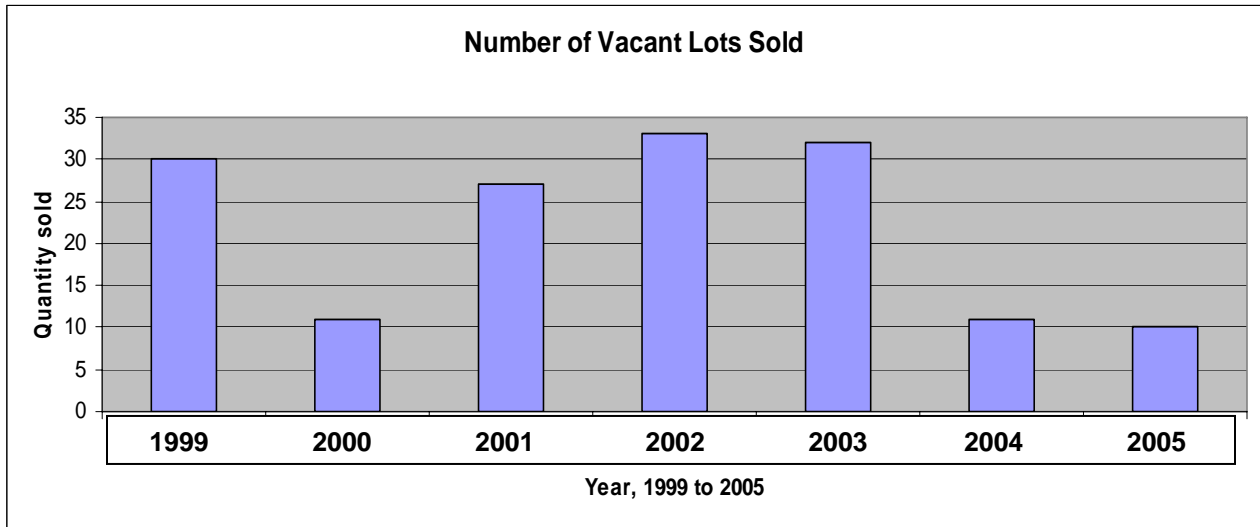


- Number of Waterfront Properties Sold (Homes & Vacant Lots)





- **Number of Vacant Lots Sold (Non-waterfront)**



**C. Housing Type breakdown, 2001 Census Data**

- Single detached 87%
- Duplex 6%
- Townhouses 3%
- Apartments 1%
- Movable dwelling 3 %

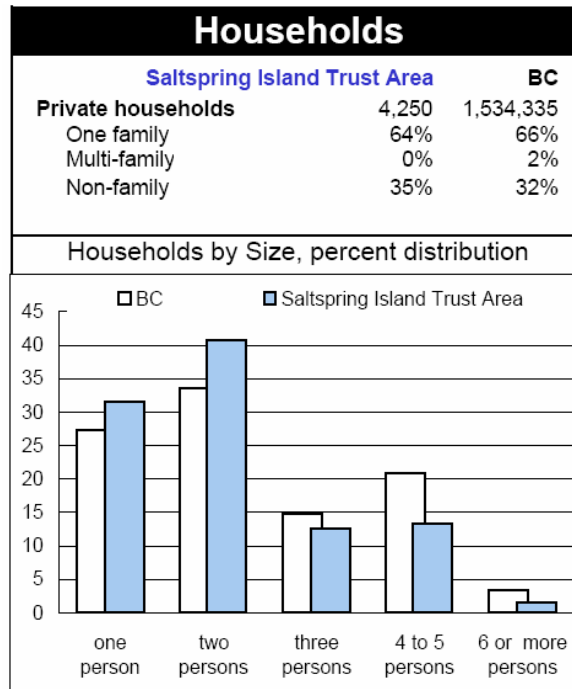
**References:**

- CRD Demographic Atlas 2004, Capital Regional District Regional Planning Service, 2004

**D. Private Dwelling Statistics**

- In 2001 there were 4,250 private dwellings on Salt Spring Island and the average value was \$275, 598.
- By July 2006, the average asking price for a residential dwelling was \$642,933.

<b>2001 Selected Occupied Private Dwellings Characteristics</b>	Capital F, Regional District Electoral Area Salt Spring Island Total
Total number of dwellings	4250
Number of owned dwellings	3355
Number of rented dwellings	840
Number of dwellings constructed before 1991	3120
Number of Dwellings constructed between for 1991 and 2001	1,075
Average value of dwelling (\$)	274,598



**References:**

- 2001 Census Profile of British Columbia's Regions: Salt Spring Island Trust Area, 2001

## 6.0 Natural Environment

### 1. Overview of Ecosystems

An ecosystem is defined as a portion of landscape with relatively uniform dominant vegetation.

- There are 9 ecosystem terrestrial classes on Salt Spring Island and 4 modified ecosystem classes<sup>1</sup>.

<b><u>Natural Ecosystem Classes</u></b>	<b><u>Total Area (Hectares)</u></b>	<b><u>Current Protected Area (Hectares)</u></b>	<b><u>Protected Area (% of Total)</u></b>
Cliffs (CL)	15.01	11.79	78.56
Herbaceous (HB)	340.74	62.47	18.33
Lacustrine (LC)	60.47	0.19	0.31
Littoral (LT)	17.30	1.14	6.59
Mature Forest (MF)	3259.02	1159.37	35.57
Old Forest (OF)	19.17	2.13	11.12
Riparian (RI)	263.20	64.94	24.67
Wetland (WN)	176.28	31.08	17.63
Woodland (WD)	1562.41	502.10	32.14
<b><u>Modified Ecosystem Classes</u></b>	<b><u>Total Area (Hectares)</u></b>	<b><u>Current Protected Area (Hectares)</u></b>	<b><u>Protected Area (% of Total)</u></b>
Agriculture (AG)	1375.11	124.04	9.02
Developed (DP)	306.92	5.42	1.77
Rural (RW)	2307.08	42.44	1.84
Young Forest (YF)	8979.39	1081.85	12.05

- Each local trust area land is classified as either a natural ecosystem or a modified ecosystem.
- On Salt Spring Island of total land:
  - Natural Ecosystem State – 31%
  - Modified Ecosystem State – 69%
- Non-terrestrial ecosystems include<sup>2</sup>:
  - Marine
  - Lacustrine (Lake)

- Littoral (between the low and high tide marks)

## 2. Resources on Ecosystems on Salt Spring Island

Definitions of several of these ecosystems can be found at:

[http://env.gov.bc.ca/sei/van\\_gulf/technical/sec3.html](http://env.gov.bc.ca/sei/van_gulf/technical/sec3.html)

A map of the Salt Spring Island ecosystem types can be found at:

<http://www.islandstrust.bc.ca/poi/pdf/salcrownland7item.pdf>

Another classification of Salt Spring Island ecosystems is defined by the Islands Trust website as<sup>4</sup>:

- Coast Bluff Ecosystems
- Garry Oak Ecosystems
- Older Forest Ecosystems
- Riparian Ecosystems
- Sparsely Vegetated Ecosystems
- Terrestrial Herbaceous Ecosystems
- Wetland Ecosystems
- Woodland Ecosystems

Other important ecosystem types include rivers, streams, and shoreline and marine ecosystems.

## 3. Top 10 Natural Environment Data Sources for Salt Spring Island

There are many resources to consult on both the Gulf Islands in general and more specifically, Salt Spring Island. The table below provides a guide to some of them for the reader's reference.

Title	About	URL
1. Sustaining the Islands: Measuring our Progress Report 2003, Salt Spring Island Local Trust Area	Measuring progress towards sustainability by tracking indicators under the following categories: Environment, Economic and Social.	<a href="http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSalt_Spring.pdf">http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSalt_Spring.pdf</a>
2. Sensitive Ecosystems Inventory, Ministry of Environment, BC	Identifies and maps rare or fragile ecosystems in a specific area.	<a href="http://www.env.gov.bc.ca/sei/van_gulf/ecosystems.html">http://www.env.gov.bc.ca/sei/van_gulf/ecosystems.html</a>
3. Conservation Data Center, Ministry of Environment, BC	Systematically collects and disseminates information on plants, animals and ecosystems (ecological communities) at risk.	<a href="http://env.gov.bc.ca/cdc/">http://env.gov.bc.ca/cdc/</a>
4. Salt Spring Island Conservancy	Mission is to help the community and government agencies preserve natural	<a href="http://SaltSpring.gulfislands.com/conservancy/">http://SaltSpring.gulfislands.com/conservancy/</a>

	habitats on Salt Spring Island and in surrounding waters through public education, conservation covenants, land acquisitions and helping landowners carry out good land stewardship.	
5. State of the Ecosystems by Local Trust Area	Map of Ecosystems and Protected Lands, 2005: Protected, Modified and Natural	<a href="http://www.islandstrust.bc.ca/map/pdf/orgmapstateoftheislandssep2005.pdf">http://www.islandstrust.bc.ca/map/pdf/orgmapstateoftheislandssep2005.pdf</a>
6. Endangered Species and Ecosystems, Ministry of Environment, BC	This site is a gateway to information about endangered species and ecological communities (ecosystems) in BC.	<a href="http://env.gov.bc.ca/atrisk/">http://env.gov.bc.ca/atrisk/</a>
7. Salt Spring Island, Vacant Crown Land Profiles, October 2006	Provides comprehensive information about vacant crown upland on Salt Spring Island.	<a href="http://www.islandstrust.bc.ca/poi/pdf/ssirptcrownlandprofile.pdf">http://www.islandstrust.bc.ca/poi/pdf/ssirptcrownlandprofile.pdf</a>
8. Southern Gulf Islands Atlas	A web-based mapping tool that brings together a variety of information about the natural and cultural attributes and resources of the southern Gulf Islands region.	<a href="http://www.shim.bc.ca/gulfislands/islands.cfm">http://www.shim.bc.ca/gulfislands/islands.cfm</a>
9. Important Bird Areas of Canada	Information on the Great Blue Heronry at McFadden Creek	<a href="http://www.bsc-eoc.org/iba/site.jsp?siteID=BC001&amp;seedet=Y">http://www.bsc-eoc.org/iba/site.jsp?siteID=BC001&amp;seedet=Y</a>
10. Nature Trust of British Columbia	Extensive information and data on biodiversity in general and in the Gulf Islands.	<a href="http://www.naturetrust.bc.ca/biodiversity.php">http://www.naturetrust.bc.ca/biodiversity.php</a>

#### References (Section 1-3):

1. *Regional Conservation Plan*, Adopted by the Trust Fund Board, August 26, 2005
2. Ministry of Environment, Sensitive Ecosystems Inventories, 2006, [http://env.gov.bc.ca/sei/van\\_gulf/ecosystems.html](http://env.gov.bc.ca/sei/van_gulf/ecosystems.html)
3. Islands Trust, Salt Spring Island Vacant Crown Land Profiles, Draft July 6, 2006, <http://www.islandstrust.bc.ca/poi/pdf/ssirptcrownlandprofile.pdf>
4. Islands Trust, 'Measuring our Progress', Salt Spring Island, 2003, (<http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSaltSpring.pdf>)

#### 4. Crown Land Profiles of Salt Spring Island

- The Vacant Crown Land Profiles represent the most complete collation of current knowledge regarding vacant Crown Land parcels in the Islands Area.
- Islands Trust will use the profiles as a starting point for the compilation of more detailed information as it becomes available through further studies.
- The Vacant Crown Land Profiles provide detailed information for each of the vacant Crown land parcels on the island. The Profiles provide the name, location, legal description, size, and geographic relationship to other public lands.

- The profiles also detail biophysical, land use and resource use information as follows:
  - biophysical (physiography, geology, surface drainage, groundwater, soils, native vegetation, terrestrial wildlife and habitat and aquatic habitat and fish),
  - land use (Official Community Plan designation, zoning, existing uses, surrounding land use and land use interests), and
  - resource use (agriculture, forestry, fisheries, recreational, and mineral resources water supply, community infrastructure, aesthetics and heritage resources).
- The Salt Spring Island Land Status – Crown Land and Other Significant Parcels Map identifies other Crown land parcels on Salt Spring Island that are significant due to their important contribution to the preservation of habitats and ecosystems.
- The final report contains the following types of information:
  - Location Setting
  - Legal Description
  - Relationship to Island and Other Public Lands
  - Biophysical Description
  - Land Use
    - Official Community Plan Designation
    - Zoning and Permitted Land Uses
    - Existing Land Use Zoning Designations
    - Land Use Interests
  - Resource Use
- The following table lists just a few data points for each Parcel, see the report for all data per the listing in above bullet.

<b>Parcel</b>	<b>Location/Setting</b>	<b>Parcel Size</b>	<b>Geographic Relationship to Other Public Land</b>
<b>PARCEL A – CAPE KEPPLE AND MOUNT TUAM</b>	Parcel A is located at the south end of the island fronting on the Marine Conservation Area in Satellite Channel. (Map No. 2) (Islands Trust 2001)	The size is 64.56 ha.	<ul style="list-style-type: none"> <li>• The parcel is isolated from settlement and the road systems of the island. (Islands Trust 2001)</li> <li>• The parcel is part of a larger conservation interest in Satellite Channel. The property borders on the Ecological Reserve, and the Cyril Cunningham Nature Reserve. (Islands Trust 2001)</li> </ul>
<b>PARCEL B – SATELLITE CHANNEL (SOUTH)</b>	Parcel B is a waterfront parcel located at the south end of Salt Spring along Satellite Channel. (Map No. 2)	The size is 182.21 ha.	The parcel is extremely steep and isolated, accessible only from a steep bank at the water. BC Parks holds a map reserve on the property.
<b>PARCEL C –</b>	Location and	The size is	The parcel is extremely steep

<b>SATELLITE CHANNEL (NORTH)</b>	Setting Parcel C is further north than Parcel B and is a waterfront parcel located at the south end of Salt Spring Island along Satellite Channel. (Map No. 2)	42.61 ha.	and isolated, accessible only from a steep bank at the water.
<b>PARCEL D – MUSGRAVE CROWN LANDS</b>	Parcel D is located on the waterfront north of the previous parcels on Satellite Channel. (Map No. 2)	The size is 34.05 ha.	BC Parks has a map reserve on this property for an Ecological Reserve. This is one of the more accessible crown lands with Musgrave Road border. It is comprised of a central bench which slopes steeply to and rises gradually to the road above. (Johnson, Mark 2001)
<b>PARCEL E – HOPE HILL</b>	Parcel E is a land locked parcel in the interior of the southern portion of Salt Spring Island.	The size of Parcel E is 173.4 ha.	The Capital Regional District Parks has applied to the Province to have this parcel transferred to it for Regional Park.
<b>PARCEL F – MOUNT BRUCE</b>	Parcel F is located on Mount Bruce in the central portion of Salt Spring Island.	The size is 176.82 ha.	<ul style="list-style-type: none"> <li>• Parcel F is part of a broader conservation effort of the south and west Salt Spring Conservation Partnership. The land is linked to the Ecological Reserve by Mount Russell Regional Park to the north and is adjacent to Mill Farm Regional Park to the southwest. (Islands Trust 2001)</li> <li>• Parcel F is an important part of the Capital Regional District Park's intent to preserve a large scenic, highly visible, and biologically important area of the island. (Islands Trust 2001)</li> <li>• Mount Bruce was a Provincial Park. (Islands Trust Nov 2000)</li> </ul>
<b>PARCEL G – FORD LAKE</b>	Parcel G is adjacent to local Parks and Recreation parcel	The size is 35.73 ha	• Since 1990 the Capital Regional District has submitted an application to transfer the land for

	of Fulford Ridge. (Islands Trust No., 2000)		community park purposes. It backs onto a community park near the quarter section owned by Ducks Unlimited that includes Ford Lake. • The Ford Lake Crown lands are a part of a long term program to protect an important watershed area. Currently, there is connectivity between the parcels for wildlife and wildfowl.
<b>PARCEL H – CUSHEON LAKE</b>	Parcel H is adjacent to the western shore of Cusheon Lake.	The size is 17.84 ha.	<ul style="list-style-type: none"> <li>• Parcel H is the only un-cleared land adjacent to the lake. (Islands Trust 2001)</li> <li>• This parcel was not originally Crown land. It was given to the Island to hold in trust for the community by a forest company in the 1960's. In the late 1980's a proposal was presented to Crown lands for a reserve. (Islands Trust Nov 2000)</li> <li>• See full report for more notes.</li> </ul>
<b>PARCEL I – ISABELLA</b>	A portion of the Parcel I is adjacent to Parcel A Mount Keppel Crown land and the other portion is on the waterfront overlooking Isabella islets.	The size is 164 ha.	The parcel is adjacent to Cyril Cunningham Nature Reserve, Parcel A vacant Crown land parcel and the Ecological Reserve. (Local Trustee Comments, 2001)
<b>PARCEL J – MOUNT ERSKINE</b>	Parcel J is the most northerly vacant Crown land parcel in the west central portion of the island comprising two adjacent lots.	The size is 67.20 ha.	<ul style="list-style-type: none"> <li>• This parcel is part of the Mount Erskine parcel that was donated and turned over to Crown lands and in 1995-96 the property transferred to the Mount Erskine Nature Reserve. (Islands Trust Nov 2000)</li> <li>• In 2005, the adjacent forty hectare parcel, including the portion of Mount Erskine, was acquired by the Conservancy and provincial interests.</li> </ul>
<b>PARCEL K – MUSGRAVE LANDING (TWO LOTS)</b>	Parcel K is comprised the two remaining lots left in the Musgrave landing subdivision in the south-west	The total size is 0.21 ha.	The two lots were both set aside at subdivision because they have rare phantom orchids growing there. The parcel was bought for green space. (Islands Trust Nov



	central portion of the Island.		2000)
<b>PARCEL L – MOUNT SULLIVAN</b>	Parcel L is located in the south-west central portion of Salt Spring Island.	The total size L is 63.50 ha.	This parcel is adjoining the Mt. Bruce Crown land and together with the regional parks would create a significant parcel of protected park land. (Islands Trust, 2001)

**Reference:**

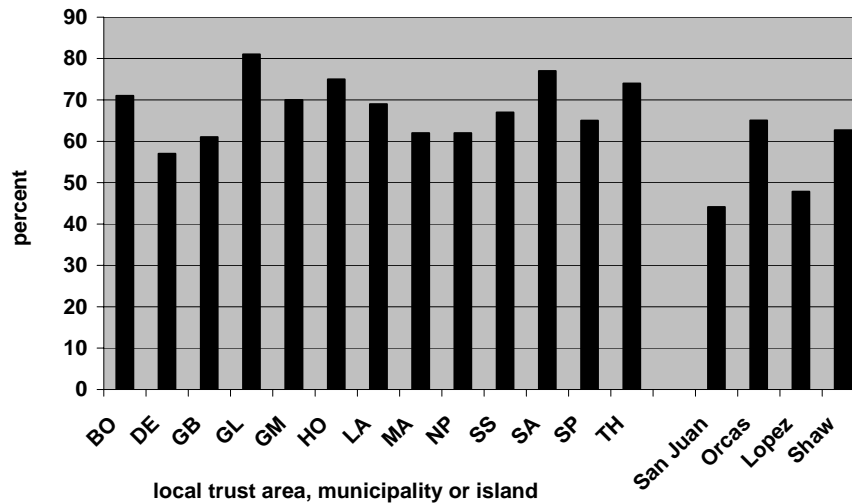
- Salt Spring Island, Vacant Crown Land Profiles, October 2006

**5. Environmental Sustainability Indicators: Environment<sup>1</sup>**

- Salt Spring Island LTA had 67% vegetated lands (land covered with vegetation) in 2000, compared to an average of 69% in the Trust Area.

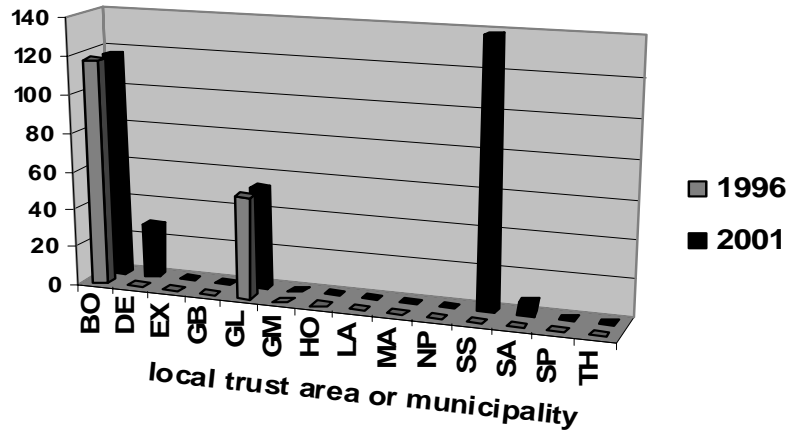
**Islands Trust Area and northern San Juan Islands  
1999\* & 2000 Vegetated Land**

\* data for Denman, Hornby and Lasqueti are from 1999



- The Salt Spring Island LTA had 138.8 km of streams protected by Development Permit Area in 2001.

**Island Trust Area  
1996 & 2001  
Kilometres of Protected Streams**



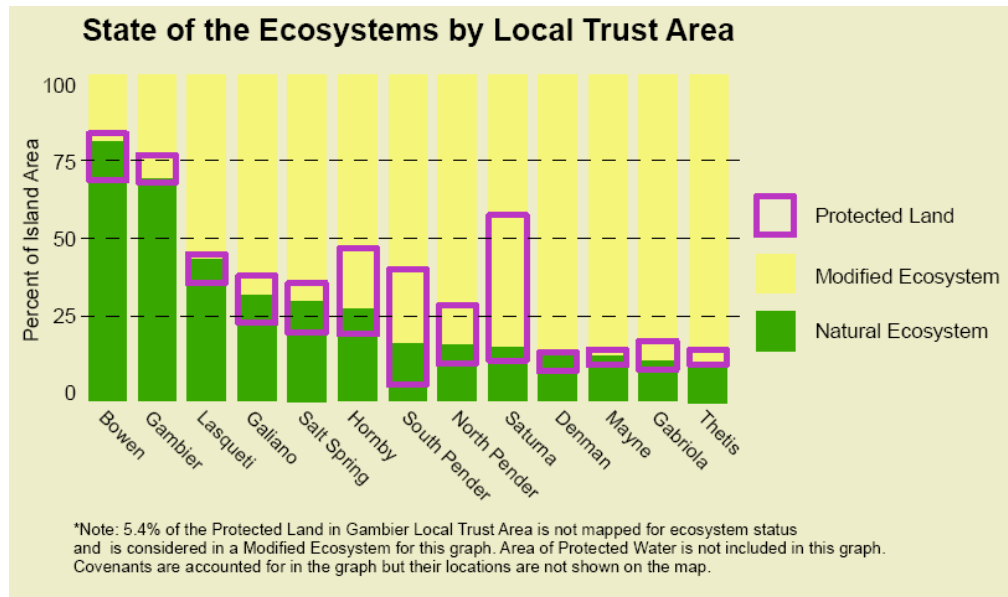
**References:**

1. Islands Trust, 'Measuring our Progress', Salt Spring Island, 2003, (<http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSalt Spring.pdf>)

**6. Protected Status of SSI Lands**

**A. Protected, Modified and Natural Ecosystems of Land Trust Area**

- By the end of 2001, 10.7% of land in the Salt Spring Island Local Trust Area had protected status, compared with 12.1% in the Trust Area and 11.6% provincially. The provincial goal is to have at least 12% of land protected.<sup>1</sup>



## B. Sensitive Ecosystems

- A sensitive ecosystem is one that is fragile and/or rare. The percentage of sensitive ecosystems in the Salt Spring Island LTA protected increased from 15.8% to 34.8% from 1996 to 2001. Over the same period, protection of sensitive ecosystems in the Trust Area increased from 12.3% to 16.8%.<sup>2</sup>
- Several other ecosystems that are tracked by the Sensitive Ecosystem Inventory (SEI) include these additional two that maybe not be fragile or rare but have biodiversity and wildlife habitat values:
  - Other Seasonally Flooded Agricultural Field
  - Older Second Growth Forest
- The loss of sensitive and other important ecosystems on Salt Spring Island from approximately 1992 to 2002 are<sup>3,4</sup>:
  - Sensitive - 20.2 (ha disturbed)
  - Important – 269.2 (ha disturbed)

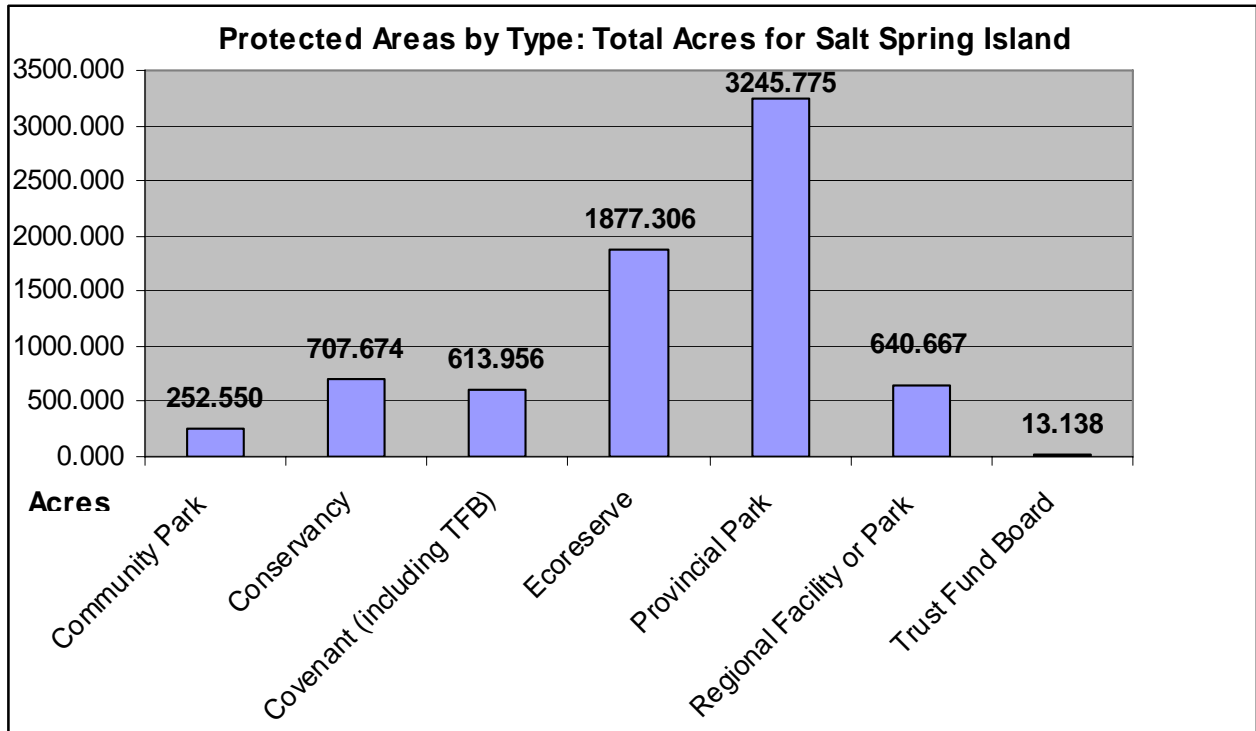
### References:

1. Ecosystems and Protected Lands September 2005, <http://www.islandstrust.bc.ca/map/pdf/orgmapstateoftheislandssep2005.pdf>
2. Definitions of Ecosystems, Sensitive Ecosystem Inventory [http://env.gov.bc.ca/sei/van\\_gulf/ecosystems.html](http://env.gov.bc.ca/sei/van_gulf/ecosystems.html)
3. State of Environment Indicators in BC's Capital Region, 2006, pg. 64, <http://www.crd.bc.ca/rte/report2006/documents/SOEI2006final.pdf>
4. AXYS Environmental Consulting. 2005. Sensitive Ecosystems Inventory (SEI): East Vancouver Island and the Gulf Islands [http://srmwww.gov.bc.ca/appsdata/acat/html/deploy/acat\\_p\\_report\\_2124.html](http://srmwww.gov.bc.ca/appsdata/acat/html/deploy/acat_p_report_2124.html)

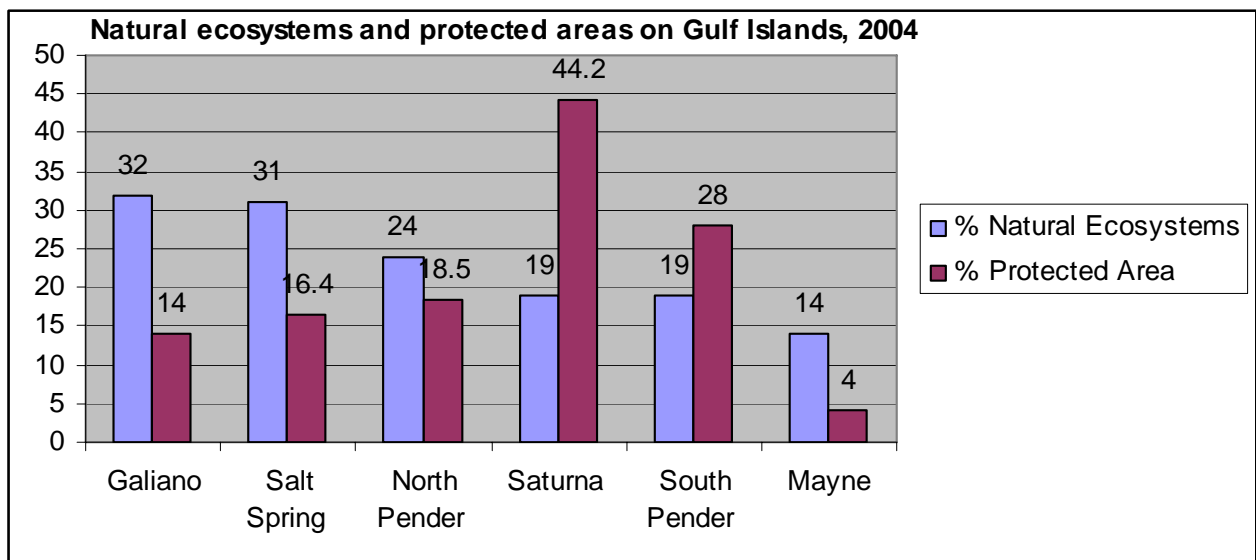
## 7. Protected Areas on Salt Spring Island by Type

- Salt Spring Island has a total of 7351 acres of Protected Areas. The table below summarizes the total by type.

### A. Protected Areas by Type: Total Acres for Salt Spring Island, 2006<sup>1</sup>



### B. Natural Ecosystems and Protected Areas on Southern Gulf Islands, 2004<sup>2</sup>



**References:**

1. Excel spreadsheet provided by Trust Fund Board, Email, July 2006
2. State of Environment Indicators in BC's Capital Region, 2006, pg. 64, <http://www.crd.bc.ca/rte/report2006/documents/SOEI2006final.pdf>

**8. List of Conservation Lands (ha)**

- Salt Spring Island has 299.97 (ha) listed as conservation lands by the Islands Trust Fund, of property interest either Owned or Covenanted.
- Since 2000, 183.769 (ha) have been designated, up from 116.2 in the late 1990's.
- 2005 and 2006 had the largest designations with 70.839 (ha).

To view the full list, updated July 26, 2006, please visit:

<http://www.islandstrustfund.bc.ca/ourprotectedareas/tfbprotectedlands2006.pdf#search=%22red-listed%20and%20blue-listed%20Salt%20Spring%20Island%22>

**9. Red/Blue List of Species: Updated Summer 2006**

- Blue-listed species indicates particularly vulnerable to changes in environmental conditions<sup>1</sup>. On Salt Spring there are numerous blue-listed species and the table below lists currently what they are by common name and where they live. These types of habitats should be protected in order to protect the species named.
- Sensitive ecosystems and endangered species of flora and fauna on Salt Spring Island include:

**Blue-Listed Species on Salt Spring Island, 2006**

<b>Common Name</b>	<b>Type</b>	<b>Habitat Type</b>
Moss' Elfin, Mossii Subspecies	Invertebrate Animal	TERRESTRIAL; SUBURBAN/ORCHARD
Dun Skipper	Invertebrate Animal	TERRESTRIAL; SUBURBAN/ORCHARD
Slimleaf Onion	Vascular Plant	TERRESTRIAL; ROCK OUTCROP
Moss' Elfin, Mossii Subspecies	Invertebrate Animal	TERRESTRIAL; CLIFF
Western Screech-owl, Kennicottii Subspecies	Vertebrate Animal	TERRESTRIAL; FOREST NEEDLELEAF; CROPLAND/HEDGEROW; OLD FOREST
Barn Owl	Vertebrate Animal	TERRESTRIAL; SUBURBAN/ORCHARD; WOODLAND NEEDLELEAF
Slender-spiked Mannagrass	Vascular Plant	RIVERINE; RIPARIAN

Red-legged Frog	Vertebrate Animal	TERRESTRIAL
Great Blue Heron, Fannini Subspecies	Vertebrate Animal	TERRESTRIAL; FOREST BROADLEAF
Surf Scoter	Vertebrate Animal	MARINE; PROTECTED
Propertius Duskywing	Invertebrate Animal	TERRESTRIAL; WOODLAND MIXED
Zerene Fritillary, Bremnerii Subspecies	Invertebrate Animal	TERRESTRIAL; FOREST NEEDLELEAF; GRASSLAND/HERBACEOUS; ROADSIDE
Howell's Violet	Vascular Plant	TERRESTRIAL
Red-legged Frog	Vertebrate Animal	TERRESTRIAL
Great Blue Heron, Fannini Subspecies	Vertebrate Animal	TERRESTRIAL; WOODLAND NEEDLELEAF
Western Screech-owl, Kennicottii Subspecies	Vertebrate Animal	TERRESTRIAL; WOODLAND NEEDLELEAF; SUBURBAN/ORCHARD
Red-legged Frog	Vertebrate Animal	TERRESTRIAL

- Red-listed species indicates being threatened or endangered. This is the highest level of rating before extinction<sup>1</sup>.
- On Salt Spring there are numerous red-listed species and the table below lists currently what they are by common name and where they live. These types of habitats should be protected in order to protect the species named.

#### Red-Listed Species on Salt Spring Island, 2006

Common Name	Type	Habitat Type
Hutchinsia	Vascular Plant	TERRESTRIAL; GRASSLAND/HERBACEOUS
Scaepod	Vascular Plant	TERRESTRIAL; ROCK OUTCROP
Gray's Desert-parsley	Vascular Plant	
Green-sheathed Sedge	Vascular Plant	TERRESTRIAL; COASTAL BLUFFS; TEMPORARY POOL
Macoun's Meadow-foam	Vascular Plant	PALUSTRINE; TEMPORARY POOL
California Hedge-parsley	Vascular Plant	TERRESTRIAL; GRASSLAND/HERBACEOUS
Manroot	Vascular Plant	TERRESTRIAL; WOODLAND MIXED
Small-flowered Tonella	Vascular Plant	TERRESTRIAL; ROCK OUTCROP
Douglas-fir - arbutus	Terrestrial Community - Other Classification	TERRESTRIAL; FOREST MIXED
Garry oak / California brome	Terrestrial Community - Other Classification	TERRESTRIAL; WOODLAND BROADLEAF
Garry oak / oceanspray	Terrestrial Community -	TERRESTRIAL; WOODLAND

	Other Classification	BROADLEAF
Yellow Montane Violet	Vascular Plant	TERRESTRIAL; FOREST BROADLEAF
California Hedge-parsley	Vascular Plant	TERRESTRIAL; SCREE/FINE TALUS
Scalegod	Vascular Plant	TERRESTRIAL; TEMPORARY POOL
Douglas-fir - arbutus	Terrestrial Community - Other Classification	TERRESTRIAL; FOREST MIXED
Douglas-fir / Dull Oregon-grape	Terrestrial Community - Other Classification	TERRESTRIAL; FOREST NEEDLELEAF
western redcedar / vanilla leaf	Terrestrial Community - Other Classification	TERRESTRIAL; FOREST NEEDLELEAF
Yellow Montane Violet	Vascular Plant	TERRESTRIAL; GRASSLAND/HERBACEOUS
Phantom Orchid	Vascular Plant	TERRESTRIAL; FOREST NEEDLELEAF

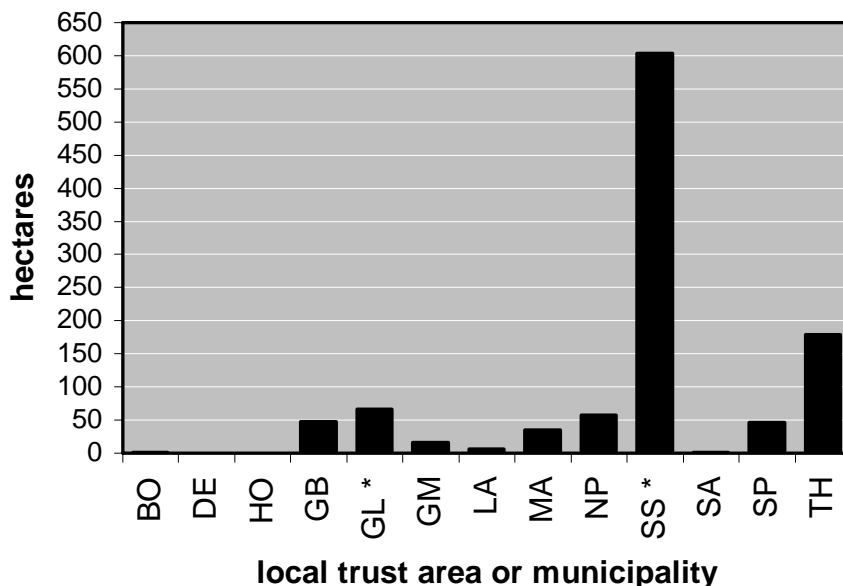
**References:**

1. Committee on the Status of Endangered Wildlife in Canada (COSEWIC) <http://www.cosewic.gc.ca/>

**10. Marine Environment**

- In 1999, the Salt Spring Island LTA had 604 ha of shoreline closed to shellfish harvesting due to contamination, compared to 1059.6 ha in the Trust Area.

**Islands Trust Area  
Shellfish Harvesting Closures for 1999**



**References:**

1. Islands Trust, 'Measuring our Progress', Salt Spring Island, 2003, ([http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSalt\\_Spring.pdf](http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSalt_Spring.pdf))

**11. PARC (Salt Spring Parks & Recreation Commission) Parkland and Trails**

- The Salt Spring Parks & Recreation Commission (PARC) is undergoing a park and trail inventory mapping project, as of October 2006.
- The project involves use of CRD Information Technology staff to product a series of satellite image maps.
- The inventory will be broken into three segments:
  - Community Parks (all dedicated, leased and licensed parks)
  - Community Trail Corridors (all statutory rights-of-way, etc.)
  - Community Water Access Points
- The following data is draft data and will not be final until spring of 2007.

**A. Section 1 – PARC Administered Community Park Sites**

- Total of 61 Parks in draft listing.
- Size ranging from 1887 sq. ft. (Vesuvius Beach) to 82 acres (Stewart Road Park Reserve).
- Total Land Area – Approx. 314 acres/ 127 hectares.

**B. Section 2 – PARC Administered Community Trail Corridors**

- Total of 42 Trail Corridors.
- Some trails have not been measured, but from the preliminary list the length varies from just a few metres to kilometres.
- In the Channel Ridge Public Trail System there are 5 named trails at this time, and many undeveloped trails.
- The last grouping of trails is the Ganges Linear Park Public Walk, Trail & Boardwalk System with approximately 15 trails at this time, including:
  1. Artspring Trail
  2. Bayside Trail
  3. Centennial Park Boardwalk
  4. Creekside Commercial Complex Boardwalk
  5. Gasoline Alley Segment
  6. Grace Point Square Boardwalk
  7. Grace Point Trail
  8. Gulf of Georgia Boardwalk
  9. Meadowbrook Trail Corridor
  10. Murakami-Mouat Park Access Trail Corridor
  11. Peace Part Trail
  12. Peck's Anchorage Boardwalk
  13. Rainbow Road Recreation Centre Trail Connections



14. Rotary Park Boardwalk
15. Village Terrace Walk

**C. Beach Access monitored by PARC, July 2004**

URL: <http://www.crd.bc.ca/ssiparc/explore.htm>

- The list of beach accesses include:
  - Arbutus Road
  - Southey Point Road
  - Jack Foster Trail (west)
  - Jack Foster Trail (east)
  - Hudson Point
  - Fernwood Point
  - Foot of Maliview
  - Grantville Street
  - Beachside Drive
  - Ontario Place
  - Long Harbour/Welbury Bay Park
  - Churchill Road
  - Rotary Maritime Park parc
  - Price Road
  - Beddis Beach
  - Ruckle Provincial Park
  - Eagles Road
  - Seabright Drive
  - Drummond Park (Fulford Hall Committee/parc)
  - Isabella Point Road
  - Musgrave Landing
  - Burgoyne Bay
  - Erskine Bay
  - Booth Bay
  - Quarry Drive Park
  - Vesuvius Bay
  - Zadra Road

**Reference:**

- Section 1 – PARC Administered Community Park Sites Salt Spring Island Parks and Recreation Parkland Inventory, DRAFT, October, 2006

## 7.0 Economy, Jobs & Tourism

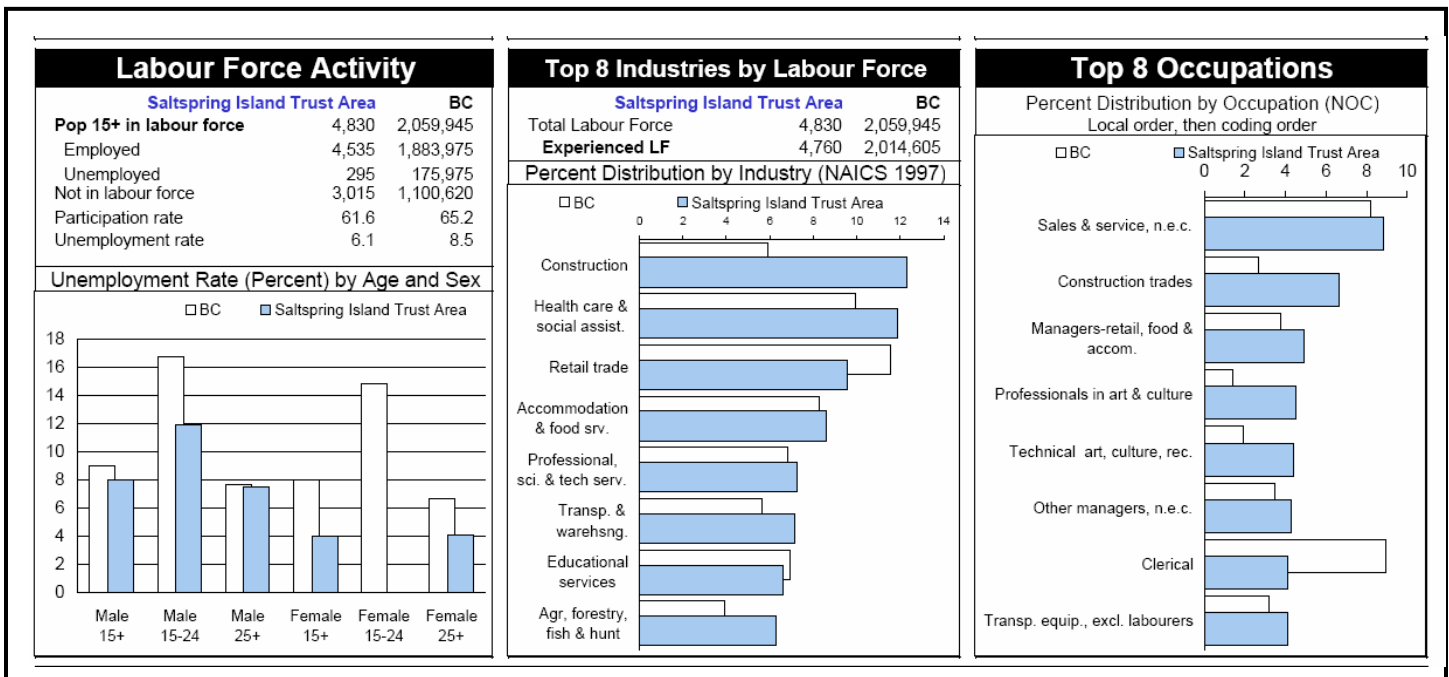
### 1. Chamber of Commerce (<http://www.saltspringtoday.com/>)

- Established in 1948.
- 170 members in 2001, over 200 in 2006.
- Businesses fall into several categories or listings:
  - Accommodations - Bed & Breakfast
  - Accommodations - Campgrounds
  - Accommodations - Extended Stays
  - Accommodations - Hotel & Resorts
  - Accommodations Self-Catered Accommodations
  - Arts, Crafts, Studios & Galleries
  - Associations
  - Business Services
  - Farms & Nurseries
  - Financial & Insurance
  - Health & Wellness
  - Marine Services
  - Off Island Accommodations
  - Personal & Home Services
  - Property Management
  - Real Estate
  - Recreation
  - Restaurant, Cafe & Grocery
  - Shopping & Services
  - Transportation
  - Wineries

### 2. Labour Force & Income

- Labour force participation rate of those older than 15 years increased from 57% in 1991 to 59% in 1996 and even higher to 62% in 2001.
- More youth, 15-24 age range, were employed in 1996 than 1991 (37% versus 32%) and it jumped substantially by almost 19% to 55.6% in 2001.
- Although the average individual employment income increased between 1991 and 1996 from \$22,751 to \$25,363, the median income changed minimally at \$17,364 in 1996. However, in 2001 the average individual income further increased to \$27,092, and the medium income also increased to \$21,284.
- Source of income information continues to indicate that almost half the income from all sources reported on the Island is derived from non-employment sources such as government transfer payments:

- Employment insurance,
  - Income assistance,
  - Old age security,
  - Canada pension and,
  - Corporate pensions and investment income.
- Investment income and corporate pensions represented 28% of all income reported in the 1996 Census. In the 2001 Census 51% of all income came from investment income and pensions, (before tax).
  - The percentage of the population reporting self employment income increased from 27% in 1991 to 34% in 1996, and in 2001 to 36.8% of the working population (combined incorporated and unincorporated).
  - In 1991, approximately 950 people reported self-employment compared to 1500 in 1996. In 2001 1765 self-reported, an almost 54% increase from one decade earlier (1991).
  - Incidence of low income on the Island is significant, with 29% of households reporting income of less than \$20,000 in 1996, holding steady at 29% in 2001.



**References:**

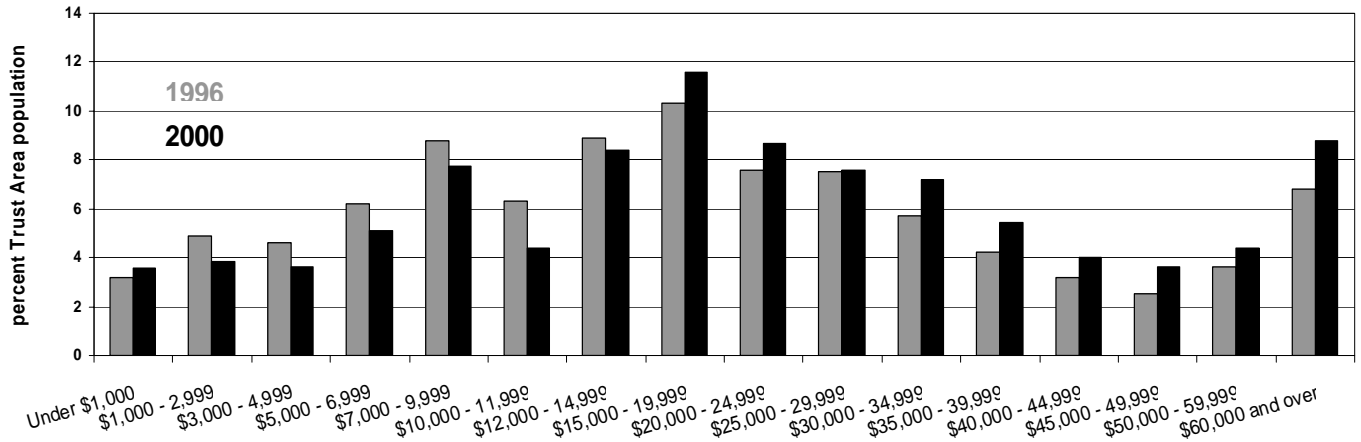
- 2003 BC Community Dependency Model based on 2001 Census data. BC STATS, February 3, 2004
- A Window of Opportunity, Economic Profile of Salt Spring Island, 2000, Ellen Garvie, March 2001
- Profiles for Salt Spring, Southern Gulf Islands, Galiano, Mayne, Pender & Saturna, 2001 Census of Canada, Regional Planning Services, 2001

## A. Trust Area Average Income

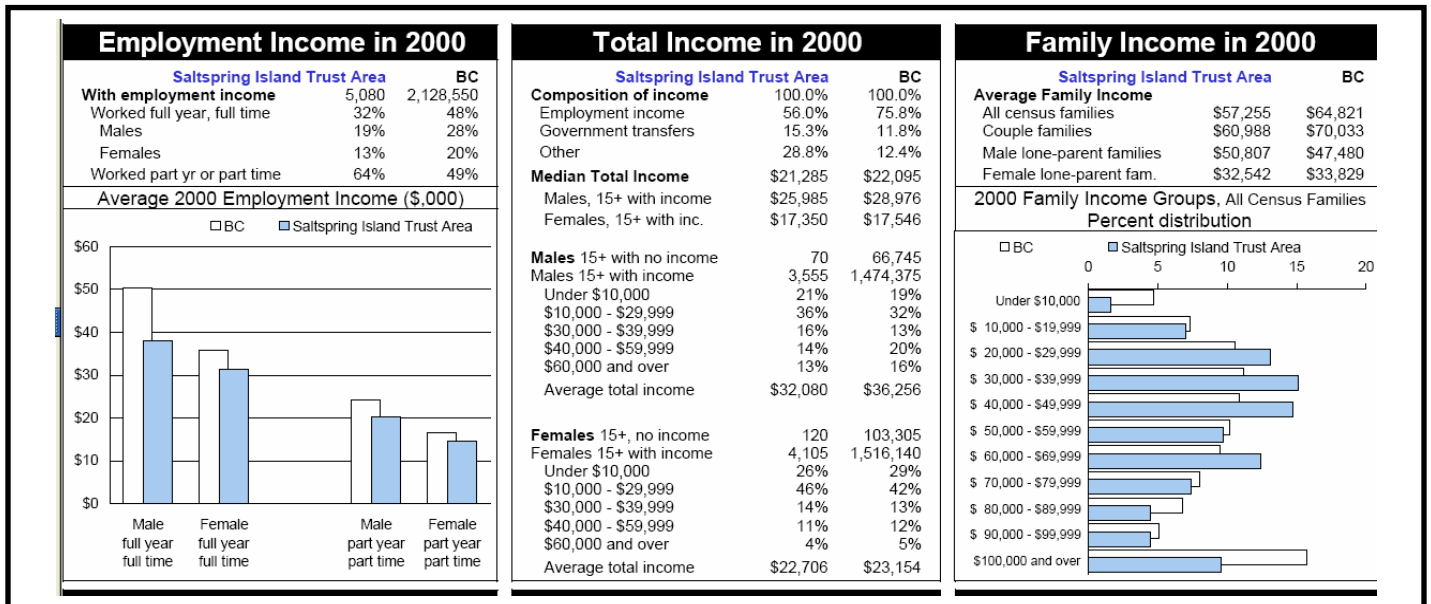
- Income levels in the Salt Spring Island LTA in 2001 were among the highest in the Trust Area, with an annual individual income of \$27,393, compared to \$26,895 in the Trust Area and a provincial average of \$29,613.<sup>1</sup>

### Trust Area Average Income 1996-2000

South Pender LTA and Gambier LTA data suppressed



## B. Employment Income, Total Income and Family Income<sup>2</sup>



### C. Salt Spring Island Employment and Income Dependency: 2001<sup>3</sup>

	FOR	MIN	F&T	AG&FD	TOU	HI TECH	PUB	CON	FILM	OTH	TRAN	ONEI	NONB IND	TOTAL
<b>Employment</b>	116	0	74	270	810	136	1207	657	104	377	0	0	1168	<b>4919</b>
<b>%</b>	3	0	2	7	22	4	32	18	3	10	0	0		
<b>Before-Tax Income (\$M)</b>	1.6	0	2.6	4.4	12.4	3.2	31.4	18.3	2.7	10.4	31.1	58.3	26.6	<b>203</b>
<b>%</b>	1	0	1	2	7	2	18	10	2	6	18	33		
<b>After-Tax Income (\$M)</b>	1.5	0	2.2	4	11.5	2.9	27.8	16.2	2.4	8.9	28.2	47.6	23.8	<b>177</b>
<b>%</b>	1	0	1	3	8	2	18	11	2	6	18	31		

#### Legend:

**FOR** – Forestry & Related Processing

**MIN** – Mining & Related Processing

**F&T** – Fishing, Trapping & Related Processing

**AG&FD** – Agriculture, Food & Related Processing (including aquaculture)

**TOU** – Tourism Sectors (includes all of accommodation, and parts of retail, food, transportation services, and personal services)

**HI TECH** – High Tech Industries (includes parts of manufacturing & related technical services such as computer repair, specialized design services)

**PUB** – Public Sector Industries (includes health, education, public administration, policing)

**CON** – Construction

**FILM** – Film (includes sound recording)

**OTH** – Other Industries (includes parts of sectors not elsewhere specified, e.g. non-resource based manufacturing & transportation)

**TRAN** – Transfer Payments (primary social assistance, employment insurance, Canada Pension, Old Age Security)

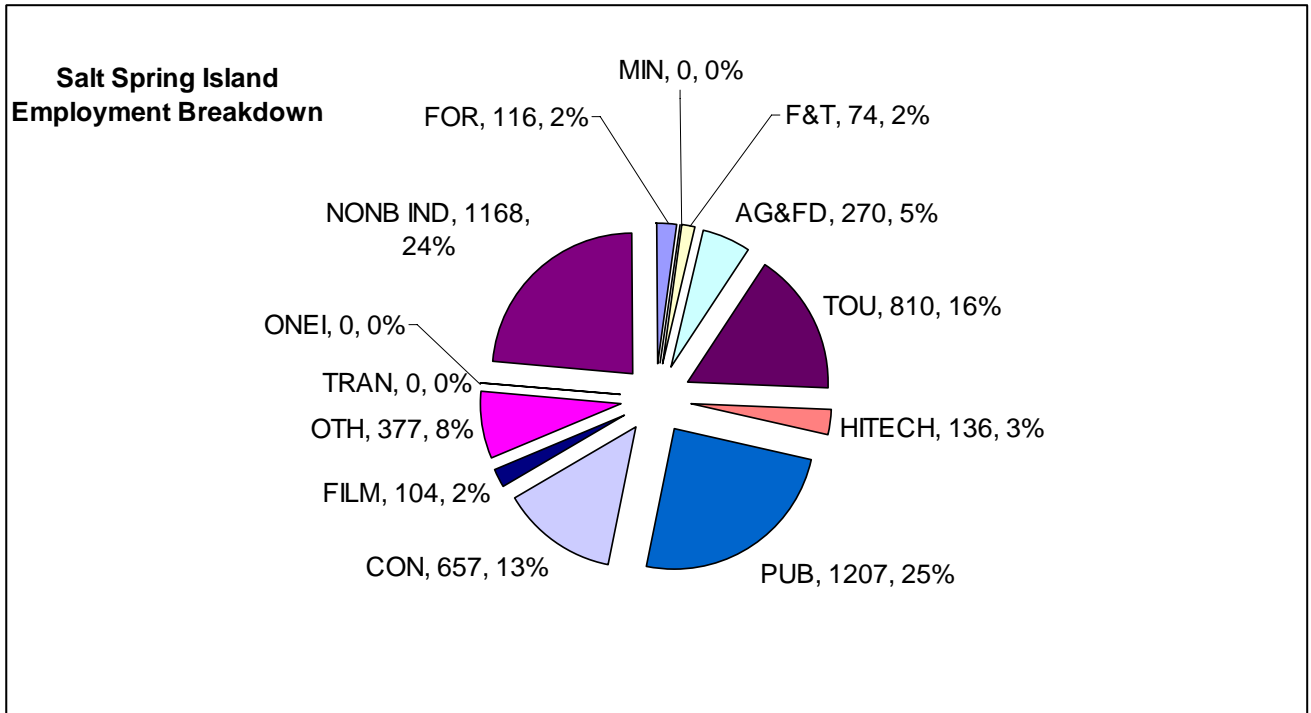
**ONEI** – Other Non-Employment sources of Income (primary corporate pensions, investment income)

**NON-BASIC Industries (NONB)** – Industries in which employment and income generated by re-spending of incomes earned in 'basic' industries.

#### Summary

- The public sector is the single most important employer, accounting for 32% of total jobs on Salt Spring Island.
- Tourism is the second most important employer (22% of jobs), followed by construction (18%), other industries (10%) and agriculture and food (7%).
- HiTech and film industries together account for about 7% of total employment, greater than forestry, fishing and mining, which together account for about 5% of total employment.
- Non-employment sources of income (pensions, investments and transfer payments), which together account for about 51% of total income on Salt Spring, exceed income from employment sources.

- The public sector is the most important employment source of income, accounting for about 18% of total income on Salt Spring, followed by construction (11%) , tourism (8%) and other industries (6%).<sup>2</sup>



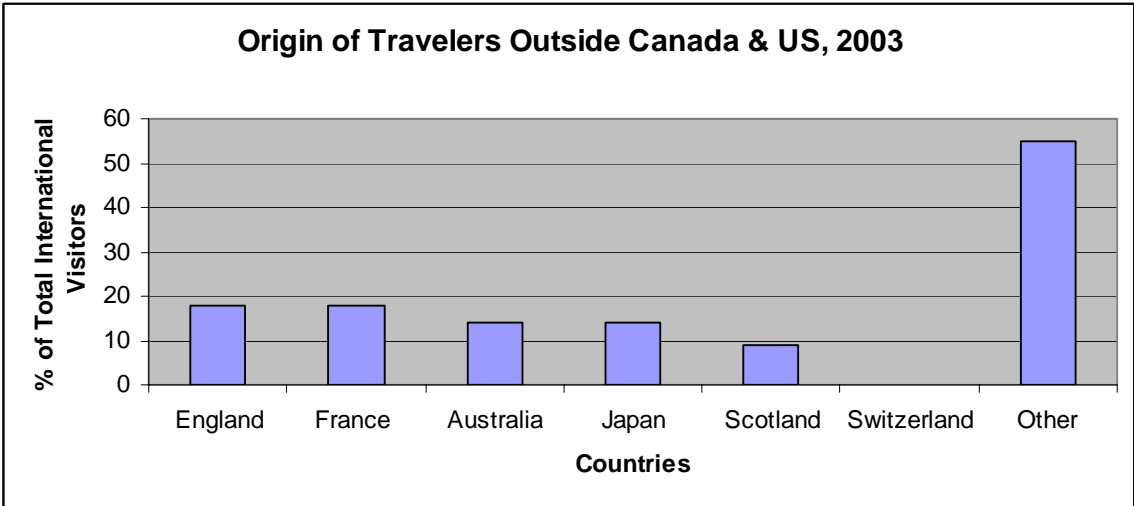
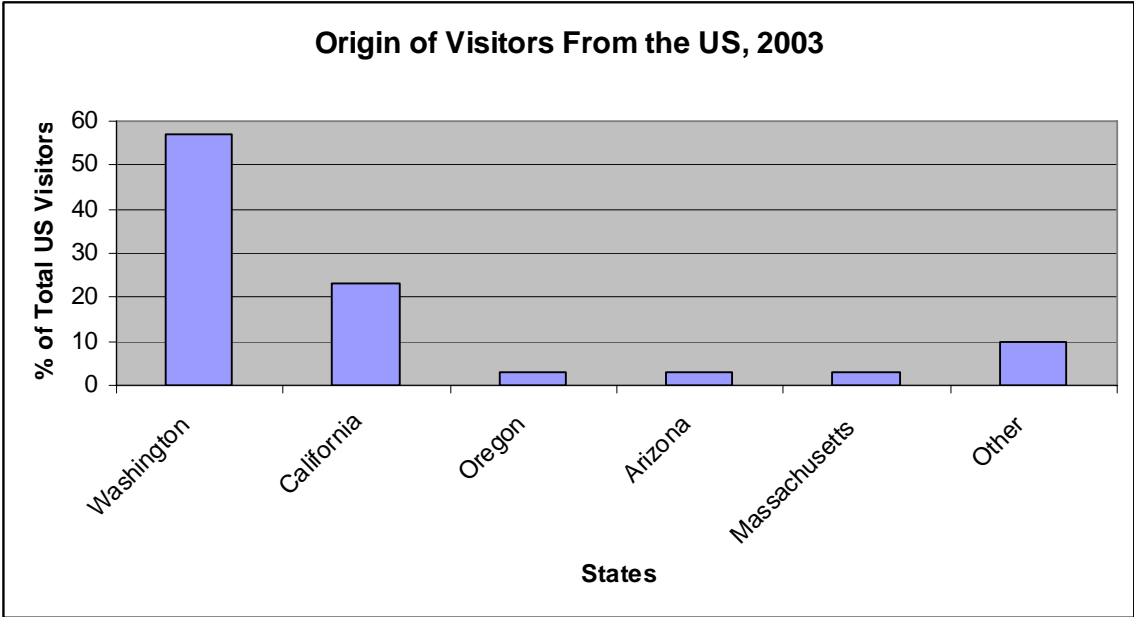
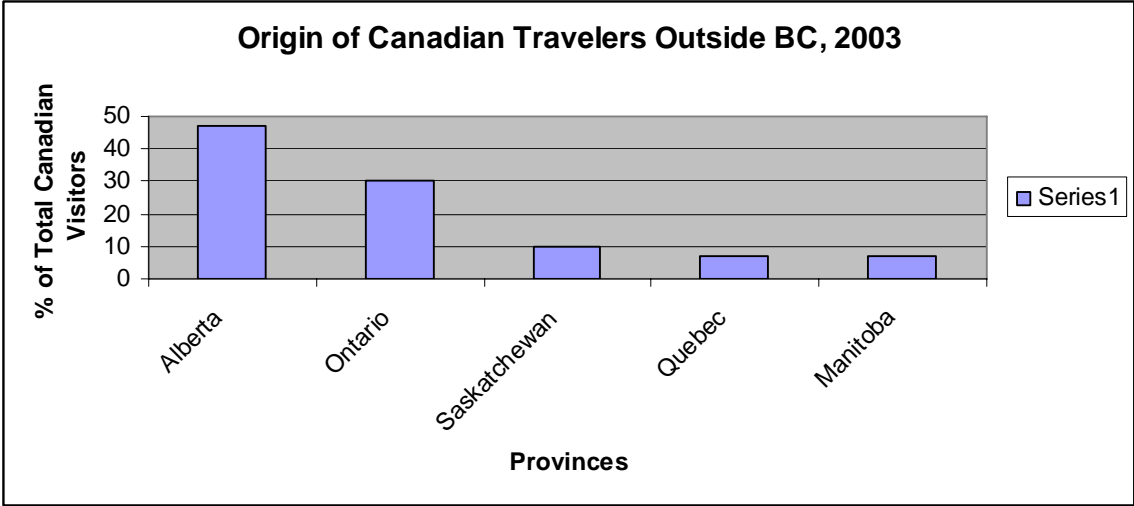
**References:**

1. Islands Trust, 'Measuring our Progress', Salt Spring Island, 2003, ([http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSalt\\_Spring.pdf](http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSalt_Spring.pdf))
2. 2001 Census Profile of British Columbia's Regions: Salt Spring Island Trust Area, Stats Canada
3. 2003 BC Community Dependency Model based on 2001 Census data. BC STATS, February 3, 2004

**3. Tourism**

**Tourist Origins: BC, US and International**

- Research Services Tourism BC, Victoria BC, The following data came from the Value of the Salt Spring Island Visitor Info Centre, March, 2004
- For more information: [www.tourism.bc.ca/research](http://www.tourism.bc.ca/research)



**References::**

1. Value of the Salt Spring Island Visitor Info Centre, March /2004  
Research Services Tourism BC, Victoria BC, [www.tourism.bc.ca/research](http://www.tourism.bc.ca/research)

**4. Tourist Accommodations, 2004**

<b>Tourist Accommodation Type</b>	<b>No. of Existing Units</b>	<b>Existing Occupancy Rate (Estimated)</b>	<b>Total Existing Occupancy</b>	<b>Potential Number of Units</b>	<b>Total Potential Occupancy</b>
<b>Hotels and Motels</b>	143	2.84 per unit	414	659	1,871
<b>Cabins Guest Houses and Tourist Hostels</b>	223	CA3 zone 4.2 CA4 zone 2.0 CA5 zone 40 per premises	924	265	1,099
<b>Single Cabins accessory to a residential use</b>	41	4.27	175	Not Limited (if operated as a Bed and Breakfast)	
<b>Bed and Breakfast Home Based Businesses</b>	81	5.23	424	Not Limited	
<b>Campgrounds</b>	188	3.0 per campsite	564	Not Limited	
<b>Marinas</b>	321	3.39 per berth	1,088	371	1,258
<b>Visiting Friends and Relatives (35%) of Island visitors</b>			2,238		
<b>Totals</b>			5,727		

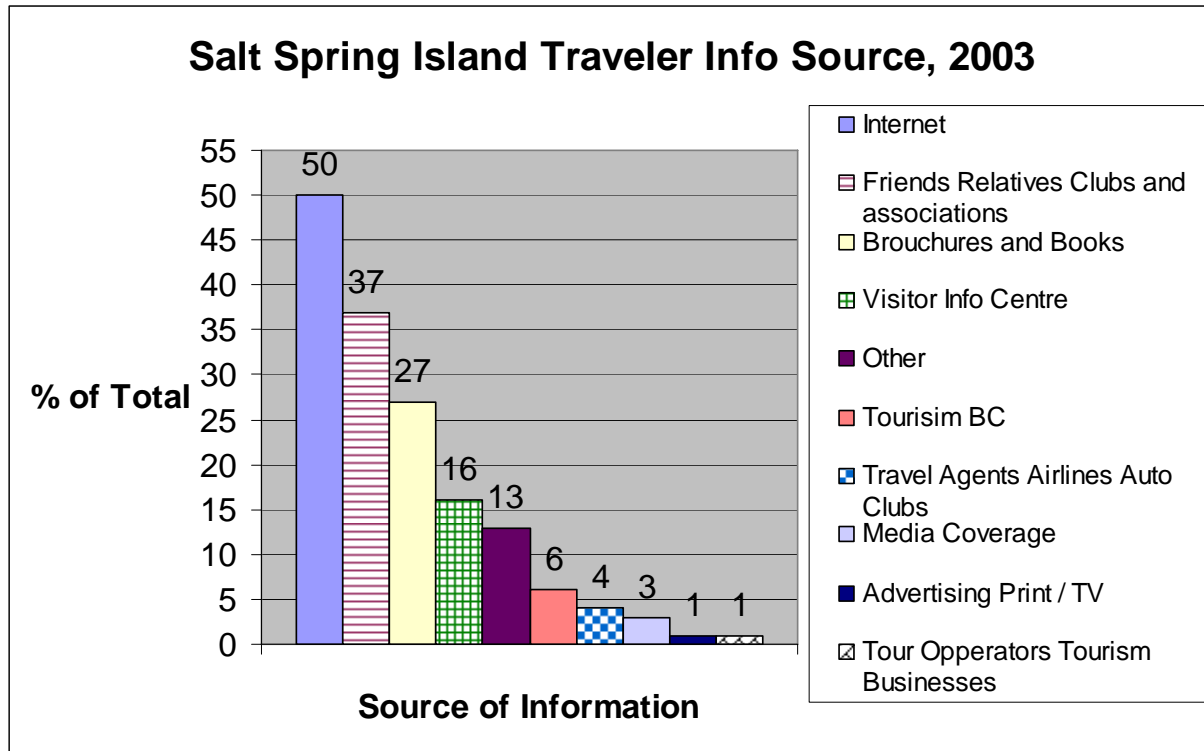
**References:**

1. Island Trust, Summary of All Types of Tourist Accommodation, April 2004.doc



## 5. Traveler Information Sources

- a. Most travelers to Salt Spring Island found out information from the Internet.



## 6. Salt Spring Island Tourism Case Study

### Excerpts from:

An Initial Tourism Planning Strategy for the Islands Trust Area, Community Tourism Planning and Design, Michael E Kelly AICP, MCIP, June 2006

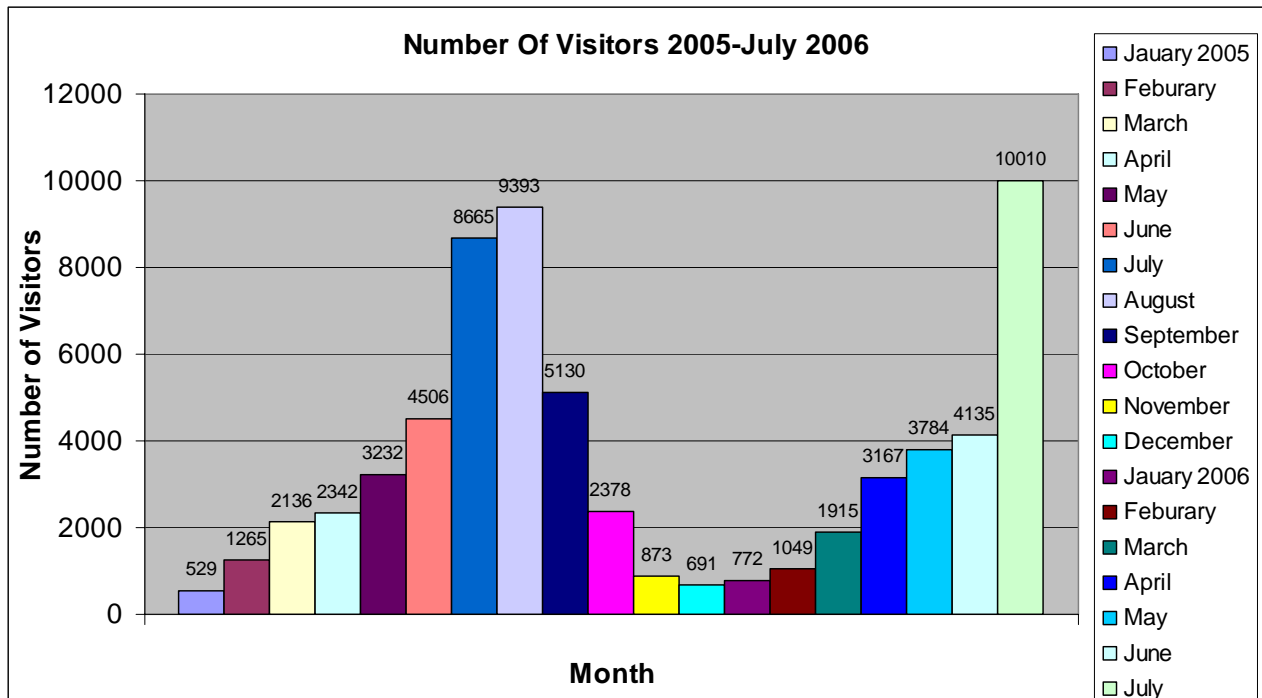
- Between 2001 and 2005 Salt Spring had an annual average of 660,000 arrivals. Based on BC ferries base and seasonal patterns, it is estimated that 118,000 of these are tourists.
- Based on VIC and BC ferries samples, each party of people (av. 3.6-3.3) spend between \$178.32 – \$191.80 per day. If on average each party spends two days on the island, the annual amount generated is approximately \$12.4 million in travel receipts. This number is matched by the data in the BC Statistics 2001 census.
- A 2001 a Tourism Supply Demand Consequence (SDC) Community Assessment of Salt Spring was done in March 2006. The SDC explored community supply, community demand, and community consequences. The overall result of this study

suggested that Salt Spring is not well situated for an increase in growth in the tourism sector, and in fact its present situation is not secure.

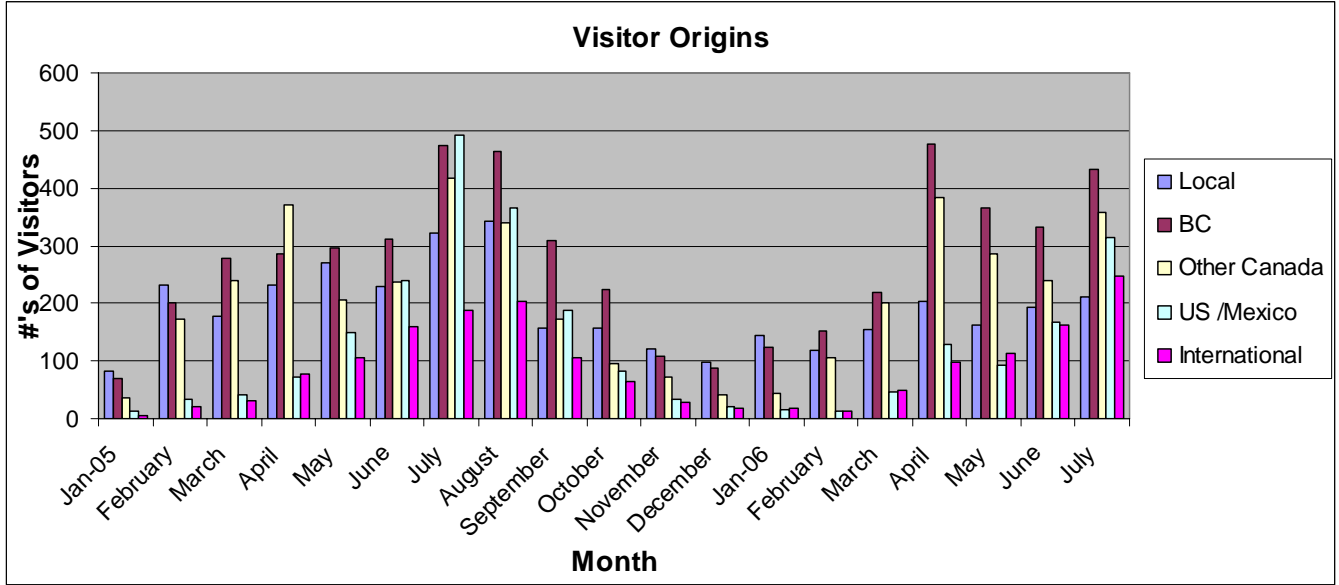
- Supply is sustainable. The island has generated the facilities necessary to sustain tourists such as health, safety, and infrastructure.
- The problems come when one focuses on demand and consequence. Many factors outside community control have huge impact on demand. Issues such as gas prices, global security/boarder issues, and exchange rates affect tourism negatively.
- The consequences of increasing tourism could lead to environment degradation, over saturation, and put particular stress on the water system.
- The combined findings on Demand and Consequences suggest that investing in or allocating resources to tourism at this time may be difficult and inappropriate.

## 7. Salt Spring Island Visitor Center Statistics, Chamber of Commerce, July 2006

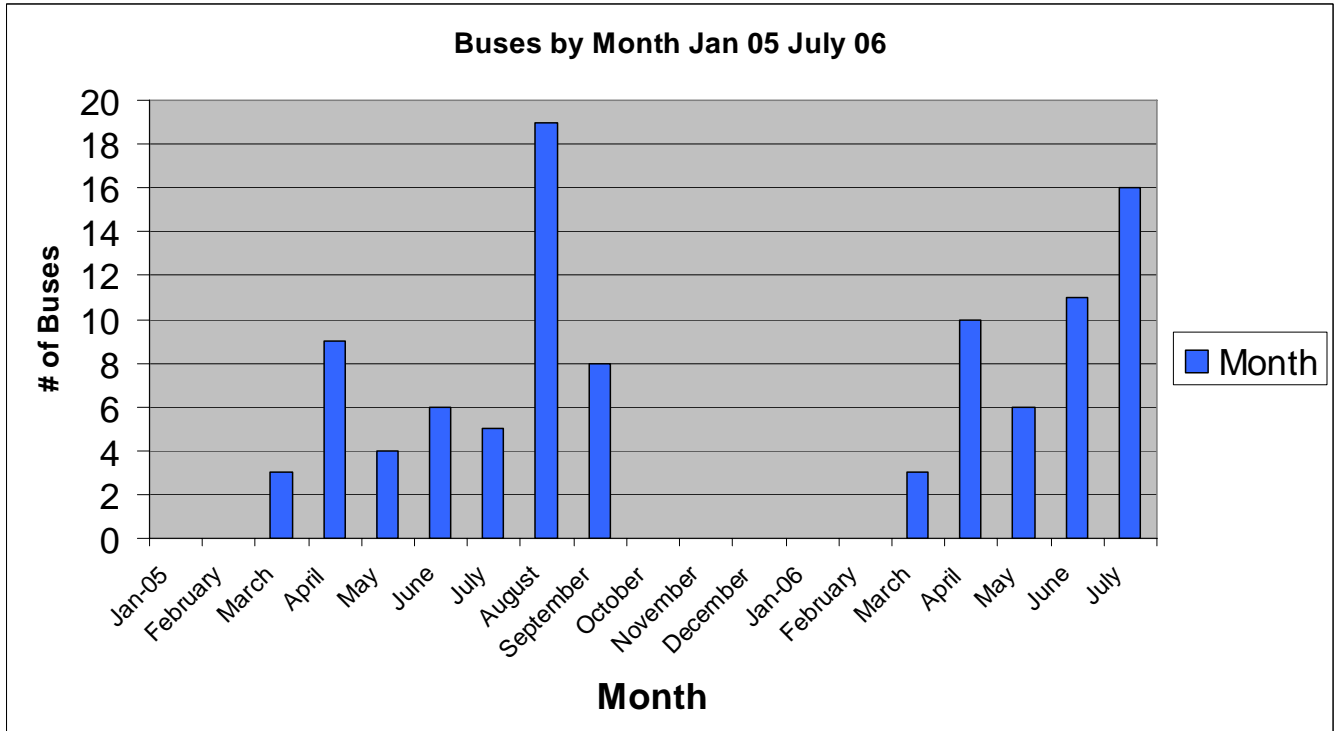
### A. Number of Individual and Group Visitors to Visitor Center January 2005-July 2006



**B. Visitor Origins, January, 2005 to July, 2006**



**C. Buses by Month visiting Salt Spring Island, January 2005-July 2006**



## 8.0 Energy & Transportation

### 1. Energy

This chapter is a summarization of the full Salt Spring Island Community Energy Strategy Baseline Report that was prepared by The Earth Festival Society for the community, Local Islands Trust and the Capital Regional District in May of 2004. <sup>1</sup>

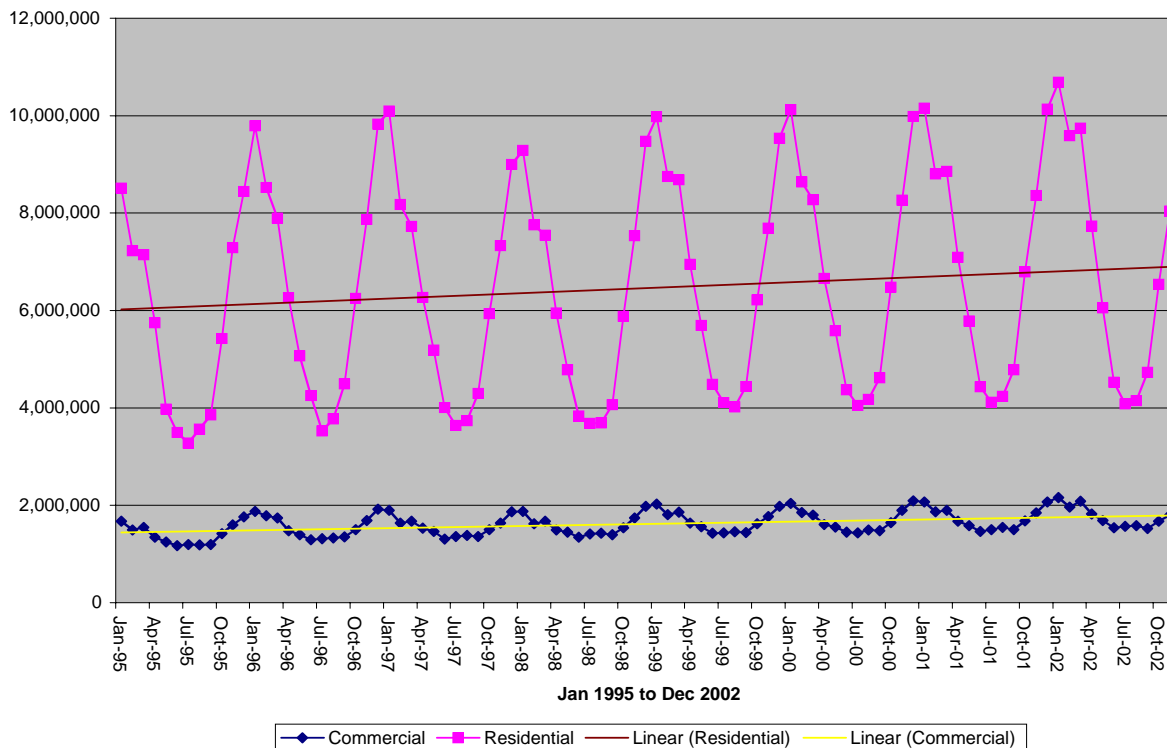
#### A. Summary of Findings

- Total annual energy consumption for Salt Spring is increasing for all categories examined, except residential fuel oil, which is assumed to be constant.
- Biggest consumption occurs in the three areas of electricity, gasoline and food purchases. The other two large energy uses are Firewood and BC Ferries.
- Gasoline is by far the largest contributor to greenhouse gas (GHGs) and carbon monoxide emissions on Salt Spring.
- GHGs are increasing most rapidly in the electrical sector because of the increasing reliance by BC Hydro on thermal generating stations.
- Wood combustion in the residential sector is assumed to be greenhouse gas neutral and not a net emitter of greenhouse gases, but it is the largest source of air pollution in the form of particulate matter (PM), carbon monoxide (CO) and volatile organic compounds (VOCs).
- There was an estimated 5,278 dwelling units on island in 2003 (including apartments and mobile homes).
- Between 1996 and 2003, the number of dwelling units increased by 31.5%, an average annual rate of increase of 4.5%.
- The average number of residents per dwelling unit is steadily declining and has been less than two since 2001. These numbers are of concern with respect to energy consumption.
- Researchers were interested in the findings related to the energy content of our conventional purchased groceries.
- They discovered that energy consumption for all steps involved in the food production cycle (e.g. growing, packaging and transportation) is about as great as the amount of energy burned in our vehicles every year. Although this energy is not all incurred on our island, we nevertheless are responsible for the consumption.

## B. Electrical energy consumption

- BC Hydro is the sole commercial supplier of electricity on Salt Spring. Total annual consumption in 2002 was 386,035 GJ (107,232 MWh).
- The residential sector currently uses 80% of that amount, with the bulk of the energy used during the heating season.
- Commercial sector shows less of a seasonal peak, suggesting that space heating makes up a smaller proportion of the commercial sector's electrical energy consumption, compared to the residential sector.
- In 2002, there were 545 open commercial accounts, compared to 5,244 residential accounts. The average annual consumption per account was 38,961 kWh and 16,400 kWh, respectively.

**Salt Spring Electricity Trends**



## C. GHG Emissions

- GHG emissions from electricity have tripled between 1996 and 2000. 2012 projected emissions are six times greater than 1996 emissions.
- Greater use of “green” energy for power generation reduces the emission factor, greater use of fossil fuels increases the emission factor.

- See [www.bchydro.com/rx\\_files/environment/environment4097.pdf](http://www.bchydro.com/rx_files/environment/environment4097.pdf) for latest BC Hydro projections.

### **Summary of Electrical Energy and associated GHG emissions**

	<b>1996</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Total electricity consumption, MWh	96,207	101,548	104,266	107,232
Total Residential consumption, MWh	77,526	81,200	83,538	85,998
Total Commercial consumption, MWh	18,681	20,348	20,728	21,234
Percentage residential	81	80	80	80
Percentage commercial	19	20	20	20
Total energy, GJ	346,347	365,573	375,358	386,035
Energy, residential, GJ	279,095	292,320	300,737	309,593
Energy, commercial, GJ	67,252	73,253	74,621	76,442
GHG emission factor t CO <sub>2</sub> / MWh (1)	0.015	0.042	0.042	0.042
Total GHG , t CO <sub>2</sub> eq. (2)	1,443	4,265	4,379	4,504
GHG emissions – residential , t CO <sub>2</sub> eq. (2)	1,163	3,410	3,509	3,612
GHG emissions – commercial , t CO <sub>2</sub> eq. (2)	280	855	871	892

1. from Bowen CEP—BC Hydro. 2000 factor used for 2001—2002
2. "consumption" times "GHG emission factor"

### **D. Energy consumption in the residential sector**

#### **Population and Dwelling Units:**

- Salt Spring's population in 2001 was 9,279 (StatsCan census data). Between 1991 and 2001 (StatsCan census data) the population increased 17.89%, or about 1.79% per year.

#### ***Population and dwelling Units***

	<b>1991</b>	<b>1996</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Population (1)	7,871	9,247	9,272	9,279	-	-
Dwelling Units, census (2)		4,014	4,565	4,913	5,156	5,278
Residents per Dwelling Unit		2.30	2.03	1.89	1.84	1.83

1. StatsCan census 1991, 1996, 2001, Salt Spring Electoral Area.
2. CRD Regional Planning Services: Stats Can census data for 1996 and 2001. 2002-2003 figures derived from adding building permits to 2001 data (see pg.

- Between 1996 and 2003, the number of dwelling units increased by 31.5%, an average annual rate of increase of 4.5%.
- The average number of residents per dwelling unit is steadily declining and has been less than two since 2001. In general, the lower the occupancy, the higher the per capita energy consumption.

**Residential electricity use:**

- As stated above, total residential electrical energy consumption in 2002 was 309,593 GJ (85,998 kWh) and in 2012 is projected to be 370,368 GJ (102,880 kWh).
- The number of residential BC Hydro accounts in 2002 was 5,244, giving an average consumption per residential account of 16,400 kWh/y.
- Residential electrical consumption increased by 10.93% between 1996 and 2002, an average of 1.4% per year, less than the rate of population increase, and considerably less than the rate of increase of new dwelling units (4.5%).
- Residential electrical energy consumption on Salt Spring shows a strong annual peak during the heating season, which is to be expected, considering that we estimate over 85% of the dwelling units are at least partially heated with electricity. (See Residential Heating Fuels below.)

***Residential electricity use (excerpted from Table 1)***

	<b><u>1996</u></b>	<b><u>2000</u></b>	<b><u>2001</u></b>	<b><u>2002</u></b>
Total residential consumption MWh	77,526	81,200	83,538	85,998
Energy, residential, GJ	279,095	292,320	300,737	309,593
GHG emissions – residential, t CO2 eq. (2)	1,163	3,410	3,509	3,612

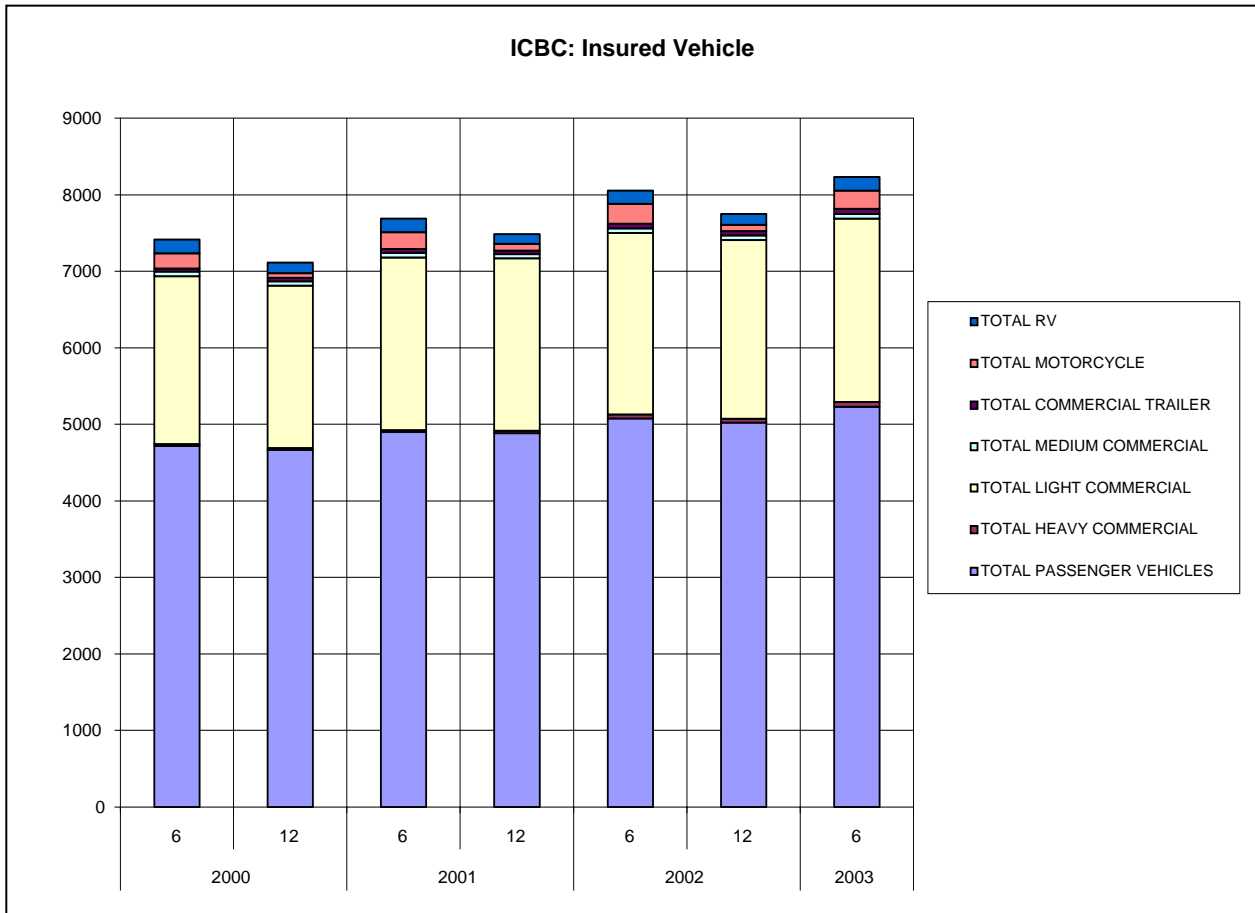
**2. Island Vehicles’ Fuel Consumption**

**A. Summary**

- From ICBC data, automobiles and light trucks make up over 90% of insured vehicles registered on Salt Spring.
- The total number of insured light vehicles has increased from 6,908 in June, 2000 to 7,631 in June 2003, an increase of 10.5% in three years, or 3.5% per year. This is about double the population growth rate of 1.79%.
- The number of insured vehicles drops slightly each winter.

- The number of medium commercial vehicles has remained constant at 61, but the number of heavy commercial vehicles has more than doubled, going from 26 to 57 in the three year period.
- Y-Axis represents the number of vehicles insured.

**Insured Vehicles as of June and December, 2000— June, 2003**



**B. Medium and Heavy Commercial Vehicle Fuel**

**School buses:**

- School District 64 operates 8 diesel school buses full time on Salt Spring, plus one spare (propane) and a sports bus (gasoline).
- For the 2002-2003 school year, approx 58,500 litres of diesel were purchased at a cost of approximately \$47,300.



- Assuming that a school bus, in terms of fuel consumption, represents an average of all medium and heavy commercial vehicles registered on Salt Spring, total annual diesel fuel consumption in 2002 would be 636,000 litres.

### Medium and Heavy Insured Commercial Vehicles

	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Medium Commercial vehicles (1)	61	59	61	61
Heavy Commercial vehicles (2)	26	28	51	57

1. ICBC, medium commercial insured vehicles 5000 -10,9000 kg GVW as of June of each year, 2000, 2001, 2002, 2003.
2. ICBC, insured heavy commercial vehicles >= 10,900 kg GVW as of June of each year, 2000, 2001, 2002, 2003.

### Light Vehicle Fuel Consumption:

- No data specific to Salt Spring, or the CRD, exist regarding average kilometers traveled, or average fuel consumption.
- This report uses NRCAN data for BC and the Territories. It assumes that all light vehicles use gasoline, and that automobiles and light trucks consume, on average, the NRCAN "small car" litres / 100 km.
- This factor probably understates the actual fuel consumption rate, but we suspect that the average km traveled (13,546 km in 2001) to be overstated for Salt Spring.
- Based on these assumptions, gasoline consumption is increasing at an average rate of 7% per year, compared to a rate of increase in the number of vehicles of 3.5%.

### Estimated light vehicle energy consumption

	<b>1996</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Automobiles (1)	4,027	4,714	4,898	5,076	5,232
Light trucks (2)	1,901	2,194	2,253	2,373	2,399
Total light vehicles (3)	5,928	6,908	7,151	7,449	7,631
Avg. Km/yr/light vehicle (4)	15,120	14,734	13,546	14,880	14,803
Litres/ 100 km/light vehicle (5)	10	10	10	10	10
Light vehicles fuel, 1000 litres	8,873	10,280	9,784	11,150	11,423
Energy, GJ	283,947	328,961	313,076	356,808	365,526
Emission factor, g CO <sub>2</sub> eq /km (6)	352	352	352	352	352
Total light vehicle GHG emissions, t CO <sub>2</sub> eq.	31,550	35,827	34,097	39,016	39,763

1. ICBC, insured passenger vehicles as of June of each year, 2000, 2001, 2002, 2003.
2. ICBC, insured light commercial vehicles <= 5000 kg GVW as of June of each year, 2000, 2001, 2002, 2003.

3. "Automobiles" plus "Light Trucks"
4. NRCan, OEE Transportation Sector data for BC and Territories, small car consumption
5. NRCan, OEE Transportation Sector data for BC and Territories
6. from Bowen CEP

### **3. BC Ferry Corporation, Salt Spring Traffic and Fuel Data**

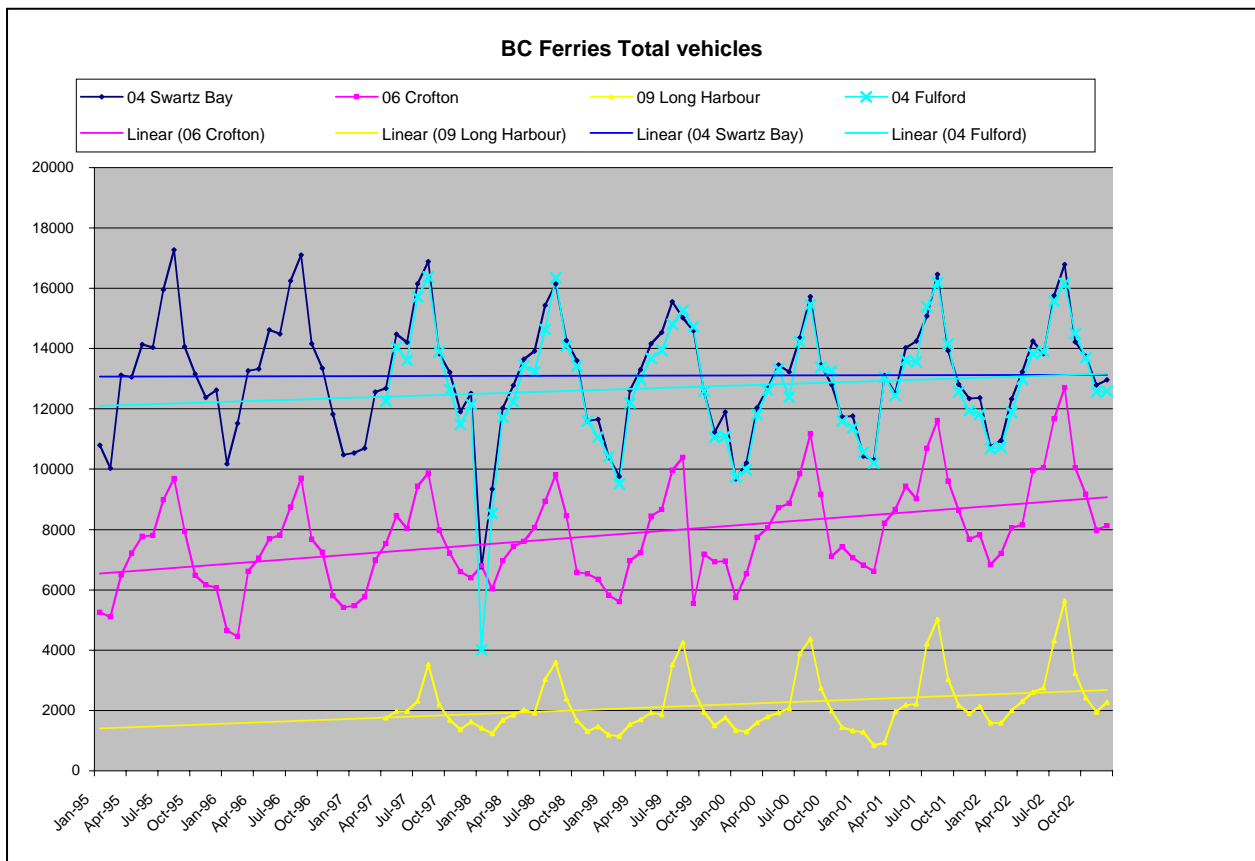
#### **A. Overview**

- Three routes service Salt Spring: Route 4 from Swartz Bay to Fulford Harbour, Route 6 from Crofton to Vesuvius, and Route 9 from Tsawwassen to Long Harbour.
- On the latter route, Salt Spring vehicles make up about one third of the traffic, although probably a somewhat greater fraction of the ferry miles, assuming most passengers from Long Harbour travel to Tsawwassen. Monthly traffic data from 1995 to Dec 2002 was analyzed.
- The data collection system changed in 1998, figures prior to that date appear to be inconsistent with the more recent data, which reports outbound, ticketed, trips separately from inbound, ship's log, trips. We used the most recent data.
- Through fare traffic is not included in BC Ferry's data system for Route 4. We attempted to quantify through fare traffic by comparing outbound with inbound trips, but the results were inconclusive. The Route 4 data is therefore understated by the number of through fare vehicles.

#### **B. Traffic on BC Ferries to Salt Spring Island**

- Traffic is increasing on all three routes, with Crofton showing the greatest increase.
- Despite strong anecdotal evidence of rapid growth in traffic from regular users of Route 4, the numbers show a modest increase of 6.5% between 2000 and 2002 (3.25% per year).
- Route 4 truck traffic has increased from 4,552 to 5,437, an increase of 19.4% in two years. Route 6 truck traffic has increased from 3,568 to 4,469, or 25.2% in the same period (Table 8).

## BC Ferries vehicle traffic by month, Jan 1995—Dec 2002



Source: from BC Ferries monthly traffic data. Note: data collection method changed in 1998.

### Routes 4 and 6, private and commercial traffic

	<u>1996</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
Swartz Bay Annual underheight + overheight	155,616	146,092	152,243	155,620
Swartz Bay Annual commercial + semi	4,454	4,552	4,873	5,437
Crofton Annual underheight + overheight	80,322	93,745	100,667	105,411
Crofton Annual commercial + semi	2,443	3,568	4,034	4,469

Source: from BC Ferries monthly traffic data. Note: data collection method changed in 1998.

### C. Visitor Vehicles

- Assumption: Estimated the amount of visitor traffic on routes 4 and 6 by subtracting the amount of private vehicle traffic in the off-season (October through March) from the private vehicle traffic in the tourist season (April through September).
- These figures indicate that the number of visitor vehicles was just under 28,900 in 2002, up from 27,600 in 2001, but down from 1998 figures of 31,800.

### BC Ferries traffic, all routes, and estimated visitor vehicles

	<u>1996</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
Private vehicles on VI ferries (1)	235,938	239,837	252,910	261,031
Commercial on VI ferries (2)	6,897	8,120	8,907	9,906
Est. resident vehicle trips (3)	202,842	211,544	225,338	232,162
# VI trips / light vehicle (4)	34	31	32	31
Est. visitor vehicles (5)	33,096	28,293	27,572	28,869
Total SSI vehicles Route 9 (6)	12,294	25,786	27,886	32,665

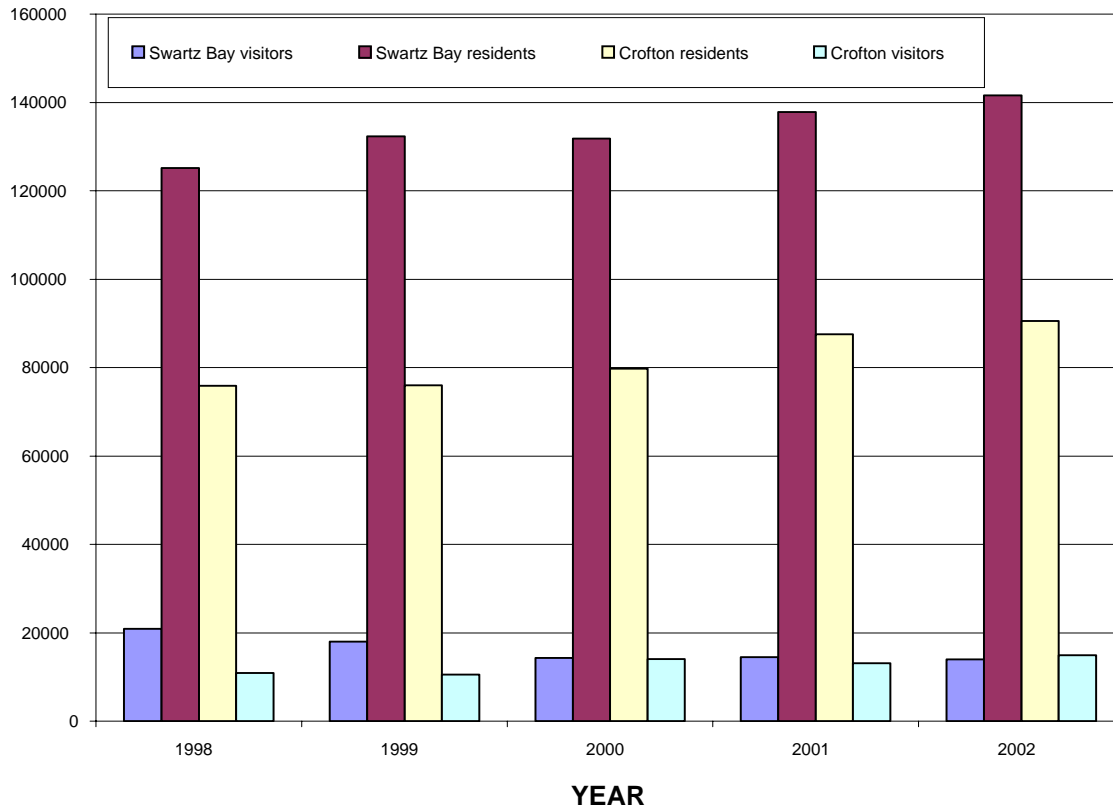
Source: from BC Ferries monthly traffic data. Note: data collection method changed in 1998.

1. BC Ferry Corporation, sum of monthly traffic data, 1996-97, Routes 4 and 6; 1998-2002, departing Swartz Bay and Crofton, private vehicles, underheight plus overheight.
2. BC Ferry Corporation, sum of monthly traffic data, 1996-97, Routes 4 and 6; 1998-2002, departing Swartz Bay and Crofton, commercial plus semi.
3. BC Ferry Corporation, sum of monthly traffic data, Routes 4 and 6 between October and March of each year times 2.
4. "Est. resident vehicle trips" divided by "Total light vehicles" from ICBC data.
5. "Private vehicles on VI ferries" less "Est. resident vehicles".
6. BC Ferry Corporation, sum of monthly traffic data, 1999-2002, departing Long Harbour

### D. Estimated visitor and resident vehicles, BC Ferries, 1998—2002

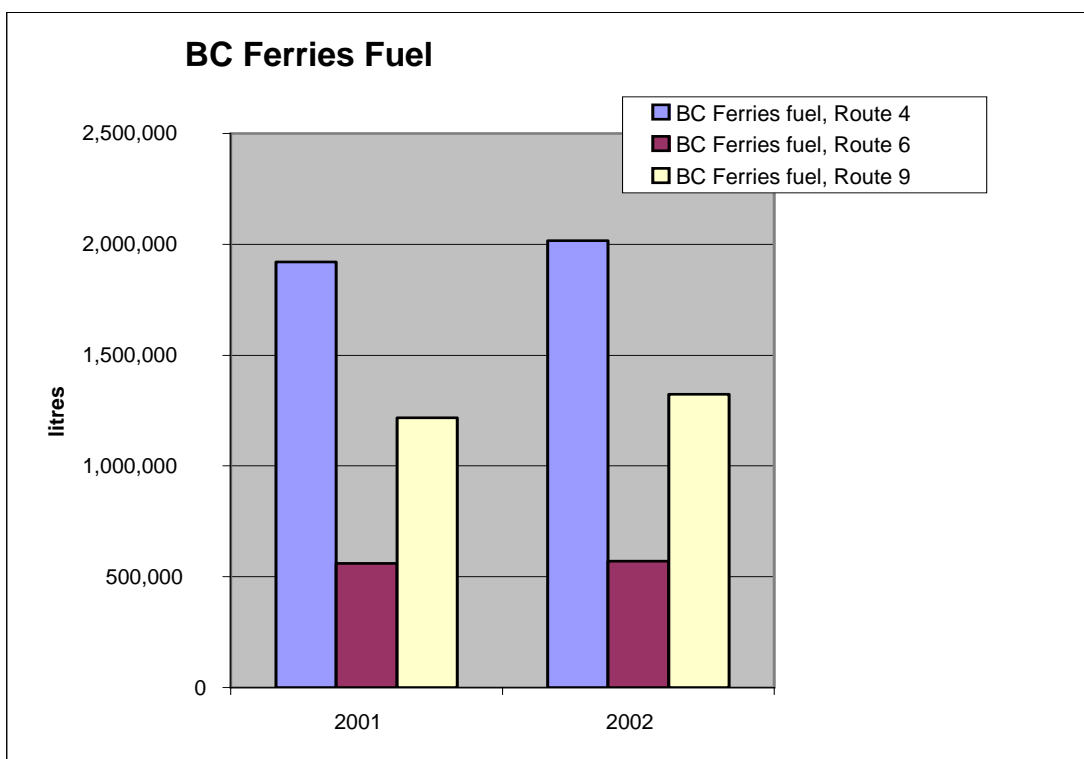
- Visitor vehicles made up about 11% of the private vehicles on the Vancouver Island routes in 2002.
- Resident vehicles made an average of 31 trips each to Vancouver Island in 2002.
- The graph below indicates visitors to, or residents of Salt Spring using the Fulford Ferry and visitors to, or residents of Salt Spring using the Vesuvius Ferry.
- The Y-Axis represents the number of vehicles.

## BC Ferries—Estimated Visitor and Resident Vehicles



### E. Ferry Fuel Usage

- BC Ferry Corporation provided two years of fuel consumption data.
- For Route 9, one third (Salt Spring's estimated share) of the fuel is shown. Route 6 is the shortest and most economical by far at 5.4 litres per light vehicle, followed by Route 4 at 13 litres, and Route 9 is the longest and least efficient at 40 litres per vehicle (32,665 in 2002).



**Route 4: Swart Bay to Fulford**  
**Route 6: Crofton to Vesuvius**  
**Route 9: Tsawwassen to Long Harbour**

**BC Ferries Fuel**

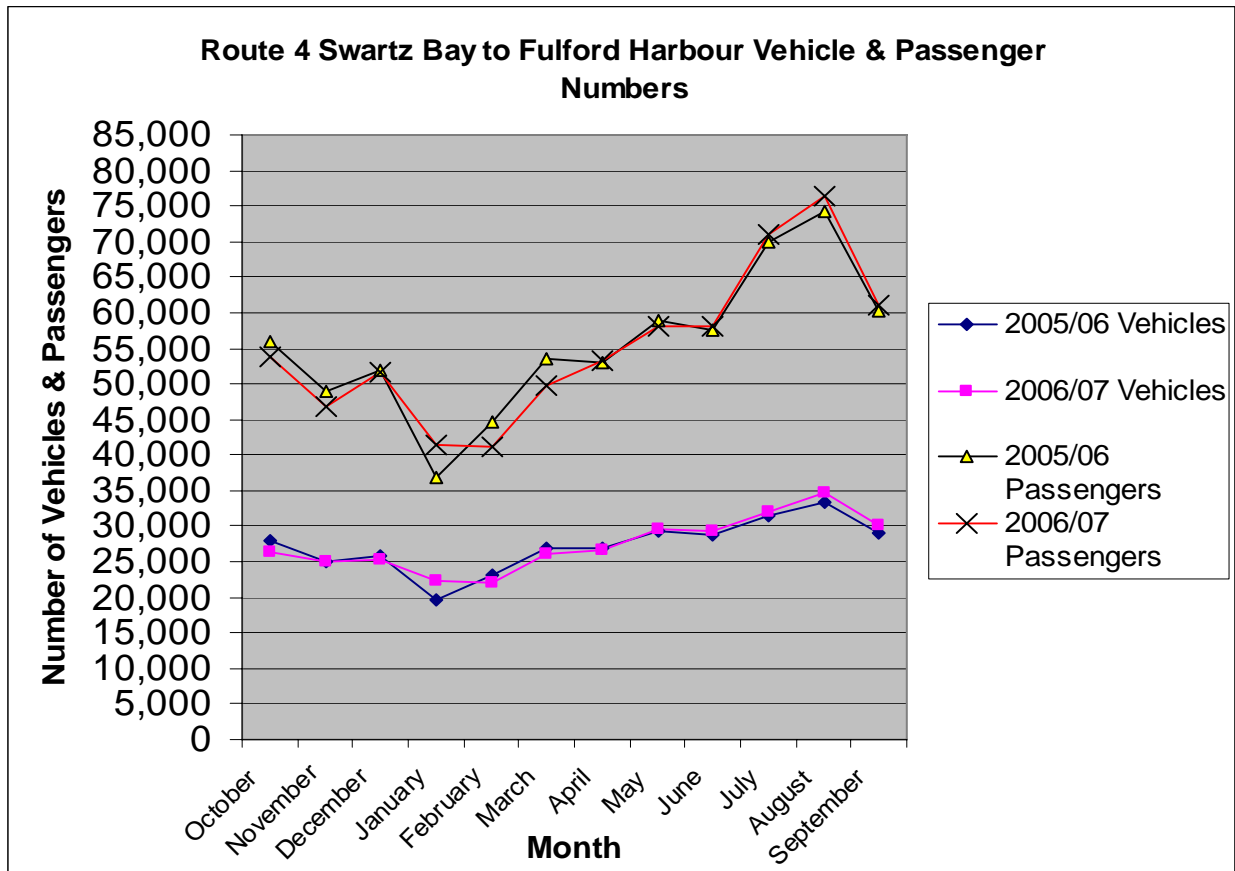
	<u>1996</u>	<u>2001</u>	<u>2002</u>
BC Ferries fuel, Route 4 litres	1,514,575	1,920,435	2,017,520
BC Ferries fuel, Route 6 litres	508,079	560,543	569,287
BC Ferries fuel, SSI share Route 9, litres (1)	468,230	1,217,399	1,323,753
Total BC Ferries fuel litres (2)	2,490,884	3,698,377	3,910,560
Emission factor kg CO <sub>2</sub> eq / kl diesel (3)	2,871	2,871	2,871
Total GHG emissions t CO <sub>2</sub> eq.	7,152	10,620	11,229
GHG emissions route 4 t CO <sub>2</sub> eq.	4,349,042	5,514,452	5,793,228
GHG emissions route 6 t CO <sub>2</sub> eq.	1,458,929	1,609,577	1,634,685
GHG emissions route 9 t CO <sub>2</sub> eq.	1,344,504	3,495,713	3,801,103
Total energy GJ	96,347	143,053	151,260

1. 33% of BC Ferry Corporation, annual fuel for Route 9, Long Harbour-Tsawwassen. 2001, 2002.
2. Sum of fuel Route 4, Route 6 and SSI share Route 9.
3. From Bowen CEP—GVRD/FVR

#### 4. BC Ferry Visitor Statistics, March 2006<sup>2</sup>

##### A. Route 4: Swartz Bay to Fulford Harbour

Route 4 Swartz Bay to Fulford Harbour: Month to Month Comparison				
Month	2005/06 Vehicles	2006/07 Vehicles	2005/06 Passengers	2006/07 Passengers
October	27,940	26,457	55,824	53,865
November	25,143	24,926	48,966	46,917
December	25,824	25,394	52,043	51,774
January	19,597	22,426	36,977	41,386
February	23,062	22,104	44,543	41,135
March	26,933	25,973	53,603	49,738
April	26,830	26,505	52,954	53,138
May	29,271	29,652	58,892	58,227
June	28,732	29,318	57,518	58,127
July	31,592	32,132	70,028	70,996
August	33,391	34,638	74,350	76,439
September	29,181	30,184	60,234	61,192
	327,496	329,709	665,932	662,934

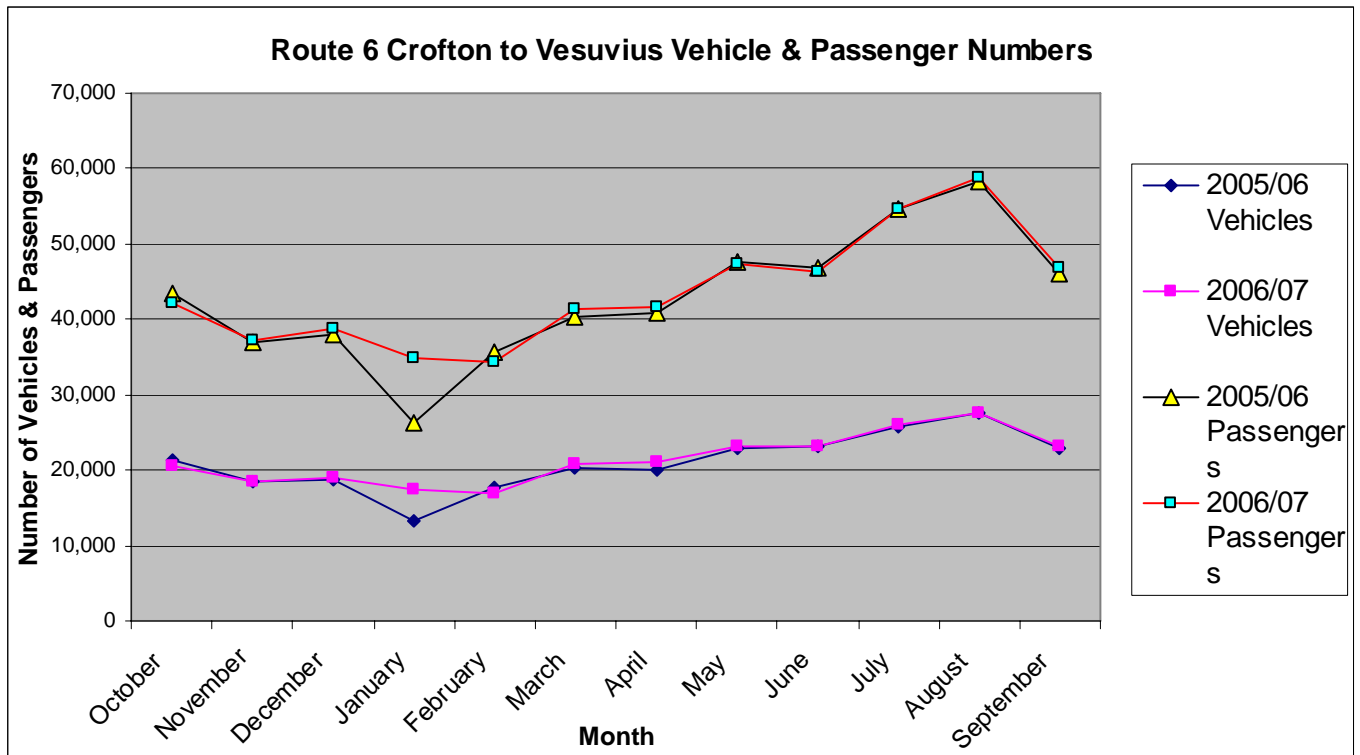


**Reference:**

- BC Ferry Annual Report 2005/06 and 2006/07: <http://www.bcferrys.com/about/AR.html>

**B. Route 6: Crofton to Vesuvius**

Route 6 Crofton to Vesuvius: Month to Month Comparison				
Month	2005/06 Vehicles	2006/07 Vehicles	2005/06 Passengers	2006/07 Passengers
October	21,346	20,567	43,523	42,065
November	18,404	18,509	36,894	37,223
December	18,762	19,027	37,887	38,787
January	13,270	17,340	26,405	34,970
February	17,580	17,022	35,717	34,364
March	20,309	20,848	40,247	41,285
April	20,158	20,984	40,956	41,695
May	23,000	23,256	47,561	47,285
June	23,276	23,158	46,873	46,293
July	25,881	25,976	54,742	54,629
August	27,700	27,663	58,303	58,700
September	22,858	23,260	46,039	46,805
	252,544	257,610	515,147	524,101





### 1. Howe Sound Queen

Passenger Capacity (maximum) **330**

Vehicle Capacity (official) **70**

#### Peak Traffic Months

The increase of traffic jumps in May tends to decrease in June and then progressively increase through July and August and begins to decline in September. Demand for Ferries fluctuates by month increasing 190% from January to August.

#### Percentage of Visitors and People on Vacation

**Summer:** Vacation 44%

Visiting 22%

**66%** of BC Ferry traffic in the summer is visitors.

**Winter:** Vacation 12%

Visiting 18%

**30%** of BC Ferry traffic in the winter is visitors.

#### Residency of Travelers

	Salt Spring Island	Vancouver Island	Lower Mainlan d	Outside BC
Summer	40%	44%	5%	10%
Winter	58%	38%	3%	1%

### C. Route 9: Tsawwassen to Salt Spring Island: Long Harbour

#### BC Ferry Vessel and Capacity

##### 1. Queen of Nanaimo

Passenger Capacity (maximum) **1183**

Vehicle Capacity (official) **192**

##### 2. Bowen Queen

Passenger Capacity (maximum) **393**

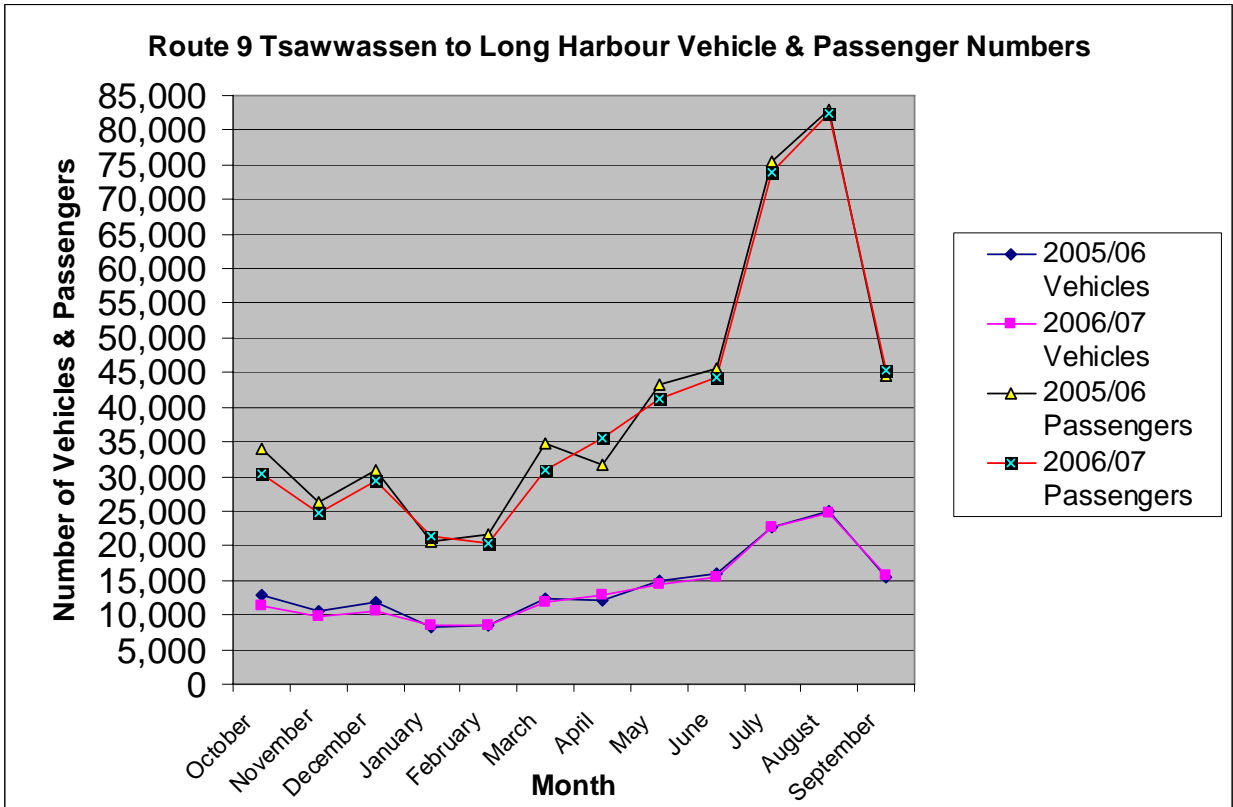
Vehicle Capacity (official) **70**

#### Peak Traffic Months

The increase of traffic begins in May and increases through June. There is a drastic increase in demand from June to July and into August. From August there is a decline to the same amount of demand there was in June. Demand for Ferries fluctuates by month increasing 330% from January to August. In the summer period the Bowen Queen runs a supplementary service to service all the visitors by running from Tsawwassen and Long Harbour on Salt Spring Island five days a week.

**Route 9 Tsawwassen to Long Harbour: Month to Month Comparison for graph**

Month	2005/06 Vehicles	2006/07 Vehicles	2005/06 Passengers	2006/07 Passengers
October	12,817	11,233	34,099	30,515
November	10,679	9,764	26,385	24,636
December	11,730	10,686	30,989	29,292
January	8,177	8,541	20,517	21,302
February	8,624	8,405	21,716	20,306
March	12,407	11,750	34,670	30,848
April	12,146	12,823	31,566	35,531
May	14,903	14,450	43,220	41,253
June	15,999	15,484	45,496	44,217
July	22,729	22,572	75,449	73,904
August	24,955	24,759	83,035	82,312
September	15,558	15,649	44,445	45,229
	170,724	166,116	491,587	479,345



**Reference:**

1. BC Ferry Annual Report 2005/06 and 2006/07:  
<http://www.bcferrys.com/about/AR.html>

2. Salt Spring Island Community Energy Strategy Baseline Report, The Earth Festival Society, May of 2004.
  1. Forum BC Ferry Visitor Statistics, Islands Trust Tourism Forum, March 2006

## 5. Indirect energy associated with grocery purchases

- Our food purchases have a large impact on the amount of fossil fuel energy we consume and the GHGs we produce.
- Energy is used at every step of food production: to manufacture fertilizers, pesticides and herbicides, for tillage and harvesting, for processing and packaging, and last but not least for transportation.
- The average North American's annual grocery shopping cart represents 1,514 litres (400 US gallons) of oil equivalents. (Source: Pimentel, D. and Pimentel, M. 'Food, Energy and Society' published by University Press of Colorado, 1996. (363pp.) Pimentel, D. and Pimentel, M. 2003. World Population, Food, Natural Resources, and Survival. In, *World Futures* 59: (3-4) 145-167, and personal communication).
- Assuming that the average Salt Spring islander's annual food purchases equal the North American norm, and based on a population of 9,503, then 2002 energy use and emissions attributable to food purchases are 14.4 million litres and 41,313 tonnes of CO2 equivalent, respectively.
- However, there is less certainty with these figures than with direct energy consumption, such as BC Ferry Corporation fuel data. Given the apparent magnitude of the food-related fossil fuel energy, further research is warranted.

### Energy associated with grocery purchases

	<u>1996</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
Population	9,247	9,272	9,279	9,503
kilo-litres of oil equivalent (1)	14,000	14,038	14,048	14,388
Emission factor, kg CO2eq / kL diesel (2)	2,871	2,871	2,871	2,871
GHG emissions, tonnes CO2eq.	40,200	40,309	40,339	41,313
Total energy, GJ	541,518	542,982	543,392	556,510

1. Based on 1,514 litres / person / year, source: D. Pimentel, Cornell University
2. Based on diesel emissions from Bowen CEP—GVRD/FVRD

- A partial switch in consumption to local organic food could reduce the energy component significantly. For example, a study by Eliot Coleman found that the energy cost of producing an organic lettuce under plastic in Maine was 6% of the energy cost of shipping a lettuce from California to Maine. (Source: 'The Winter Harvest Manual', Eliot Coleman, 1998, and personal communication.)

## Appendix A: General Salt Spring Island Statistics

### General Statistics:

- Ambulance - 1 station, 2 vehicles
- Coast Guard - 2 boats 11 staff
- Police RCMP - 1 station, 10 officers
- Roads - 650 km / 410 miles
- Annual sunshine - 2,000 + hours
- Fire Halls - 3 stations, 8 trucks
- Annual rainfall - 84 cm / 34 inches
- Library - 1
- Ferry Terminals - 3
- Mean Temp. - July 17 °C / 64 F
- Farms - 225
- Fairgrounds - 1
- Frost free season - 8 months +
- Public Docks - 7
- Commercial Marinas - 4
- Highest point - Mount Bruce 709m (2,326ft)
- Post Offices - 3
- Community Halls - 7
- Schools - 1 high, 1 middle, 4 elem.
- Movie Theatre - 1
- Churches - 16
- Hospital - 50 beds
- Intermediate Care - 51 beds
- Golf Courses - 2 9 hole
- Beaches - 22

The Salt Spring Island Local Trust Area consists of Salt Spring Island, as the major island, and several smaller associated Islands:

- Bright Islet Burial Islet Castle Island
- Channel Islands Clive Island Daphne Islet
- Deadman Islands Dyer Rocks First Sister Island
- Goat Island Hall Island Hawkins Island
- Idol Island Isabella Island Jackscrew Island
- Mowgli Island Norway Island Patey Rock
- Piers Island Prevost Island Red Islets
- Russell Island Second Sister Island Secret Island
- Secretary Islands Shoal Islands Third Sister Island
- Wallace Island

### References::

1. General Statistics, Salt Spring Chamber of Commerce Website (<http://www.SaltSpringtoday.com/visitors/demographics.asp>)

## Appendix B: Additional Resources & Reports

1. 2001 Community Profiles, Capital F, British Columbia, Stats Canada, 2001, URL:  
<http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CS&D&Code1=5917027&Geo2=PR&Code2=59&Data=Count&SearchText=capital%20f&SearchType=Begins&SearchPR=59&B1=All&Customf>
2. Islands Trust, 'Measuring our Progress', Salt Spring Island, 2003  
URL:  
(<http://www.islandstrust.bc.ca/poi/pdf/itrptmeasuringprogressSaltSpring.pdf>)
3. CRD, Environment Program 2003 Annual Report.  
URL:  
[http://www.crd.bc.ca/es/environmental\\_programs/wastewater\\_marine/documents/2003\\_sanpen.pdf](http://www.crd.bc.ca/es/environmental_programs/wastewater_marine/documents/2003_sanpen.pdf)
4. Islands Trust, Salt Spring Island Vacant Crown Land Profiles, Draft July 6, 2006  
URL:  
<http://www.islandstrust.bc.ca/poi/pdf/ssirptcrownlandprofile.pdf>
5. Ministry of Environment, Strategic Policy Division, BC's Coastal Environment, 2006  
URL:  
<http://www.env.gov.bc.ca/soe/bcce/>)
6. State of Environment Indicators in BC's Capital Region, 2006  
URL:  
<http://www.crd.bc.ca/rte/report2006/documents/SOEI2006final.pdf>