



# State of the Park Report 2003-2008

# Gulf Islands National Park Reserve of Canada













# GULF ISLANDS NATIONAL PARK RESERVE OF CANADA

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# National System of Protected Heritage Places

National parks, national historic sites and national marine conservation areas together form a network of nationallysignificant heritage areas that are protected and presented by Parks Canada on behalf of and for all Canadians. Gulf Islands National Park Reserve is part of this national system. It protects and presents a representative example of the Strait of Georgia Lowlands Natural Region.

Parks Canada's mandate encompasses both the provision of opportunities for the public to learn about their national parks and to experience and enjoy them in meaningful ways, and for the maintenance of their ecological and cultural values. For each park, maintaining ecological integrity is critical to ensuring the representative example of its natural region remains for future generations. Maintaining public support of national parks—through awareness, understanding and a personal connection—is critical for long-term protection of these national treasures.

"National parks are dedicated to the people of Canada for their benefit, education and enjoyment and the parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations."

Canada National Parks Act, 2003

"Canada's treasured and historical places will be a living legacy, connecting hearts and minds to a stronger, deeper understanding of the very essence of Canada."

Parks Canada Vision, 2009



# Executive Summary

### **PURPOSE**

The State of the Park Report (SOPR) provides a synopsis of the current condition of a national park based on established indicators related to Parks Canada's mandate. This report is based on the results of on-going monitoring of the park's natural and cultural resources, its offer of visitor experiences, and assessments of relationships and engagement with First Nations, stakeholders, and the general public. The SOPR also assesses the success of key management actions taken between 2003-2008. SOPRs are updated every five years.

This is the first SOPR for Gulf Islands National Park Reserve (GINPR). The SOPR is a critical precursor to development of the Park Management Plan. Based on an objective review of available data and information, the report identifies major challenges relating to park management and helps prioritize potential issues to be addressed in future management planning (Parks Canada, 2008). This in turn, helps set the stage for the development of measureable objectives, targets and actions.

# **PARK CONTEXT**

Gulf Islands National Park Reserve (GINPR) was established by agreement between the governments of Canada and British Columbia in May 2003 following consultation, according to the government standards of the time, with First Nations and the public. Located between southern Vancouver Island and mainland British Columbia, within a regional population of over six million people, the park has a highly fragmented land base totaling approximately 36 km<sup>2</sup> spread over islands, islets and reefs in the southern Strait of Georgia, Boundary Pass and Haro Strait. Pending determination of the feasibility of a National Marine Conservation Area, approximately 26 km<sup>2</sup> of adjacent marine area is also managed by Parks Canada. The park is located within the Strait of Georgia Lowlands Natural Region (Region 2 in the *National Parks System Plan*)—an area characterized by warm dry summers and mild, wet winters that rarely sees significant snow. The grouping of islands and the fertile sea in this region combine to create habitats found nowhere else in Canada. GINPR represents and protects for all Canadians examples of the diverse and beautiful flora, fauna, landforms, active natural erosion processes, seascapes, coastline, and cultural heritage of this unique region. Through the Federal-Provincial park establishment agreement (2003), additional lands can be acquired for national park purposes in a defined area on a willing seller-willing buyer basis or by donation.

Terrestrial, freshwater, coastal and marine ecosystems are protected within GINPR. Several of these ecosystems are among the most endangered in Canada or are under significant stress. Garry oak ecosystems are one of these, with less than five percent of the original extent in British Columbia considered to be in good ecological condition. Consequently the majority of species at risk for which Park Canada is the lead agency are located in this region. Additionally, biodiversity in Garry oak ecosystems is high they support the highest number of plant species (694) of any ecosystem on the British Columbia coast, as well as 104 bird species, 33 mammal species, 9 species of amphibians and reptiles and a diverse assemblage of species at risk (Parks Canada 2008b).

The Park Reserve is located in Coast Salish First Nations traditional territory and 19 of these nations assert rights and interests in GINPR. Since the early 1800s, many other cultural groups, including Europeans, Hawaiians, Chinese and Japanese people have settled here. Heritage features associated with all of these cultural groups exist in the park.

The park's first visitor season under Parks Canada administration was in 2004. The highly fragmented nature of the park reserve-on numerous islands with a multitude of means to access them-significantly challenges accurate monitoring and reporting on park visitation. To date, visitation numbers have been estimated through fee collection data and through data gathered in user surveys conducted in 2005 and 2006. Based on 2005 summer visitation to the southern Gulf Islands in general, potential visitation is estimated to be 100,000. Of that, 46,000 are marine-based visitors. In 2006, a park-specific study estimated that GINPR hosted 46,357 land-based visitors in the peak season (based on trail counters and campsite permit sales). Over 75% of the 2006 visitors were repeat visitors. GINPR offers facilities for day use (picnicking, walking trails), drive-in and backcountry camping, and mooring (mooring buoys, overnight dock space).

### FIRST NATIONS PERSPECTIVES

First Nations perspectives about GINPR and Parks Canada were gathered through interviews conducted in 2009. Fourteen individual First Nations and the two existing First Nations-GINPR committees participated in the interviews. Several First Nations in the interviews commented that of all the government agencies that they deal with—local, provincial and federal—they had the best relationship with Parks Canada staff from GINPR. Those First Nations involved in committees, although there is room for continued improvement to ensure that information is provided out to the community members. Additionally, it was noted that there are barriers to participation such as expenses associated with meetings, staff and consultant expenses, and community engagement costs.

With respect to First Nations connection to the park reserve, the committees and those First Nations that have a traditional territory in the southern Gulf Islands were more likely to have visited some portion of the park reserve, several through committee site visits or large tribal cance events in the past. A number of barriers to visiting the park were noted, particularly that most First Nations do not have modern boats capable of taking them out to the islands. Concerns were raised about potential disturbance to sacred sites within the park. They also expressed the need to ensure opportunities for First Nations to collect medicinal plants, harvest shellfish and other fish, and to hunt within the park. Opportunities are also needed to connect with their spiritual and cultural history on the islands. Seven key items come out of the First Nations perspectives include managing burial sites and human remains; involvement in developing the Park Management Plan; development of protection and harvest plans for seafood, deer and plants; the need for joint meetings of the various First Nations; public communications regarding the importance of park reserve to the First Nations; cooperative management/continuation of committee processes; and economic and employment opportunities.

# **STATE OF THE PARK**

The ecological integrity monitoring and reporting program is still in its infancy at GINPR and limited data is available. In 2005 and 2006 Parks Canada undertook two surveys of visitors to the islands and the park to gather baseline information. A baseline inventory of archaeological resources was also conducted during the initial years. Between 2003-2008 formalized monitoring programs for cultural heritage, visitor experience or public outreach education were not in place. Table 1 summarizes the State of the Park based on data gathered between 2003 and 2008. Although inadequate objective data exists to determine an overall state of the park, based on those measures that have been rated and other available information, visitor experience is considered to be in a good state, cultural heritage is considered to be in a fair state, and the state of ecological integrity, public outreach education and stakeholder engagement are undetermined at this time.

# **APPROACH TO MANAGEMENT ACTIONS**

A public process (2004-2006) was used to develop Interim Management Guidelines (IMG) for GINPR. While taking a precautionary approach, these guidelines provided strategic direction (park vision, management principles, short-term goals) and operational direction to set priorities for work to be achieved over the initial 5-7 years of park management. Given the lack of baseline information when the park was established, specific targets could not be established in the IMGs and actions for the interim planning period were focused on gathering baseline data and establishing initial monitoring programs to allow more specific objectives and targets to be developed through a park management plan.

### **RESULTS OF MANAGEMENT ACTIONS**

As a new park, much has been achieved in terms of gaining a better understanding of the ecological, cultural and visitor context through baseline research and through the development of relationships with key partners and groups. An ecological integrity monitoring program has been developed and the first steps taken in its implementation. Many opportunities for public involvement in park planning and management have been provided. Public awareness of the park has been raised through: the expansion of a volunteer marine host program; establishment of a volunteer cultural host program; working with volunteers on ecosystem restoration projects (e.g., removal of invasive plants; restoration of Lyall Creek); and, through public involvement in the development of four area plans for primary visitor use nodes in the park. Over 465,000 people per year are provided directly with park information through advertising and staff participation at targeted consumer shows and events. Park operations have been set up and a recapitalization program has been undertaken to upgrade and/or replace visitor facilities such as mooring buoys, docks, public washrooms and trails.

### **KEY ISSUES**

The key issues and opportunities for the park include:

## **First Nations Related**

- Protection of burial grounds and human remains
- Continued relationship building with First Nations
- Accommodation of traditional uses in the park (e.g. harvest management agreements)
- Improving communications both between First Nations and Parks Canada and among interested First Nations with interests in the park
- Opportunities for First Nations to tell their cultural story to park visitors

# **Ecological Integrity**

- Establishment of an ecological integrity restoration program, including objectives and action for species at risk recovery, invasive and hyper-abundant species management and fire management.
- Continued implementation of the Ecological Integrity Monitoring and Reporting Program
- Further research and planning for use and management of the marine area and submerged lands
- Regional integration and collaboration for research, inventory and action planning

### **Cultural Heritage Management**

- Development of a Cultural Resource Values Statement and Cultural Resource Management Strategy
- Development of a cultural heritage monitoring program
- Improvements to a number of buildings/structures of cultural significance
- Prioritizing and addressing impacts to cultural heritage sites through natural erosion processes and visitor use
- Need for additional research to fill cultural heritage information gaps

### **Outreach Education**

- Need for additional social science research to identify public awareness, understanding, needs and preferences of target audiences
- Identification of key urban outreach education venues
- Developing a targeted outreach program

### **Stakeholder Engagement**

• Development of an integrated Stakeholder Engagement Strategy

### **Visitor Experience**

- Need for a long-term, sustainable interpretive media program
- Establishment of sustainable visitor facilities plans (trail plan, marine offer, facility recapitalization program)
- Planning for a volunteer program, including a cooperating association.
- Establishing a visitor experience monitoring program
- Address information gaps regarding non-visitors and potential low-impact service offers
- Implementation of personal use fees (PUF)

# TABLE 1: State of the Park Summary

CONDITION STATUS			TREND				
	$\bigwedge$		N/R	<b>↑</b>	←→	•	N/R
Good	Fair	Poor	Not Rated	Improving	Stable	Deteriorating	Not Rated

Indicator	<b>Condition &amp; Trend</b>	Rationale			
ECOLOGICAL INTEGRITY					
Forest Ecosystems	N/R	Insufficient data currently exists. Only two of five measures are rated at this time. One measure (deer) is rated as poor; one measure (landscape diversity) is rated as good.			
Non-forest Ecosystems	N/R	Insufficient data currently exists. Only two of four measures are rated at this time. One measure (deer) is rated as poor; one measure (landscape diversity) is rated as good.			
Freshwater Ecosystems	N/R	Insufficient data currently exists. Only one of three measures is rated at this time. It (water quantity) is considered fair.			
Coastal (Shoreline) Ecosystems	N/R	Insufficient data currently exists. Neither of the two measures (coastal processes; flora) are rated at this time.			
Islet Ecosystems	N/R	Insufficient data currently exists. Only one measure (Black Oystercatchers) is rated at this time. It is considered good.			
Intertidal Ecosystmens	N/R	Insufficient data currently exists. Only one of three measures is rated at this time. It (Eelgrass Fish Assemblages) is considered good.			
Subtidal Ecosystems	N/R	Insufficient data currently exists. Only one of two measures is rated at this time. It (Eelgrass Fish Assemblages) is considered good.			
	CULTUR	AL HERITAGE RESOURCES			
Resource Condition	Trend N/R	One measure (archaeological sites) is rated as fair; one measure (buildings and structures) is rated as poor and one measure (objects) is rated as good. One measure (landscapes and landscape features) is not rated at this time. Insufficient data exists to establish trends.			
Selected Management Practices	Trend N/R Trend N/R Trend N/R N/R Trend N/R N/R N/R N/R N/R N/R N/R				
	PUBLI	C OUTREACH EDUCATION			
Awareness N/R N/R N/R   Awareness N/R at targeted consumer of shows); development of website; establishing a provide on-board natur provide features on GIN		No specific data has been collected to assess the level of public awareness of the park. Between 2003-2008, Parks Canada staff established many opportunities to increase awareness and understanding of GINPR for target audiences. Examples include: participation in community and special events; information booths at targeted consumer events (e.g., boat shows, green living shows); development of special educational features for the park website; establishing a partnering arrangement with BC Ferries to provide on-board naturalist programs; working with regional TV to provide features on GINPR; development of a speakers series; and special programs for youth.			
Understanding	N/R	No specific data has been collected to assess the percentage of the public that understand the importance of why Parks Canada protects and presents Gulf Islands National Park Reserve. Eighty-eight percent of island residents and visitors, and 95% of marine visitors to the southern Gulf Islands who were surveyed in 2005 (not all of who would have visited the park reserve) were aware of the Agency's protection mandate.			

Indicator	<b>Condition &amp; Trend</b>	Rationale		
Appreciation	N/R	No objective data has been collected to assess if Canadians appreciate the significance of Gulf Islands National Park Reserve.		
Learning	N/R	No specific data has been collected to assess whether the public considers that they learned about Gulf Islands National Park Reserve. Many of the examples noted above (awareness indicator rationale) also provided opportunities for the public to learn about the values of Gulf Islands National Park Reserve.		
	STAK	EHOLDER ENGAGEMENT		
Support	N/R	No specific data has been collected regarding the percentage of stakeholders that support protection and presentation of the park. Over 90 stakeholder groups participated with Parks Canada over the initial period of 2003-2008.		
Influence	N/R	No specific data has been collected regarding whether stakeholders consider that they have had opportunities to influence GINPR activities. Many opportunities were provided for stakeholders to influence park planning and management through a variety of projects and consultations.		
Active Involvement	N/R	No specific data has been collected regarding whether stakeholders consider that they have an active involvement in management, protection and presentation or consider that they took action for protection and presentation of the park. Many opportunities were provided for stakeholders to be involved in park planning and management.		
	V	ISITOR EXPERIENCE		
Marketing and Promotion	Trend N/R	Much effort has been placed on increasing awareness of GINPR as a new national park and ensuring current and likely visitors are aware of the visitor offer, changes and considerations. Participation in community and special events; hosting information booths at targeted consumer events (e.g., boat shows, green living shows); development of special educational features for the park website; and developing relationships with key destination marketing organizations.		
Interpretation	Trend N/R	An interpretive program was initiated in 2005. Over the initial four year (2005-2008) various tools were used to determine what would work best in GINPR and participation increased from 7,821 to 13,095—a 40% increase.		
Activities and Services	Trend N/R	76% of visitors surveyed in 2006 were satisfied to fully satisfied with their visit. 72% were satisfied to fully satisfied with the availability and quality of services and activities they used.		
Personal Connection	N/R	No specific data has been collected to assess whether visitors feel a personal connection to Gulf Islands National Park Reserve. Research conducted in 2005 and 2006 shows a high level of repeat visitation and that quiet, beautiful scenery, seeing wildlife walking/hiking, spending time with family and friends, and anchorages/boating/kayaking are among the most memorable aspects of people's visits.		



# Introduction

## 1.1 PURPOSE OF THE STATE OF THE PARK REPORT

The Parks Canada Agency is pleased to provide Canadians with a report on the current condition of Gulf Islands National Park Reserve of Canada (GINPR). This is GINPR's first State of the Park Report (SOPR) and it will be updated every five years to report on the key aspects of Parks Canada's mandate and vision as it relates to this national park reserve. It outlines the current condition of the park's ecological integrity, cultural resources, visitor experience and public outreach education. Further, based on Parks Canada's vision statement, the SOPR outlines the state of Aboriginal relationships and stakeholder relationships relating to both their connection with the park and with Parks Canada.

The SOPR is a critical precursor to development of the Park Management Plan. Based on an objective review of available data and information, the report identifies major challenges relating to park management and helps prioritize potential issues to be addressed in management planning (Parks Canada, 2008).

### 1.2 BACKGROUND

The term "national park reserve" is used by Parks Canada in situations where unresolved First Nations interests exist in respect to park lands. In this SOPR, the words "park" and "park reserve" and the acronym "GINPR" are used interchangeably to refer to Gulf Islands National Park Reserve of Canada.

GINPR lies within the Strait of Georgia Lowlands Natural Region and features islands and islets, high escarpments, sand spits, Coastal Douglas-fir and Coastal Western Hemlock vegetation, Garry oak woodlands and meadows, shorebird habitats, salmon spawning streams and marine mammal haulout (resting) areas. In its intertidal and marine component, the rocky shores, eelgrass meadows, bays, significant tides, currents and active natural erosion processes provide habitat for many invertebrates (crabs, clams, octopi) and fish, marine mammals and birds. This natural region is one of the most disturbed landscapes in Canada as a result of rapid population and economic growth. Two-thirds of the population of British Columbia is located in this 9,360 km<sup>2</sup> natural region and as much as 90% of the area is considered already impacted by human development and activities (Canadian Heritage Parks Canada, 1993). This puts GINPR in the "back yard" of millions of Canadians.

In addition to its natural characteristics, the Gulf Islands have been home to numerous peoples over time. Archaeological records show that the Coast Salish people used this area at least as far back as 5,000 years ago. Nineteen of the Coast Salish First Nations assert Aboriginal or Treaty rights and interests in GINPR. In the late 1700s, Spanish and British began exploring the Gulf Islands. Approximately 150 years later, immigrants began to settle on the islands. Over time, the population of the islands has become culturally diverse—including Coast Salish First Nations, European, Chinese, Japanese, and Hawaiian (Kanaka) people. Each group has left its mark on the land.

The Gulf Islands region has long been a major draw for recreational tourism. In particular, recreational boating (sailing, kayaking, power boating) and island-based sightseeing visits are typical. Beautiful scenery, opportunities for recreation with family and friends, and opportunities to enjoy peaceful, quiet places or to experience solitude are key attributes of the islands that attract visitors.

GINPR provides additional value for island visitors, offering opportunities to walk and hike, explore beaches, watch marine wildlife, camp, picnic, sightsee and walk their dogs (Parks Canada 2005). Opportunities for learning and discovery are provided through personal services—guided hikes, nature talks and activities, and community and special events—and through non-personal media such as interpretive signs, visitor guides, and brochures. Together these opportunities allow park users to discover the park reserve's natural and cultural values on their own or facilitated by Parks Canada's professional staff.



Gulf Islands National Park Reserve of Canada was established by agreement between the governments of Canada and British Columbia on May 9, 2003. The signing of the agreement was the culmination of over three decades of study, discussion and preparatory groundwork. It required vision, persistence, creativity and cooperation on a grand scale. In a region where remaining ecologically significant lands are few and land values are high, assembling this park reserve was a remarkable accomplishment.

At the time of the signing of the park reserve establishment agreement, the assembled parcels of land totaled nearly 2,600 hectares (ha) spread out over islands, islets and reefs in the southern Gulf Islands. Five large to moderately-sized islands (Tumbo, Georgeson, Russell, Portland and D'Arcy) are entirely owned by Parks Canada. As of 2009, park lands constitute approximately 44% of Saturna Island, 30% of South Pender Island, 11% of North Pender Island and 0.5% of Mayne Island. The total area of the park reserve is approximately 3,600 ha (Fig. 1), including a terrestrial land base, a marine component encompassing 25 m from the foreshore of most waterfront park lands, and approximately 400 m off Portland Island and Sidney Spit (former provincial marine parks). Pending determination of a feasibility study for a National Marine Conservation Area, Parks Canada also has jurisdiction over multiple adjacent submerged lands (ASL), including reefs, that extend from 25 to 200 m, encompassing an additional 2,600 ha. In total, Parks Canada administers 6,219 ha of land, intertidal area and adjacent submerged land as part of GINPR. Through the establishment agreement, a core area of interest was agreed to in which lands can continue to be acquired on a willing seller-willing buyer basis. This core area of interest is illustrated in Figure 1.

### **1.3 PARK MANAGEMENT PLANNING**

As required by the park establishment agreement, Interim Management Guidelines (IMG) were developed between 2004 and 2006 with public input from many interested individuals and groups. The IMG set out an initial Park Vision, management principles, interim goals, strategic and operational actions, and interim park zoning.

### The park vision is as summarized as follows:

Gulf Islands National Park Reserve will show leadership in protecting its rich ecological and cultural heritage in as natural a state as possible. It will provide refuge for nature and people and will provide quality, low-impact, sustainable opportunities for Canadians and visitors from around the world to learn about, understand and appreciate, experience, and protect the ecological and cultural heritage of this exceptional coastal and island ecosystem. GINPR will work closely with its neighbours and partners to ensure GINPR has strong local, regional and national support.

The full park vision included in the IMG contains a further eight points that expand on the intent and meaning of the above. Ten interim goals were set out in the IMG. From these goals, approximately 200 strategic and operational actions were identified.

### 1.4 STATE OF THE PARK MONITORING FRAMEWORK

Monitoring provides essential information for evaluation of the state of the park. Parks Canada undertakes two types of monitoring—condition and effectiveness. Condition monitoring is designed to answer the question, "What is the state of the protected heritage place?" It is done through the on-going process of collecting and analyzing data on a suite of monitoring indicators in a rigorous and consistent manner, and comparing the results to pre-identified management targets. Through condition monitoring, trends may appear over time. Trends are established by comparing data using statistical analyses to determine if patterns become apparent. Effectiveness monitoring is designed to answer the question "Have our management actions achieved the desired results?" Monitoring results are reported every 5 years.

Because this SOPR reports on GINPR's initial five years, insufficient data exists to establish a condition for several of the indicators or to identify trends. For some indicators, no scientific data has yet been gathered. As the park monitoring programs become more robust, so too will subsequent State of the Park Reports. Where possible, the following framework is used to report on the condition and trends of the park indicators:





# **Aboriginal Perspectives**

# 2.1 CONTEXT

Nineteen Coast Salish First Nations assert Aboriginal/Treaty rights and/or have an interest in the region and in GINPR (Fig. 2). Individual First Nations populations vary from 15 (Lake Cowichan) to 3,940 (Cowichan Tribe). The total registered on-reserve population in 2005-06 for the nineteen First Nations was 11,487 individuals (Appendix 1).

The relationship between First Nations and Parks Canada at GINPR is complex due to the number and diversity of First Nation communities that have interests in the park reserve. This complexity is compounded by the involvement of some groups in the BC treaty process, while other groups have either withdrawn or declined to participate in it and still others claim historic Douglas Treaty rights (Appendix 1). Of the 19 First Nations that have interests in the park reserve, 13 are involved in the British Columbia Treaty Commission (BCTC) process, five First Nations assert historic Douglas Treaty rights and are not engaged in the modern-day treaty process and one First Nation is neither in the modern-day treaty process nor claims Douglas Treaty rights (Appendix 1).

The Tsawwassen First Nation entered the implementation stage of the BCTC process on April 3, 2009. In the modernday treaty process, two treaty groups (Hul'qumi'num Treaty Group and Te'mexw Treaty Association) represent eleven First Nations and one First Nation (Snuneymexw) is in a process on its own (Appendix 1).

# **Formal Agreements**

Parks Canada has established several consultation agreements on the planning and management of GINPR with First Nations since 2003 (Appendix 1). Eleven of 19 First Nations have been represented through committees at various times. Two agreements remain active, representing seven First Nations (HTG First Nations and Tseycum First Nation). A third agreement is under re-negotiation and may include three First Nations (Tsawout, Tsartlip, Pauquachin) while other agreements are anticipated in the near future with the Tsawwassen First Nation and the Te'mexw Treaty Association. Complementary contribution agreements provide funding from Parks Canada for the operation of these committees.

Agreements in Principle (AIP), a stage in the contemporary land claims negotiation process under the British Columbia Treaty Commission, require that harvest management be addressed during treaty implementation through formal agreements or plans and that these be reviewed annually. This undertaking will need to be initiated as modern treaties become law in provincial and federal government systems.

### Overview of Aboriginal Participation in Park Reserve Planning and Management

The largest level of involvement has come from the 11 First Nations with whom Parks Canada has established committees. Involvement and input has been gained on the development of the Interim Management Guidelines, four Area Plans, four protocol agreements and a park policy regarding middens and burial grounds.

Five program and project areas have accounted for the majority of the committees' time. These include the Cultural Program, the Communications Program, the Harvest and Monitoring Pilot Project with Hul'qumi'num Nations,

Environmental Assessment projects, and a variety of extension projects. The most time intensive among these have been the 35 Environmental Assessments done between 2005 and 2008. Reviews of Environmental Assessments were specifically requested by the Hul'qumi'num Treaty Group through its agreement with Parks Canada on consultation and cooperative planning and management of GINPR.

Three extension projects have been highly successful. The Youth Eco-Steward (YES) Camp conducted annually from 2004 to 2006 brought together parks staff and children from local First Nation communities for several days of interpretation and conservation activities. Aboriginal Traditional Knowledge (ATK) was also integrated in the program. In 2006, over 50 children participated in the YES Camp.

In 2008, the Species at Risk Act (SARA) in Hul'qumi'num Schools project introduced over 450 Hul'qumi'num children to endangered species within their traditional territory, including the park reserve. The pilot project was highly successful and there is support for an annual program with interested First Nation communities.

Parks Canada has also hosted, and participated in, three National Aboriginal Day celebrations by engaging local First Nation community organizers. The 2007 National Aboriginal Day was most successful with over 500 local First Nation members participating in the event.

With respect to employment, Parks Canada has recruited First Nations individuals for certain positions in GINPR. In addition, emphasis has been placed on raising awareness about potential employment opportunities within First Nations communities. As of April 2009, the park had 37 full time, seasonal and term employees, including 7 Aboriginal staff members.

### 2.2 STATE OF THE LAND AND ABORIGINAL PEOPLE'S RELATIONSHIP TO THE LAND

This section is synthesized from a contracted report on interviews held with interested Coast Salish First Nations (Dolan, 2009). It outlines the perspectives of Coast Salish First Nations on the state of the land in the park reserve and the state of their relationship to it, as noted through a series of personal interviews with First Nations representatives.

### **Interviews**

In 2009, nineteen First Nations with asserted interest in GINPR region were contacted to participate in interviews relating to the development of the State of the Park Report. Fifteen First Nations chose to participate. Two existing First Nations-GINPR committees also took part in the interview process.

The purpose of the interviews was to gather information on:

- how First Nations perceive the management of the park reserve
- how they perceive their connection to the lands and waters of the park reserve
- if and how they believe their voices have been heard
- what key issues should be addressed in the upcoming management plan
- level of awareness of First Nations' programs in the park reserve
- how First Nations feel that Parks Canada is doing in the early days since the formation of the park reserve

### **Interview Results**

Since the establishment of the park reserve in 2003, First Nations that had developed a cooperative working relationship with Parks Canada were more likely to have come to the park reserve. Many First Nations indicated that they had been out to the park reserve for field orientations as part of their committee work. A number of First Nations stated that they had never been in the park reserve. All First Nations with

traditional territories in the GINPR expressed an interest in reconnecting with their traditional territories in the park reserve more often. A number of barriers to accessing the park reserve were noted; in particular, most First Nations do not have boats capable of taking them out there.

Many First Nations felt that not enough time had gone by or that they had not made enough trips to GINPR lands to "The majority of staff have been very informative and there is lots of learning on both sides."

"We want to be more involved in the management."

"We're still walking together, but we've got a long way to go."

"The connection to Gulf Islands National Park Reserve is through our ancestors. Our ancestors speak to us in many ways."

see any changes since the park reserve was formed. Broad changes in the area—pollution, declines in fisheries, contaminated shellfish beds, erosion from the wake of boat traffic, development pressures, and large expanses of private land—were noted by some. A number of participants commented that they felt Parks Canada was doing a good job of managing the park; that interactions with Parks Canada staff were respectful; and that Parks Canada policies, particularly those in the area of dealing with burial

### FIGURE 2: Location of First Nation Communities and Gulf Islands National Park Reserve





Relationship building

sites and human remains, were a much needed move in a positive direction.

Human remains and burial sites were the most talked about issues for all First Nations interviewed. Many First Nations noted a challenge in sharing the whereabouts of burial sites though they recognized that Parks Canada could use of this information to better protect the sites from erosion and human interference. A number of participants indicated there was a definite lack of trust in providing Parks Canada with certain information, but there was hope that as the relationship develops, trust would improve. All First Nations were strongly supportive of the development of a cultural protocol for dealing with human remains.

First Nations that have formal cooperative planning and management committees to work with Parks Canada thought these committees were very effective. There was a clear indication from all participants that their voice was being heard. While some participants were comfortable with the "collective" voice afforded by these committees, others felt that at times the ability to bring forward concerns and issues from their individual First Nation was compromised by the committee structure.

Many First Nations that have a traditional territory they believe includes the lands and waters of the park reserve but that do not have a relationship with Parks Canada, indicated a strong desire to move toward building such a relationship.

During the survey, four First Nations noted that they neither expected nor wished to be involved in the day-to-day management of GINPR, because they did not feel the park was really in their traditional territory. These First Nations did, however, express interest in remaining in contact with Parks Canada to share information on and participate in such items as cultural protocols, economic opportunities, special events, capacity-building workshops, and educational activities.

All First Nations—even those receiving some financial support through cooperative planning and management committee work—said that participation in park management was

underfunded and their ability to engage was seriously impacted by the lack of adequate resources.

Some of the benefits of the park reserve brought forward by participants in the interviews included the potential for building capacity for First Nations through training, jobs, contracts and other economic opportunities. Others felt that the park reserve could play a key role in the protection of both environmental and cultural features of the area.

A large number of First Nations that took part in the interviews expressed interest and concern over how Parks Canada will manage the harvest of shellfish, fish and wildlife in the future. A number of participants noted that beaches near their reserve lands on both Vancouver Island and the Lower Mainland have been declared contaminated and they are now looking for new places in the southern Gulf Islands to harvest shellfish and fish.

All First Nations talked about economic opportunities, even those that do not see the GINPR as part of their traditional territories. One of the first items brought up at many meetings was the potential for jobs or contract work with Parks Canada.

There were overwhelmingly positive reviews of the GINPR Visitor Guide, for its photographs of Aboriginal peoples and its content that addresses First Nations historical connections to the park reserve and that First Nations can undertake traditional activities in the park reserve.

Several participants in the interviews commented that of all the government agencies with whom the work, they had the best relationship with Parks Canada staff from GINPR.

A number of people in the interviews expressed strong concerns that, in their view, they were not consulted during the formation of the park and they do not like the park reserve designation. However, they felt that although there is still room for improvement, Parks Canada staff are working hard to form positive and lasting respectful relationships with First Nations.

Many people who took part in the interviews felt that First Nations that are in the BC Treaty Commission process receive more attention. Douglas Treaty First Nations feel their treaty and recent court cases around their treaty are not well understood by Parks Canada.

The top management priorities included burial sites and human remains, involvement in developing the Park Management Plan, continuation of cooperative planning and management committee processes, development of protection and harvest plans for seafood resources, deer and plants, and meetings and better communications between all First Nations with an interest in GINPR.

#### 2.3 **KEY PLANNING CONSIDERATIONS**

### **Burial Sites and Human Remains**

The significance of human remains and burial sites in First Nations cultures cannot be underestimated. Understanding of this issue is critical to the success of building relationships with the Coast Salish First Nations. Interview participants indicated that the development of protocols for the protection of human remains is a very high priority. Further, discussions and information provided to Parks Canada from First Nations over the past five years has illustrated that protection of burial sites is a key priority.

### **Cooperative Planning and** Management

It is clear that continued effort should be placed on building relationships and engaging interested Coast Salish peoples in the planning and management of the park reserve. Consideration should be given to two levels of First Nations involvement. The first is direct involvement in management issues through cooperative planning and management committees to establish agreements, set collective priorities, increase the scope of First Nations community involvement, and monitor committees. The second is indirect involvement for First Nations who wish to have on-going communications with GINPR but not be directly involved in discussions about the day-to-day management of the park reserve.

### **Traditional Uses**

The development of protocols and appropriate plans for protection and harvest of seafood resources, deer and medicinal and other plants in the park reserve will be important over the next few years. Harvesting issues were raised many times during the interviews and have food, social and ceremonial significance.

### **Communications**

On-going communication between Parks Canada and First Nations is a key part of building strong relationships and facilitating communication through committees and directly with individual First Nations would be beneficial. Communication among interested First Nations is also important in facilitating park management and addressing First Nations interests. Consideration should be given to holding day-long workshops, as appropriate, with all interested Coast Salish First Nations and Parks Canada staff.

Consideration should also be given to how Parks Canada communicates employment opportunities to First Nations to ensure that effective tools are being used. Similarly, consideration should be given to opportunities for training or other approaches that help build capacity in First Nations communities for those interested in jobs with Parks Canada or related to tourism in the park reserve.

It is also important for Coast Salish Nations themselves to communicate their stories to park visitors. For interpretive programming purposes, determining what information is appropriate and how it can best be shared with the public requires ongoing collaboration between First Nations and Parks Canada.

### **Harvest Management**

Agreements in principle in the contemporary treaty process require that harvest management planning be initiated. This work will further relationship building with First Nations and maintenance of ecological integrity. The scope and requirements relating to harvest planning need to be considered.



Clam harvesting

# B Ecological Integrity

# 3.1 ECOLOGICAL CONTEXT

"Gulf Islands National Park Reserve is the meeting place for a myriad of contrasting, complementary and competing forces, nestled at Canada's gateway to the Pacific Ocean. Traditional practices and spiritual values meet 21st century development. Nutrient-rich marine waters converge with the mighty Fraser River outflow under the eastern Vancouver Island rain shadow. Delicate meadow flowers face the rocky intertidal zone. Introduced species jostle up against sensitive habitats. And yet, in the midst of these linked and overlapping elements, the Gulf Islands National Park Reserve remains a true island paradise shaped by glaciers and seismic forces – islands of protected area persist in a terrestrial sea moulded by humanity, on islands that rise above a vibrant and powerful marine landscape." (AXYS, 2004)

Several aspects make GINPR unique:

- The marine waters of the southern Gulf Islands region exhibit dramatic tidal currents and mixing. The islands act as a major gateway between the nutrient-rich oceanic waters of Juan de Fuca and Haro Straits, and the more estuarine waters of the Georgia Strait.
- The region's Mediterranean-like climate: mild, dry summers in the rain shadow of Vancouver Island and the Olympic Peninsula.
- The southern Gulf Islands region represents the northern-most range of many species found in this Mediterranean-like climate.
- The southern Gulf Islands region is adjacent to several large population centres, presenting both a challenge for the maintenance of ecological integrity, as well as opportunities for partnership and collaboration.
- The islands themselves present many conservation challenges unique to islands. In addition, these islands

represent physically small areas with a long history of human use and associated development.

The park is intended to protect and maintain the ecological integrity of a representative example of the southern Gulf Islands, the Strait of Georgia, Boundary Pass and Haro Strait region — a portion of the Strait of Georgia Lowlands Natural Region. Figure 3 illustrates the human and biophysical context of GINPR. The highly fragmented Greater Park Ecosystem (GPE — the "Core Area" in Fig. 1) experiences significant development pressures and as a result, many native species and ecosystems are at risk. In some instances, active management such as habitat restoration, re-initiation of natural ecosystem processes, and reintroduction of native species will be necessary to restore ecological integrity.

# **Ecosystem Conceptual Model**

A conceptual model that describes the ecosystem structure and function specific to the southern Gulf Islands was developed as a guiding framework for the development and implementation of resource management within the park (Axys, 2004; Fig. 4). At the center of the conceptual model are the four dominant ecosystems within GINPR (green circles). These are the terrestrial, freshwater, marine and coastal interface ecosystems. All four spheres interact at the coastal interface. First-order effects (blue ovals) and social and economic conditions (purple oval) act on ecosystem processes. The relative size of the ovals is an indication of their relative influence within GINPR: functional groups and disturbance regimes are considered to have the greatest effect. The boxes linked to each first-order effect list the effectors that are significant within GINPR. The effectors indicated in black are those that are localized in scope. Those effectors indicated in blue are regional in scope.

### FIGURE 3: Human and Biophysical Context for Gulf Islands National Park Reserve



Vegetation and climate zones are depicted as CDFmm (Coastal Douglas-fir); CWH (Coastal Western Hemlock); MH (Mountain Hemlock); and AT (Alpine Tundra)

### FIGURE 4: Ecosystem Conceptual Model for Gulf Islands National Park Reserve



### Climate

Precipitation, temperature, tidal currents, sea level and ocean salinity together create the climate of this region. The average annual precipitation is 72.4 mm. Minimum and maximum values occur in July (18.5mm) and December (148.4mm) respectively. Mean annual air temperature is 9.75°C with minimum and maximum values in January (3.5°C) and July (16.5°C) respectively. The Gulf Islands region experiences high magnitude (>18 m s-1) southeast winds in winter (November and December) while low magnitude winds from the southwest dominate most of the rest of the year (Walker and Cumming 2007).

The marine area is characterized by the juxtaposition of the Fraser River (freshwater) outflow and the cold, nutrient-rich marine waters of Juan de Fuca and Haro Straits. The Gulf Islands act as tidal gateways where the surrounding relatively shallow seafloor drops to the depths of the adjacent straits resulting in high tidal currents, upwelling and abundant

marine productivity. The monthly sea surface temperature and salinity measurements for Active Pass (www-sci.pac.dfo-mpo.gc.ca) describe regional marine conditions. From 1970 to 2000, mean sea surface temperature was 11.4°C and sea surface salinity values for the same period was 26.2 ppt. For current conditions (2004-2008), monthly water temperatures observed at Active Pass were generally about 2°C > the 30-year upper quartile (Robinson 2009).

The Canadian Hydrographic Service water level data shows a tidal range of 5.1 m between the highest high water and the lowest low water at chart datum. 1914-2006 water level records indicate an increasing trend of +0.9 mm/year average sea level rise (Walker and Cumming 2008).

### **Terrestrial Ecosystems**

The Coastal Douglas-fir (CDF) biogeoclimatic zone is located on southeastern Vancouver Island, the Gulf Islands and a narrow coastal strip on mainland British Columbia. It occupies a total area (in British Columbia) of approximately 260,000 hectares. This zone occurs in the rain shadow of the Olympic and Vancouver Island Mountains. Ninety-eight percent of the core area for the national park reserve is within the CDF. The remaining 2% is the very dry coastal western hemlock (CWHxm1) subzone which, in the core area, exists only on the cooler upper elevations around Mount Warburton Pike on Saturna Island (Green 2007).

Although the region is predominantly forested, it is ecologically diverse, with forested and non-forested ecosystems. The most common tree species is Douglas-fir (*Pseudotsuga menziesii var. menziesii*). Other important tree species are western redcedar (*Thuja plicata*), grand fir (*Abies grandis*), arbutus (*Arbutus menziesii*), Garry oak (*Quercus garryana*), big leaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*). Forested ecosystems range from Douglas-fir-arbutus woodlands on drier sites to western redcedar-skunk cabbage (*Lysichiton americanum*) swamps on very wet sites. Douglasfir-salal forests occur on zonal (average) sites. Non-forested ecosystems range from rocky moss balds and Garry oak woodlands to coastal wetlands and sand dunes. The region contains a high number of rare species and sensitive ecosystems that exist only in this zone. Of particular note,



### FIGURE 5:

# Area Gains and Losses (in hectares) by Land Cover Category between 1932 and 2002.

The vertical axis indicates landcover class. The horizontal axis indicates areas gained (green) or lost (purple) in hectares.

Garry oak associated ecosystems support a high number of species at risk. Many of the park ecosystems are considered fire-dependent, although fire suppression has effectively excluded this natural process for over 100 years.

Many Garry oak ecosystems are remnants of eco-cultural landscapes that resulted from very frequent burning by First Nations people as part of wide-spread agricultural practices focused on enhancing camas production, berry production and for stimulating aggregations of wildlife. There are many sources of information that confirm that Coast Salish First Nations people used fire as a land management technique for thousands of years but those cultural practices effectively ended shortly after European contact and settlement. In the absence of First Nations fire, large areas of formerly open ecosystem types were converted to dense Douglas fir forest with significant impacts on the plant species and species assemblages that evolved through the frequent use of fire.

Southeast Vancouver Island and the adjacent islands were among the first areas in the province colonized by settlers and it remains an attractive destination for settlement and human use today. This long history of occupation has transformed the landscape. Understanding the context of development and land use is important as it sets the context and importance of conservation measures within park lands and the surrounding area.

Based on assessment of aerial photography dating from 1932 through to 2002, the Greater Park Ecosystem landscape (including the park) has been almost entirely modified. Prior to 1932, agriculture and homesteading were the dominant landscape change in the region. Over the 70 year period, the primary land uses were forestry, agricultural and rural-residential development. As a result, today's landscape is predominantly a matrix of second growth forests, small pockets of mature and old growth forest, and development. The rate of forest loss was higher after 1975. By 2002, almost 80 percent of the forest cover was logged (selective or clear-cut).

Rural residential development increased more than 10 times over this same period. In 2002, 16 percent of the landscape was classified as residential and commercial use. Agricultural land use had decreased from 8.5 to 5.9 percent by 2002. Figure 5 illustrates landscape transitions and net change between 1932 and 2002. The ecological challenges resulting from this scale of disturbance (loss of habitat and fragmentation) are considerable. These changes have generated a disproportionate number of species and ecosystems at risk and require focused restoration efforts in critical areas to bring ecological processes toward more natural conditions.

Currently, terrestrial ecosystems in the park are considered to represent the core area relatively well, however, rich and wet valley bottom forested ecosystems are currently underrepresented in the park. Further acquisition will allow for high priority ecological and recreational values to be included in the park and will help reduce the fragmentation of park lands.

### Marine (coastal) Ecosystems

Similar to the terrestrial environment, the marine environment of the southern Gulf Islands has seen a long history of human use. Although the area was once known for its abundance of fish, marine mammals and seabirds, these are considered much reduced in the region today. In addition, the area has experienced increased levels of commercial and recreational vessel traffic over time. Upland developments also have an influence on adjacent marine ecosystems. Important coastal ecosystems have been modified for human use (marinas, breakwaters and seawalls) and have received increased levels of effluent in near-shore waters. The coastal nature of the park requires that efforts be focused on intertidal, near-shore and subtidal areas as well as upland areas. This includes many of the rocky reefs, eelgrass beds and kelp forests that provide habitat for many of the species important to the commercial and recreational fisheries in the region. Marine conservation measures will be critical in reversing some of the negative trends. Within the southern Gulf Islands (Greater Park Ecosystem) there is approximately 330 km of shoreline. The park shoreline constitutes approximately 1/3 of this (100 km of shoreline).

Using the ShoreZone coastal classification (Coastal and Ocean Resources Inc. & Archipelago Marine Research Ltd. 2005), dominant coastal features have been described. Through this classification, biological communities (identifiable species assemblages) are described as biobands along the shoreline (Figure 6). These indicate habitats that are the culmination of physical attributes (substrate, exposure and tidal range). All biobands are adequately represented in the park except Surfgrass which is only observed in the southernmost parts of the region. Using continuous biobands only, the GPE has around 21 km of dune grass-of which 60% is in the park. Salt marshes and tidal flats (Salicornia and Sedges) are a small component of the GPE but are well represented in the park (79% and 62% respectively). Continuous eelgrass beds make up 63 km of shoreline with 37% in the park, and bull kelp was identified along 71 km of shoreline with about 30% in the park.

### **Species at Risk**

The federal *Species at Risk Act* (SARA) (2002) defines the government's responsibility for species at risk listing, protection and recovery. The Committee on the Status of

350.0 Shore length in GPE Shore length in Park 300.0 250.0 200.0 Length - Kms 150.0 100.0 50.0 Useellnee Red Alee Uninco the Brown. 0.0 BrownAlese Barnacle Green Allse Blue Mussel Red Alese DuneGrass Bullkelp Salicornia OV<sup>sters</sup> sufferass sedfers telerass FUCUS

### FIGURE 6: Major Coastal Biological Communities (continuous biobands).

Endangered Wildlife in Canada (COSEWIC) assesses the status of species and makes recommendations to the government regarding species that should be listed under the SARA's Schedule 1. Once a species is listed, it is illegal to harm/harass the species and recovery or management planning is initiated. Due to the number of species at risk across the country, different government departments take responsibility for recovery planning for different species. Parks Canada is the lead agency for some and participates in other recovery planning projects. Parks Canada is responsible for SARA compliance, such as the implementation of recovery plans and the protection of the species and its critical habitat on lands that it manages. In British Columbia, a provincial species at risk listing also exists: red, blue and yellow listings are designated for "endangered", "threatened" and "of concern" species.

GINPR lies within a unique climatic zone of Canada and many of the species and ecosystems in the region are at the northern extent of their range and/or are only found in this part of the country. Land conversion, fire suppression, invasive species and possibly climate change have resulted in an inordinately high number of species at risk and regionallyimperiled ecosystems, such as the Garry oak ecosystem. The park includes both land- and marine-based species and ecosystems at risk that warrant special attention.

Currently, there are fourteen species known to exist in GINPR that are listed under SARA (Table 2). In addition, the park provides habitats that may be suitable for recovery efforts associated with an additional eight SARA-listed species (Appendix 2). Six further species are listed as species at risk at the provincial level but not currently listed under the SARA (Appendix 2). Five of these are known to exist in GINPR and one is not currently known to exist here but has potential to be found or has recovery potential within the park. The species at risk that exist in the park or that may have recovery opportunities in the park are managed as part of the larger Coastal BC Field Unit Species At Risk Program. Parks Canada is the responsible authority for the recovery and action planning for five of these species and participates with the Federal agencies that are responsible for the recovery of the others.

# TABLE 2: Species at Risk Act (SARA) Listed Species in GINPR (2003-2008)

Name	Animal or Plant	Status			
SARA-listed species known to exist in or use GINPR and for which Parks Canada is responsible authority					
(Parks Canada cares for the species in the park and leads on the overall recovery of that species in Canada)					
Contorted-pod evening primrose ( <i>Camissonia contorta</i> )	Plant	SARA: Endangered			
Foothill sedge (Carex tumulicola)	Plant	SARA: Endangered BC: Red listed			
SARA Listed Species Known to Exist in or Use	GINPR and for which Par	ks Canada is a participating agency			
(Parks Canada cares for the species if located in the pa	ark and participates with othe	ers who lead the overall recovery in			
Canada)					
Ancient Murrelet (Synthliboramphus antiquus)	Animal	SARA: Special Concern			
Great Blue Heron (Ardea Herodias ssp. fannini)	Animal	SARA: Threatened			
Harbour Porpoise (Pacific population) ( <i>Phocoena phocoena</i> )	Animal	SARA: Special Concern			
Killer Whale (Northeast Pacific southern resident population) ( <i>Orcinus orca</i> )	Animal	SARA: Endangered			
Killer Whale (Northeast Pacific transient population) ( <i>Orcinus orca</i> )	Animal	SARA: Threatened			
Marbled Murrelet ( <i>Brachyramphus marmoratus</i> )	Animal	SARA: Threatened			
Northern Abalone (Haliotus kamtschatkana)	Animal	SARA: Threatened			
Peregrine Falcon (anatum or pealei subspecies)	Animal	SARA: Threatened for anatum;			
(Falco peregrines anatum and pealei)		Special Concern for <i>pealei</i>			
Red-legged Frog (Rana aurora)	Animal	SARA: Special Concern			
Sharp-tailed snake ( <i>Contia tenuis</i> )	Animal	SARA: Endangered			
Steller Sea Lion ( <i>Eumetopias jubatus</i> )	Animal	SARA: Special Concern			
Western Screech-Owl (kennicottii subspecies) (Megascops kennicottii ssp. kennicottii)	Animal	SARA: Special Concern			

### **Indicator Ecosystems**

With the development of an Ecological Integrity Monitoring and Reporting Program, the four broad ecosystems described in the Ecological Conceptual Model (Fig. 4) were further refined as seven Indicator Ecosystems (Table 3).

The monitoring program is intended to provide information on ecosystem condition as well as management effectiveness related to the restoration or maintenance of ecological integrity. For each indicator ecosystem a number of measures have been identified for Gulf Islands from a suite of core bioregional measures developed in 2008 for the three coastal national parks in British Columbia. During this interim period, prior to the development of a management plan, the ecological integrity goals were broadly stated and the focus was to establish a better understanding of and baseline data on the ecological systems. The full suite of measures has not yet been fully implemented in the park. As measures are implemented and tracked over time, condition status and trend will be reported.

The **forest ecosystem** accounts for 66% of the park area and is dominated by second-growth Douglas-fir. Four monitoring projects contribute to the assessment of the forest ecosystem—deer, flora, landscape diversity and the songbird community.

The **non-forest ecosystem** comprises 4% of the park area including fields, meadows and rocky bluffs. Three monitoring projects contribute to the assessment of the non-forest ecosystem. They focus on deer, flora and landscape diversity.

The **freshwater ecosystem** includes lakes, wetlands and streams and comprises 0.6% of the park area. It contains foraging sites for aquatic birds (ducks, herons), mammals (deer, otter) and also serves as sinks for carbon and sediment originating in the terrestrial environment. Streams carry forest organic matter, nutrients and sediment into lakes and wetlands, as well as to shoreline, intertidal and subtidal ecosystems. Only one major stream (Lyall Creek on Saturna Island) is located within the park. Three condition and management effectiveness monitoring projects are currently focusing on the freshwater ecosystem in the park.

The **shoreline ecosystem** comprises 4% of the park and serves as a transparent boundary across which nutrients and energy are exchanged between terrestrial (forest and freshwater) and marine (intertidal and subtidal) ecosystems. Unique plant communities occur here, including endangered species such as the Contorted-pod evening primrose. Many animal species find shelter and sustenance in the ephemeral environment of shifting sand and coastal vegetation. Many bird species (gulls, oystercatchers) nest and forage along these rich shorelines. Two monitoring projects currently provide information on the shoreline ecosystems within the park reserve.

The **islet ecosystem** accounts for 5% of the park area and is comprised of a myriad of small islands ranging in size from less than a hectare to several hectares. These islets are recognized as refugia for native plant communities and provide important habitat for many species of flora and fauna. Some of the islets are important haulouts for marine mammals such as seals and sea lions, while others are important nesting and roosting sites for marine birds. Species that use these areas are often sensitive to disturbance. Two monitoring projects focused on Black Oystercatchers (*Haematopus bachmani*) and flora provide information on islets within the park.

The **intertidal ecosystem** comprises 4% of the park area and represents a narrow band of sea-bottom that is cyclically covered and uncovered by tides. It contains many habitats including rocky shores, eelgrass beds, beaches and mud flats. Within these, many invertebrates thrive, including snails, crabs and clams. These are also important areas for many fish species. At low tide, plant and animal resources are uncovered, becoming available to land birds and mammals that first consume them and then transport their nutrients and energy inland. In turn, intertidal ecosystems are important sinks for carbon and sediments that originate inland. Two projects—focusing on bivalves (clams) and eelgrass—provide information on the intertidal ecosystem within the park.

The **subtidal ecosystem** comprises 17% of the park area and accommodates a myriad of life forms. These include both macroinvertebrates (such as crabs, bivalves, octopi, urchins) and vertebrates (such as fishes, marine mammals and birds). Kelp forests and eelgrass meadows found in the near-shore waters are the most ecologically complex and valuable element of the marine environment in the park. Deep water environments are less understood. One monitoring project focusing on eelgrass currently provides information on the subtidal ecosystem within the park reserve.

## 3.2 STATE OF ECOLOGICAL INTEGRITY (EI) NOT RATED

The ideal state for ecological integrity is one wherein the non-living (abiotic) and living (biotic) components of a natural system are characteristic of the natural region and are functioning as they would naturally and without significant impairment. Parks Canada uses seven indictor ecosystems to assess the state of ecological integrity in GINPR—forest, non-forest, freshwater, shoreline, islet, intertidal and subtidal.

In all, 13 broad measures are currently assessed to establish the condition of these indicators within GINPR. These come from a core suite of bioregional measures developed for the

> three Pacific coastal national park reserves and will be augmented with additional measures as the program continues to be implemented. Some measures, such as Landscape Diversity, serve to provide data for more than one indicator ecosystem. Monitoring of these measures has only recently begun and preliminary thresholds are generally defined as 2 standard deviations of the long-term mean for the red (lower) threshold, and 1 deviation of the mean as the yellow (upper) threshold. Only three measures have five years of data,

## TABLE 3: Indicator Ecosystems

Ecological Integrity Monitoring and Reporting Program Indicator Ecosystems (2008)		
Forest		
Non-forest		
Freshwater		
Shorelines		
Islets		
Intertidal		
Subtidal		

therefore, trends have not been established for most measures and the overall state of ecological integrity has not been rated because of insufficient data.

As the park's Ecological Integrity Monitoring & Reporting Program continues to develop, additional measures may be added if program capacity and resourcing allow and more specific measureable objectives will be developed. Added measures will make the assessment of the park's overall ecological integrity more comprehensive and measureable objectives will direct both management actions to be undertaken and the evaluation of management effectiveness. Table 4 summarizes the current state of ecological integrity based on monitoring undertaken between 2003-2008.

# TABLE 4:

### Summary of the State of Ecological Integrity

Indicator Ecosystems	Overall Condition of Indicator	Measures	Current Condition of Measure	Trend	
Forest	Not Rated	Deer (Sidney Island)		Not Rated	
		Forest Metrics	Not Rated	Not Rated	
		Flora	Not Rated	Not Rated	
		Songbirds		Not Rated	
		Landscape Diversity		$\longleftrightarrow$	
Non-Forest	Not Rated	Deer (Sidney Island)		Not Rated	
		Flora	Not Rated	Not Rated	
		Songbirds		Not Rated	
		Landscape Diversity		←→	
Freshwater	Not Rated	Water Quantity	$\bigtriangleup$	←→	
		Water Quality	Not Rated	Not Rated	
	Not Rated	Salmonids	Not Rated	Not Rated	
Coastal (Shoreline)	Not Rated	Coastal Processes – Erosion and Deposition	Not Rated	Not Rated	
(0		Flora	Not Rated	Not Rated	
Islets	Not Rated Black Oystercatche			$\longleftrightarrow$	
		Flora	Not Rated	Not Rated	
Intertidal	Not Rated	Bivalves	Not Rated	Not Rated	
		Eelgrass Fish Assemblage		Not Rated	
		Eelgrass Health	Not Rated	Not Rated	
Subtidal	Not Rated	Eelgrass Fish Assemblage		Not Rated	
		Eelgrass Health	Not Rated	Not Rated	

## FOREST AND NON-FOREST INDICATOR ECOSYSTEMS

# Condition status: Not Rated Trend: Not Rated

Five EI measures contribute to the assessment of both the Forest and Non-Forest indicator ecosystems. These focus on deer abundance, forest metrics, flora, landscape metrics and songbirds. As the program develops, these measures will be separated to address and report on each ecosystem separately.

Deer monitoring currently measures relative abundance of deer on Sidney Island but will be expanded to other islands over time. Long-term vegetation monitoring includes comparative measures within and outside of deer exclosures on Sidney Island and Saturna Island. This work includes specific metrics (species richness, snag density, tree density, invasive flora). Landscape metrics for the park and greater ecosystem are generated from remote sensing and include landscape diversity and anthropogenic (human) footprint. Distribution, species richness, diversity and abundance of songbirds are measured on park properties on five larger islands.

### Indicator Ecosystems: Forest and Non-Forest Measure: Deer Abundance (Sidney Island) Condition Status: Poor Trend: Not Bated

Black tail deer (*Odocoileus hemionus columbianus*) are the only large herbivore remaining in the southern Gulf Islands. In the absence of natural predation, deer have become hyperabundant on some of the southern Gulf Islands, with detrimental impacts to forest and non-forest ecosystems. On Sidney Island, the problem is compounded by the presence of introduced Fallow deer (*Dama dama*) which have removed most understory vegetation and prevented regeneration of many vegetation species. Active deer management, including hunting by First Nations, has occurred for decades on Sidney Island with relatively minor effect on deer abundance.

Parks Canada began monitoring deer on Sidney Island in 2006 by using fecal pellet counts to estimate relative abundance. Deer abundance estimates ranged between 1000-1500 animals from 2006 to 2008. However, these estimates may be low. Within a twelve month period between 2008 and 2009, over 1300 deer were removed from Sidney Island yet all estimates suggest that deer continue to be hyper-abundant with densities well over 100 deer/km<sup>2</sup>. By comparison, some management agencies, including other national parks, are using densities of 1-4 deer/km<sup>2</sup> as a management target.

### Indicator Ecosystem: Forest Measure: Forest Metrics Condition Status: Not Rated Trend: Not Rated

Forest metrics include measures of tree and snag densities, basal area and coarse woody debris. In 2007 and 2008, paired vegetation plots were installed on Sidney Island and Saturna Island, respectively. These will also be used to measure impacts of deer and feral goats on vegetation. Plots will be re-measured every five years.

### Indicator Ecosystems: Forest and Non-Forest Measure: Flora Condition Status: Not Rated Trend: Not Rated

### Monitoring of native and non-native flora began on Sidney Island in 1988 when BC Parks established vegetation plots on three Forest and one Non-Forest sites to assess impacts of the island's hyper-abundant Fallow deer population. This was augmented in 2007 when Parks Canada estab lished a series of paired fenced and unfenced vegetation plots in Non-Forest (field), Forest and Shoreline (dune) habitats, using an established national park bioregional protocol. An additional set of paired plots was also established on a Forest site on Saturna Island in 2008 as a pilot project to investigate impacts of deer and feral goats. Plots will be measured every five years to generate information on native and non-native flora as well as information on forest metrics, which is a separate El monitoring measure.

### Indicator Ecosystems: Forest and Non-Forest Measure: Songbirds Condition Status: Good

Songbirds are a key component of GINPR's terrestrial ecosystems and have been adopted as a bioregional measure for condition monitoring for the three coastal national parks. Songbird monitoring will also be an important component of management effectiveness monitoring, especially as it relates to ecosystem restoration.

Songbirds provide an excellent resource for long term ecological integrity monitoring. Long term monitoring allows for the interpretation of present populations (species diversity and abundance) and the analysis of population changes over time. This program will measure population trends in several guilds of forest songbirds (e.g., leaf-gleaners, ground nesters, cavity-nesters) as well as trends in community diversity, persistence and stability.

Songbird monitoring in GINPR began in 2008 on Sidney, Saturna, North Pender, South Pender and Portland Islands. Fifty-eight species were identified with the number of songbird species detected by island ranging from 23 to 41. The most common species encountered were Pacific-slope Flycatcher (Empidonax difficilis), American Robin (Turdus migratorius), Song Sparrow (Passerculus sandwichensis), Chestnut-backed Chickadee (Poecile rufuscens), Pine Siskin (Carduelis pinus), Red-breasted Nuthatch (Sitta canadensis). Red Crossbill (Loxia curvirostra), Wilson's Warbler (Wilsonia pusill) and Dark-eyed Junco (Junco hyemalis) (Figure 7).

Two COSEWIC-identified species were also encountered. Olive-sided Flycatcher (Contopus cooperi) was detected at 24% of sites sampled. It was found on all five islands, in five of the eight ecosystem components sampled and in structural stages ranging from herb-dominated to mature Douglas-fir, Western red cedar and red alder-dominated stands. Bandtailed Pigeon (Columba fasciata) was detected four times on Portland and Saturna Islands, and were found in three of the eight ecosystem components sampled in the park in structural stages ranging from pole/sapling to mature Douglas-fir stands.

### **Indicator Ecosystems: Forest and Non-Forest Measure: Landscape Diversity Condition Status: Good** Trend: Stable

GINPR is situated in a landscape highly influenced by human activity. A preliminary land cover classification and land cover change analysis was conducted for the core area using

### FIGURE 7: Abundance of Top Ten Songbird Species





Lyall Creek, Saturna Island

available remotely-sensed imagery from four years (1986, 1996, 2000 and 2006) to assess current land cover as of 2006 and identify land cover changes over the 20-year period from 1986-2006, for both the park and the GPE.

The total forest area in the park (conifer forest: closed and open; deciduous forest, mixed coniferous and deciduous) has increased by ~3% during the past 20 years. During the same period, the proportion of coniferous forest decreased from 45.1% to 37.6%, the area with mixed forests increased from 35.5% in 1986 to 43.4% in 2006 and the deciduous forests increased from 3.8% to 6.1% during the same time period. No significant changes were observed in other landscape types.

At the Greater Park Ecosystem level, forest area has remained nearly consistent at approximately 72%. Agricultural lands have increased marginally from 6.8% to 8.3% and rural residential areas increased from 6.4% to

> 7.7%. Areas under other cover types have remained nearly unchanged. Predominant conifer forests decreased from 37.5% to 29% due to increased encroachment by deciduous forests. This resulted in mixed deciduous forest area increasing from 32.7% to 36.3%. Predominant deciduous forests increased from 2.6% to 5% in the greater region.

General trends observed from the 1986-2006 indicate that the overall area under forests has remained relatively constant in the GPE, though there is a change in the forest composition. There is a consistent decrease in the coniferous forests area and a discernible increasing trend in the deciduous forests and mixed forests, both within the park and the GPE. Increase in the deciduous forests is observed on almost all islands.

# FRESHWATER INDICATOR ECOSYSTEM

Condition status: Not Rated Trend: Not Rated

The park reserve has very few lakes and wetlands and only one major stream. The two largest lakes, Roe and Greenburn, are located on North and South Pender Island respectively and domestic water use permits on both lakes pre-dated park establishment. The allowable water usage in the existing permits is not considered sustainable. Because of the rarity and significance of freshwater bodies on the islands, there is high interest in appropriate management of these lakes. Baseline surveys and assessments as well as long term monitoring are required to manage water removals and maintain an appropriate water balance for ecological integrity. Data have been collected from these lakes since 2005. Most streams in the park reserve are ephemeral (seasonal). Lyall Creek on Saturna Island is the only major stream in the park and it has been the subject of a major restoration effort to restore riparian habitat and a population of coho salmon.

### Indicator Ecosystem: Freshwater Measure: Water Quantity Condition Status: Fair Trend: Stable

Water stage (water level) monitoring tracks water balance in relation to precipitation and water demand. However, this measure does not consider groundwater recharge. Seasonal drawdown and spill-over (where water exceeds the spillway elevation) are important for riparian ecosystems, shoreline habitat and associated wildlife. Water levels are monitored to refine water withdrawal estimates for both lakes. Measures such as annual minimum, maximum and mean stage as well as the number of days with spill-over provide useful measures to indicate water balance.

### **Greenburn Lake**

Based on 4-year mean monthly stage, water levels were below average in 2006 and 2008 while 2007 was above average. The lowest levels are from 2006 which started the year below average but recovered with winter recharge late in the year. Monthly means for 2008 show that winter recharge levels remained well below average in late 2008. These levels reflect low winter precipitation in 2006 and 2008 as well as a particularly wet winter in 2007.

### **Roe Lake**

Similar to Greenburn Lake, Roe Lake showed mean monthly stage in 2006 and 2008 well below the 4-year mean throughout most of the year. In 2008, water levels remained well below average from June through December with little evidence of winter recharge. Leaks in existing water withdrawal infrastructure that have existed since park establishment likely led to persistent low water conditions. These were patched in 2007 (hence the basin recharge) but the repairs failed in 2007/2008. Further repair work was completed in 2009. Continued monitoring of the lake after the mitigation of these problems will provide a better estimate of natural levels and trend data.

### Indicator Ecosystem: Freshwater Measure: Water Quality Condition Status: Not Rated Trend: Not Rated

Temperature and oxygen saturation of water are good indicators of condition and character for lake basins. Lakes often become stratified by temperature and chemical conditions. This is due to mixing characteristics (wind, current), photosynthesis of plants, decomposition and the physical properties of water. Thermal stratification can limit biological activity due to strong temperature differences and low oxygen at depth. High rates of productivity in the photic zone (near surface) and decomposition at depth can influence these characteristics and help to classify the lake's water quality. During the winter season, cold temperatures and windy conditions develop that can cause the lake stratification to break down, allowing the waters to mix throughout depth (turnover).



Greenburn Lake

Semi-annual measurements of temperature and dissolved oxygen are taken in profile at the deepest part of the lake to capture water quality characteristics for low (fall) and high (spring) water conditions. These measures indicate long term conditions as well as management effectiveness as it relates to water withdrawal. At this early stage of monitoring, the current conditions of the lake are characterized through published literature but long term data will be required for a more meaningful assessment of lake condition. Analysis may lead to a change of specific indicators.

Water quality has also been assessed for biological attributes. Phytoplankton and benthic fauna (macroinvertebrates) samples indicate these are very productive (eutrophic) lakes. Phytoplankton in both Roe and Greenburn Lakes is dominated by three species in both spring and fall sampling: Cyanophyta (aphanizomenon flos-aquae), Chrysophyta (Dinobryon spp) and Cryptophyta (Cryptomonas sp). With the exception of the Chrysophyta, these are indicative of eutrophic (excessive nutrients) conditions. The two lakes were similar in macroinvertebrate communities. However Roe Lake had a higher mean % EOT (Ephemeroptera, Odonata, Trichoptera) and a higher mean ratio of EOT/Chironomidae than Greenburn Lake. In addition, Greenburn Lake had a higher Biotic Index (indicating "fairly poor" water quality) compared to Roe Lake (indicating "fair" water quality).

### **Indicator Ecosystems: Freshwater Measure: Salmonids Condition Status: Not Rated Trend: Not Rated**

Lyall Creek on Saturna Island is the park's only major stream and supports populations of coho salmon (Oncorhynchus *kisutch*), chum salmon (*Oncorhynchus keta*) and sea-run cutthroat trout (Oncorhynchus clarki). It is the only protected salmon-bearing watershed in the southern Gulf Islands. The surrounding riparian forest bears lush vegetation and supports a multitude of organisms. In 2003-2005, habitat restoration was undertaken to restore the biological and hydrological functions of Lyall Creek. Monitoring of juvenile salmonid populations began in 2005 to provide a measure of ecological conditions and restoration effectiveness.

Since 2005, Cutthroat trout density has been assessed by year and by reach (section of the stream). There was no significant difference between cutthroat densities in Lyall Creek from 2005 to 2008. More years of sampling are needed before thresholds can be established. Coho salmon density data was also gathered, however it is unsuitable for analysis at this time because, in some years, there were no coho salmon found in the creek. More years of sampling are needed before Coho data will be useable as a measure for ecological integrity.

### **COASTAL (SHORELINE)** INDICATOR ECOSYSTEM

# Condition status: Not Rated Trend: Not Rated

GINPR has approximately 98 kilometres of shoreline comprised of a variety of shore and habitat types. Two measures are used to assess these coastal ecosystems-coastal processes (erosion and deposition) and flora. Although natural erosion is recognized as a process that does impact cultural heritage and visitor facilities, to-date, insufficient data exists to rate the coastal processes measure. Similarly, insufficient data exists to rate the flora measure at this time.

An understanding of the connections between local landscape changes (erosion, shifting sand dunes) and regional climate variability (regional storminess, sea levels) is critical for understanding the ecological integrity of coastal systems in GINPR. The Climate Change and Coastal Erosion Monitoring Program (CCCEMP) is used at all three national parks on the Pacific coast to measure region-specific responses to coastal erosion and climate change on the Shoreline ecosystem. The purpose of the CCCEMP is to collect and analyse data for various coastal attributes (dunes, shorelines, sea-level, coastal erosion/sediment transport, and marine near-shore environments) at representative sites to document what occurs with extreme climate events, longerterm climate change and sea-level rise. Beginning in 2007, geomorphic (landform) and erosion assessments were undertaken at several key coastal sites to establish crossshore topographic monitoring profile locations and shoreline profiles. Repeat measures of these profiles will be conducted annually beginning in 2009.

The second monitoring program focuses on native and non-native flora. The latter are particularly important on specific sites such as Sidney Island where species like European Dunegrass (Ammophila arenaria) and Scotch Broom (Cystisus scoparius) are known to affect soft-sediment shorelines. Flora surveys of some shoreline areas were conducted in 2004/05 and will be repeated every five years to track presence/not detected status of native and nonnative flora.



Cabbage Island

# ISLETS INDICATOR ECOSYSTEM

# Condition status: Not Rated Trend: Not Rated

Because the islets are recognized as highly important and ecologically sensitive areas, GINPR has restricted access to all but three of them. It is anticipated that islet closures and other protection-related actions will create positive trends that will be illustrated through ecological monitoring.

### Indicator Ecosystem: Islets Measure: Black Oystercatcher Condition Status: Good Trend: Stable

The Black Oystercatcher is a large, long-lived shorebird with a global population of approximately 10,000 birds ranging at low densities along the Pacific coast from the Aleutian Islands to Baja California. GINPR, along with other conservation agencies, has selected the Black Oystercatcher as a measure of coastal integrity. The relative ease of assessing breeding population size and reproductive success, and the bird's dependency on intertidal food make it a good candidate for measuring change to rocky-shore ecological communities.

Beginning in 2005, nest searches were conducted annually in GINPR and the surrounding southern Gulf Islands to count breeding and non-breeding Black Oystercatchers and determine the number of islets supporting active nests. Regression of annual means by region is used to determine trends. Results from these single censuses are considered as a conservative estimate. Population trend has not been assessed as only four years of data is available.

Surveys conducted from 2005 to 2008 do not indicate a significant positive or negative trend for the number of nesting Black Oystercatchers. When data is analyzed by sub-region, the results are consistent. Although there are no significant relationships, there appears to be a modest decline in numbers on the islets outside the park while the islets protected within the park show a modest increasing trend. Similar patterns are seen for the number of islets occupied by nesting Black Oystercatchers although likewise, these are not significant.

### Indicator Ecosystem: Islets Measure: Flora Condition Status: Not Rated Trend: Not Rated

Surveys of numerous islets in the park were conducted in 2004 and 2005 but have not been repeated. It is anticipated that surveys of these and other islets will be repeated every

# FIGURE 8:





five years to track presence/not detected status of native and non-native flora. During the 2005 surveys, non-native species were located on 100% of the nine islets surveyed with the proportion of non-native species averaging 36% versus 64% for native species. The number of non-native species identified ranged between 12 and 37 with an average of 24 non-native species per islet. The most common non-native species were annual forbs such as Sticky Chickweed (*Cerastium glomeratum*) and annual grasses such as Silver Hairgrass (*Aira caryophyllea*) that occurred on 100% and 90% of islets surveyed respectively. Invasive shrubby species such as Scotch Broom (*Cystisus scoparius*) and Himalayan Blackberry (*Rubus armeniacus*) were found on 10% and 40% of the islets surveyed respectively.

## INTERTIDAL AND SUBTIDAL INDICATOR ECOSYSTEMS

# Condition status: Intertidal - Not Rated Condition status: Subtidal - Not Rated Trend: Not Rated

The Intertidal and Subtidal are two separate indicator ecosystems within the El monitoring and reporting program. An eelgrass monitoring project provides information for two measures (*Eelgrass Health* and *Eelgrass Fish Assemblage*) for both of these indicator ecosystems. The eelgrass monitoring program, also known as the Coastal Health Assessment Program (CHAP), has been ongoing in GINPR since 2004 and is used to assess intertidal eelgrass health in the Gulf Islands as well as in Gwaii Haanas and Pacific Rim National Park Reserves. A separate monitoring project measures bivalves (clams) in the Intertidal Ecosystem.

### Indicator Ecosystem: Intertidal Measure: Bivalves Condition Status: Not Rated Trend: Not Rated

Viable populations of native shellfish (bivalve molluscs) are a key measure of ecological integrity for soft-bottom intertidal ecosystems as they are relatively long-lived (14 – 20 years) (Harbo1997) and bivalve size distribution and abundance are closely linked with the local environmental conditions (Dame 1996).

Bivalve monitoring began in 2008 with a pilot project to assess species distribution and abundance at a number of sites scattered throughout the park area. Work continued in 2009 to provide information to develop three measures (Native Bivalve Abundance, Invasive Bivalve Abundance and Harvestable Bivalve Abundance) for the Intertidal ecosystem.



Bivalve monitoring

The project also integrates with First Nations initiatives related to harvest and restoration of clam gardens and other traditional harvest areas. The bivalve monitoring program is focussed on populations of native and introduced bivalves (clams) occurring in soft intertidal sediments and includes harvestable species. Oysters were not included initially but may be in the future as the program expands to look at rocky shoreline species.

Six species of native bivalves—butter clam (*Saxidomus giganteus*), littleneck clam (*Protothaca staminea*), dented clam (*Macoma inquinata*), bentnose clam (*Macoma nasuta*), the heart cockle (*Clinocardium nuttallii*) and horse clam (*Tresus spp.*)—were monitored. During 2008, mean abundance of native bivalves was 53 clams/m<sup>2</sup> and the mean biomass was 2.0 kg/m<sup>2</sup>.

Four species of non-native bivalves—softshell clam (*Mya arenaria*), varnish clam (*Nuttallia obscurata*), Japanese littleneck clam (*Venerupis phillippinarum*) and Baltic clam (*Macoma balthica*)—were monitored. The mean abundance was 20 clams/m<sup>2</sup> and the mean biomass was 0.24 kg/m<sup>2</sup>. Non-native clams occurred at almost all sites and across the majority of habitat types.

Bivalves have formed a staple in the diet of west coast First Nations people for millennia, as witnessed by the substantial shell deposits at cultural sites. Of late, First Nations have expressed concerns over the sustainability of traditional harvest of shellfish resources for food, social and ceremonial purposes including concerns about contamination and associated health issues. In response, Gulf Islands has initiated a Harvest Management Program with First Nations to work with the holders of traditional ecological knowledge toward the management of the bivalve resource, to support First Nations interests in harvesting bivalves and to investigate opportunities for cultural and ecological restoration as it relates to clam gardens found within the park.

Five harvestable species—Butter Clam (*Saxidomus giganteus*), native Littleneck clam (*Protothaca staminea*), Cockles (*Clinocardium nuttallii*), Japanese Littleneck Clam (*Venerupis phillippinarum*) and Varnish Clams (*Nuttallia obscurata*)—were monitored. Guidelines regarding commercial harvest restrictions, adopted from Fisheries and Oceans Canada (DFO), were used to determine thresholds for Butter clams, Japanese littleneck clams, native littleneck clams and varnish clams. Cockles are not recognized as a commercial species by DFO, but are a species of interest for First Nations harvesters.

Only three species were abundant enough to be considered harvestable at this time—the butter clam, native littleneck clam and cockle. Mean abundance of harvestable clams was 16 clams/m<sup>2</sup> with a mean biomass of 1.3 kg/m<sup>2</sup>. Clams of harvestable size and species occurred at 62% of sites studied.

### Indicator Ecosystems: Intertidal and Subtidal Measure: Eelgrass Fish Assemblage Condition Status: Good Trend: Not Rated

Eelgrass meadows provide a variety of ecological functions important for maintaining healthy ecosystems by providing rearing and foraging habitat for invertebrates, fishes and birds. Eelgrasses also reduce shoreline erosion from wave action, help stabilize sediments, and act as an integral component of the shallow water nutrient recycling process (Short et al. 2006).

Although eelgrass ecosystems are relatively small compared to other inshore ecosystem types, they are very important habitat for juvenile fish species (e.g., rockfish, lingcod, salmon) and important habitat for many species of invertebrate (e.g., Dungeness crabs) and marine birds. There are several reasons for assessing eelgrass fish communities. First, young-of-the-year fishes are attracted to the 3-dimensional structure of eelgrass for protection from predators and for feeding opportunities, and thus it is relatively easy to sample fish in eelgrass compared to other habitat types (e.g., kelp forests or rocky shorelines). Second, fish community properties are known to change with changing health of the eelgrass meadows (Deegan et al. 1997). For example, as eelgrass meadows deteriorate, there is generally a reduction in the number and types of species, abundances, and a reduction of benthic (deep water) and sensitive species. Third, changes in certain aspects of a fish assemblage found in eelgrass (e.g., number of juveniles of rockfishes, lingcod, and greenlings) may also indicate changes in the health of fish populations in the region or changes in adjacent habitats. Finally, monitoring the fish community gives insight into the biodiversity within a meadow over time.

Conversion of seagrass meadows into seaweed-dominated ecosystems is equivalent to habitat loss. Such replacement changes the structural complexity, food web dynamics, and chemical suitability. Human-induced nutrient increases cause a shift in primary producers and alters the fish and invertebrate communities and food webs. Excessive seaweed growth interferes with seagrasses through light or space competition. Eelgrass fish sampling began in Gulf Islands in 2004, with sampling conducted annually at 12 sites in the park and surrounding area.

Persistence is defined as the constancy in fish species composition from one year to the next and focuses on the most common and abundant species. The majority of the eelgrass meadows sampled in GINPR are considered to have moderately persistent or persistent fish assemblages, and only 4 of 37 measures had low persistence values. A comparison of GINPR eelgrass meadows with the other Pacific regions shows no significant difference. Overall, the fish assemblages in GINPR eelgrass meadows are considered to be good. The assessment of trend in fish persistence will require at least 10 years of data, and thus could not be completed for this State of the Park Report. However, a review of data suggests that there was no significant difference between years.

Stability in the fish assemblage refers to the constancy in abundance of species over time. To establish thresholds, all year-to-year values were pooled for all eelgrass meadows sampled by Parks Canada in four different Pacific regions from 2004-2008. The majority of the fish assemblages sampled in GINPR are considered moderately stable. Regionally, Gulf Islands fish assemblages are of similar stability when compared to other Pacific regions. The status of fish assemblage stability is considered good. The assessment of trend in fish assemblage stability will require at least 10 years of data, and thus could not be completed for this State of the Park Report. An interim review of all data from GINPR eelgrass meadows that were sampled each year indicates no significant difference in values over the initial five year period.

### Indicator Ecosystems: Intertidal and Subtidal Measure: Eelgrass Health Condition Status: Not Rated Trend: Not Rated

Eelgrass (*Zostera marina*) is a seagrass that is tolerant of a wide range of salinities and temperatures, but generally flourishes in clear, low-nutrient (oligotrophic) and well-oxygenated waters, and roots in sheltered sediment (muddy to sandy) shores forming contiguous meadows. Excess nutrients (eutrophication) and increasing suspended sediments (turbidity) are two main factors in seagrass decline. Both ultimately reduce the amount of light available to plants. Once eelgrass no longer exists, the resulting bare substrate supports a much lower diversity and abundance of fish.

Eelgrass sampling began in GINPR in 2004 and is conducted annually at a dozen sites in the park area. This is the longestrunning monitoring project in the park. No historical information on eelgrass biomass, density or epiphyte load is known to exist for eelgrass meadows in the southern Gulf


Eelgrass monitoring of Sidney Spit.

Islands and this information is difficult to collect for GINPR. Eelgrass meadows occur primarily in the shallow (to -5 m relative to chart datum) subtidal areas in alongshore bands. An important aspect that still needs assessment in GINPR is the surface area of eelgrass (extent) and how this may have changed over time.

The status of eelgrass biomass (amount existing) and epiphyte load (nutrient levels) was assessed by comparing GINPR data to those derived from the other Pacific Coast national parks. The majority of GINPR values were lower than the upper threshold, and median values were not significantly different than values observed elsewhere.

The assessment of trend in eelgrass health will require at least 10 years of data. However, in the interim, a comparison of eelgrass biomasses measured each year shows a biannual oscillation, with highest values observed in 2008. The years 2005 and 2007 had significantly lower concentrations of eelgrass than 2004, 2006 or 2008. Epiphyte load, which is an indication of nutrient levels, did not show a bi-annual oscillation, but was found to be significantly higher in 2006, 2007 and 2008 compared to 2004 and 2005. Overall, there were no statistical correlations between epiphyte load, eelgrass biomass or local environmental parameters measured, so the oscillating patterns observed in biomass and epiphyte load cannot be explained. However, it is interesting to note that water clarity (as indicated by low turbidity) was substantially higher in 2008 compared to previous years, and this enhanced water clarity may be responsible for the widely observed higher eelgrass biomass values.

#### **KEY PLANNING CONSIDERATIONS** 3.3

### **Ecological Restoration Needs**

The ecological challenges resulting from development pressures, loss of habitat and landscape fragmentation are considerable. Interruption of natural processes like fire and predation on the landscape has resulted in altered ecosystems. Landscape diversity has been reduced and

hyper-abundant native species (in particular deer) pose management challenges. Species at risk protection and recovery, fire planning and management and management of introduced and hyper-abundant species need to be considered through restoration planning to ensure that appropriate management actions and recovery opportunities are addressed.

Invasive species are a considerable challenge within park lands and throughout the Gulf Islands region. Invasive species management is a component of ecological restoration and, in the park, must follow an integrated pest management (IMP) approach. Planning and management actions will be needed to achieve acceptable management thresholds for fallow deer on Sidney Island and for continued management of priority invasive plant species on priority sites.

This array of restoration challenges indicates the need for focussed restoration efforts in critical areas. A prioritization scheme is required to identify the key ecological integrity aspects to focus restoration efforts on and those areas that would provide the highest benefit from restoration efforts.

### **Facilitating Ecological Integrity** Monitoring

The Ecological Integrity Monitoring and Reporting Program is in its infancy and full implementation depends on increased capacity. During the first five years the primary focus was to gather information regarding the terrestrial aspects of the park and some components related to islet, intertidal and subtidal ecosystem. Over the next planning period, an increased focus within the marine and coastal areas of the park help expand the research and monitoring of park ecosystems. Management effectiveness monitoring and species at risk monitoring will also need to be considered more fully and integrated with the program.

### Data Management Capacity

As research and inventory data accumulates, it becomes increasingly necessary to manage the data, metadata and supporting reports and publications. This will require an integrated approach to data management capacity.



### Cultural Heritage

### 4.1 CULTURAL HERITAGE CONTEXT

The Gulf Islands have been the home to numerous people over time. The archaeological record shows that Coast Salish people used a location on North Pender Island (now in GINPR) as far back as 5,000 years ago. Many of the current Coast Salish cultural practices extend from this early time period. Examples of Coast Salish First Nations cultural sites in GINPR include:

- shell deposits (known as middens)
- village and/or camp sites
- resource harvesting sites
- canoe runs (where canoes were transported to/from the water)
- industrial sites (quarrying, tool-making)
- sacred sites

Beginning in the late 1700s, the Spanish and British began exploring the Gulf Islands. Approximately 150 years later, immigrants began to settle on the islands. The new settlers came to the Gulf Islands in four waves beginning in 1858 and ending in 1901. Eventually the population on the Gulf Islands became culturally diverse and, on park reserve lands, included Coast Salish First Nations, European, Hawaiian (known as Kanaka), Chinese and Japanese people. The settlement history story includes homesteading/farming, commercial development (such as resort recreation), industrial development (including brick-making, mining/quarrying, fishing and forestry), and use of Darcy Island as a lazaretto (quarantine area for people with leprosy). Each group has left its mark on the land. Shortly after the park reserve was established, certain First Nations requested that cultural features not be referred to as "cultural resources" as is standard in Parks Canada, but that the broader term "cultural heritage" be used instead. It was felt by those making the request that cultural heritage was a more appropriate way of defining the diverse aspects of the cultural realm. Consequently, in this report the term "cultural heritage" is used, and includes both tangible aspects of heritage (e.g., buildings, archaeological sites, objects, and landscapes) and intangible culture heritage (e.g., oral histories, stories, languages and place names). In some cases, where the Parks Canada Agency has requirements for the development of specific management documentation, the term cultural resources may be used.

There are no national historic sites within the park reserve. Several buildings have been submitted to the Federal Heritage Building Review Office (FHBRO) for assessment of their heritage character to determine if special designation is appropriate; none have been so designated.

Where feasible, Parks Canada is committed to protecting and presenting examples of the cultural heritage associated with park lands. There are a number of threats affecting the cultural heritage in GINPR. Many of the First Nations archaeological sites along the shoreline are eroding, in part due to natural erosion processes, rising sea levels, boat wake and visitors walking over the sites. With regard to built heritage, many of the buildings are deteriorating due to a combination of age and prior neglect. Parks Canada staff are in the process of dealing with these threats.

### 4.2 STATE OF CULTURAL HERITAGE FAIR

Parks Canada uses two indicators to assess the state of cultural heritage: **resource condition** and **selected management practices**. Four measures are assessed to determine Resource Condition: archaeological sites, buildings and structures, landscapes and landscape features, and objects. Four measures are evaluated to assess selected management practices: inventory, evaluation, cultural resource management statement and monitoring program (Table 5). The overall state of cultural resources at this time is considered fair. No trends have been established.

### RESOURCE CONDITION INDICATOR

Condition status: Fair Trend: Not Rated

Based on the four measures used to evaluate the resource condition, the overall state is considered fair.

Indicator: Resource Condition Measure: Archaeological Sites Condition Status: Fair Trend: Not Bated

A four-year Basic Resource Inventory of archaeological sites has been undertaken. To date, 184 archaeological sites have

TABLE 5:

### Summary of the State of Cultural Heritage Resources

been recorded on park reserve lands. Examples of archaeological sites include: shell midden, lithic components (stone chips from tool-making), burial sites, culturally modified trees, homesteads, industrial sites and a lazaretto. Where park facilities (e.g., campsites, trails) are located on archaeological sites, they are evaluated as poor; other archaeological sites range from fair to good condition.

#### Indicator: Resource Condition Measure: Buildings and Structures Condition Status: Poor Trend: Not Rated

A number of historical buildings and structures exist in the park:

- a bomb shelter on Sidney Island
- five cabins at a former homestead/cottage resort (Roesland on North Pender Island)
- two feed shed buildings on Tumbo Island
- a fog alarm building at a former lightstation (East Point on Saturna Isalnd)
- two homestead houses (Roe House on North Pender Island; Mahoi House on Russell Island)
- two light keeper's residences (East Point on Saturna Island; Georgina Point on Mayne Island)

The bomb shelter, the fog alarm building, the Roe house and cabins and the Mahoi house and outbuildings were submitted to the Federal Heritage Building Review Office (FHBRO) and did

Indicator	Overall Condition of Indicator	Measures	Current Condition of Measure	Trends
		Archaeological Sites	$\bigwedge$	Not Rated
Resource Condition		Buildings and Structures		Not Rated
		Landscapes and Landscape Features	Not Rated	TrendsNot RatedNot Rated
		Objects: Archaeological & Historic		Not Rated
		Inventory		Not Rated
Selected	$\wedge$	Evaluation		Not Rated
Management Practices		Cultural Resource Management Strategy	Not Rated	Not Rated
		Monitoring Program		Not Rated

not receive a heritage designation. The feed sheds have been submitted to FHBRO. The light keeper's residence at East Point has not been. Condition and/or Structural Assessments have been done on many of the buildings and based on the available information; the buildings are rated as follows:

- bomb shelter: not rated
- Roesland cabins: poor condition
- feed sheds: TBD
- Fog alarm building: poor condition
- Roe house: good condition
- Mahoi house: poor condition
- East Point light keeper's residence: not rated as cultural resource
- Georgina Point light keeper's residence: not rated as cultural resource

The evaluations of the Roesland cabins, Mahoi house and fog alarm building indicate that some building features are in poor condition while other features are in fair condition; a small number of features were even noted as being in good condition. However, it is the large structural features-such as foundations-that are in poor condition and minor features (windows and eavestroughs) that are rated as being in fair to good condition. These factors account for the overall poor rating.

### **Indicator: Resource Condition Measure: Landscapes and Landscape Features Condition Status: Not Rated Trend: Not Rated**

GINPR has not yet evaluated landscapes and landscape features, therefore, this measure has not been rated.

#### **Indicator: Resource Condition Measure: Objects Condition Status: Good Trend: Not Rated**

The GINPR approach to archaeological objects has been, for the most part, to leave objects in situ. On occasion, if the Parks Canada archaeologists feel that the item is a good specimen that contributes to the archaeological record, objects have been collected. There are 242 objects in the archaeological collection. Of these objects, 7-9 are of unclear origin and are not rated. The historical objects include such things as a gun flint, metal token/button and bottles. The First Nation objects are, for the most part, tools and tool fragments and are in good condition.



Roesland Cabin, North Pender Island

The overall rating of selected management practices is fair, based on the four measures.

### SELECTED MANAGEMENT PRACTICES INDICATOR

Condition status: Fair Trend: Not Rated

#### Indicator: Selected Management Practices Measure: Inventory Condition Status: Good Trend: Not Rated

A four year Basic Resource Inventory (BRI) of archaeological sites was initiated in 2006. The annual reports from the BRI also provide preliminary inventory information relating to historical objects. Two research reports, the *Settlement and Land Use History* and the *Structural History*, provide an inventory of buildings and structures and landscapes and landscape features. Additional inventory work needs to be done, particularly on objects.

#### Indicator: Selected Management Practices Measure: Evaluation Condition Status: Good Trend: Not Rated

Buildings/structures have been evaluated through the *Structural History* project and the various condition assessments. Archaeological sites have been evaluated and the archaeological reports note where there are low/medium/high threats. Landscapes and landscape features and objects (in situ and in the collection) have not been evaluated.

#### Indicator: Selected Management Practices Measure: Cultural Resource Management Strategy Condition Status: Not Rated Trend: Not Rated

Currently, GINPR does not have a Cultural Resource Values Statement (CRVS) or Cultural Resource Management Strategy in place. Once Parks Canada has approved guidelines for developing a CRVS, one will be prepared for this park. The development of a CRVS will be undertaken as a precursor to or as the front end of a Cultural Resource Management Strategy and is required for park management planning.

#### Indicator: Selected Management Practices Measure: Monitoring Program Condition Status: Poor Trend: Not Rated

As a new park and since the baseline archaeological inventory was in progress during the 2003-2008 period, a formal monitoring program has not been developed. GINPR has an ad hoc monitoring system for some the archaeological sites as an interim measure; a more robust system is needed. There is as yet no monitoring program for the landscapes, buildings, or objects.

Associated heritage values-including oral histories, languages, traditional place names, records and traditional uses and knowledge-are also important. Although not a specific measure, it is important to acknowledge these values and undertake management actions to facilitate protection of these values. GINPR continues to facilitate protection of intangible values through available means. In particular, a website feature - The Languages of Those Who Came First was established by partnering with Hul'gumi'num Elders to provide voiced language. In the park's visitor guide, Sencot'en and Hul'g'umi'num' place names are included along with articles by First Nations that explain traditional uses or knowledge and cultural practices. Certain park trails have First Nations names that relate to or identify the place in one of the two Coast Salish languages. Further, cooperative work is being done on an interpretive booklet outlining plants and animals of significance to local First Nations.



Remains from brick factory, Sidney Island.

### 4.3 KEY PLANNING CONSIDERATIONS

### **Cultural Resource Values Statement**

One of the key aspects that has yet to be developed is a Cultural Resource Values Statement. This is needed to provide a formal evaluation of the landscapes, landscape features and to further evaluate archaeological sites, buildings and structures and cultural objects to establish which features are considered representative and will be protected in the park.

### **Cultural Resource Management** Strategy

Once a Cultural Resource Values Statement has been completed, a strategy is needed to guide long-term management of the defined cultural resources.

### **Conflicts with Cultural Heritage**

There is presently considerable conflict between First Nations archaeological sites and visitor facilities. In at least 15 locations, contemporary visitor facilities are located on or pass through archaeological sites and are impacting those sites to varying degrees. In addition, there are facilities that

exist close to such sites and increase the potential for disturbance to occur. At the very least, a monitoring program for these sites should be formalized. Parks Canada staff should continue to work with First Nations to begin to resolve conflicts in priority areas. Development of a full cultural heritage monitoring program should be considered to ensure data is available to provide a rigorous assessment in future SOPRs.

### Impacts of Erosion on Cultural Sites

Many shoreline cultural sites are being impacted by natural erosion processes. In some areas, increased levels of erosion are occurring due to additional disturbances such as boat wake or human use at these sites. A monitoring program for these sites should be considered and Parks Canada staff should continue to work with First Nations to begin to resolve conflicts in priority areas.

### **Information Gaps**

Certain information is lacking. In particular, there is a lack of historical photos for many sites and a lack of Hul'qumi'num history. Additional research is needed to fill these gaps.



### Outreach Education

### 5.1 OUTREACH EDUCATION CONTEXT

Outreach education aims to reach the public (those people who do not visit the park) through communication and education opportunities provided at home, at school, at leisure, and in their communities. In the context of GINPR, the goal of outreach education is to help Canadians make a connection to the park and to strengthen their appreciation and support for GINPR.

More specifically, the targeted audiences for outreach education include:

- adults in local communities, particularly the island communities
- youth in local communities, particularly the island communities
- urban adults
- urban youth

GINPR, being located within 7 separate communities (Mayne Island, North & South Pender Islands, Saturna Island, District of North Saanich, Town of Sidney and the Salt Spring Local Trust Area) is well situated to reach out to local communities. The main Gulf Island communities with park lands range from approximately 300 to 2,000 permanent residents. Based on Islands Trust's *Measuring Our Progress* report (Islands Trust, 2003), the islands tend to have more people above the age of 45 than the provincial norm. On some islands, there are few children and adolescents. Islanders are well educated in comparison with provincial averages with nearly 40% of the population having some university education. With respect to income distribution, peaks exist in 2 categories: \$15,000-19,999 (~ 12%) and \$60,000+ (~ 9%). In 2001, 26% of residents were dependent on pensions and investments for the bulk of their income. Nearly 56% were employed.

In the broader region are major centres such as Greater Vancouver (2.1 million population), Greater Victoria (350,000 population), Nanaimo (138,600 population) and Seattle, Washington. Populations in the Canadian urban centres are ethnically diverse with many residents being new Canadians and having languages other than Canada's official languages as their first language.

There have been many approaches used for outreach education over the initial five years (Table 6).

### TABLE 6:

### Summary of Outreach Education Program Offer

	FORMAL (linked to curriculum)	NON-FORMAL (not linked to curriculum)	INFORMAL (learning is secondary)	ECOLOGIAL INTEGRITY	SPECIES AT RISK	CULTURAL	NATIONAL MARINE Conservation areas	WEB	BROADCAST	PRINT	NEW MEDIA	EXHIBITS	EVENTS	<b>CITIZEN SCIENCE</b>	ARTS/ LITERATURE
AUDIENCE	CO	NTEX	Γ		TH	EME					APPR	OACH			
Urban: Adults		•	•	•	•	٠	•	•	•	•		•	٠		
Urban: Youth	٠		•					٠							
Local Communities: Adults		•	•	•	•			•	•	•			•	•	
Local Communities: Youth	٠		•		•	٠	•						•		

A collaborative approach has also been used to address outreach education. Seventeen groups, businesses and/or organizations partnered with GINPR to provide outreach education (Appendix 3). Partnering projects included things such as the BC Ferries Coastal Naturalists Program, Species at Risk school programs, web information about the LEED (Leadership in Energy and Environmental Design) Platinum certification of the park's Sidney Operations Centre, park features on Shaw Cable, web, park information on marine charts and guest speakers/joint programming for park visitors.

### 5.2 STATE OF OUTREACH EDUCATION NOT RATED

Since data collection targeted specifically to the four Outreach Education indicators has not been undertaken these indicators cannot be rate. However, it should be noted that effort was made to increase awareness about the park, particularly among island residents and key park user groups such as boaters and kayakers during this 5 year period.

### TABLE 7:

#### Summary of the State of Outreach Education

Outreach Education Indicators	State
Awareness	N/R
Understanding	N/R
Appreciation	N/R
Learning	N/R

### AWARENESS INDICATOR

Condition status: Not Rated Trend: Not Rated

An External Relations Strategy was developed and approved in 2007 to guide and focus efforts. Awareness-raising initiatives were accomplished through participation in consumer recreation shows (boating, outdoor recreation, kayaking and scuba diving shows) largely focused in southwestern BC and major urban centres (Vancouver, Victoria, Seattle). These consumer events exposed the general public to Parks Canada messages through displays, publications



Coastal Naturalists on BC Ferries tell many Gulf Islands National Park Reserve messages.

and conversations with Parks Canada staff. In a typical year, approximately 3,500 people were engaged in direct conversations with Parks Canada staff at these events and an additional 5, 500 were exposed on a more casual basis through ads, articles, local events such as fall fairs, steward-ship days and talks to interested groups.

Collaborative initiatives have been very successful. Some examples include:

- Partnering with the Canadian Hydrographic Service resulted in an entire page of their re-issue of the Gulf Islands marine chart book being devoted to the park reserve.
- Contacts made with Harbour Air—a float plane company flying into and over the park area—resulted in the inclusion of park information on their seat card, which will expose over 80,000 passengers per year to the location of the park and to our protection mandate.
- Since 2006, the park reserve has annually contributed content and training to the Coastal BC Field Unit's partnering arrangement with BC Ferries for the on-board delivery of interpretive programming through their Coastal Naturalists program during the summer months. The major ferry route between Vancouver and Victoria passes adjacent to many GINPR lands, and directly through the waters that are being considered for inclusion in the Southern Strait of Georgia NMCA. This initiative directly reaches approximately 150,000 passengers each year through the presentations, and an unknown number of passengers year-round through on-board static media.
- For several years, GINPR staff have worked with Shaw Cable (Victoria) to develop 2-3 video features about the park reserve each year to be broadcast locally and nationally across the Shaw Cable system. These stories are linked to the importance of national parks and the Agency mandate, and serve both educational and awareness objectives. Locally, these features reach approximately 432,000 viewers annually.

### UNDERSTANDING INDICATOR

### Condition status: Not Rated Trend: Not Rated

The target related to this indicator is to increase the percentage of Canadians who understand the importance of why Parks Canada protects and presents its administered places. No data currently exists to evaluate this as it relates to GNIPR.

At the time of public consultation on the transfer of provincial lands to the federal government for inclusion in the national park reserve, it was found that support for the creation of a national park in the Gulf Islands was nearly unanimous. There was a strong public feeling of urgency, and even that the park reserve should have been created much sooner, in order to protect the islands (McDade, 2000). This would seem to reflect a degree of understanding of the ecosystem protection mandate of the Parks Canada Agency.

Although the surveys conducted to-date have not gueried respondents specifically about whether they understand why GINPR was created, the 2005 survey (Parks Canada, 2005) showed that approximately two-thirds of local island residents believe that the presence of GINPR has added to their quality of life. Among the elements that they identified as adding to the quality of life were that the park added more natural beauty and stopped development. The survey also showed that 88% of island residents and visitors, and 95% of marine visitors to the southern Gulf Islands (not all of whom would have visited the park) were aware of Parks Canada's protection mandate.

### **APPRECIATION INDICATOR**

### Condition status: Not Rated Trend: Not Rated

The target related to this indicator is to increase the percentage of Canadians who appreciate the significance of heritage places administered by Parks Canada. No data currently exists to evaluate this as it relates to GINPR.

### LEARNING INDICATOR

### Condition status: Not Rated Trend: Not Rated

Although the surveys conducted since the park was established did not specifically as respondents if they considered that they learned about GINPR, the 2005 survey showed that 88% of island residents and island visitors, and 95% of marine visitors to the southern Gulf Islands (not all of whom would have visited the park reserve) were aware of the Agency's protection mandate. This survey also provided baseline information regarding the level of knowledge about a few key values and issues in the park, such as that the park protects both land and marine environments, that First Nations have used these areas for more than 5,000 years, the impact of invasive species, and the diversity cultural of the landscape.

The park reserve's Heritage Presentation and Outreach program was just established and from experience gained over these first four years, it has been found that program delivery is best concentrated where visitors and residents are naturally congregating. The majority of these locations are outside of the park at venues such as annual community fairs (Pender Fall Fair, Saturna Lamb BBQ, Mayne Fall Fair and Salt Spring Fall Fair) and the weekly summer markets (Saturna and Pender). At these events, park staff reach both island residents and island/park visitors. Beginning in 2007, the GINPR booth has been theme-based, with displays, activities and media keyed to helping people experience in-depth learning about one particular aspect of the park's natural history, and encouraging them to subsequently explore the national park reserve at a later date. In 2007, the theme focus was on islets-one of the most sensitive ecosystems within the park. In 2008, the focus was on the eelgrass ecosystem (an at-risk habitat in the Gulf Islands), and was presented in partnership with a local advocacy group. GINPR booths at these events expose over 9,000 fair-goers annually to the presence of Gulf Islands National Park Reserve. About 1/3 of these fair-goers are engaged in significant conversations or activities at the GINPR booth, or pick up park publications.

Presentations for school children have been provided on an ad hoc basis. Awareness of GINPR staff as a teaching resource seems to be growing, as is the capacity to respond to requests. On the Gulf Islands, staff have provided outreach programming to third-party organized educational groups. This has included groups such as the Gulf Islands Centre for Ecological Learning (GICEL) and the Saturna Ecological Education Centre (SEEC). The objectives of the programming are to sensitize island youth to the value of protecting and

restoring the natural environment and to help them to better understand the cultural resources of the islands.

Parks Canada staff have been regularly requested to teach elements of courses in interpretation/heritage tourism/ ecotourism at several local college-level institutions in the Victoria region and staff have been regularly invited to provide park-related presentations as guest lecturers at area universities.

In 2008/09, a joint Hul'qumi'num Treaty Group-Parks Canada Species at Risk initiative brought a learning opportunity to the Hul'qumi'num schools. The program was delivered jointly by a GINPR interpreter and a Hul'gumi'num educator. This project raised awareness of species at risk in the region, and used Hul'q'umi'num' language and stories combined with interpretive activities to raise awareness of the importance of stewardship and protection of ecosystems. The project was very successful and well received by the students and teachers. The program reached 435 students, 34 teachers, and 44 support staff in 7 Hul'qumi'num schools. The student levels ranged from kindergarten to high school. This program was also presented at the Saturna and Pender schools in the Spring of 2009 (reaching an additional 165 students), and a similar program is in progress in the Saanich First Nations schools.

Other techniques used include the park website, guest speakers engagements (Vancouver public library, Mountain Equipment Coop, various kayak clubs and yacht clubs, and conservancy groups), distribution of park publications, and regular newspaper columns (reaching 28,600 islanders).

### 5.3 KEY PLANNING CONSIDERATIONS

### Branding

GINPR faces challenges in reaching outreach audiences and potential visitors in part because Parks Canada does not have high brand-recognition in southwestern BC and because GINPR is still not well known at this point. There continues to be confusion between provincial and national parks in southwestern BC, particularly as there were a number of former provincial parks and ecological reserves which became part of GINPR. Efforts are needed to raise the name awareness and brand awareness of Parks Canada.

### **Outreach Media/Interpreter**

Although the focus has primarily been on developing in-park interpretive media, the intent is to also implement new technology types of interpretation that can be accessed both on and off-site. Also, there are some priority sites—such as the Town of Sidney waterfront where people are looking out to the park—that provide a key opportunity to provide information to the broader public about the national park reserve. Similarly, the Shaw Ocean Discovery Centre recently opened in Sidney provides an opportunity for cooperative interpretation to the broader public.

### **Need for Social Science**

Depending on the level and focus of public outreach education the park anticipates undertaking in the future given the current organizational structure, there may be a need to undertake social science research to assess things such as:

- the general public's awareness and perception of Parks Canada and GINPR in southwestern BC
- how ethnic groups in Vancouver/Victoria rate their connection to national parks generally and to GINPR specifically, and how that might be increased
- whether local and urban audiences understand why GINPR was established.

### **Urban Outreach Venues**

A "Parks Canada Discovery Centre" in the Greater Victoria area was originally envisioned in the park establishment agreement and to that end, Parks Canada participated in the major tourism initiative/venue the "BC Experience" in downtown Victoria. Unfortunately, the "BC Experience" was short-lived and closed down within months of opening. Although the "BC Experience" was not successful, research conducted by a third party just prior to its closure indicated that the Parks Canada elements had been particularly successful. There is currently no Parks Canada outreach venue in the Victoria region. On-going consideration continues to be given to different options, but neither funding nor staff resources are currently available to develop such a facility.

Outreach opportunities in Vancouver are generally coordinated through Coastal BC Field Unit staff. Cooperative planning with businesses such as BC Ferries, the Vancouver Public Library, Mountain Equipment Coop, is needed to ensure a viable GINPR-related outreach program is maintained.

### Stakeholder Engagement

### 6.1 STAKEHOLDER CONTEXT

Six categories of stakeholders have been identified for GINPR:

- Local Communities
- Park Users/Visitors
- Non-Government Organizations
- Government
- Academic Institutions
- Other

### **Local Communities**

Gulf Islands National Park Reserve is located within 7 local communities (Mayne Island, North Pender Island, South Pender Island, Saturna Island, Salt Spring Island Local Trust Area, District of North Saanich and the Town of Sidney). In total, the population of the four main islands (Mayne, Saturna, North and South Pender) is approximately 3,700. The Pender Islands and Saturna Island have received the greatest amount of management attention and effort over the initial park establishment period.

It is recognized that the local communities can be significantly impacted by GINPR's presence and that the residents can themselves have a significant impact on the national park reserve. Many island residents are both regular users of park lands and have been active in protecting and presenting the natural and cultural values of their islands for many years. They have a vested interest in the on-going management of the park. Further, as rural communities with limited services and many services and facilities operated by local volunteers, they are concerned about the potential impacts of increased visitation due to the existence of the national park reserve within their communities (e.g., lifestyle, fire, garbage, negative impacts to sensitive ecosystems). Based on social science research conducted in 2005, sixty-two percent of residents felt that GINPR enhances their quality of life by providing more natural beauty, stopping residential and commercial development on the islands, and adding to the availability of access to public lands, while 15% felt that it detracts from their quality of life due to congestion from tourists, the requirement for their dogs to be on-leash, and being forced to provide visitor/tourist related facilities. In terms of working with communities and sharing information with residents, the survey showed that their main source for information was word of mouth. It is important to ensure that accurate information is being passed on. To create a network of residents to share park information throughout the communities, two Parks Canada liaison committees have been established (Saturna and the Penders) which include representatives from 24 local groups. Beyond word of mouth, the survey showed that 70% of respondents use local papers as a key source for information and 11% use the local TV channels as a source.

### **Park Users/Visitors**

Anyone who uses the park lands or waters (e.g. ocean 200m off-shore of most waterfront lands in GINPR) is considered a park user, whether they are from the local area of further away. Research conducted in 2005 estimated the land-based visiting population to Mayne, Saturna and the Penders (those arriving on BC Ferries who did not reside on the island) to be in the range of 50,000 annually between June and September. Approximately 3,700 residents live full-time on the four main islands on which the park is located. A further 44,000 marine users are estimated to use the waters in and around the park during the summer period.

The boating (power and sail) community is large and has used this area for over 100 years. The boating community through the Marine Parks Forever Society—was involved in raising funds to acquire some of the lands now within GINPR. The boating community has a very high level of interest in the on-going management of the park and a desire to have an influence on park decision-making. A study of recreational boating in the southern Gulf Islands (Gray, 2009) confirmed much of the 2005 study data (Parks Canada, 2005) and provided additional information about these park users that has been helpful in establishing and maintaining relationships with this group.

Seventy-two percent of recreational boaters are Canadian and 27% are American. Most boaters (68%) are from nearby areas in British Columbia: 34% of were from the Town of Sidney area and 4% were from the area islands. Fifty-one percent of the boaters visiting GINPR belong to a boating club or organization (e.g., Canadian Power and Sail Squadron, yacht clubs).

The Council of BC Yacht Clubs represents the interests of over 50 yacht clubs in British Columbia, 10 of which are located on Vancouver Island and 15 on the lower mainland of BC. Eight Canadian Power and Sail Squadrons on southern Vancouver Island focus on recreational boating safety, education, and developing partnerships. These two overarching organizations are conduits through which to channel park information and also provide means to involve and engage boaters in planning and management initiatives. Other sources of information noted by boaters include cruising and boating guides (56.5%), maps (42%), and Pacific Yachting magazine (37%) (Parks Canada 2005).

Kayaking is an increasingly popular activity in the sheltered waters of the Gulf Islands. Little research has been done specifically on this user group within the Gulf Islands although the 2005 study indicated 4% of the boaters intercepted were kayaking. Various local and regional kayaking clubs can act as distribution points for information and as targeted user group contacts. In addition, there are many kayak businesses in the region that provide means to inform and involve the kayaking community.

Another boating-related group that use the waters in and around the park are whale-watching charters. Although this segment of visitors is minor in GINPR at this time, there is potential for increased use of the park in the future.

Land-based users were surveyed in 2005 and 2006. The first study focused on the southern Gulf Islands, including the park. The 2006 study focused specifically on park users (Parks Canada, 2005) (Parks Canada, 2007). A key finding in the 2005 research was that the majority of park users were repeat visitors and that non-resident visitors were coming to the area for reasons other than visiting the park (only 4% of visitors indicated that their main reason for visiting was the national park reserve) or the park was one of many reasons for their visit. Because of this and the park's multiple uncontrolled entry points, it is difficult to inform and engage land-based users as a stakeholder group. To provide information to some of these users, information kiosks in the park, island accommodations and key local businesses are used. The park website is also used to provide information on opportunities to these users.

### Non-Government Organizations (NGOs)

NGOs are an important stakeholder sector. Conservation NGOs make up the largest sub-group of stakeholders in this category, although there are also non-government organizations that focus on tourism, recreation, public safety and education, as well as organizations related to Aboriginal Peoples. Relationships have been established with at least 30 NGOs since the park reserve was established in 2003, with focus placed largely on local and regional conservation and tourism related NGOs.

### Government

Government stakeholders range from those internal to Parks Canada-such as the team working on a feasibility study for a national marine conservation area in the southern Strait of Georgia-to other federal departments that have jurisdiction within the national park reserve (e.g., Fisheries and Oceans Canada, Environment Canada). Other government stakeholders include provincial organizations that can assist in meeting park needs (e.g., public safety, enforcement, ecological protection) and provincial, regional and local park organizations that have an interest in establishing a network of protected areas in the region. Regional and local governments also need opportunities to provide input into the on-going planning and management of the park. Over the past five years, twenty government departments have been targeted as stakeholders with whom park managers wish to establish or maintain existing relationships.

### Academic

In 2004, it was realized that although GINPR sits within a region containing at least 4 universities and several colleges, very little research was being undertaken by these institutions within the region. Relationships were initiated with them in order to increase support for the park and to gain additional information that would enhance the long-term understanding of the park—knowledge that could influence future management decisions. These include relationships with the with the University of Victoria, University of British Columbia, Simon Fraser University, and Vancouver Island University (formerly

Malaspina University College). Most of the connections made with universities have related to the park providing support to on-going research, GINPR wanting input to specific projects and initiatives (e.g. fire management planning for the park), or GINPR wanting to initiate research in specific areas of interest. In some cases, the connection has related to cultural heritage management needs or visitor needs and management

### Other

Additional stakeholder groups include the general public, the Park Advisory Board, Alpine Group (a contracted business that provides ferry transportation to Sidney Island), descendents of the Hawaiian settlers of Russell Island and Victoria's Chinese community based on connections with the lazaretto on Darcy Island.

### Approaches Used for Stakeholder Involvement

The park's Interim Management Guidelines (IMGs) (2006) outline many actions relating to engaging and working cooperatively with others in park planning, projects and management. The most prevalent tools used to build relationships and maintain awareness and support are participation in related organization meetings—GINPR in stakeholder meetings and stakeholders in GINPR meetings and making presentations.

In a few cases Parks Canada has asked a major stakeholder to define how it wanted to work with/be engaged by GINPR:

- Islands Trust (local government) initially requested presentations to its full Trust Council. Over time, it was suggested that Parks Canada meet regularly with Southern Gulf Islands trustees and staff planners as they were more directly affected by the park.
- The Council of BC Yacht Clubs wished to set up a working group with GINPR and requested that in addition park representatives present updates to the full Council meeting once per year. As necessary, the Council has set up ad hoc committees on specific concerns (e.g., national park fees) and the ad hoc committees have met with GINPR staff.
- In 2008, GINPR solicited 11 Pender Island groups if they'd like to establish a joint liaison committee with the park. Eight said yes and a committee was established.

Examples of ways Parks Canada has directly involved stakeholders and partners in protection and presentation include:

- Local community groups and knowledgeable experts have provided interpretive programs jointly with park staff.
- Groups have volunteered their time for removal of invasive non-native plant species from the park.
- Local residents were involved in the ecological restoration of Lyall Creek on Saturna Island.
- Two yacht clubs provide volunteer host services, providing park information to marine visitors at Portland Island and Beaumont.
- Cultural interpretation is provided on Russell Island through a volunteer host program staffed by the descendents of the island's Hawaiian settlers.
- GINPR orientation is provided to business license holders and their staff, who in turn provide information to the clients they bring into the park.
- Many people have been involved in workshops relating to specific management planning projects and helped identify values, needs, issues, and solutions.
- From 2004-2008, 539 volunteers provided 9,292 hours of service to the park.
- Since the park's establishment, 84 research permits have been approved. Approximately 40% of the research conducted was by external groups. Natural science research is the dominant research focus, with archaeological research and social science following.
- Several stakeholder groups were involved in the development of the park's Interim Management Guidelines (through a 2-year public process) and in area planning processes for 4 locations.



The Marine Hosts are an example of working with stakeholders.

### 6.2 STATE OF STAKEHOLDER ENGAGEMENT NOT RATED

The national indicators for Stakeholder Engagement are:

- Support
- Influence
- Active Involvement

At the time GINPR was established, national indicators for stakeholder and partner engagement did not exist. In establishing a priority list for stakeholder relations for the few years of the park's existence, staff intuitively identified different levels of engagement needed with different groups.

Some relationship-building efforts were targeted at getting information out to stakeholders to build awareness of Parks Canada and of GINPR's purpose and programs. Others efforts focused on ensuring that people coming to the park were arriving with appropriate expectations, knowledge of the park values and regulations, and had made adequate pre-trip preparations. These two areas of engagement were focused primarily on awareness and are generally consistent with the national "support" indicator.

Other groups were targeted for input to various planning and management processes, providing means for these stakeholders to "influence" the management of GINPR through their involvement and comments. Lastly, more direct engagement in projects or active involvement in park planning and management initiatives for some groups was desired. This is consistent with the "active involvement" in the management, protection or presentation of GINPR.

No specific social science studies have been undertaken with stakeholders so it is not possible to report on the national measures:

- percentage of stakeholders who support the protection and presentation of GINPR
- percentage of stakeholders who consider they have opportunities to influence GINPR activities
- percentage of stakeholders who consider they have active involvement in the management, protection, and presentation of the park
- percentage of stakeholders who consider that they took action for both the protection and presentation of the park

However, to provide insight and baseline information regarding stakeholder engagement to date, informal interviews were conducted with key park staff. It was found that stakeholder engagement occurs for both strategic and operational reasons and some relationships are initiated by Parks Canada and some by the stakeholder group. Some stakeholder engagement is related to only one aspect of the park's mandate while others are broader and integrate all or several mandate areas. In general, initial efforts focused on local communities, user groups, local/regional government and those groups somehow impacted by operational or policy requirements. This was expanded after the first year or two to include many other groups.

In total, GINPR built relationships with 21 community stakeholder groups, 11 user groups, 29 NGOs, 19 government organizations, 6 departments at 4 universities, and 5 other stakeholder groups—91 groups in total—over the initial five years of park operations. Although a few of these were short term initiatives, they all assisted in building awareness of GINPR, support for GINPR and in many cases, opportunities to influence decision-making and/or be directly involved in protection or presentation. This level of stakeholder relations may not be sustainable.

Nonetheless, the significant stakeholder engagement during the first years of park operations suggests that there is a reasonably high level of support for the park and its programs. This is in line with the pre-establishment public consultation findings of the Special Advisor (McDade 2000) which indicated a high level of support for the establishment of a national park reserve.

The public processes to develop the park's Interim Management Guidelines and the four area plans have provided the broadest opportunities for multiple stakeholder involvement in/influence on the management directions in GINPR.

### 6.3 KEY PLANNING CONSIDERATIONS

### Sustainable Stakeholder Engagement

Due to the nature of GINPR—highly ecologically sensitive, location within 7 communities, marine and terrestrial components, and proximity to large urban populations—there are numerous potential stakeholders. Limited resources emphasize the need to prioritize with whom and how stakeholder engagement will be undertaken. An Integrated Stakeholder Strategy would be useful to guide efforts and ensure a variety of opportunities are provided. Such a strategy should assess opportunities for tools that can be interchangeably used with different stakeholder groups and assess how the park's website might be better used for opportunities for the public and stakeholders to influence park management and to become involved in specific projects.



### Visitor Experience

### 7.1 VISITOR EXPERIENCE CONTEXT

Because of the fragmented and 'porous' nature of park access, it is difficult to develop accurate estimates for visitation numbers. In 2005, social science research suggested that approximately 100,000 potential park visitors are currently visiting Saturna, Mayne and the Penders Islands (51,000) or are boating (44,000) in the immediate area between June and September. Further research conducted in 2006 showed approximately 46,000 visitors to Gulf Islands National Park Reserve, based on trail counters and campsite permits. This number may not be entirely accurate for the following reasons:

- many campsites are located on islands where payment is done through self-registration (honour system)
- · camping fees are not collected in the off-season
- marine and terrestrial day use is not captured with the exception of data obtained from trail counters and daily spot boat counts conducted at key locations.

Although surrounded by major urban populations, GINPR is not as easily accessible as might be expected. To reach park lands, visitors must have a boat or use BC Ferries or a privately-operated foot-passenger ferry (to one park location). Each of these access options involves a monetary outlay (boat ownership/rental or ferry fare) beyond what would be required to access many other parks.

### Visitation by market segment

There are three key market segments: Terrestrial Visitors, Marine Visitors and Local Residents.

### **Terrestrial Visitors**

The 2005 survey indicated that terrestrial visitors come to the Gulf Islands for reasons other than visiting GINPR (57.4%) and 38% cite it as one of many reasons they came. Only 4% indicated it was their primary reason for coming. They identified that being in a peaceful, quiet place (99%) and experiencing the natural outdoors (98%) were of greatest importance in making their decision to visit the Gulf Islands. Most rely on their past experience visiting the southern Gulf Islands region as their source of pre-trip information; travel agents were identified as another major source of information. En route, they rely on past experience (21%), the GINPR visitor guide (23%), travel agents, travel guidebooks and tourism information centres for information. Most terrestrial visitors choice of island to visit was based on visiting friends/family.

Most visitors to GINPR are middle-aged, with the majority in the 40–60 age bracket. There is little youth or young adult visitation to the park at this time. In the 2005 survey, it was found that the 80% of visitors are Canadians (mostly from BC) and visitors travel in groups of between 2 to 4 people. Length of stay varies widely by location, ranging from 3.3 hours at Sidney Spit (urban day use experience) to 5 days on the major islands, with a mean visit of 2.8 days. The park's 2006 study indicated 76% of parties were repeat visitors to GINPR properties.

The top activities noted in the 2006 survey:

- walking on a trail
- sitting/walking on a beach
- sightseeing
- mooring a boat

### **Marine Visitors**

The 2005 survey indicated that marine visitors visit the southern Gulf Islands due to the proximity to home, previous visits/a desire to return, and the beauty of the area. Eighty-five percent of boaters are repeat visitors; 28% have visited the islands over twenty times. Because of the repeat nature of their visits, there is a high reliance on past experience for pre-trip planning. Other sources of information noted by marine visitors included cruising and boating guidebooks, maps, and Pacific Yachting magazine. The area is also promoted by charter boat companies.

When choosing a location to visit in the southern Gulf Islands, marine visitors seek locations where they can be in a peaceful, quiet place (90% rated this as of high importance), experience the outdoors, and experience solitude. Some are also seeking opportunities for a recreational experience and to spend time with family and friends.

A study of recreational boating in the southern Gulf Islands, undertaken by D. Gray in 2007 (Gray 2009), provides additional information:

- The majority of recreational boaters visiting GINPR are Canadian (72%) while 27% are American.
- Most boaters (68%) are from nearby areas in British Columbia with 34% being from the Town of Sidney area and 2% being residents of the Gulf Islands.
- Of the American boaters, 76% were from Washington State, 8% were from California and 7% were from Oregon.
- There is almost an equal split between sailboats (52%) and motorboats (48%).
- Most of the recreational vessels (57%) were carrying two passengers while 16% were carrying four passengers.
- Only 22% of vessels had any children or youth on board.

Of the boaters intercepted:

- 11% were on day trips
- 39% were on a cruise of between one day and one week
- 25% were on a cruise of between one and two weeks
- 26% were on a cruise of greater than two weeks

The most common shore-based activities for recreational boaters are:

- trail walking
- exploring beaches/walking beaches
- accessing shops/entertainment
- photography

### Local Residents

At present, it is unclear how many island residents use the park. Survey results range from 383-2,476. It is thought that the different survey methodologies used (on-site interviews during peak hours in peak season in 2006 and random sample mail-back questionnaire to in 2005) are responsible for the difference in responses.

Based on the 2006 survey, 11% of GINPR visitors during peak season are residents of

### LOCAL AREA POPULATION (2006 CENSUS DATA)

Mayne Island– 1,112 North Pender Island– 1,996 Salt Spring Island– 9,640 Saturna Island – 359 South Pender Island – 236 Town of Sidney– 11,315

The southern Gulf Islands population has a high proportion of 25-64 year olds (53%), and another 24% over age 64.

the Gulf Islands on which GINPR lands are located (Mayne, Saturna, Penders), 98% of the residents are repeat users and the majority (72%) spent one to two hours in the park. It is expected that the percentage of park visitors that are local residents might be significantly higher in the shoulder and off-seasons. Many residents walk their dogs or enjoy daily walks themselves at park properties on Saturna, Pender and Mayne.

### Methods Used to Attract Visitor Segments

Since the establishment of the park in 2003, the External Relations/ Promotions activities have focused primarily on raising awareness of GINPR and familiarizing current users with the changes to the management of park lands and of the significance of the new national park reserve designation. This early cautious approach was informed by issues raised in the report of the Special Advisor based on public consultations during the park establishment process (McDade, 2000). Concern was voiced by islands residents about the impact of increased visitation to the Gulf Islands:

- A common theme...was identification of the need to notify potential park visitors early, before they arrive at the islands, as to the limited accommodation and camping opportunities and the special ecological sensitivities which will limit access and some uses.
- The way in which the park is promoted, and whether it is promoted at all could have significant impacts on ecological integrity within the park and on the character of local communities. While it is desirable that national parks be open to Canadians and other visitors, in general it is not necessary to encourage greater tourism.
- The widespread support in principle (for the establishment of the park and the transfer of provincial lands) is tempered by public concern by residents of the Gulf Islands and

user groups about the possible negative impacts from increased people pressure and other park management issues.

In order to ensure that Canadians are aware of the park and to connect them with the park, various external relations tools were used, including:

- an annual advertising strategy;
- regularly updated website (and web links from other tourism sites to the GINPR site);
- annual orientations for staff of third party tourism information centres;
- annual visitor guides and rack cards distributed to key tourism information and community venues;
- participation in consumer recreation shows (boat shows, kayak events) and at tourism industry conferences;
- displays on-board BC ferries;
- working with local destination marketing organizations and chambers of commerce, and
- providing presentations to interested groups in the key market segments.

### **Recreational Service Offer**

The range of recreational activities currently undertaken in GINPR includes boating, kayaking, camping, hiking, picnicking, beach exploration, walking the dog, photography, scuba diving, geocaching, birdwatching, whale-watching/marine mammal viewing (both marine- and land-based), crabbing and recreational fishing (in ocean only). Current visitor infrastructure in support of these activities includes:

- 32 km of designated trails
- 99 frontcountry campsites at 3 locations
- 67 backcountry campsites at 9 locations
- 165 metres of dock space (Sidney Spit)
- 46 mooring buoys at 3 locations
- 16 stern tie-rings (for boat moorage)
- 2 dinghy docks
- 8 day use areas (with picnic tables and privies)

GINPR inherited a variety of visitor infrastructure contained within the nine former provincial parks and one regional park that became part of the national park reserve. Some of the infrastructure was nearing the end of its life-cycle and the park management team has established a comprehensive recapitalization program funded by a 5-year park establishment fund.

### Interpretive programs

Because of the lack of major visitor infrastructure in the park reserve (e.g., visitor centre, interpretive amphitheatres, large campgrounds, commercial roofed accommodation and adequate parking for large groups), the more traditional means of reaching visitors with interpretive programming have not been effective. Critical mass for programming has been an issue, and based on effort-per-contact considerations, park interpreters have opted to concentrate interpretive program delivery at locations where visitors already congregate—locations that are, for the most part, outside of the park. At GINPR, this is part of the core interpretive offer, with the interpretive program split as follows: one-third interpretive events in the park and twothirds community-based events.

Over the initial years, interpreters used trial and error to ascertain the best times, locations and program mix in order to maximize success in numbers, visitor interest levels and program quality (Table 8). For example, guided walks were



Interpretive program at Winter Cove, Saturna Island

### TABLE 8: Interpretive Program Evolution

	2005	2006	2007	2008
Roves	91	30	24	5
Special Events	16	11	15	16
Talks		17	28	26
Walks		48	19	12
Markets	6	12	15	17
Other	2	9	16	16

cut back due to lack of attendance/interest. Roving on park trails was producing few contacts, so emphasis was shifted to interpreters providing stationed programs at day-use areas and other locations, at times when visitors usually gathered (e.g., at Roesland, East Point, ferry line-ups, weekly markets). On both the Penders and Saturna, partnering with other groups in the community on special events has been a program shift that has increased program participation, as has hosting theme-based booths at weekly summer markets and annual fairs.

Park interpreters are ramping up capacity to accommodate school groups in the shoulder season and increase collaborative programs with island-based environmental education groups in the summer.

Anecdotal feedback from Interpreters indicates that the majority of program participants are highly educated, adult and expect a sophisticated offer. Further, because of the repeat nature of visitation in the park, repeat programming is challenging, even on a year-to-year basis.

### Partnering in Visitor Experience Program Delivery

Over the park's initial 5 years, Parks Canada maintained existing partners, enhanced partnering programs and/or established new partnering arrangements with thirteen groups and organizations (Appendix 5).

### 7.2 STATE OF VISITOR EXPERIENCE GOOD

The national indicators and measures for Visitor Experience monitoring did not exist when GINPR undertook its baseline social science research in 2005 and 2006. However, the questions that were asked did provide information in the same context as the indicators that were later developed. The state of visitor experience is assessed based on the available information. Overall, Visitor Experience is considered to be good.

### TABLE 9:

### Summary of the State of Visitor Experience

Visitor Experience Indicators	State
Marketing and Promotion	
Interpretation	$\bigwedge$
Activities and Services	
Personal Connection	N/R



Non-personal interpretation on Russell Island.

### **MARKETING AND PROMOTION INDICATOR**

### Condition status: Good Trend: Not Rated

Based on campsite, dock and mooring permits, visitation to GINPR has been relatively stable over the past five years. A lot of effort has been put on raising awareness of the new national park and promoting what it has to offer. Participation in consumer recreation shows and community events, as well as advertising and development of the park's website have been the major focus for marketing and promotion. Almost 15,000 people per year are provided directly with park information at shows and events. Advertising reaches up to 450,000 people each year. A media relations kit has been developed, providing images, fact sheets, and suggested storylines. Significant effort has been put into building relationships with Destination Marketing Organizations at local and regional scales. There is currently insufficient data to determine whether there is a trend in visitation.

### **INTERPRETATION INDICATOR**

### Condition status: Fair Trend: Not Rated

Assessing this indicator (50% of visitors take part in learning experiences) is difficult due to the baseline park visitation numbers being unknown due to the multiple entry points, the marine nature of the park and questions regarding what exactly constitutes a 'visitor'. Public participation in interpreter-led programs in 2008 was 13,095 or approximately 26% of known visitors—up from 7,821 in 2005 (a 40% increase). At the time of the 2006 visitor survey, the interpretive program was still in its infancy, and most of the interpretive signs in the park were those installed by BC Parks in former provincial parks and were at the end of their lifespan. Even so, 64% of visitors responding to the survey indicated that they were satisfied with to very satisfied with the opportunities to learn something new or different.

Beginning in 2008, a 3-year interpretive media development program was initiated and the first phase of installation occurred in 2009. At this time, it is impossible to calculate how many park visitors learn about the park through non-personal interpretation such as the on-site interpretive panels or the annual visitor guide. Measurement relating to interpretation will be undertaken prior to the next State of the Park Report.

### ACTIVITIES AND SERVICES INDICATOR

### Condition status: Good Trend: Not Rated

In the 2005 study of terrestrial visitors, the four services/ facilities that were noted as of highest importance were beach accesses (96% noted as important), trails (95%), park maps (95%), and picnic/day use areas (92%). When asked about satisfaction with these, 90.4% indicated satisfaction with beach accesses, 94.5% indicated satisfaction with trails, 93.3% indicate satisfaction with picnic/day use areas, and 89.6% were satisfied with park maps.

Among marine users in 2005, trails, beach accesses, park maps, and docks/mooring buoys were of highest importance (95%, 93%, 92% and 85% respectively) and levels of satisfaction with these were high (95%, 96%, 84%, and 88% respectively). Similar results were found in an external study of boaters conducted in 2007 (Gray, 2009).

Through public meetings and consultation on the islands, it has been noted that there is a high level of local demand for more trails on the larger islands and a desire to connect GINPR trails with local trails to create broader island trail systems.



Moorage at Sidney Spit.

In the 2006 visitor survey, 94% of the parties indicated that the park did well to very well in providing opportunities for them to enjoy themselves. The survey also assessed visitors' level of satisfaction with specific elements of their visit. The majority (76%) were satisfied to fully satisfied with their overall visit. Seventy-two percent (72%) were satisfied with specific facilities and services that they used.

In the 2005 study, visitors identified items that they expected to find but did not. These included more/better interpretive and trailhead signs/maps; detailed info on facilities in campgrounds, more/better beach access, better trails, water, better access for persons with disabilities, containers for garbage, and off-leash dog areas. A number of these have been addressed through the development and implementation of area plans, on-going development of communications products and signs and an on-going facility recapitalization program. Others have been addressed through an education program to explain why certain things—such as the "pack-in-pack-out" philosophy and need for dogs on-leash—are required in this park.

Over the 2003-2008 timeframe, effort was made to identify and work with businesses bringing clients into the park. An



Camping on Portland Island

interim business license program was established. Over this time period, the number of approved business licenses ranged from 6 to 20, with 2006, 2007 and 2008 having 18, 20 and 19 licenses approved, respectively. The types of services offered by these businesses and academic institutions include: kayaking, sailing, eco-cruising tours, water taxi service, day use, and camping.

It is Parks Canada's policy to recover a portion of the cost of providing visitor facilities and services from those who directly benefit from them. During this initial period staff began to assess the change-over from provincial park fees to national park fees and the potential for additional usebased revenue generation in GINPR (fees are currently charged for camping and moorage at locations that were previously provincial parks). In the 2006 survey, visitors were asked how they would most likely respond to a \$7.00/day fee for day use visits. Sixty-two percent indicated they would either reduce the number of days they visited or not visit at all. When the idea of additional/changed fees was initially raised with marine stakeholders, a negative response also occurred. Consultation and collaboration with key stakeholders will be necessary to determine how new national park fees will be implemented in GINPR.

### PERSONAL CONNECTION INDICATOR

### Condition status: Not Rated Trend: Not Rated

Based on an analysis of the regional Gulf Islands tourism picture, it was noted by Islands Trust that over 90% of British Columbians see the Gulf Islands as a special part of the province (Kelly, 2006). Research done in GINPR shows three-quarters of the park's visitors are repeat visitors. This may or may not relate to whether visitors feel a sense of personal connection with GINPR. Additional research is needed before an accurate assessment of this measure can be provided. In the 2005 survey, only 4.4% of terrestrial visitors to the southern Gulf Islands and the park came specifically to see the park, although 38% indicated it was one of many reasons they were visiting the islands. For marinebased visitors, nearly two-thirds indicated that coming to see the park was the main reason for visiting. This may relate to the fact that several of the key boating locations in GINPR were previously Provincial marine parks and have been used by the boating community for many years.

In 2006, visitors were asked what the most memorable thing about their visit was. The most commonly cited attributes

were: quiet, beautiful scenery; seeing wildlife; walking or hiking; spending time with family and friends; their encounters with staff; and anchorages/boating/kayaking.

#### **KEY PLANNING CONSIDERATIONS** 7.3

### **Visitor Education**

Visitor education is undertaken using both personal services (programs by interpreters) and non-personal media (interpretive signs and other technology). The nature of current visitors-repeat, well-educated, and middle-aged-demands that a sophisticated and changing interpretive program be offered. The delivery of the personal services interpretive program is hampered considerably by the fragmented nature of the park and that many park locations are only accessible by boat.

Many visitors have indicated a preference for self-directed learning opportunities such as interpretive trail guides and on-site interpretive signs. In mid-2008, through the 5-year park establishment fund, a 3-year non-personal interpretive project was initiated to develop signs and other new interpretive tools to enhance the visitor experience.

GINPR is interested in having more Coast Salish First Nations information available to park visitors. It is important to have Coast Salish First Nations people providing interpretive information regarding their culture and stories.

### **Visitor Facilities**

The inherited marine infrastructure is or will shortly be in good shape because of park establishment facility recapitalization/capital development programs. Public expectations and marine protection requirements may increase the need for further marine infrastructure. Marine facilities are costly to construct and maintain and the long-term sustainability of the marine infrastructure in the park will be a challenge in future vears.

On the land-based side, there is a desire to create a distinct national park look and feel for land-based facilities. Improvements to a network of initial trails have been made and evaluation of other opportunities is in-progress. A sustainable trail plan is needed to consider local desires and ensure adequate and appropriate hiking opportunities. Further work is needed ensure consistency of directional, entry and operational signs at all visitor nodes and access locations.

### Volunteer Program

Because the park is located within 7 different communities and is known for its sensitive ecosystems, the park receives many more offers to volunteer than it has the capacity to manage. Volunteering provides an opportunity to develop a personal connection to the park and can enhance Parks Canada's capacity to deliver on its mandate. To date, a volunteer program has not been formally established due to lack of dedicated resources.

It would also be beneficial to developing a cooperating association (i.e., a "Friends of Gulf Islands National Park Reserve" organization). A cooperating association can provide an opportunity for increased revenue as well as enhancing visitor experience. Ideally, the park would be able to motivate and focus a number of community partners, liaison groups, volunteers and the like across islands and geographic areas in order to create an overall cooperating association. The value would be high, but the effort required to organize and nurture such a group is also high and at present there are insufficient resources to undertake this in a meaningful way.



Volunteer monitoring invasive species.

### **Visitor Experience Monitoring**

Before the next State of the Park Report, Parks Canada needs to assess how it monitors visitor experience in GINPR to ensure that new national indicators and performance measures can be reported on.

### **Information Gaps**

The 2005 and 2006 surveys took place at a point in time when there were few elements of the park's Visitor Experience program in place. In addition, there have been key economic shifts that have occurred since that time which have affected travel patterns. Additional social science research to address the following information gaps would benefit the park in its Visitor Experience program planning and development:

- public understanding and awareness of GINPR in southwestern BC
- the size of the marine recreational visitation segment

- what interpretive interests visitors have (activity types, topics, learning styles)
- GINPR within the regional tourism market context (where, when and how potential visitors can best be reached)
- how to establish reliable visitation numbers and trends and maximize visitor contact
- determining if repeat visitors are being reached

### **Park Fee Implementation**

Education, consultation and collaboration with key stakeholders will be necessary to determine how national park fees will be implemented in GINPR.

## Results of Key Management Actions

In order to guide park managers in the gathering of critical information for management planning and in addressing key issues over the short term, Interim Management Guidelines (IMG) were prepared. Two hundred actions were set out in the IMG. Some of these are one-time actions, while others are on-going actions that do not have fixed end points. All actions were related to "making a difference" to conservation, visitor experience, or relationships or to meeting legislative, policy or operational needs. Table 10 highlights key actions taken over the initial five years that specifically address the interim goals set out in the IMG and/or that made significant contributions to maintaining or improving the state of park resources, visitor experience, or First Nations or stakeholder relationships.

TABLE 10: Results of Key Management Actions

Goal	Key Actions	Results
Gain a better understanding of the ecological, cultural and visitor experience values and the state of the ecological systems, cultural heritage and recreational opportunities in the national park reserve and manage park use to protect those values. This increased understanding will provide information for a State of the Park Report and a Park Management Plan.	<ol> <li>Research in 2005 of residents of and visitors (boaters and land-based) to the southern Gulf Islands; conducted research in 2006 at various park sites and contracted a research report in 2009 of boaters (2007 data) to gain a better understanding of patterns of use in the park and in the southern Gulf Islands and related human/social factors that affect use and visitor experience.</li> <li>Conservation Assessment in 2004 identified existing information and information gaps for resource conservation and ecological integrity programs.</li> <li>Terrestrial Ecosystem Mapping project 2005-2007 to scientifically identify and field check the ecosystems within the core area of interest for the park.</li> <li>Analyses on land cover change (1932-2002) and representativeness of park ecosystems.</li> <li>Species at Risk inventories and analysis (2003- 2009).</li> <li>Research on settlement history of extant buildings and structures in the park.</li> <li>Archaeological Baseline Resource Inventory (2004- 2009).</li> </ol>	<ul> <li>Well established baseline relating to satisfaction, reasons for and nature of park visits, knowledge about natural and cultural features, important and desired facilities and can compare between marine-based and land-based visitors.</li> <li>Well established baseline information relating to ecosystems and species.</li> <li>Significant baseline information regarding archaeological sites and historic structures on park lands.</li> <li>From 2005 research: 99.0% of terrestrial respondents indicated they were satisfied (71.2%) while only 0.6% indicated they were satisfied (77.2%) or very satisfied (77.2%).</li> <li>In the 2006 Patterns of Visitor Use study: 76% of terrestrial respondents were not satisfied/on a neutral opinion and 7% were not satisfied/not at all satisfied with their visit overall, 17% had a neutral opinion and 7% were not satisfied/not at all satisfied</li> </ul>
Identify critical habitat for federally designated species at risk and certain provincially-listed species and identify key cultural heritage, threats to those resources, sources of the threats, and areas of high stress or impact.	<ol> <li>Species at Risk botanical studies on 20 islets and 3 islands (2003-2005).</li> <li>Inventories for sharp-tailed snake on 3 islands (2002-2009).</li> <li>Survey of terrestrial and freshwater arthropods on Tumbo, Cabbage and Saturna Islands in 2004.</li> <li>Detailed assessment of species at risk in 2004 to determine the presence/absence of species at risk in the park and surrounding Gulf Islands.</li> <li>Butterfly surveys at 19 sites on 12 islands in 2007 and 2008.</li> <li>Marine survey and mapping project to identify</li> </ol>	<ul> <li>Well established baseline relating to Species at Risk. Some of these reports provide management direction.</li> <li>Well established baseline relating to cultural heritage in the park. Some of the reports provide management direction.</li> </ul>

Goal	Key A	ctions	Results
	hai pro his his his his arc 20	bitat use of 13 SARA listed species and 12 ovincially-listed marine species in 2008/09. search on settlement history and structural story of extant buildings and structures in the rk reserve. chaeological Baseline Resource Inventory (2004- 09).	
GINPR will identify key indicators of ecological integrity, cultural heritage management, meaningful visitor experience, and public awareness and will begin to develop measures for monitoring those indicators.	1) Parint 1) Parint 1) Parint 1) Parint 10 Par	cific Coast regional project to develop Ecological egrity Indicators and Measures and initiated ological Integrity Monitoring and Reporting ogram. ate of the Park Workshop with national office aff to address indicators and measures to be ed for State of the Park reporting. ate of the Park Technical Background Reports ovide all available information based on the dicators and measures established with national fice.	<ul> <li>Able to move ahead in preparing the park's first State of the Park Report as per the 2008 Guide to Management Planning requirements.</li> <li>Information gaps and monitoring needs have been identified and should be addressed through the Park Management Plan.</li> </ul>
Maintain the national park reserve's ecosystems in as healthy a state as possible and undertake a few demonstration projects that will benefit ecological integrity and increase public understanding without compromising future planning or development options.	<ol> <li>Structure</li> <li>Structure</li></ol>	ream restoration project at Lyall Creek on turna Island by partnering with Fisheries and eans Canada and the Saturna Island Salmon hancement group; no interpretive media has yet en provided on-site to explain the restoration. oreline restoration project at Ella Bay/Roesland to move a portion of a collapsed seawall and restore a natural shoreline characteristics; no interpretive edia has yet been provided on-site to explain the storation. estations of the non-native, invasive carpet rweed were fenced off (Darcy Island and incess Bay on Portland Island) and an inventory d removal program implemented; included public ucation about the plant and management quirements (signs on-site provided information out the infestation and the reasons for the osure of the area).	<ul> <li>Opportunities for public involvement provided through the invasive plant removal projects. Over 600 volunteer hours were contributed (2003-2008) to the removal of Scotch broom and other introduced, invasive plants (e.g., Himalayan blackberry, yellow iris).</li> <li>Restoration projects and the carpet burweed removal project have improved ecological integrity.</li> </ul>

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Goal	Key Actions	Results
	was undertaken.	
Gain a better understanding of patterns of use in the park reserve and in the southern Gulf Islands and the related human/social factors and needs that affect use and visitor experience.	<ol> <li>Social science study of residents, visitors, and marine users in the southern Gulf Islands, including the park in 2005.</li> <li>Patterns of Visitor Use social science study for GINPR in 2006.</li> <li>Report on marine users in GINPR (based on Master of Arts Thesis research data 2007)</li> </ol>	<ul> <li>Well established baseline information on visitors and residents.</li> </ul>
Identify interim indicators for memorable visitor experiences and opportunities for positive public education and awareness.	<ol> <li>Used Parks Canada Agency Performance Management Framework as basis for indicators.</li> <li>Used additional information established by Parks Canada's national office representatives for State of the Park reporting to further identify how to report on visitor experience and public awareness and education.</li> </ol>	<ul> <li>This is the first State of the Park Report for GINPR.</li> </ul>
For the key visitor use areas, develop and implement interim area plans that integrate information about ecological integrity, cultural heritage, heritage presentation, and visitor experience in order to provide appropriate opportunities for visitor use and services in the most suitable locations and without compromising future options.	<ol> <li>Area Plans for Winter Cove and Narvaez Bay (both on Saturna Island) in 2006/2007.</li> <li>Area Plans for Sidney Spit (on Sidney Island) and Portland Island in 2007/2008.</li> <li>Area Plan for Roesland (on North Pender Island) is currently in progress.</li> </ol>	<ul> <li>Improvements to natural resource conservation, cultural heritage conservation and visitor experience have been identified in an integrated manner for 5 of the 7 areas noted in the IMGs.</li> </ul>
Develop cooperative relationships and working arrangements with coast Salish First Nations to ensure that the management of the national park reserve reflects their interests and respects their unique history and current use, and to ensure that the activities they carry out in the national park reserve are managed in a cooperative fashion.	<ol> <li>Cooperative agreements with 7 of the 19 Coast Salish First Nations that have asserted interest in the GINPR area through the establishment of 2 cooperative planning and management agreements; a third cooperative agreement is currently being negotiated with 3 additional First Nations.</li> <li>Invited 19 First Nations to participate in the development of the 19 First Nations have participated in various of the planning processes.</li> <li>Protocol agreements developed collaboratively with certain interested Coast Salish First Nations.</li> <li>Participation from interested First Nations.</li> </ol>	<ul> <li>A relationship has been built with the First Nations- GINPR Committees and a good start has been made to working cooperatively with interested Coast Salish First Nations.</li> </ul>

Goal	Key A	ctions	Results
	Cul Sol	tural-related programs (archaeology team), mmunications, environmental assessments, vesting and monitoring, and extension programs uth Eco-Steward Camps)	
Prepare and provide interpretive information to develop public understanding of natural and cultural values and sensitivities, enhance visitor experience, and nurture appropriate expectations and behaviours.	1) Intrint 2) Paig boo boo 2	erpretive program in place, including four Park erpreters and non-personal media such as nual visitor guide, brochures, and interpretive ns. rthering program with BC Ferries to provide on- ard naturalists on the main ferry routes (Victoria- ncouver and Vancouver-Nanaimo) to enhance blic awareness and understanding of the	<ul> <li>Public participation in the interpreter-led program has increased from 7, 821 people in 2005 to 13, 095 people in 2008 (40% increase).</li> <li>64% of the respondents in the 2006 visitor survey indicated that they were satisfied to very satisfied with the opportunities that they had to learn something new or different.</li> </ul>
	3) Vol thr thr cul	values protected in the national park reserve. Iunteer marine host program (which existed ough BC Parks) expanded to additional location; tural host program initiated on Russell Island.	
Develop and maintain cooperative working relationships with, and promote and support the sharing of information and ideas with First Nations	1) Ser est tim	ven-member Park Advisory Board (PAB) tablished in 2004; meets a minimum of four tes per vear	<ul> <li>Over 90 stakeholder groups, including communities, government, universities, and user organise have been encaged by or have encaged</li> </ul>
local communities, other government groups, area universities and colleges, and key stakeholder groups.	2) Tw rep est est	of First Nations-GINPR Committees (with resentatives from 7 Coast Salish First Nations) tablished and negotiations are on-going to	<ul> <li>Positive start made toward cooperation.</li> <li>Positive start made toward cooperative planning and management involvement with First Nations.</li> </ul>
	3) Est pro	tablished two Island-Parks Canada Liaison mmittees (Saturna Island and Pender Islands) to wide a means to effectively and efficiently share ormation and discuss items of mutual interest	
	wit me 4) Est Yac sta	Ih the island communities. The committees set twice per year (Spring and Fall). tablished a working group with the Council of BC cht Clubs, which represents recreational marine keholders. The working group meets at least	
	ani 5) Est uni	nually and a presentation is made to the overall uncil at least once per year. tablished working relationships with 4 area iversities.	



### Key Issues

A variety of issues or considerations have been identified in sections 2.0-7.0 of this report. From these, certain key themes or issues emerge that should be addressed strategically in the Park Management Plan or through other appropriate means. They include:

### **First Nations**

- Protection of burial grounds and human remains
- Continued relationship building with First Nations
- Accommodation of traditional uses in the park
- Improving communications both between First Nations and Parks Canada and among interested First Nations with interests in the park
- Opportunities for First Nations to tell their cultural story to park visitors

Many of these may be addressed through planning and management consultative committees, strategic meetings, the establishment of effective protocols, and specific planning projects (e.g. harvest planning, interpretive planning), and/or the establishment of mitigation for cultural heritage impacts (e.g. erosion, conflicts with visitor facilities).

### **Ecological Integrity**

- Establishment of an ecological integrity restoration program, including objectives and actions for species at risk recovery, invasive and hyper-abundant species management and fire management.
- Continued implementation of the Ecological Integrity Monitoring and Reporting Program.

- Further research and planning for Marine and Submerged Land Use and Management.
- Regional integration and collaboration for research, inventory and action planning.

Continued planning and adaptive management will be needed to identify critical areas; prioritize management prescriptions, and implement sustainable programs.

### **Cultural Heritage**

- Development of a Cultural Resource Values Statement and Cultural Resource Management Strategy
- Development of a cultural heritage monitoring program
- Improvements to a number of buildings/structures of cultural significance
- Prioritizing and addressing impacts to cultural heritage sites through erosion and visitor use
- · Need for additional research to fill cultural heritage information gaps

Strategic and operational level work will be needed to further the protection of cultural heritage in the park.

### **Outreach Education**

- Need for additional social science research to identify public awareness, understanding, needs and preferences of target audiences
- · Identification of key urban outreach education venues
- Developing a targeted outreach program

Urban outreach education planning needs to be undertaken in conjunction with the Coastal BC Field Unit's External Relations staff.

### **Stakeholder Engagement**

 Development of an integrated Stakeholder Engagement Strategy

Strategic consideration is needed in order to ensure a sustainable, integrated stakeholder engagement program.

### **Visitor Experience**

- Need for a long-term, sustainable interpretive media program
- Establishment of sustainable visitor facilities plans (trail plan, marine offer, facility recapitalization program)
- Planning for a volunteer program, including a cooperating association.
- Establishing a visitor experience monitoring program
- Address information gaps regarding non-visitors and potential new low-impact service offers
- Implementation of park use fees (PUF).



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### Glossary

**Adjacent Submerged Lands (ASL)**: the seabed and water column offshore of national park reserve lands that have been transferred from the Province of BC to the Federal Government. The ASL generally includes seabed/water from the high tide line to 200 m offshore, though some exceptions (up to 400 m) exist off former provincial parks that are now within the national park reserve.

**Backcountry**: areas of the park where there are either no visitor facilities or limited, rustic facilities only and where a wilderness experience is the desired visitor experience.

**Biobands**: an observed coastal species assemblage with a characteristic colour and intertidal shore elevation.

**Biomass**: the mass of living biological organisms in a given area or ecosystem at a given time. Biomass can refer to microorganisms, plants or animals.

**Biogeoclimatic zone:** a geographical area with a relatively uniform macroclimate, characterized by a mosaic of vegetation, soils and, to a lesser extent, animal life reflecting that climate.

**Bivalves**: Mullosks that have a shell consisting of two hinged plates. In the case of GINPR monitoring it refers to clams and oysters.

**Branding**: the intangible sum of all that an organization or business is to its audience/clients/public and all it does to increase the public's appreciation of the organization or business and its programs/services. Branding is more than a name and logo, it relates to the thoughts and emotions someone has when they see, hear or think about the organization or business.

**Cultural heritage**: tangible and intangible evidence of people and their relationship with their surroundings.

**Cultural Resource Management Strategy**: A Parks Canada document that established the general direction (goals and objectives) and specific targets and actions that are proposed to protect and manage significant or representative examples of cultural heritage within the park.

**Cultural Resource Values Statement**: A Parks Canada document that identifies which cultural heritage features (including structures), landscapes, objects within or associated with the park are considered to be representative and/or of particular significance and that outlines the values of those features, landscapes and objects.

**Destination Marketing Organization**: an entity or company that promotes a tourist destination, in order to increase the number of visitors to that destination. They promote the long-term development and marketing of a destination, focusing on convention sales, tourism marketing and services.

**Ecological Integrity**: a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.

**Ecotourism**: travel, to natural areas, that is undertaken in responsible ways to conserve the environment and improve the well-being of local people.

**Frontcountry**: areas of the park where there are higher concentrations of visitor facilities and/or more developed facilities (e.g., drive in campgrounds, large day uses areas).

**Geocaching**: a high-tech treasure hunt played by people equipped with Global Positioning System (GPS) devices that help them determine their position and time by processing signals from satellites. The intent is to locate containers, called geocaches, that are hidden outdoors and then share their experiences online. **Greater Park Ecosystem**: the region or sub-region surrounding the park that provides an overall ecological context for the park (the "core area" for GINPR).

**Haulout**: an area, out of the water, that is used by seals or sealions to rest (often islets or reefs).

**Heritage Presentation**: a Parks Canada term synonymous with "interpretation" — helping people to understand the natural and cultural heritage of a park or site.

**Intertidal**: nearshore area that is exposed at low tide and covered by water at high tide.

**Invertebrates**: animals that do not have a skeleton.

**Non-personal Interpretation**: interpretation of the natural or cultural heritage of the park that does not involve the delivery of the interpretation by a person (i.e., media such as signs, publications)

**Outreach education**: educational opportunities that target audiences that are not in the park (e.g., undertaken outside the park boundaries and/or targeted to the general public or target audiences that are not visiting the park at the time). Riparian: relating to rivers, streams, creeks, etc.

**Social Science**: scientific measurement and assessment of human-related dimensions such as public/visitor needs, expectations, demand for opportunities, behaviours/patterns of use, communication, economic and social impacts, social trends, demographics, etc.

**Stakeholders**: individuals or group with a vested interest in the park and its management (sometimes referred to as "interest group"). These may include local communities, park users, non-government organizations, governments, academic institutions, etc.

**Subtidal**: areas that are below the low tide line and that remain covered by water at all times.

Vertebrate: animals with backbones or spinal columns.

**Visitor**: Someone who enters a protected place for recreation, education or cultural purposes.

# Appendices

### **APPENDIX 1: FIRST NATIONS CONTEXT**

First Nation & registered population (2005/06)	Assert Aboriginal Rights	Assert Douglas Treaty Rights	Affiliation (see notes below table)	Stage of BCTC Treaty Process	Cooperative Agreements with the Parks Canada
1. Tsawout First Nation 671	✓	✓			pending
2. Tsartlip First Nation <b>850</b>	✓	✓			pending
3. Pauquachin First Nation 344	~	✓			pending
4. Semiahmoo First Nation <b>76</b>	✓				
5. Tseycum First Nation <b>137</b>	✓	√			4
6. T'sou-ke Nation 207	✓		TTA*	AIP*	
7. Scia'new (Beecher Bay) Indian Band 223	✓	✓	TTA	AIP	
8. Malahat First Nation <b>251</b>	✓	✓	TTA	AIP	
9. Songhees First Nation <b>459</b>	✓	✓	TTA	AIP	
10. Snaw-Naw-As (Nanoose) First Nation <b>211</b>	~		TTA	AIP	
11. Esquimalt First Nation 222	✓	√			
12. Snuneymexw First Nation 1379	✓	✓		AIP	
13. Cowichan Tribes <b>3940</b>	✓		HTG*	AIP	✓
14. Chemainus First Nation <b>1093</b>	✓		HTG	AIP	✓
15. Lake Cowichan First Nation <b>15</b>	✓		HTG	AIP	✓
16. Halat First Nation <b>202</b>	✓		HTG	AIP	✓
17. Lyackson First Nation 180	✓		HTG	AIP	✓
18. Penelakut Tribe <b>794</b>	~		HTG	AIP	✓
19. Tsawwassen First Nation 233	Treaty Rights			Implem.*	pending
Estimated Total 11,487					

\*HTG=Hul'qumi'num Treaty Group; TTA=Te'mexw Treaty Association; AIP=Agreement in Principle; Implem.=Implementation

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### **APPENDIX 2: ADDITIONAL SPECIES AT RISK INFORMATION**

SARA-listed species not currently known to exist in or use GINPR but with potential to be found in GINPR or recovery potential in GINPR and for which Parks Canada is the lead agency							
Golden paintbrush (Castilleja levisecta)	Plant	SARA: Endangered					
Scouler's catchfly ( <i>Silene scouleri ssp. Grandis</i> )	Plant	SARA: Endangered					
Northern goshawk ( <i>Acipiter gentiles ssp. Laingi</i> )	Animal	SARA: Threatened					
SARA-listed species not currently known to exist in or use GINPR but with potential to be found in							
GINPR or recovery potential in GINPR and for which Parks Canada is a participating agency							
Bocaccio ( <i>Sebastes paucispinis</i> )	Animal	SARA: Threatened					
Horned Lark ( <i>Eremophila alpestris ssp.</i>	Animal	SARA: Endangered					
strigata)		BC: Red Listed					
Sand verbena moth (Copablepharon	Animal	SARA: Endangered					
fuscum)	Animai	BC: Red Listed					
Sea otter ( <i>Enhydra lutris</i> )	Animal	SARA: Threatened					
Western Toad ( <i>bufo boreas</i> )	Animal	SARA: Special Concern					
Provincially-Listed Species at Risk Known to Exist in GINPR (not yet listed in SARA)							
California hedge-parsley ( <i>Yabea microcarpa</i> )	Plant	BC: Red listed					
Erect Pygmyweed (Crassual connata)	Plant	BC: Red listed					
Geyer's onion (Allium geyeri)	Plant	BC: Blue listed					
Slender popcornflower ( <i>Plagiobothrys tenellus</i> )	Plant	BC: Red listed					
Yellow Sand-verbena (Abronia latifolia)	Plant	BC: Blue Listed					
Provincially-listed species not known to exist in GINPR but with potential to be found in or with recovery potential in GINPR							
American glehnia (Glehnia littoralis)	Plant	BC: Blue listed					

### **APPENDIX 3: PARTNERS IN OUTREACH EDUCATION**

BC Ferries	<ul><li>Coastal Naturalists</li><li>On-board displays</li></ul>
Pender Island School	<ul> <li>Web-accessible real-time data from weather station</li> </ul>
Hul'qumi'num Treaty Group	<ul> <li>Species at Risk school program in Hul'qumi'num schools</li> </ul>
Parks Canada's Southern Strait of Georgia NMCA Feasibility Study Team	<ul> <li>Joint booths at community events and consumer shows</li> <li>Draft marine conservation lesson plans (still need to be completed)</li> </ul>
BC Green Building Council/Larry McFarland Architects	<ul> <li>Information about the LEED Platinum certification of Sidney Operations Centre highlighted in a variety of publications and websites; building tours.</li> </ul>
Shaw Cable	• Annual features developed with the Victoria Shaw Cable community channel; features focus on a full range of topics, from scientific research to cultural features to visitor experiences.
Parks Canada's Western Canada Service Centre	<ul> <li>Species at Risk program in HTG schools and Gulf Islands schools</li> </ul>
Garry Oak Ecosystem Recovery Team	Garry Oak Gardner's Handbook, workshops
Gulf Islands Centre for Ecological Learning (GICEL)	Joint programming for youth
Saturna Ecological Education Centre (SEEC)	Joint programming for youth
Harbour Air Seaplanes	Map content on seat card
Pender Islands Conservancy Association	Junior Naturalists program
Sea Change Conservation Society	Marine education/eelgrass conservation
Royal Astronomical Society	Star-gazing
Mountain Equipment Co-op	Guest Speakers
Vancouver Public Library	Guest Speakers
Canadian Hydrographic Services	<ul> <li>Park information on marine chart</li> </ul>

# 9 State of the Park Report 2003-2008

STAKEHOLDER GROUP	PURPOSE OF RELATIONSHIP: Awareness, Support, Influence, Engagement	YEAR Started & Status	GOALS/TARGETS	GINPR SECTIONS That engaged The Stakeholder	TOOLS USED TO Involve them	ACCOMPLISHMENTS
			STAKEHOLDERS: LOC	AL COMMUNITY		
Island Fire Departments: Pender, Mayne, Saturna	Influence and Engagement (operational reasons- fire issue)	2004 and on- going	<b>4 goals:</b> Shared fire management planning: established MOUs with each department; provide joint training: share joint resources (equipment)	Resource Conservation	Meetings 1-3X/year; GINPR provides joint training at least annually	<b>4 Accomplishments:</b> Shared fire management planning: established MOUs with each department; joint training; joint resources (equipment)
Saturna Island-Parks Canada Liaison Committee	Awareness, Support, Influence	2003 and on- going	5 Goals: Sharing of Information and discussion of issues of mutual interest: build community awareness of GINPR initiatives; build support for GINPR; provide opportunities for input/influence; use committee to get comments on island specific EAs	Mgt Planning; Resource Conservation; Communications; Visitor Facilities; Superintendent	Meetings twice/year	<b>5 Accomplishments:</b> Regular updates from GINPR and community groups provided at each meeting: Discussion of issues of interest occurs at each meeting; Group reps are aware of GINPR initiatives; comments from committee meetings are considered by GINPR; receive comments from some committee as a whole)
Saturna Island Streamkeepers	Engagement	2003 and on- going	<b>5 Goals:</b> build relationship between local group, DFO and GINPR; Restore Lyall Creek; Continue to enhance salmon stock in Lyall Creek; Provide talks to groups GINPR has brought to the site; involve this group in interpretive media development	Resource Conservation	Field work (doing project);	<b>4 Accomplishments:</b> built relationship; did major restoration project on Lyall Creek; on-going salmon enhancement; conducted talks on -site with Service Centre staff, HTG First Nations group; and various field trip participants.
Saturna Island Tourism Association	Support	2003 and on- going	6 Goals: increase awareness of park mandate; brainstorm ideas around tourism issues/initiatives; support SITA's local initiatives; consult them as landowner/business on Saturna; encourage them to be involved in GINPR projects; develop integrated tourism strategy	External Relations	Attend SITA's monthly meetings prior to and during high visitor season; provide contribution to SITA to facilitate production of Saturna Island tourism brochure that includes GINPR info.	<b>5 Accomplishments:</b> Shared information with SITA from higher level tourism events; have contributed to brochure development for 5 years; they include GINPR info in brochure; SITA sits on Park Liaison Committee; Established a joint information kiosk outside park office/community recreation hall

### **APPENDIX 4: EXAMPLES OF STAKEHOLDER RELATIONS AND ENGAGEMENT**
STAKEHOLDER GROUP	PURPOSE OF RELATIONSHIP: Awareness, Support, Influence, Engagement	YEAR STARTED & STATUS	GOALS/TARGETS	GINPR SECTIONS That engaged The Stakeholder	TOOLS USED TO Involve them	ACCOMPLISHMENTS
Saturna Island Heritage Committee	Engagement	2007 and on- going	<b>4 Goals:</b> Local group wanted to rehabilitate and use building in GINPR for Saturna heritage visitor centre; GINPR wanted to ensure rehab/use met PCA requirements; use group as an ally to promote GINPR mandate and info; GINPR wants to recognizes this as a key stakeholder for initiatives at this location	Cultural Heritage Management; Environmental Assessment, Asset Management	Licence of Occupation; Emails, Occasional on- site meetings/monitoring	<b>2 Accomplishments</b> : Exterior rehabilitation completed (new roof; replacement of windows; removal of lead paint; repainting)/Interior work underway; PCA requirements met.
Poets Cove Resort/Marina	Awareness, Support, & Influence	2005 to 2007	7 Goals: Establish relationship; network regularly; get data from them on their water use from national park reserve; promote water conservation; promote appropriate visitor use; educate them/visitors of park values; get required business licensing for their activities in park reserve.	Resource Conservation; Visitor Facilities; Communications; Mgt. Planning; Superintendent	Meetings at the Resort 1 or 2 times per year; offered special interp programs on-site for guests	<b>5 Accomplishments</b> : built relationship; became more aware of each other; networked for 2.5 years; received their data during time; resort did implement some water conservation measures. Did achieve several of the goals during time we focused on the relationship.
Saancih Peninsula Chamber of Commerce	awareness, support	2004 and on- going	2 Goals: Build relationship and awareness of GINPR, Develop integrated tourism strategy;	External Relations	Provide them with park information annually; provide orientation about GINPR to their staff; attend their AGM; attend networking mixers every couple of months;	<b>3 Accomplishments:</b> Place ad in their publication each year; put article about the park in their publication each year; provide orientation to Visitor Information Centre staff each year;
Sallas Forest Corporation	awareness, support, engagement for operational reasons - removal of hyper- abundant , introduced deer	2005 and on- going	<b>2 Goals:</b> Develop awareness of change from Provincial Park to National Park Reserve; develop collaborative program to deal with Fallow deer	Resource Conservation	Jointly worked on live capture/removal program with landowners (SFC); jointly developed follow up program for deer removal.	2 Accomplishments: Both goals met.
Anacortes island Chamber of Commerce (USA)	awareness, support	2006 and on- going	<b>2 goals:</b> Raise awareness about GINPR; use them to distribute park information to users coming to Sidney and GINPR	External Relations	provide annual update presentation to Chamber Board; provide GINPR info for distribution	<b>2 Accomplishments:</b> Built relationship by phone/meeting interaction and taking GINPR info to them pre-season each year; they distribute park visitor info.

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STAKEHOLDER GROUP	PURPOSE OF RELATIONSHIP: Awareness, Support, Influence, Engagement	YEAR STARTED & STATUS	GOALS/TARGETS	GINPR SECTIONS That Engaged The Stakeholder	TOOLS USED TO INVOLVE THEM	ACCOMPLISHMENTS
			STAKEHOLDERS: U	ISER GROUPS		
Council of BC Yacht Clubs	Awareness, Support, Influence	pre-park establishment and again in 2003	<b>3 Goals:</b> Raise awareness about Parks Canada/GINPR and how we're differemt from BC Parks; Develop support through an active working relationship on marine/boating aspects of park planning and management; Provide opportunities to influence decision-making relating to marine aspects of GINPR	Superintendent; Management Planning	Working group set up pre-park establishment to discuss issues; annual presentation at their meetings since 2003; re-established a working group of 4 OBCYC members and 3 park staff (Supt; Planner; Visitor Assets) after park was established; request involvement in key planning projects (e.g. Area Plans) as a major stakeholder.	<b>3 Accomplishments.</b> Built relationship through presentations at CBCVC meetings annually; developed support through establishment of a working group that meets once-twice per year; Have received useful input from them on marine operational aspects and planning initiatives.
Individual Yacht Club Marine Hosts: Royal Victoria and Sidney North Saanich	awareness, support, engagement	pre-park establishment & new relationship in 2006	1 Goal: Establish/Maintain a volunteer marine host program through yacht clubs	Visitor Facilities Manager; External Relations	Orientation; Drop in visits at host float; Post- season recognition event	<b>2 Accomplishments:</b> maintained good working relationship with the Royal Victoria Yacht Club and established a new volunteer host program in 2006 with the Sidney North Saanich Yacht Club.
Business Licence holders	awareness, support, engagement	2003 and on- going	<b>1 Goal</b> : Implementation of new requirements for GINPR licenses	Visitor Facilities Manager with assistance from External Relations	Initially, consultation meeting to get input, then email communication	<b>Accomplishments</b> : 10 business licences granted in 2004; 6 in 2005; 18 in 2006; 20 in 2007; and 19 in 2008.
			STAKEHOLDERS: NON-GOVER	NMENT ORGANIZATION	S	
Georgia Basin Ecological Assessment and Restoration Society (GBEARS)	awareness, support, engagement	2006 and on- going	<b>3 Goals:</b> GINPR involvement in purple martin nest program, GINPR assistance to GBEARS (loat & operator assistance) for nest box monitoring; continued relationship re: purple martin recovery.	Resource Conservation at the request of GBEARS	Direct participation in their program, expanded program into GINPR	<b>3 Accomplishments:</b> Assist GBEARS twice/yr with their nest box monitoring; GINPR erected 21 nest boxes in the park; regularly converse with GEARS regarding our monitoring outcomes.

ACCOMPLISHMENTS	3 Accomplishments: breeding bird atlas underway (2 year initiative); Black oystercatcher project done and put into inventory; marine species at risk project underway.	2 Accomplishments: All goals met	4 Accomplishments: Permit provided for camp; GICEL organized community involvement in a Scotch broom eradication project at Bennett Bay; GINPR presentations at GICEL camps (four summers); video produced including interview with GINPR Supports GICEL. how GINPR supports GICEL.	On-going working relationship established.
TOOLS USED TO INVOLVE THEM	Established Black oystercatcher working group in 2006; talk regularly on phone; meetings; field work/research project work; publishing	email/phone conversations as necessary	phone/email conversations; permitting use of park for camp; GINPR presentations to GICEL campers	meetings; phone calls
GINPR SECTIONS That Engaged The Stakeholder	Resource Conservation	External Relations	Visitor Facilities; Communications	Communications
GOALS/TARGETS	<b>4 Goals:</b> GINPR to provide breading bird survey info to PWF for inclusion in the BC Breading Bird Atlas; Work together on Black oystercatcher status report for Salish Sea for publishing/ conferences; Implement a marine species at risk inventory. Future goal for further involvement at Sidney Spit	2 Goals: provide GINPR information for distribution; cooperate in development of their publications (fact checking park info)	<b>2 Goals:</b> Theirs- to use GINPR's Bennett Bay property for summer camp. Ours- to partner on heritage presentation and conservation projects, particularly to youth and local community; GINPR presented to summer camps (four summers); video produced that included interviews with Park Superintendent and Sr. Interpreter on how GINPR supports GICEL	<b>3 Goals:</b> to gain their support and then have them provide training to GINPR interpreters; Use them to edit/develop/provide input to lesson plan development (2006); Determine if there are opportunities to cooperate to provide interpretive programming.
YEAR Started & Status	2005 and on- going	2005 and ongoing	2004	2005
PURPOSE OF RELATIONSHIP: Awareness, Support, Influence, Engagement	Support and Engagement	Awareness; Support	Support	Support and Engagement
STAKEHOLDER GROUP	Pacific Wildlife Foundation	Tourism Vancouver Island	Gulf Islands Centre for Ecological Learning	Marine Ecology Centre (Shaw Ocean Discovery Centre)

PURPOSE OFPURPOSE OFRELATIONSHIP:YEARAwareness,STARTEDSupport,& STATUSInfluence,& STATUSEngagementSTAKEHOLD	Operational reasons- to help find First Nations         2005 and on- going         2 Goals: Assistance from CSETS         First Nations           nelp find First Nations         going         in establishing a First Nations         First Nations           i nestablishing a first Nations         going         in establishing a First Nations         First Nations           job opportunities.         Parks Canada archaeologists;         Assistance to distribute job posters and assist First Nations         candidates in applying for available jobs.	Awareness and Influence - Operational reasons - shared         2004 and on- going         3 Goals: sort out jurisdictions/ authorities; have RCMP assist in enforcing park regulations         Resource           conservation         authorities; have RCMP assist in enforcement duties         Conservation	Awareness; Support & 2004 and on- Engagement     2 Goals: Networking; joint rescue     Resource       Resource     operations; familiarization of Coast Guard with our capacity, expertise and responsibilities     Conservation	Engagement-         2006 and on-         2 Goals: joint training and joint         Resource           Operational reasons-         going         operations as needed         Conservation           Joint search and rescue         operations as needed         Conservation	Awareness & Support       2004 and on-       6 Goals: shared law enforcement       Resource         Operational reasons       going       priorities; shared First Nations       Conservation         Traditional harvest planning;       shared marine mammal       monitoring and response       interests; build relationship now         that Parks Canada is in area;       shared oil response       interests; build relationship now       that Parks Canada is in area;
GINPR SECTIONS THAT ENGAGED THE STAKEHOLDER	from CSETS First Nations Program to Nations work with ologists; ite job st Nations g for EHOLDERS: GOVERNMENT	isdictions/ Resource AP assist in Conservation ations ared law	r; joint rescue Resource ation of Conservation capacity, sibilities	g and joint Resource d Conservation	enforcement Resource t Nations Conservation anning; Conservation nal nal onship now in area; ularly related
TOOLS USED TO INVOLVE THEM	meetings; phone calls	Met regularly.	Meet at least annually through interdepartmental Marine Operations Committee-Pacific); meet regularly at staff level	Joint training; meetings as needed	Met regularly (every 3-4 months) in 2004-2005; attended commercial fishing sector meetings for a year or two
ACCOMPLISHMENTS	<b>2 Accomplishments:</b> both goals metused CSETS to notify potential candidates of 4 First Nations targeted job opportunities.	<b>4 Accomplishments:</b> All goals met plus have established space for RCMP boat to be docked at our office and to supply RCMP with marine fuel.	3 Accomplishments: All goals met	<b>2 Accomplishments:</b> joint training conducted; operational goals met	5 Accomplishments: Built relationship; on-going networking as needed; worked cooperatively when Robertson II sank; worked together on oil spill management planning; Parks Canada is now a member of the marine mammal response network.

STAKEHOLDER GROUP	PURPOSE OF RELATIONSHIP: Awareness, Support, Influence, Engagement	YEAR STARTED & STATUS	GOALS/TARGETS	GINPR SECTIONS That engaged The Stakeholder	TOOLS USED TO Involve them	ACCOMPLISHMENTS
Canadian Wildlife Service (Environment Canada)	Engagement for operational reasons- marine inventory, oil spill,	2004 and on- going	<b>3 Goals:</b> coodination re: oil spills; share data on birds and migratory bird issues; develop a BC marine bird atlas (with other partners also)	Resource Conservation	Meetings; some field trips into park	1 Accomplishment: Have shared data
Capital Regional District Parks (CRD Parks)	Support and Engagement	pre-2003 and on-going	<b>3 Goals:</b> Share information; discuss joint issues; determine network of opportunities/develop protected areas network.	Visitor Facilities; Management Planning	regular communications (phone/email), meetings, sharing info	<b>3 Accomplishment:</b> maintained positive, effective working relationship; meet regularly 1- 2/year; meet at Commonalities sessions; assist each other as necessary; share information on management planning and operations
			STAKEHOLDER	S: OTHER		
Park Advisory Board	Awareness, Support, Influence, Engagement	2004 and on- going	<b>4 Goals:</b> Increase awareness of PAB members about GINPR and its mandate; Engage PAB in development and recommendation of IMGs; Provide opportunities for input to & influence of strategic park initiatives; Engage PAB in development and evelopment and evelopment and fiscuss issues of importance to local communities and public at large	Management Planning	Quarterly meetings: Presentations at the meetings from various GINPR sections explaining what they do and projects on the go; Field trips to the various park lands; requests for park lands; requests for on planning projects; attendance by some PAB members at community or stakeholder events related to management planning;	<b>4 accomplishments:</b> PAB provided advice on and recommended the IMGs; PAB has raised issues for discussion on several occasions; involvement by some PAB members at IMG or Area Planning-related workshops; three field trips have been held over the 5 years.
Hawaiian Descendents	Support and Engagement	2003 and 2008 and on-going	<b>3 Goals:</b> Have 100 year celebration of the Maria Mahoi house on Russell Island (2003); Establish a Mahoi House Host Program (2008); establish an oral history project with Hawaiian descendents; Increase support of GINPR through rehabilitation of house	Superintendent; Communications; Cultural Heritage Management	Special Event planned by GINPR, Park Host Program	Had 100 year celebration and family reunion on Russell Island in 2003; Have established a host program to begin in summer 2009; oral history planned for 2009/10 fiscal

## APPENDIX 5: PARTNERS IN THE VISITOR EXPERIENCE PROGRAM

The following table summarizes the partner groups and types of partnering opportunities that have occurred.

Park Facility Operators	• Fee collection, visitor information, day-to-day maintenance, prevention
Saturna Island Tourism Association	<ul> <li>Joint visitor information kiosk; Saturna Island brochure; contribution agreement</li> </ul>
Pender Islands Museum Society	<ul> <li>Joint special events; license of occupation at Roesland for museum</li> </ul>
Saturna Heritage Society	<ul> <li>License of occupation for heritage centre at East Point Fog Alarm building; complementary interpretation of Saturna's cultural and natural history</li> </ul>
Mahoi Descendents	<ul> <li>Volunteer host program at Mahoi/Fisher house on Russell Island (initiated in 2009)</li> </ul>
Gulf Islands Centre for Ecological Learning	• Joint nature programming for island children; venue for GICEL activities (Bennett Bay)
Pender Islands Natural History Society	<ul> <li>Joint Junior Naturalist program; special events</li> </ul>
BC Ferries	<ul> <li>On-board Coastal Naturalists program; permission to station interpreters on BC Ferries property and to interact with passengers in ferry line-ups</li> </ul>
Pender Islands Conservancy Association	Joint special events
Mayne Island Conservancy Association	<ul> <li>Collaboration on special events</li> <li>IBA (Important Bird Area) interpretation (Georgina Point)</li> </ul>
Royal Victoria Yacht Club	Marine Hosts (Portland Island): visitor information
Sidney North Saanich Yacht Club	Marine Hosts (Beaumont): visitor information
Royal Astronomical Society	Star-gazing special events