MANAGEMENT PLAN

February 2008

for Desolation Sound and Copeland Islands Marine Parks and Tux'wnech Okeover Arm Provincial Park

BCParks

Ministry of Environment, Environmental Stewardship Division

Desolation Sound and Copeland Islands Marine Parks and Tux'wnech Okeover Arm Provincial Park

MANAGEMENT PLAN

Prepared by
Lower Mainland Region
Environmental Stewardship Division

BCParks

Library and Archives Canada Cataloguing in Publication

British Columbia. Environmental Stewardship Division Management plan for Desolation Sound and Copeland Islands Marine Parks and Tux'wnech Okeover Arm Provincial Park [electronic resource].

Electronic monograph in PDF format.
ISBN 978-0-7726-6047-3

1. Desolation Sound Marine Park (B.C.)--Management. 2. Copeland Islands Marine Park (B.C.)--Management. 3. Tux'wnech Okeover Arm Park (B.C.) --Management. 4. Provincial parks and reserves--British Columbia--Management. 5. Marine parks and reserves--British Columbia--Management. 6. Ecosystem management--British Columbia.

FC3815.D47B74 2008 333.78'30971131 C2008-906104-7

Desolation Sound and Copeland Islands Marine Parks and Tux'wnech Okeover Arm Provincial Park

Management Plan

Approved by:

Date: February 7, 2008

Jennifer McGuire
Regional Manager
Environmental Stewardship Division

Date: February 7, 2008

Nancy Wilkin
Assistant Deputy Minister
Environmental Stewardship Division

Table of Contents

Acknowledgements 1

Executive Summary 2

1.0 INTRODUCTION 3

1.1 Management Planning Process 3

1.2 Background Summary 3

1.3 Relationship to Other Land Use Planning 6

2.0 Protected Area Attributes 8

2.1 Provincial and Regional Context 8

2.2 Role of the Parks 8

Conservation Role 8
Tourism and Outdoor Recreation Role 11
Economic Opportunities 11

2.3 Relationship with First Nations 11

2.4 Management Issues 12

3.0 Management Direction 13

3.1 Vision Statement 13

Desolation Sound and Copeland Islands Marine Parks 15

3.2 Natural and Cultural Values Management 15

Fresh Water Values 15
Upland Vegetation 16
Upland Wildlife 16
Marine Vegetation and Wildlife Values 17
Cultural Heritage Values 18
Landscape Setting and Feature Values 19

3.3 Recreation Values Management 19

Public Recreation Opportunities and Facilities 19
Access Management 20
Boating 20
Kayaking 21
Fishing 21
Hiking 22
Backcountry Camping 23
Hunting 24
Other Activities 24
Commercial Recreation Opportunities 28
Visitor Information 28
Natural and Cultural Heritage Education 29

3.4 Land Uses and Interests Management 29

Adjacent Patterns of Land Use 30

3.5 Protected Areas Zoning 31

4.0 Plan Implementation 36

4.1 Implementation Priorities 36

Tux'wnech Okeover Arm Provincial Park 40

3.2 Natural and Cultural Values Management 40

Vegetation 40
Cultural Heritage 40

3.3 Recreation Values Management 41
Access Management for Adjacent Marine Parks 41
Camping 41
Other Activities 42
Commercial Recreation Opportunities 42
Visitor Information 42

3.4 Land Uses and Interests Management 42
Adjacent Patterns of Land Use 42

3.5 Protected Area Zoning 43

4.0 Plan Implementation 44

Appendices 45

Appendix I: BC Parks Conservation and Recreation Goals 45

Appendix II: BC Parks Zoning Framework 46

List of Figures

Figure 1 : Desolation Sound Area Provincial Parks Regional Context 7
Figure 2 : Desolation Sound Marine Park – Recreational Features 1 25
Figure 3 : Desolation Sound Marine Park – Recreational Features 2 26
Figure 4 : Copeland Islands Marine Park – Recreational Features 27
Figure 5 : Desolation Sound Marine Park 1 33
Figure 6 : Desolation Sound Marine Park 2 34
Figure 7 : Copeland Islands Marine Park 35

List of Tables

Table 1: Desolation Sound Marine Park's contribution to representation in the Ecosections and biogeoclimatic variants. 9
Table 2. Copeland Islands Marine Park's contribution to representation in the Ecosections and biogeoclimatic variants. 10
Table 3: Acceptable Uses, Activities and Facilities in Desolation Sound and Copeland Islands Marine Parks. 32
Table 4: Acceptable Uses, Activities and Facilities in Tux'wnech Okeover Arm Provincial Park. . 44

Cover Photo: View from Copeland Islands

Acknowledgements

BC Parks staff prepared this management plan with assistance from the Desolation Sound Parks Planning Advisory Group and from the Sliammon First Nation. Members of this group represented a wide spectrum of the Lund and Powell River communities including local resident, recreation, business, regional district, and environmental interests. All of the following individuals attended one or more of the Advisory Group meetings or represented the Sliammon First Nation:

Denise Smith
Hugh Prichard
Adam Vallance
Georgia Combes
Jane Cameron
Clint Williams
Jeannie Momberg
Jeffrey Shuster
Linda Syms
Eagle Walz
Phil Bradstock
Douglas Day
Christine Hollman
Pam Krompocker
Lloyd Ryan
Shirley Parkinson
Josephine Scheifele
Jeremy Duggan
Norman Gallagher
Jay Bresee
Joanne Wells
Desmond Moore
Frankie Kellner
Neil Gustafson
Patrick Brabazon
Don Turner
Laura Roddan
Gord Jones
Marian Buller
Don Krompocker
Andrew Pinch
Mike Mullan
Gary Parkinson
Arlene Carsten
Bernd Scheifele

The planning process has been coordinated by Tom Bell with assistance from Derek Poole, Hugh Ackroyd, Ian Pepper, Tom Blackbird, Graham Lorimer and Vicki Haberl of BC Parks.

BC Parks would like to thank those who attended workshops and made submissions to assist in the development of this plan.

Executive Summary

Desolation Sound and Copeland Islands Marine Parks and Tux'wnech Okeover Arm Provincial Park protect significant natural and cultural values while providing an outstanding marine recreation experience. The greater Desolation Sound area was and continues to be a center of First Nation settlement and culture, was a focus of early European settlement and industry, and was one of the first destinations for marine recreation activities in British Columbia. This area lies at the convergence of several ecosystem classifications with a resulting high diversity of species and habitats. The complexity of natural, cultural and recreation values protected by the Parks will become increasingly important within the larger Georgia Basin region which is seeing continuing development pressures.

This management plan provides strategic direction for the protection of the park values and for the continued provision of a high quality public and commercial recreation opportunity. The plan focuses on five key considerations:

- First Nation cultural, archaeological and traditional use values;
- Protection of natural values in a complex area where five terrestrial ecosystem classifications and one marine system converge;
- Protection of marine and fresh water quality and support of adjacent mariculture industry;
- Provision of high quality marine based recreation experiences for boaters and kayakers; and,
- Commercial recreation opportunities – in the park and in support of adjacent communities.

First Nation sites and values will be managed in collaboration with First Nations and will be protected through monitoring of sites, management of recreation activities, placement of recreation facilities, and educational messages. First Nation spiritual, cultural and traditional use activities will continue within the Park areas as described within the Plan.

The information on natural values within the Parks is incomplete. Therefore, management direction focuses on both increasing knowledge and understanding of those values and continuing appropriate protective measures. As large areas of Desolation Sound Marine Park are second growth forests, one of the key approaches will be supporting these areas to develop old growth status and attributes.

Inappropriate recreation activities or facilities may affect marine or fresh water quality. Although monitoring has shown that this is not happening at this time within park areas, management directions will ensure that water quality is maintained. This will benefit the protection of park values and provide support for the important adjacent mariculture industry.

The Desolation Sound area has been used as a recreation destination since the 1920's and continues to be one of the key destinations for boaters and kayakers today. Although use patterns are well established the plan provides direction for improved recreation management. This is particularly relevant for kayak camping areas, trail improvements, and education.

Commercial recreation is well established in the adjacent communities and several businesses use the park areas for touring, guiding, destinations for rental clients, and as a larger backdrop for their communities and businesses. Commercial activities reliant upon the park areas include resorts, overnight accommodation facilities, boat rentals, kayak guiding and rentals, food and supply services, and boat servicing facilities. These activities will continue to be supported and enhanced as appropriate through the management plan.

1.0 Introduction

1.1 Management Planning Process

BC Parks prepares management plans to guide provincial park management over ten to twenty years[1]. The plan sets out objectives and strategies for management of conservation, cultural and recreation values and for operation of the park. A management plan relies on current information on natural and cultural attributes and recreation opportunities within a park and on land management activities occurring on surrounding lands.

The process for preparing a management plan involves a careful analysis of the overall goals of the park, use patterns, key values of the park, and appropriate management objectives. In choosing the most appropriate option, the intent is to ensure the management decisions protect the values of the park and that human use within the park does not result in unacceptable impacts.

A management plan not only establishes long-term management direction for a park, but also gives direction for immediate issues. As a result, a management plan contains numerous statements describing management actions to be undertaken. While key items are identified, it should be noted that the completion of all items is subject to funding and funding procedures. As such, items are prioritized and completed as funding permits. As well, all development within provincial parks is subject to the BC Parks Impact Assessment Policy.

Management plans are prepared with a high degree of public involvement. The general public and stakeholder groups have opportunities to review management planning documents and provide comments to BC Parks through a variety of means including public meetings and review of documents. Similarly, BC Parks consults with First Nations, other levels of government and other provincial government agencies in the development and review of management plans.

The planning process for Desolation Sound Parks took place in 2003 and 2004 and consisted of the following:

- Field reconnaissance by BC Parks staff.
- Discussions with Sliammon First Nation.
- Discussions with Powell River Regional District.
- Public advisory group meetings.
- Review of draft plan by public and stakeholders including an open house in Lund.
- Referral of draft plan for review and comment to other First Nations, agencies and stakeholders.

1.2 Background Summary

The Desolation Sound Parks are located 30 km to the northwest of Powell River, British Columbia in the Desolation Sound and Malaspina Inlet areas. The closest communities are Lund and

[1] While management plans are initially developed to guide the management of a park for a 5 to 10 year period, a number of factors will influence how long the plan will be valid. If this management plan still provides appropriate management direction for these parks after 10 years, and is still appropriate with respect to the goals and vision of the parks, the plan may still be deemed valid until such a time that updating or re-writing is required.

Malaspina Inlet rural areas. Nearby parks include Malaspina, Roscoe Bay, Teakerne Arm and Walsh Cove.

Desolation Sound Marine Park contains 8449 hectares of upland forests and marine foreshore located within four distinct terrestrial ecosections – Georgia Lowlands, Outer Fiordland, Strait of Georgia, and Southern Pacific Ranges – and one marine ecosection – Strait of Georgia. An ecosection unit is defined as a broad, geographic landscape unit which includes specific ecosystem characteristics. The upland park areas are typical of the lower elevation coastal areas found along this portion of Georgia Straight with dense forests, bedrock outcroppings, relatively broken and rugged terrain, and short, low volume water sheds.

Copeland Islands Marine Park contains 423 hectares of upland forests and marine foreshore located within two terrestrial ecosections – Georgia Lowlands, Strait of Georgia – and one marine ecosection – Strait of Georgia. The park contains several small islands and islets with upland forest cover, bedrock outcroppings, and relatively broken and rugged terrain.

Desolation Sound Marine Park lies within five distinct biogeoclimatic variants - Coastal Western Hemlock Very Dry Maritime (CWHxm1), Coastal Western Hemlock Dry Maritime (CWHdm), Coastal Western Hemlock Very Wet Maritime Variants 1 and 2 (CWHvm1 and 2), and Mountain Hemlock Windward Moist Maritime (MHmm1). These forest ecosystem units are defined by the presence of specific biological, geological and climatic characteristics. As with ecosections, the presence of five distinct biogeoclimatic variants within the park is an indication of both the strategic location of the park in an area where the variants converge and of the diversity of values protected by the park. Common tree species include Douglas-fir, western hemlock and western red cedar. Common under-story species include salal, Oregon grape, red huckleberry, twin flower, and sword and bracken ferns. Wildlife in the plan area is typical of coastal low elevation areas and includes black bear, black-tailed deer, small furbearers, raptors, upland and marine bird species, and amphibians and reptiles. Upland snags and forest areas provide nesting, perching and roosting habitat to a variety of bird species (e.g. raven, bald eagle, turkey vulture) that cover areas much larger than the park. The climate of the park is mild year round with abundant precipitation during winter months followed by relatively dry summers. The majority of the park is second growth forest from earlier forest harvesting or fire events. There are some pockets of old growth forest and scattered veteran trees within the second growth areas.

Copeland Islands Marine Park lies within the Coastal Western Hemlock Very Dry Maritime (CWHxm1) biogeoclimatic variant. Common tree species include Douglas-fir, arbutus and shore pine. Common under-story species include densely growing salal and Oregon grape. Wildlife in the Park is typical of small islands adjacent to mainland coastal areas and includes black-tailed deer, river otter, raptors, and both upland and marine bird species. The majority of the park's upland area is old growth forest although the tree cover is relatively small in stature due to the dry nature of the site and severe winter storms.

Marine habitats of the two Marine Parks are complex, varied, and provide for a wide diversity of species and marine communities. Habitats include shoreline, intertidal and sub tidal areas with a variety of bottom substrates, tidal and wind conditions, and both protected and exposed locations. The shorelines of both Marine Parks are dominated by bedrock outcrops, cliffs and ramps but include thin layers of boulders and cobbles over bedrock and, smaller areas of finer, deeper sediments on top of either bedrock or rock and gravel. Deeper park foreshore areas contain shoals, reefs, submerged basins, and sediment deposits (mud, glacial till). Marine vegetation communities found within the parks include eel grass beds, some canopy kelp beds, small pockets of salt marsh areas, and shoreline species. Invertebrate species including clams, oysters, prawns, crabs, and sea

urchins. Both Marine Parks protect greenling and rockfish spawning areas, provide limited herring spawning habitat, and provide rearing habitat for juvenile salmon. Marine mammals found within the Marine Parks include killer whales, Dall and harbour porpoises, seals and sea lions. Both parks contain seal and sea lion haul out areas. Marine birds include western grebes, surf scoters, cormorants, marbled murrelet, black oystercatchers, and other marine related species. In particular the Parks provide heavily used winter habitat for marine bird species.

Okeover Arm Provincial Park is very small at four hectares. It protects an attractive forested shoreline and small upland area. Vegetation within Okeover Arm Park consists primarily of a heavier tree cover of western red cedar, Douglas fir, western hemlock, broad leaf maple and red alder. Under-story vegetation is relatively sparse with the exception of road edges and open disturbed areas. There are also moderate sized patches of invasive Himalayan blackberry. Although the park does not have outstanding vegetation values, the natural forest cover is important for protection of soils and a First Nation midden site, and for visual and noise screening for campers from adjacent roads. Wildlife values within Okeover Arm Park are limited and dependent on habitat and populations in adjacent areas.

Species which are particularly rare or at risk from human activities may be determined to be red or blue listed species by the Province. Blue listed coastal cutthroat trout exist in Unwin Lake and northern abalone occurs in the marine portions of Desolation Sound and Copeland Islands Parks. Other blue and red listed species have been determined to occur within the general Desolation Sound area and are very likely to be located within the park areas. These species are killer whales, harbour porpoises, the northern sea lion, eulachon, western grebe, great blue heron, surf scoter, and marbled murrelet.

Desolation Sound Parks lie within the traditional territory of the Sliammon and Klahoose First Nations. The general Desolation Sound area is well known for traditional and historic use by First Nations people. This region is very rich in archaeological values and features and all three parks contain a wide variety of sites including summer camp areas, village sites, fish traps, pictographs, beach middens, and burial sites.

There are several examples of post contact European historical sites – particularly in Desolation Sound Marine Park centred on the early logging and fishing industries and on early homesteads. Remains of this history include early logging equipment, old roads, fruit trees from homestead orchards, and altered beach and upland areas.

The Marine Parks can be accessed by boat from adjacent launching sites at Lund and Okeover Harbour or by boats from more distant regional locations. Cochrane Bay, a small portion of Desolation Sound Marine Park, is accessible by the Sunshine Coast hiking trail (see Figure 2). No parts of the Marine Parks are directly road accessible. Okeover Arm Park is road accessible off of Highway 101 near Lund and lies immediately adjacent to the Okeover Harbour Authority's dock facility.

Recreation activities within the Parks include camping and day use at Tux'wnech Okeover Arm Provincial Park and boating, kayaking, swimming, diving, and nature appreciation at Desolation Sound and Copeland Islands Marine Parks. Desolation Sound Marine Park also offers hiking and backcountry camping opportunities at Cochrane Bay, limited hiking on other trails within the park and both marine and freshwater fishing opportunities. Recreation facilities within the marine parks are limited and consist of the backcountry trail systems, a small number of undeveloped backcountry campsites, pit toilets, and directional and interpretive signage. Desolation Sound and Copeland Islands Marine Parks are heavily used by boaters and kayakers from the late spring to

early fall season as a very popular destination for marine park users. Tux'wnech Okeover Arm Provincial Park has a small developed vehicle campground, a small day use area and associated facilities. Okeover Arm Park serves as an access and staging point for kayakers, canoeists and small boaters into Desolation Sound Marine Park and Malaspina Inlet. The Park's automobile based camping and day use opportunities are focused on the shoreline and waters of Malaspina Inlet.

1.3 Relationship to Other Land Use Planning

The Desolation Sound Parks were established in the 1970's to provide marine recreation opportunities and to protect both upland and marine conservation values. The individual dates of designation were Copeland Islands in 1971, Desolation Sound in 1973, and Okeover Arm in 1979. An earlier master plan was prepared for Desolation Sound Marine Park in 1985. In 1996 the Lower Mainland Protected Area Strategy supported the continued designation of these park areas and recommended the addition of the Curme Islands to Desolation Sound Marine Park. This area was added to the park in 1999.

Desolation Sound Marine Park and Tux'wnech Okeover Arm Provincial Park border the Malaspina Complex Integrated Coastal Plan area. The Coastal Plan is under the administration of the Ministry of Agriculture and Lands and provides direction for mariculture, tourism and other land uses on the crown land and foreshore adjacent to the park areas within Malaspina Inlet. Although the plan areas are distinct and the park and coastal plans do not provide specific directions for lands outside their jurisdiction, both plans are integrated and compatible with each other.

Figure 1: Desolation Sound Area Provincial Parks Regional Context

2.0 Protected Area Attributes

2.1 Provincial and Regional Context

The Desolation Sound Parks are located in the north eastern portion of Georgia Strait to the north and east of Powell River and Lund in the Desolation Sound and Malaspina Inlet areas. This area is accessible by the BC Ferries system, by air and by boat. The Powell River area is an easily reached destination for tourism and recreation users from the large regional populations in the Lower Mainland and Vancouver Island areas and from north western Washington. It is likely that as regional development increases and changes in recreation opportunities outside the park occur that the importance of the park values will increase.

The Desolation Sound Parks and the adjacent parks and the local communities have historically been oriented towards marine recreation and tourism activities and as part of the larger Sunshine Coast region contribute to a diverse tourism and economic base.

2.2 Role of the Parks

The roles of the Desolation Sound Parks, together with the following Vision Statement for the park, guide the management activities outlined within this plan. These roles are consistent with the broader Protected Areas Strategy Goals and with the BC Parks System Goals.

Conservation Role

The conservation roles of the Desolation Sound Parks are to protect significant underrepresented upland and marine natural values and to protect an area rich in culturally significant First Nation values and sites. This conservation role is particularly focused on the complex interaction of natural values found between five terrestrial ecosections, one marine ecosection and five biogeoclimatic variants and the associated vegetation and wildlife species.

One of the tools in measuring the relative importance of a park area is to analyze the park's contribution to protection of individual ecosections or biogeoclimatic variants. A goal of the Protected Areas Strategy was to protect 12% of the provincial land base. The following tables provide information on the relative importance of the Desolation Sound Parks within the provincial system.

With one exception, the ecosections and biogeoclimatic variants found in the Desolation Sound Parks are underrepresented in the Protected Areas System. Therefore the contribution of these Parks is significant to the protection of vulnerable ecological values, and in the case of the Georgia Lowlands Ecosection is the largest contributor to the protection of this ecosection.

Many specific or individual conservation values in the Parks lack detailed inventory or site data. However due to the underrepresented protected status of the ecosections and biogeoclimatic variants found in the Marine Parks and due to the development pressures that are occurring in the region outside of the Parks it is likely that the Parks' protection of individual species and values will continue to increase in importance.

Due to its small size and the level of facility development Tux'wnech Okeover Arm Provincial Park does not have a significant conservation role.

Table 1: Desolation Sound Marine Park's contribution to representation in the Ecosections and biogeoclimatic variants.

Ecosection	Total of ecosection (ha) throughout Province	Amount of total ecosection protected in park system (ha (%))*	Desolation Sound Marine Park's contribution to protected ecosection (ha)	Desolation Sound Marine Park's contribution to protected ecosection (%)
Georgia Lowlands	128,887	10,881 (8.4%)	4,518	41.5 %
Strait of Georgia Terrestrial Ecosection	72,725	3,893 (5.4%)	25	0.7%
Outer Fiordland	435,691	14,586 (3.3%)	221	1.5%
Southern Pacific Ranges	1,062,350	174,853 (16.5%)	496	0.3%

*Note: The Protected Area Strategy has a goal to protect, as is feasible, 12 % of each ecosection or biogeoclimatic zone.

Biogeoclimatic Variant	Total of variant (ha) throughout Province	Amount of variant protected in park system (ha (%))*	Desolation Sound Marine Park's contribution to protected variant (ha)	Desolation Sound Marine Park's contribution to protected variant (%)
Coastal Western Hemlock xm1	437,683	9,058 (2.1%)	569	6.3 %
Coastal Western Hemlock dm	457,627	26,950 (5.9%)	2,179	8.1%
Coastal Western Hemlock vm1	1,940,347	135,950 (7.0%)	13	---
Coastal Western Hemlock vm2	1,233,421	107,542 (8.7%)	119	0.1%
Mountain Hemlock mm1	1,740,790	278,919 (16.0%)	59	---

*Note: The Protected Area Strategy has a goal to protect, as is feasible, 12 % of each ecosection or biogeoclimatic zone

Table 2. Copeland Islands Marine Park's contribution to representation in the Ecosections and biogeoclimatic variants.

Ecosection	Total of ecosection (ha) throughout Province	Amount of total ecosection protected in park system (ha (%))*	Copeland Islands Marine Park's contribution to protected ecosection (ha)	Copeland Islands Marine Park's contribution to protected ecosection (%)
Georgia Lowlands	128,887	10,881 (8.4%)	2	.01%
Strait of Georgia Terrestrial Ecosection	72,725	3893 (5.4%)	138	3.5%

*Note: The Protected Area Strategy has a goal to protect, as is feasible, 12 % of each ecosection or biogeoclimatic zone.

Biogeoclimatic Variant	Total of variant (ha) throughout Province	Amount of variant protected in park system (ha (%))*	Copeland Islands Marine Park's contribution to protected variant (ha)	Copeland Islands Marine Park's contribution to protected variant (%)
Coastal Western Hemlock xm1	437,683	9,058 (2.1%)	140	1.5 %

*Note: The Protected Area Strategy has a goal to protect, as is feasible, 12 % of each ecosection or biogeoclimatic zone.

Tourism and Outdoor Recreation Role

BC Parks has four recreation goals - tourism travel routes; holiday destinations; backcountry; and, local and regional recreation opportunities.

The recreation role of Desolation Sound Parks is to provide holiday destinations and local and regional recreation opportunities, particularly focused on marine recreation activities. The marine experience is one of the most significant in the provincial protected areas system. The portion of the Sunshine Coast Trail within Desolation Sound Marine Park at Cochrane Bay also provides a backcountry hiking opportunity.

Desolation Sound Parks also contribute significantly to the recreation values of the adjacent Malaspina Park and the general Desolation Sound and Malaspina Inlet areas by protecting an undeveloped natural upland viewscape for residents, boaters, kayakers, commercial tour parties, and other park visitors.

Economic Opportunities

The Desolation Sound Parks support and contribute to the economic base in the region by providing rental, instructional, touring and guiding opportunities. Park visitors utilize a variety of commercial businesses and resorts based in Powell River, Lund, Malaspina Inlet, and Cortes and Quadra Islands.

The Parks also support the mariculture industry by contributing to the protection of clean water.

2.3 Relationship with First Nations

The Sliammon and Klahoose First Nations recognise the Desolation Sound Parks area as part of their traditional territory. The park areas are culturally, economically and socially important to the First Nations and contain important historical and spiritual sites. Sliammon First Nation reviewed the documents and provided input to the planning process which is reflected in various sections of this plan. Currently, both First Nations are involved in treaty negotiations with senior levels of government. The First Nations' contributions to this management plan are recognised and understood to be without prejudice to future treaty negotiations. First Nations are able to exercise aboriginal rights subject to conservation, public safety and public health values. The final treaty may provide additional directions or changes on aboriginal rights within the park areas.

Once formal treaty agreements have been reached with the First Nations, this management plan will be reviewed to determine whether it is in compliance with treaty. If it is not in compliance, then this management plan will be revised accordingly. Changes will be made through an open public review process to build understanding of what these changes mean to the park and its use.

2.4 Management Issues

Key issues for Desolation Sound Parks include:

Protection of natural and cultural values:
The park areas protect important natural and cultural values in a location with very popular and high value marine recreation opportunities. This situation provides both a challenge and opportunity for complimentary and appropriate management for natural, cultural and recreation values.

Managing for adjacent marine water quality:
Parts of Desolation Sound Marine Park are adjacent to a significant mariculture area. Boaters' use of anchorages and adjacent areas and kayakers' use of upland areas within the park has led to concerns regarding recreational impacts on water quality. Strategies must be implemented that will manage these impacts while allowing for continued recreation uses.

Integrated management across park boundaries:
BC Parks and outside agencies and stakeholders must work in a co-operative manner to ensure cross-boundary values such as water quality, wildlife habitats, recreation trails and visual quality objectives can be integrated with other land management decisions.

Identification of appropriate types and levels of recreation use:
There is a need to clearly identify the locations, types and levels of recreation use and facilities that are appropriate within Desolation Sound Parks. This identification would include levels of facilities, access points, types of recreation allowed, presence of campfires, location of overnight camping, and locations of trails. Kayak use has significantly increased in the last decade and there is growing pressure for additional facilities for overnight camping for kayakers and small boaters.

Docking facilities to private lands:
There are three private land areas surrounded by park land and foreshore areas – these are located at Portage Cove, Galley Bay and Malaspina Estates near Grace Harbour. These lands are only accessible by boat and rely on dock facilities located within park foreshore areas. In most situations under the Park Act private docking facilities would not be allowed within a provincial park. A strategy must be implemented to allow continued access while bringing these facilities into compliance with the Park Act.

Commercial recreation opportunities:
Commercial recreation activities within the park and adjacent areas have grown significantly with the park areas being an important resource and destination for commercial recreation businesses. There is a need to clearly identify the role and involvement of commercial recreation within the park.

3.0 Management Direction

3.1 Vision Statement

The purpose of the vision statement is to identify the role and function of the parks beyond the life of the management plan. The vision statement is forward looking and describes the desired future for the parks.

VISION STATEMENT

Desolation Sound Marine Park, Copeland Islands Marine Park, and Tux'wnech Okeover Arm Provincial Park will continue to contribute significantly to the natural, cultural and recreation values of the Sunshine Coast and Desolation Sound regions. The Parks will provide high quality marine focused recreation opportunities, will protect marine and terrestrial natural values, and will protect and present as appropriate the rich cultural and archaeological values of the area. In combination with Malaspina Park, the parks will be managed as a collective land area with compatible management directions. Public and commercial activities will be in harmony with natural values and are sustainable. Over time the rare and unique values of the Marine Park's terrestrial ecosystem will develop many of the original old growth forest characteristics. In combination with adjacent areas the marine ecosystem will provide high quality, diverse habitats and values for a wide range of marine species. The Desolation Sound Park areas will continue to be a key holiday destination with a range of marine and terrestrial recreation opportunities.

Desolation Sound and
Copeland Islands Marine Parks

MANAGEMENT PLAN

Prepared by
Lower Mainland Region
Environmental Stewardship Division

BCParks

Desolation Sound and Copeland Islands Marine Parks

This portion of the overall plan provides more specific direction for Desolation Sound and Copeland Islands Marine Parks.

3.2 Natural and Cultural Values Management

The following sections of the plan provide detail on management of natural and cultural values within the park.

Fresh Water Values

Desolation Sound Marine Park contains the larger Unwin Lake, several smaller lakes, and several streams or small springs. In general there are reasonable sources of available fresh water for wildlife species and the numerous small watersheds are a significant contributor to the diversity of the park's ecosystem. It is important to ensure that fresh water quality remains high and that watersheds are not disturbed by recreation activities, facilities or potential outside developments or uses. In addition, protection of fresh water sources from human pollution will assist in protection of adjacent marine water quality. Due to the small size and volume of the watersheds within the park, it is difficult to ensure drinking water for recreation users is uncontaminated by animal sources and it will be necessary for recreation users to self treat drinking water sources.

Objective:
Maintain fresh water values in a sustainable high quality condition and protect wildlife and fish habitats dependent upon the freshwater systems.

Strategies:

- Work with other agencies and adjacent landowners to manage water values that extend across park boundaries. Encourage appropriate management techniques that will not adversely impact water values.
- Design recreation facilities and manage activities to maintain the quality and diversity of fresh water systems within the park. Ensure campsite, trail and toilet facilities are properly located, designed and managed. If fresh water values are found to be negatively impacted by recreation facilities or activities then undertake management actions to prevent or control those impacts.
- Provide information on minimizing impacts to water quality in the backcountry.
- Protect lakeside vegetation and a sensitive fishery at Unwin Lake, limit trail and other facility developments to areas near Unwin Creek and near the southwest corner of the lake. Connecting trails between Unwin Creek and Call Bight should be on higher upland areas, not along or near the lakeshore.

Upland Vegetation

Vegetation in the upland areas of the Desolation Sound Marine Park consists of a mixture of typically dense second growth stands, pockets of old growth forest, occasional veteran trees scattered within the second growth, and relatively open non treed bluffs or bedrock. The second growth areas were created as a result of earlier forest harvesting or fire events. The forest within Copeland Islands Marine Park is primarily old growth.

Common tree species include Douglas-fir, western hemlock and western red cedar throughout the Parks and red alder and broad leaved maple in previously disturbed wetter areas. Common under-story species include salal, Oregon grape, red huckleberry, twin flower, and sword and bracken ferns.

The climate of the Marine Parks is mild year round with abundant precipitation during winter months followed by relatively dry summers. Soil, moisture and growing conditions vary significantly within the Marine Park areas and create a variety of growing sites. Although at this time the second growth forest is less diverse than historically, it is anticipated that the vegetation within the park will progress into a spectrum of species, sites and plant associations. As the biogeoclimatic variants in the Marine Parks are generally underrepresented and occur within a rapidly developing region the vegetation values within the Parks will continue to increase in importance and in rarity. As more detailed inventory information becomes available it is likely that additional rare or unique values and plant communities will be confirmed to occur within the park.

Objective:
Protect and conserve vegetation values and allow natural processes to increase the diversity and succession of plant species and associations within the park.

Strategies:

- Manage vegetation values to allow the natural succession from the existing second growth conditions to a more diverse spectrum of plant types, sites and associations. In particular, protect existing pockets of old growth forest.
- Implement a fire management plan in cooperation with the Ministry of Forests. A fire management plan has been developed for the Marine Parks with objectives that include protecting public safety; maintaining natural ecosystems, habitat and diversity in the park; allowing natural processes to occur where possible; and protecting natural and cultural values within and adjacent to the park. Due to the close proximity of adjacent forestry and residential areas all forest fires will be controlled.
- Work closely with other agencies and adjacent landowners to manage vegetation values that extend across park boundaries. Encourage appropriate management techniques that will not adversely impact park values.
- Work with agencies, organisations and individuals to research and monitor vegetation values, particularly any rare or endangered species or plant communities. Develop a more complete understanding and inventory of vegetation values.

Upland Wildlife

Upland wildlife values in the Marine Parks are typical of coastal low elevation areas along the northern Georgia Strait and include black bear, black-tailed deer, small furbearers, raptors, upland and marine birds, and amphibians and reptiles. Larger or more transitory terrestrial species are dependent on areas outside of the Parks to the north and east. Park upland areas contribute shelter, food and other habitat needs to shoreline species and to some marine bird species.

There is a lack of inventory information about the specific rare and unique wildlife values the Parks may protect for smaller or less known upland species. Similar to vegetation values, wildlife within the second growth forest is likely less diverse than historically. It is possible that as the vegetation and wildlife habitat within the Parks develops into a more varied spectrum of sites that the opportunity for wildlife diversity will also increase. As the biogeoclimatic variants found within the Marine Parks are generally underrepresented within protected areas and occur within a rapidly developing region, wildlife values within the park will continue to increase in importance. As more detailed inventory knowledge becomes available it is likely that additional rare or unique values will be confirmed to occur within the park.

At this time, no salmon species spawn within the fresh water systems of the Parks. Historically, there are reports of spawning salmon in Unwin Creek.

Objective:
Maintain the existing wildlife species, populations and habitats in the Parks and allow natural processes to increase the diversity of the species and habitats.

Strategies:

- Manage wildlife values to allow natural processes to occur and to increase the diversity of species and habitats.
- Liaise with other agencies and adjacent landowners to manage wildlife values that extend across park boundaries. Encourage appropriate management techniques that will not adversely impact park values.
- Work with agencies, organisations and individuals to identify, research and monitor wildlife values, particularly any rare or endangered species or habitats. Develop a more complete understanding and inventory of wildlife values.
- As feasible and in cooperation with community groups and other agencies, restore access to salmon spawning areas in Unwin Creek and as appropriate re-establish spawning populations.

Marine Vegetation and Wildlife Values

The marine areas of the two Marine Parks contain 3472 hectares or 39 % of the overall Parks' area. This is the largest marine area protected in the Strait of Georgia and due to the complexity offered by shoreline, sub tidal and island features protects a rich marine ecosystem. However, knowledge of this ecosystem is significantly lacking in both inventory data and in the understanding of the interactions between species and values within the parks and adjacent marine areas.

Many of the marine species and values are dependent on areas outside of the park for part of their habitat or life cycle needs. The management of marine resources within the park is a shared jurisdiction between the Provincial and Federal agencies. Due to the complex interaction between adjacent and park areas and the shared management responsibilities, it is particularly important that there is an integrated and cooperative approach between agencies on the management of the marine resources.

Objective:
Develop knowledge and understanding of the marine resources of the Parks.
Protect marine ecosystems to support marine species, populations and habitats within the park areas.
Cooperatively manage marine values with appropriate agencies and stakeholders.

Strategies:

- Work with agencies, organisations and individuals to identify, research and monitor marine values. Develop a more complete understanding and inventory of marine values.
- Maintain closure within Marine Parks of commercial harvesting of wild shellfish stocks. This does not include prawns.
- Support conservation of rockfish and other resident marine finfish populations in cooperation with Department of Fisheries and Oceans and stakeholders.
- Encourage appropriate viewing and interaction practices between park visitors and marine wildlife such as birds and seals.

Cultural Heritage Values

Desolation Sound and Copeland Islands Marine Parks contain numerous pre-contact and post-contact culturally significant First Nations sites and are part of a culturally and archaeologically rich Desolation Sound area. The archaeological sites are protected under the provincial Heritage Conservation Act and the Park Act. First Nation cultural sites in the Marine Parks include summer camp areas, village sites, fish traps, pictographs, beach middens, and burial sites. The larger Desolation Sound area continues to be important for cultural and traditional use purposes to First Nations.

The Sliammon First Nation and BC Parks have compiled relatively thorough information bases on the location and presence of cultural sites. There is a need to continue increasing inventory knowledge and to monitor the conditions of known existing sites. An important challenge is that most accessible shoreline sites have had some First Nations or European historical presence and these sites are typically the favored locations for recreation access, facilities and activities. The presence of cultural sites can add a unique and significant richness to the recreation experience but it is necessary to manage the recreation activities to ensure protection of the cultural values.

Objective:
In cooperation with First Nations identify, protect and present as appropriate significant cultural features and values in Desolation Sound and Copeland Islands Marine Parks.

Strategies:

- In cooperation with First Nations continue to identify traditional use areas and culturally significant sites.
- In cooperation with First Nations develop strategies to monitor, protect, and if appropriate present culturally significant sites. This will be done in a manner which allows for the continued practice of traditional activities by the First Nations and which is consistent with the Heritage Conservation Act.
- As part of a larger recreation strategy and in consultation with First Nations, manage recreation facilities and activities:
    - to direct recreation use away from particularly important or vulnerable cultural sites;
    - or, where recreation activities are appropriate to continue on or near cultural sites manage those activities and facilities to avoid or minimize impacts upon cultural sites. Develop methods to protect cultural features while continuing to allow recreation activities.
- As is feasible and in cooperation with local communities and stakeholders protect and present information on European settlement sites. An example of this could include the log flume at Unwin Creek.

Landscape Setting and Feature Values

The natural forest, shoreline and island viewscape provided by the Marine Parks is an outstanding and important special feature for recreational boaters and commercial tour operators in the larger Desolation Sound area and for hikers on the Sunshine Coast trail in the adjacent Malaspina Provincial Park. Desolation Sound and Copeland Islands Marine Parks will be managed to provide an undeveloped, natural viewscape opportunity.

From within the park, one of the key recreation values is the outstanding landscape views from the Parks outward to Georgia Strait, the larger Desolation Sound area and the surrounding coastlines and islands. Some of the lands and marine waters adjacent to the Marine Parks have been developed for residential or mariculture activities. However, at this time undeveloped areas predominate and continue to provide an outstanding viewing opportunity.

Objective:
Protect the viewing opportunities towards and from the Marine Parks.

Strategies:

- Liaise with agencies involved in adjacent land management to ensure consideration is given to appropriate protection of visual values.
- Ensure any proposed development or facilities in the park are aesthetically pleasing, blend with the natural environment, and are not readily visible from adjacent marine and upland areas.

3.3 Recreation Values Management

Recreation opportunities within Desolation Sound and Copeland Islands Marine Parks are centred primarily on activities involving larger recreation boats or ocean kayaks. Other recreation activities include canoeing, swimming, diving, and nature appreciation throughout the Marine Parks, hiking and backcountry camping opportunities at Cochrane Bay, limited hiking on other trails within the Desolation Sound Marine Park and both marine and freshwater fishing opportunities. Recreation facilities within the Marine Parks are limited and consist of a small number of campsites, signage, pit toilets, a limited trail system, and a short section of the Sunshine Coast trail near Cochrane Bay. Levels of use are high for both larger recreation boats and for ocean kayaks.

Historically the Marine Parks' areas have seen recreational boating use since the 1920's and increasing kayak use beginning in the early 1980's.

Public Recreation Opportunities and Facilities

The following sections outline how recreation will be managed within Desolation Sound and Copeland Islands Marine Parks. Due to the type of recreation activities which occur in the parks and to the intention to protect the natural viewscape, limited recreation facilities will be developed. Recreation activities will be managed to maintain a high quality marine oriented experience, to support appropriate commercial recreation, and to ensure low levels of impacts.

Access Management

The Marine Parks are primarily accessed by boat or kayak. Marine access is relatively easy and provides an exceptional opportunity for safe access to marine recreation activities. Access for larger boats occurs largely independent of park management activities. Access for smaller boats and kayaks is dependent upon launching and parking areas in locations relatively close to the Marine Parks. Although this access originates outside of the Parks, there is a need to encourage and foster reasonable access opportunities for kayakers and small boaters.

There is also a hiking trail connection from the adjacent Sunshine Coast Trail within Malaspina Provincial Park to Cochrane Bay within Desolation Sound Marine Park.

Objective:
Provide reasonable access to marine recreation opportunities.

Strategies:

- Work cooperatively with the Powell River Regional District, the Okeover Harbour Authority, Sliammon First Nation and the community of Lund to encourage and maintain parking and small boat and kayak access to the Desolation Sound area. Maintain a parking and kayak launching opportunity at or near Okeover Arm Provincial Park.
- Work cooperatively with Ministry of Forests and Range and the forest sector to limit or restrict off road recreational vehicle access to or near the eastern boundary of Desolation Sound Park from adjacent forest lands.
- Access to Cochrane Bay from the Sunshine Coast Trail will be managed under the direction of the Malaspina Park Management Plan. Marine access to the Sunshine Coast trail at Cochrane Bay will be allowed and information about this access will be provided. However to help protect adjacent mariculture values this access will not be actively promoted by BC Parks.

Boating

Desolation Sound Marine Park with support from Copeland Islands Marine Park and adjacent areas is one of the most prominent and popular recreational boating destinations on the British Columbia coast. The Marine Parks are used as a 2 to 7 day destination on their own or as part of a coastal cruise. Desolation Sound Marine Park contains three major anchorages at Prideaux Haven, Tenedos Bay, and Grace Harbour and both Marine Parks contain other smaller anchorages. All of the anchorages offer protection for boats combined with outstanding scenery, relatively warm summer water temperatures, and shoreline and upland recreation activities. This area has been used for recreational boating since the 1920's.

Generally recreational boating within the Parks requires relatively few services or management needs, has low impacts outside of anchorages, and is largely self serviced. Within anchorages there are issues with localized contamination from boat sewage, pet excrement, and with vegetation and shoreline impacts from stern or bow tie lines. At the time of preparation of this plan, only the Prideaux Haven anchorage is closed under Federal regulations to sewage dumping. In cooperation with boaters, BC Parks has instituted a voluntary sewage dumping closure at Grace Harbour.

Objective:
Provide a high quality boating experience within the Marine Parks and manage anchorage issues in appropriate locations.

Strategies:

- Work with Federal agencies to formally close anchorages at Tenedos Bay and Grace Harbour to sewage dumping.
- In cooperation with communities and appropriate agencies, encourage and support the closure of the entire Malaspina Inlet complex (Malaspina Inlet, Theodosia Inlet, Lancelot Inlet, and Okeover Arm) to sewage dumping from recreational or commercial boat traffic.
- Monitor shoreline and vegetation impacts from stern or bow tie lines, particularly in the Prideaux Haven anchorages, and in cooperation with boating stakeholders implement management actions as necessary (e.g. stern pins).
- Close shallow lagoon and channel between Laura and Melanie Cove to anchoring to protect lagoon and channel eel grass beds.
- Work cooperatively with boating stakeholders to provide compatible upland or shoreline recreation facilities and activities. An example would be improvements to the trail to the lookout at Tenedos Bay.
- Provide signage and appropriate disposal facilities to encourage boaters to sanitarily dispose of personal and pet wastes.
- Provide information to boaters as part of broader boating information sources to encourage appropriate and ethical boating and upland behaviour, and to provide messages on safety, park values, and opportunities.

Kayaking

Desolation Sound and Copeland Islands Marine Parks offer relatively protected and relatively safe sea kayaking opportunities coupled with superb scenery and marine exploration opportunities. In general kayakers are self sufficient, require limited facilities focused on campsites and trails, prefer a varied choice of destinations and routes, and value a natural setting with low levels of facility development. Within Desolation Sound Marine Park itself, kayakers will be encouraged to focus use away from Lancelot Inlet, Okeover Inlet and the most southerly end of Malaspina Inlet. This direction is implemented to encourage sea kayakers to move away from mariculture and sensitive marine water quality areas.

Objective:
Provide a high quality sea kayaking experience in appropriate locations within the Marine Parks.

Strategies:

- Provide information to sea kayakers as part of broader sea kayak information sources. Messages should include information encouraging sea kayakers to explore the outer areas of Desolation Sound and that the Lancelot and Okeover Inlet areas of Desolation Sound Marine Park contain no developed overnight camping facilities.
- Provide information to sea kayakers to encourage appropriate group sizes (12 people or smaller), ethical paddling and camping behaviour, and to provide messages on safety, park values, and opportunities.
- Provide signage and appropriate disposal facilities to encourage kayakers to sanitarily dispose of personal and pet wastes.

Fishing

The Marine Parks are not a key destination for recreational fishing. There is support in the recreational fishing community for protective measures for rockfish conservation. However, recreational boaters and kayakers have utilized the fishing and shellfish resource as an important

part of the recreational experience. The recreational fishery in Unwin Lake must be carefully managed to protect the coastal cutthroat population.

Objective:
Provide a reasonable recreational fishing and shellfish harvesting experience while protecting the conservation values of the Parks.

Strategies:

- Work cooperatively with the Department of Fisheries and Oceans, recreational fishing stakeholders, First Nations and others to maintain a recreational fishery and shellfish harvesting experience while protecting conservation values.
- Manage the Unwin Lake fishery to ensure protection of coastal cutthroat populations.

Hiking

In Desolation Sound Marine Park developed hiking trails presently occur at Grace Harbour, Unwin Lake, and Cochrane Bay. In addition undeveloped routes or local trails occur to a viewpoint at Bold Head in Tenedos Bay, between Unwin Lake and Melanie Cove, and along the shorelines in Laura and Melanie Coves. Hiking trail development will be restricted to the existing trails and routes and to two potential additions between Call Bight and Unwin Lake and between Call Bight and the existing Unwin Creek trail. Relocation of parts of the trails for improved environmental or water quality protection, for improved access to views or recreation features, or for public safety will be allowed.

At present trails are primarily used by boaters or kayakers and due to lack of road access it is anticipated that this pattern of use will continue. The exception to this is the Sunshine Coast trail near Cochrane Bay.

Objective:
Maintain and as feasible improve the opportunities for hiking within the park.

Strategies:

- Maintain and manage the trails within the park to minimize environmental or water quality impacts, increase public safety, and improve the quality of the visitor experience.
- Involve community and stakeholder volunteers in the maintenance and management of park trails.
- Consider and implement relocations of parts of trails for environmental or water quality protection, for increased public safety, and for improved access to views or recreation features.
- Maintain and manage the Grace Harbour and Unwin Creek trails in present locations.
- In conjunction with the construction of a shoreline campsite in Call Bight, design, evaluate impacts and if feasible construct a trail from Call Bight to the south western corner of Unwin Lake.
- Design, evaluate and if feasible construct an improved trail from Unwin Creek to Melanie Cove and along the shoreline in the Melanie and Laura Cove areas.
- As a longer term goal design, evaluate and if feasible construct a trail from Call Bight-Mt Spooner-Unwin Creek.
- Evaluate and as feasible upgrade the route to the viewpoint to Bold Head in Tenedos Bay.
- To protect fishery and riparian values no trail should be constructed along the overall shoreline of Unwin Lake.

- Due to small land areas and broken terrain no trails will be developed within Copeland Islands Marine Parks.
- Manage the portion of the Sunshine Coast Trail at Cochrane Bay under the direction of the Malaspina Provincial Park Management Plan.

Backcountry Camping

Camping will be managed to encourage appropriate levels and locations of use, to provide a quality recreation experience, to protect culturally important sites, and to encourage overnight kayak and camping use within Desolation Sound Marine Park to occur away from Lancelot and Okeover Inlet. This latter direction supports the protection of marine water quality and the adjacent mariculture industry.

Objective:
Provide camping opportunities for kayakers and other recreational users while minimising impacts on natural and cultural values.

Strategies:
- Allow camping at both designated and dispersed sites as is appropriate. In general, where significant impacts begin to occur development of designated sites will be considered and if feasible constructed to manage and control the impacts. Develop benchmarks or measurements of impacts which can be used to monitor the need to develop designated sites.
- In Copeland Islands Marine Park camping will only be allowed at the four existing designated locations as shown in Figure 12.
- In Desolation Sound Marine Park camping will be allowed as follows and as shown in Figures 10 and 11:
    - Two designated locations in Malaspina Strait – Cochrane Bay (4-6 sites) and an unnamed site east of Josephine Island (6-8 individual sites and one group site). At Cochrane the sites will be on northern edge of the Bay, will be focused on hikers from the Sunshine Coast Trail and although kayakers will be allowed to use the site they will be encouraged to use alternate destinations. No other camp sites will be permitted within Malaspina Strait.
    - Designated location at Grace Harbour.
    - Initially no designated overnight camping areas along the shoreline of Desolation Sound Marine Park within Lancelot Inlet and Okeover Arm. If camping in this general area occurs it will be encouraged on sites developed outside of the Marine Park on adjacent lands. Monitor impacts and use trends and only if necessary and in consultation with stakeholders consider developing a single designated location.
    - Designated locations at Call Bight (8-10 sites), Curme Islands, and Tenedos Bay within the Desolation Sound area of Desolation Sound Marine Park. As well, dispersed camping would initially continue to be allowed in this general area with monitoring of impacts.
    - A local site design will be completed at Curme Islands to limit camping to 2 or 3 of the islands.
    - Dispersed camping will continue to be allowed in the Prideaux Haven area of Desolation Sound Marine Park with monitoring of impacts.
    - Kayakers will also be encouraged to use the Feather Cove camping location in adjacent Malaspina Provincial Park.
- Facility levels at each camping area will be basic and minimal. Appropriate standards would be a cleared relatively level campsite, toilets, simple benches, and food storage areas

for protection for and from wildlife. Campsites might include tent platforms if local conditions (e.g. uneven or wet areas) warranted.

- As is feasible, toilets will be provided at designated camping locations. The toilet design at the Curme Islands when implemented will need to be a composting design or alternate technology due to lack of soil depth. Other toilet designs will be based on local site conditions but must ensure protection of both fresh and marine water values.
- All of Desolation Sound and Copeland Islands Marine Parks will be closed to campfires.
- To implement the above directions, as is feasible, new sites will need to be designed and developed at Cochrane Bay, near Josephine Island, Call Bight and Curme Islands. As part of the development of these sites a long-term maintenance and funding strategy must also be developed.

Hunting

Desolation Sound Park is included as part of Management Unit 2-12. Species currently open to harvest (dependant on regulations) include black-tailed deer, black bear, wolf, coyote, racoon, skunk, snowshoe hare, bobcat, cougar, upland game birds and waterfowl. Current hunting pressure within the park is not measured but due to both limited access and low species populations is known to be light in comparison to other areas of MU 2-12.

Objective:
Maintain hunting as an accepted activity within the park subject to sustainability of wildlife populations, protection of conservation values, and public safety.

Other Activities

BC Parks policy provides for a variety of recreation activities to take place across British Columbia's park system. However not all of these activities are suitable for each individual park such as Desolation Sound or Copeland Islands Marine Park. This may be due to their impacts on the environment, impacts on other users, the availability of other opportunities within close proximity to the park, or to the lack of appropriate facilities. Mountain biking, off road motorized activities, and the use of horses or other pack or riding animals are not appropriate activities for the Marine Parks. Table 3 provides additional information on activities within the park.

Figure 2: Desolation Sound Marine Park – Recreational Features 1

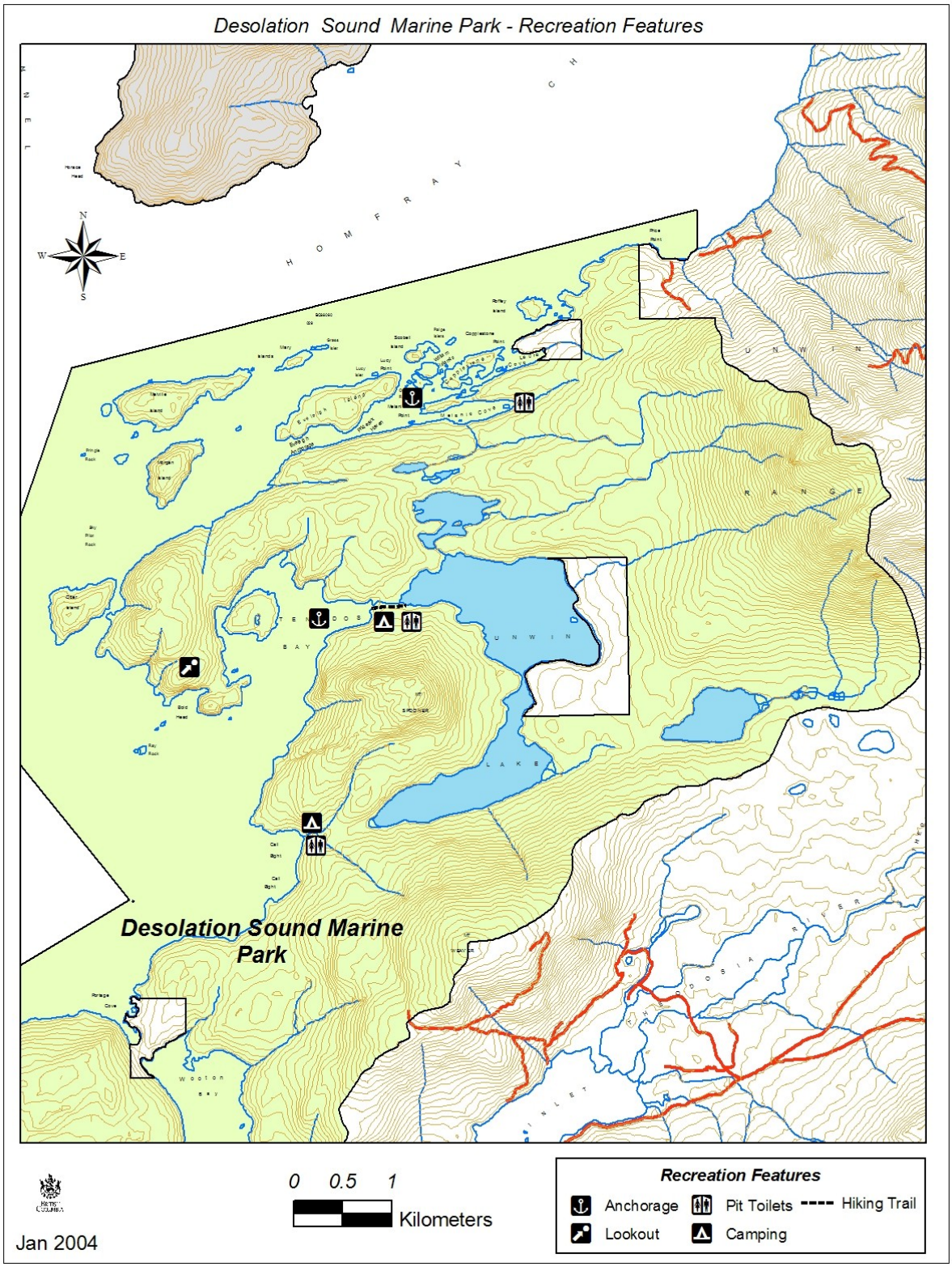


Figure 3: Desolation Sound Marine Park – Recreational Features 2

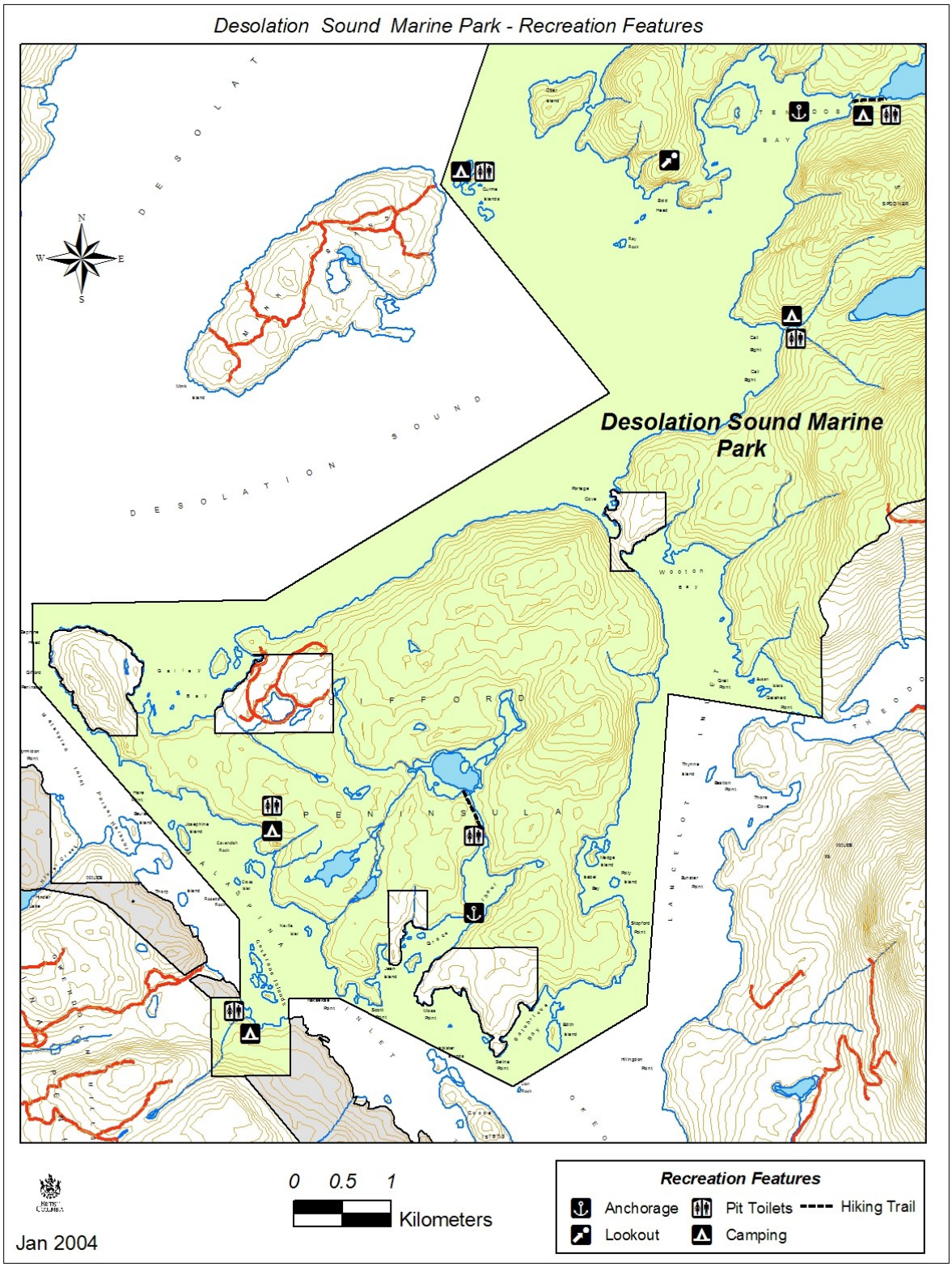
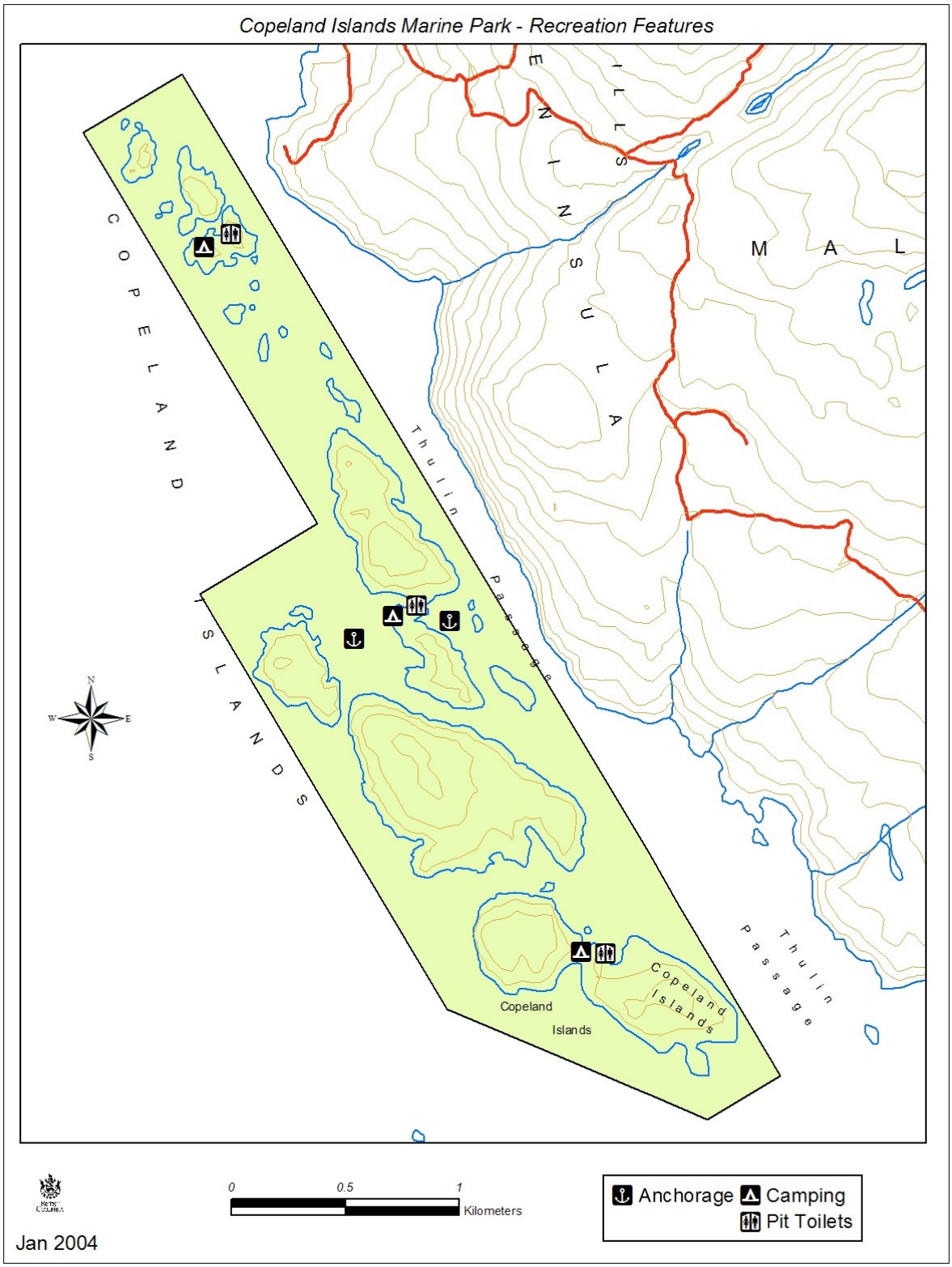


Figure 4: Copeland Islands Marine Park – Recreational Features



Commercial Recreation Opportunities

Commercial operations can provide a diversity of opportunities and enhanced experiences for park visitors and contribute significantly to the economy of local communities. This is particularly relevant for inexperienced visitors. Commercial recreation opportunities currently underway in the Marine Parks include sea kayak rentals and guiding, boat rentals and charters, boat tours based out of adjacent resorts, and nature appreciation activities. The Marine Parks support these appropriate and compatible commercial opportunities.

Objectives:
Support and encourage appropriate commercial recreation while protecting the natural and recreation values of Desolation Sound and Copeland Islands Marine Parks.

Strategies:

- Manage commercial activities to ensure low impact on both the natural and recreation values. In particular, kayak guiding should be managed to minimize crowding or overuse impacts at camping locations.
- Develop and implement a strategy to support a high quality commercial recreation experience and to involve commercial operators helping to provide and maintain basic facilities within the Marine Parks. This is particularly relevant for sea kayak guides and rental operations.
- Fixed roof accommodation will not be provided within the park. There are numerous and varied accommodation opportunities in nearby adjacent communities and resorts. These are presently already in existence in Malaspina Inlet, Lund, Powell River and on Cortes and Quadra Islands. Many boat charters provide a self-contained in-park accommodation experience.

Visitor Information

Management Messages
The key management messages will be the protection and management of the Desolation Sound and Copeland Islands Marine Parks' conservation, cultural and recreation values, protection of the adjacent marine water quality, and the safe and appropriate use of the park. These messages should be delivered in a manner that builds support, understanding, and active involvement with the general public and with stakeholders.

Awareness
Information will be provided to enhance the visitor's experience in visiting and understanding the resources of the Marine Parks and to encourage appropriate use in appropriate locations. Information provided within the park will focus on safety, regulatory needs, and protection of cultural or natural values. Information provided outside of the Parks will include these messages and further information to assist trip planning and to encourage overnight use in locations outside of Lancelot and Okeover Inlets.

Information will be provided primarily outside the Marine Parks using the BC Parks website, in standard Environmental Stewardship Division information brochures and maps, other government information opportunities, and by broader recreation or community information opportunities. The

Marine Parks will be shown as semi-remote marine destinations suitable for boating, kayaking, and other marine related activities.

As Desolation Sound and Copeland Islands Marine Parks are located away from any direct road connection to the Parks, formal highway or road signage directing the public to park areas will not be established.

Natural and Cultural Heritage Education

Education themes will focus on the unique values found in the terrestrial and marine environments of the Parks, on the interactions between upland areas and the marine environment, and on early European history of the region. In cooperation with the Sliammon First Nation and other First Nations, themes focused on First Nations use of the area may also be explored.

Education signs are not generally appropriate within these Parks due to the intention to minimize facility infrastructure. Therefore education signage will only be used if there are very strong and compelling management needs which could be assisted or met by the use of in park messages. Examples of this may be the need to build an understanding of the value of protecting cultural sites or natural values. Education messages may be included within brochures or other information sources.

Objectives:
Provide key management messages to recreational users and the wider community on the protection and management of the Parks' conservation and recreation values, protection of the adjacent marine water quality, and the safe and appropriate use of parks.

Strategies:

- Provide information on the BC Parks website about the Parks' conservation and recreation values, on the need to minimize impacts and to protect the adjacent marine water quality, on the need to respect adjacent activities, on the types of recreation activities appropriate for the park, on appropriate locations for recreation activities, and on ethics and methods for appropriate use of marine areas.
- Include similar messages on any brochures or maps produced for the Park.
- Signage within the park should generally be minimal and focus on directional signs, environmental and public safety, and protection of cultural or natural values.

3.4 Land Uses and Interests Management

Historically there were several mariculture tenures within the marine portion of Desolation Sound Marine Park which were purchased and then extinguished by the Province. There is one existing park use permit tenure for mariculture operations which pre-existed the establishment of the Park. The long term goal of the Province is to remove the remaining non-conforming mariculture activity from the park.

There are several in holdings within park boundaries. Three of these – Unwin Lake, UBC property near Laura Cove, and Portage Cove - are of interest for future addition to Desolation Sound Marine Park.

There are two subdivisions and a Sliammon First Nation Indian Reserve surrounded by land and marine areas of Desolation Sound Marine Park. These three areas and Portage Cove may rely on

dock facilities located within the marine foreshore area of the Marine Park for access. Private docks would be in contravention of the Park Act but are necessary for access to these properties. A strategy needs to be developed and implemented to resolve the dock and marine access issues.

Objective:
Appropriately manage pre-existing tenures and licenses.
Develop and implement a strategy to resolve dock access issues to private lands.

Strategies:
- Manage the pre-existing mariculture tenure through a park use permit issued under the Park Act. The tenure will be non-transferable and when feasible, the tenure will be removed.
- Work cooperatively with Sliammon First Nation to ensure public are aware of boundaries of Indian Reserve lands. BC Parks information sources will request public to not use Reserve lands without the express permission of Sliammon First Nation
- As opportunity allows, acquire in holdings – priority would be Merrill and Ring property at Unwin Lake, UBC property at Laura Cove and then Portage Cove.
- Develop and implement fair and legitimate strategy to resolve dock issues.

Adjacent Patterns of Land Use

Adjacent land uses primarily consist of forest harvesting activities to the east and north on adjacent crown forest lands, mariculture tenures, tourism facilities, and residential developments. There are no domestic water supplies affected by activities within the Marine Parks.

The adjacent mariculture industry relies upon the high quality of the marine waters found in Malaspina Inlet and is vulnerable to any factors which would reduce marine water quality. Therefore a key direction is to manage park activities and facilities to protect the adjacent marine water quality needs.
Tourism facilities and activities are increasingly important to the economy of Lund and Powell River with several tourism developments now located near or adjacent to the Parks. The Parks make significant contributions to this economic base by providing marketable recreation opportunities and by providing outstanding scenic backdrops and values for the overall area.

The adjacent residential developments are primarily subdivisions surrounded by Desolation Sound Marine Park and on the mainland to the east of Copeland Islands Marine Park. Although associated ecological or recreation impacts on park values do not appear to be occurring at present, it is important to monitor interactions between developed areas and the Marine Parks and to manage potential impacts as they are identified.

Objective:
Protect marine water quality from impacts due to park facilities or recreation activities.
Support adjacent tourism facilities which are compatible with protection of natural and cultural values.
Ensure park values are not impacted from adjacent developments.

Strategies:
- Manage recreation activities and facilities to ensure no sources of park related pollution or other impacts affect marine water quality. Work cooperatively with the mariculture industry and other government agencies to monitor and manage marine water quality. If marine water quality is found to be negatively impacted by recreation facilities or activities then undertake management actions to prevent or control those impacts.

- Work cooperatively with adjacent tourism facilities to encourage and support appropriate commercial tourism related activities compatible with continued protection of values of the Marine Parks.
- Review and monitor land use plans or activities for adjacent upland and marine areas to ensure values associated with the park have been considered. Encourage agencies, organisations and landholders to adopt appropriate management techniques that will not adversely impact park values.

3.5 Protected Areas Zoning

Zoning is used in park planning to develop general management guidelines for areas of a park on a geographical and ecological basis. Each zone reflects a general level of management with respect to natural, cultural and recreation values. The entire land base of Desolation Sound and Copeland Islands Marine Parks is included in a single zone, the Nature Recreation Zone.

Zone Objective

The objectives of this single zone are to protect the upland and marine values and associated wildlife, vegetation and water resources; to protect cultural values; to assist in protection of adjacent marine water quality; and to provide marine and upland recreation opportunities with limited levels of facility development. The focus of management actions in this zone will be to create a balance between resource protection, relatively high levels of marine recreation use, and moderate levels of upland recreation use.

Zone Description

This zone includes all of the area, 8872 hectares, found within Desolation Sound and Copeland Islands Marine Parks.

Zone Rationale

This zone was chosen for the following reasons:

- The Marine Parks contain significant natural and cultural values within an area of very high quality recreation opportunities with high to moderate levels of use and relatively easy marine access. A more protective zone such as Wilderness Recreation is not suitable.
- The park areas will be managed with limited facility development and are not suitable for a more intensively developed zone.
- Resources and activities throughout the parks are interconnected and must be managed as a single unit or zone.

Zone Activity

Table 3 indicates the activities and uses that will apply within the Nature Recreation Zone in these parks.

Table 3: Acceptable Uses, Activities and Facilities in Desolation Sound and Copeland Islands Marine Parks.

Activity/Use/Facility	Acceptable Uses	Comments
First Nation Traditional Use	Y	Subject to conservation and public safety.
Hunting	Y	Subject to public safety, conservation and hunting regulations.
Fishing	Y	Subject to conservation and fishing regulations.
Trapping	N	No existing trapping licence.
Horse Use/ Pack Animals	N	No appropriate facilities; potential for significant impact.
Other domestic animals	M	Restricted to domestic pets (e.g. dogs) on leash. No animals for packing.
Mountain Biking	N	No historic use; potential for significant impact.
Guide Outfitting (hunting)	N	No historic use.
Hiking trails	Y	Development restricted to locations as shown in plan.
Overnight Camping	Y	As described in plan, developments to be dispersed or designated depending upon location within park.
Campfires	N	Closed due to sensitivity of shoreline environment, lack of driftwood fuels, and dry summer conditions of parks.
Commercial Recreation	Y	Subject to provincial policy and to objectives of management plan.
Fixed Roof Accommodation	N	Provided in adjacent communities and resorts.
Fish Stocking and Enhancement	M	Subject to provincial policy.
Road Access	N	No road access development is required.
Off Road Motorised Access	N	No historic use; potential for significant impact.
Commercial Motorised Water Access	M	Manage commercial marine access to maintain appropriate levels of use and impacts and to protect quality of recreation experience.
Commercial Filming	M	Subject to provincial policy.
Commercial Aquaculture	N2	One existing tenure will continue to be permitted but will not be transferred; no new tenures will be issued; no commercial harvesting of wild or natural stocks will be allowed.
Private Land Dock Access	N2	Develop and implement strategy to manage private docks.
Fire Management	Y	Subject to fire management plan.
Forest Insect/Disease Control	M	Subject to provincial policy.
Noxious Weed Control	N1	Subject to provincial policy.
Exotic Insect/Disease Control	M	Subject to provincial policy.
Scientific Research (specimen collection)	M	Subject to provincial policy.
Scientific Research (manipulative activities)	M	Subject to provincial policy.

Y= allowed subject to conditions identified in the management plan
M= may be permitted if compatible with park objectives
N= not allowed
N1= allowed for expressed management purposes only
N2= present and allowed to continue but not normally allowed

Figure 5: Desolation Sound Marine Park 1

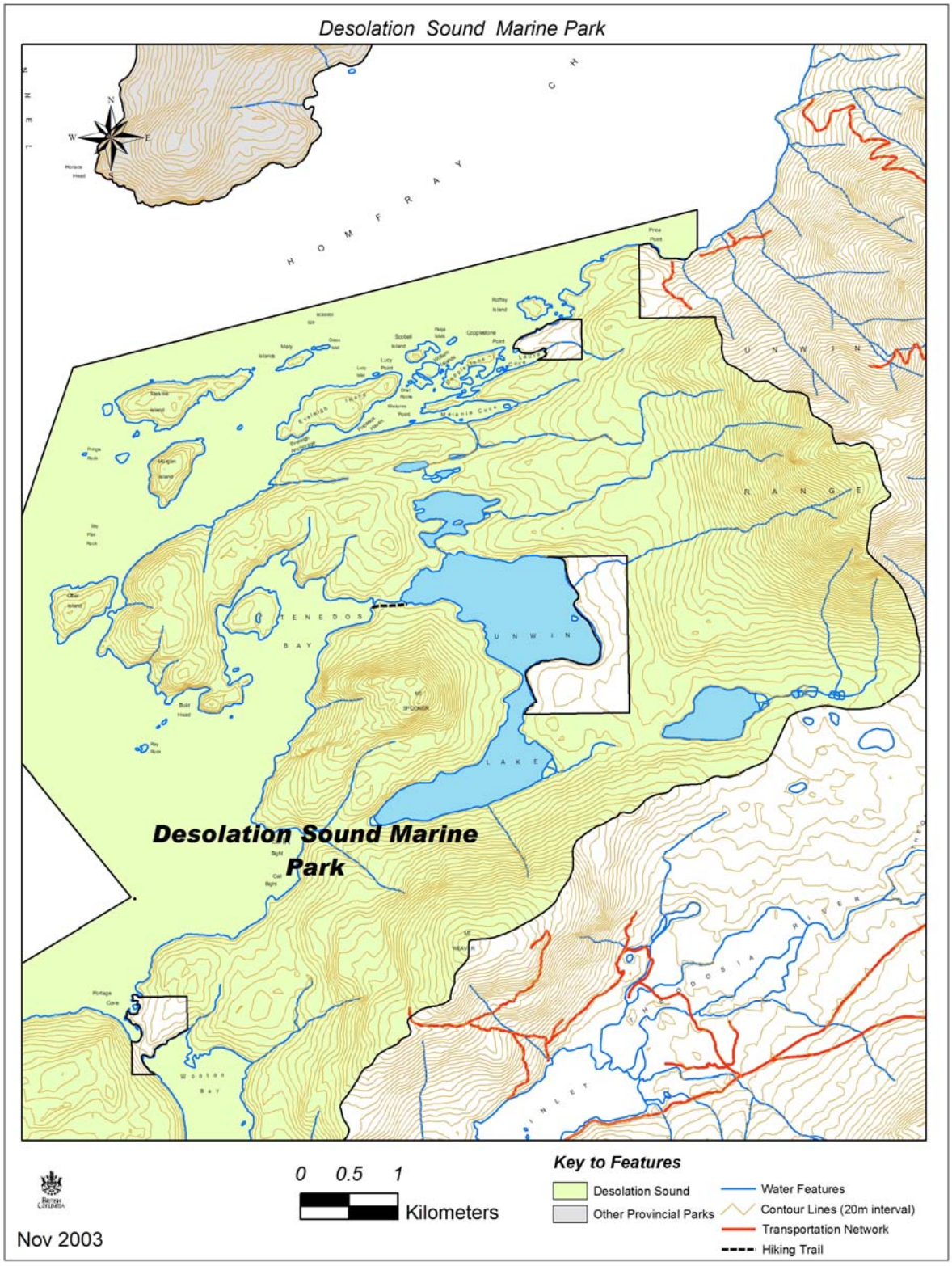


Figure 6: Desolation Sound Marine Park 2

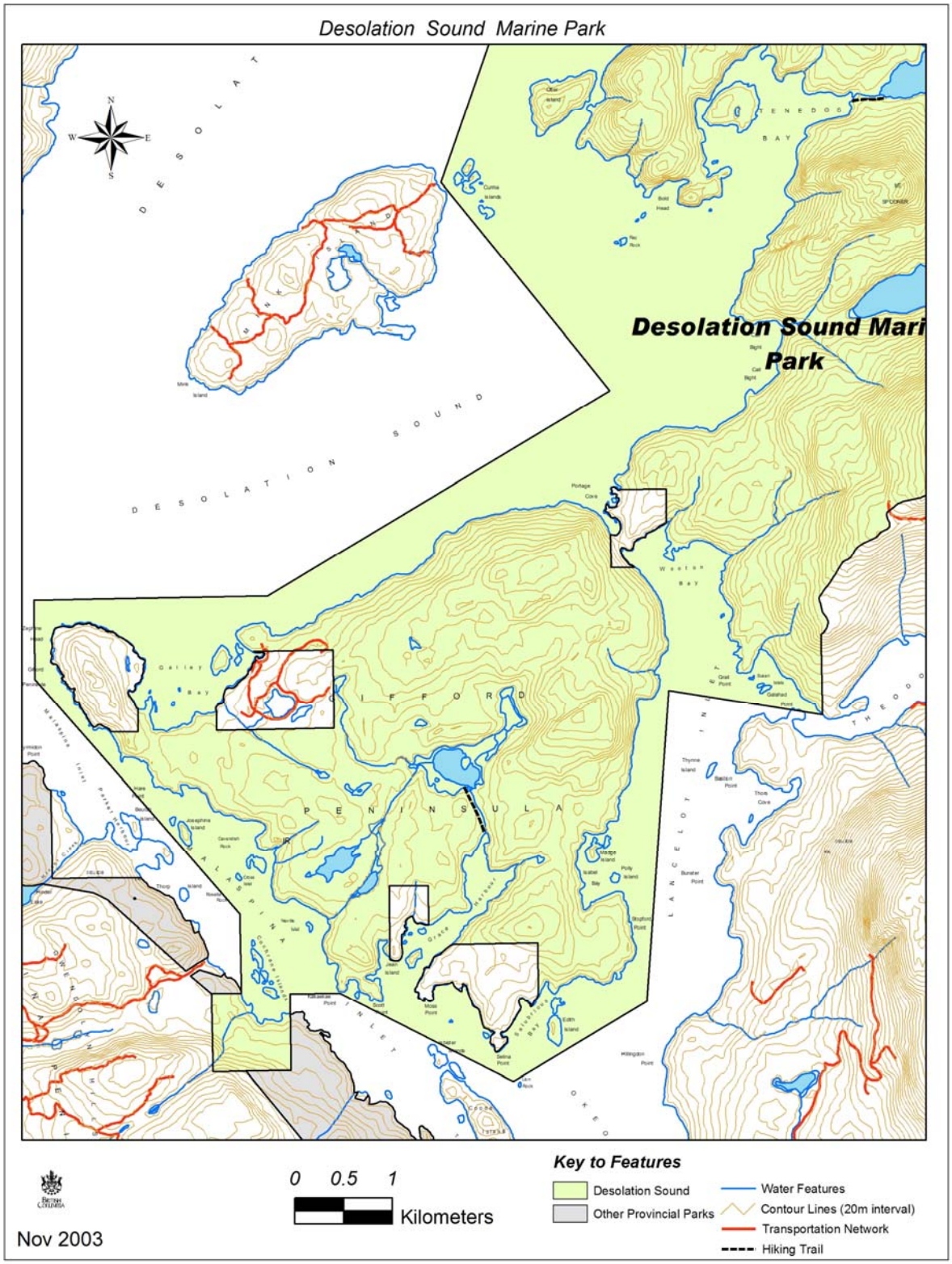
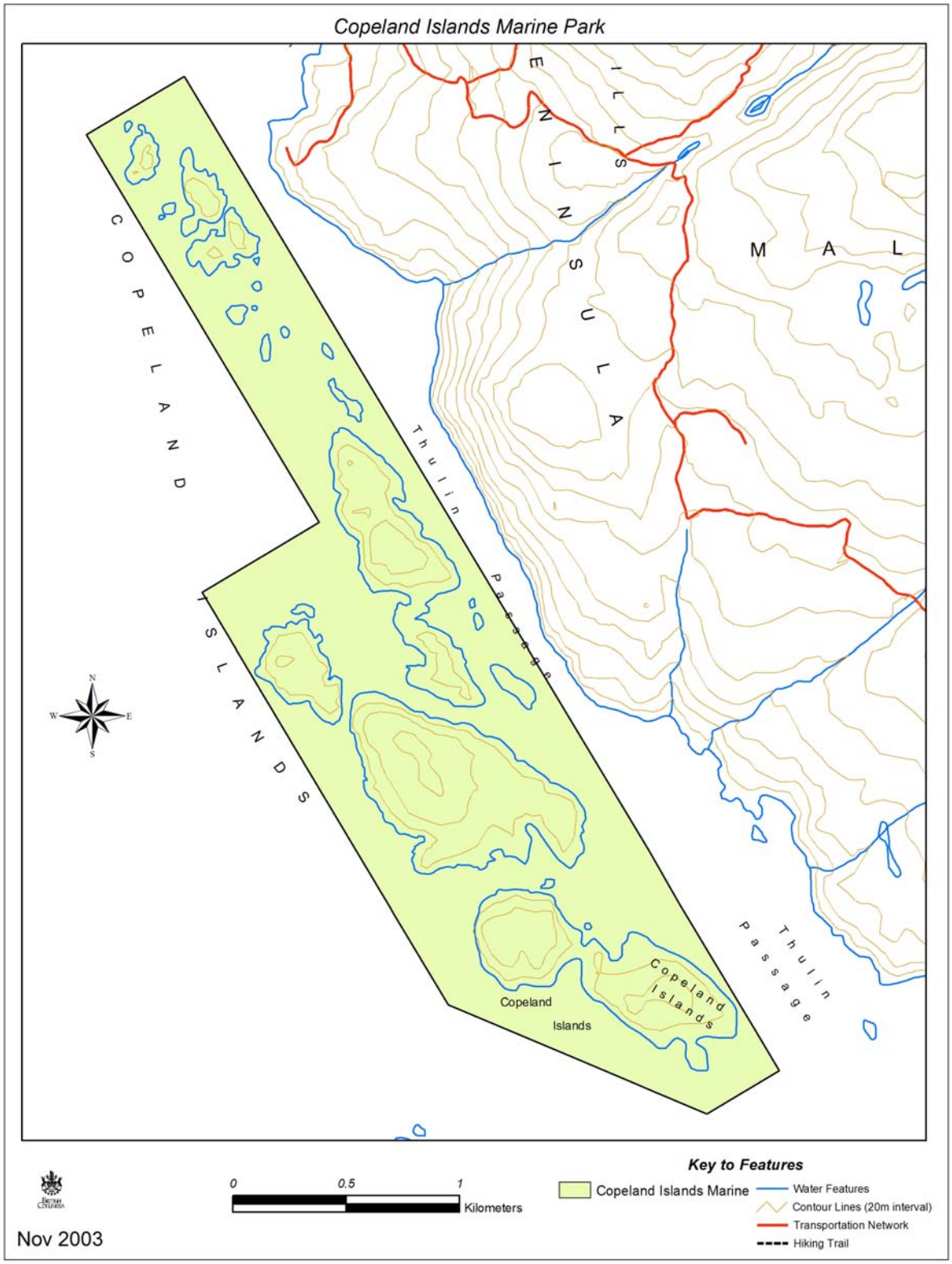


Figure 7: Copeland Islands Marine Park



4.0 Plan Implementation

This section provides direction on the priorities as identified through First Nations, stakeholder, public, and staff discussions. Implementation of specific actions will ultimately depend upon the availability of resources, the viability of projects, and the changing circumstances or pressures within the Parks. The strategies below are not listed in a priority ranking. Overall, implementation of strategies will focus on the five key considerations: protection of First Nation values; protection of natural values; protection of marine and fresh water quality; provision of marine recreation experiences; and support of commercial recreation opportunities.

The strategies shown below may be in a condensed form and will be implemented as they are shown elsewhere in this plan.

4.1 Implementation Priorities

- In cooperation with First Nations continue to identify traditional use areas and culturally significant sites. Develop strategies to monitor, protect, and if appropriate present culturally significant sites.
- As part of a larger recreation strategy and in consultation with First Nations, manage recreation facilities and activities:
    - to direct recreation use away from particularly important or vulnerable cultural sites;
    - or, where recreation activities are appropriate to continue on or near cultural sites manage those activities and facilities to avoid or minimize impacts upon cultural sites. Develop methods to protect cultural features while continuing to allow recreation activities.
- Work cooperatively with the Powell River Regional District, the Okeover Harbour Authority, Sliammon First Nation and the community of Lund to encourage and maintain parking and small boat and kayak access to the Desolation Sound area. Maintain a parking and kayak launching opportunity at or near Okeover Provincial Park.
- Manage the pre-existing mariculture tenure through a park use permit issued under the Park Act. When feasible, the tenure will be removed.
- Work cooperatively with Sliammon First Nation to ensure public are aware of boundaries of Indian Reserve lands.
- As opportunity allows, acquire in holdings – priority would be Merrill and Ring property at Unwin Lake.
- Develop and implement fair and legitimate strategy to resolve dock issues.
- Manage recreation activities and facilities to ensure no sources of park related pollution or other impacts affect fresh or marine water quality. May require development of pit toilets and/or other facilities (e.g. waste barge) in heavily used areas. The Ministry of Environment's water quality

objectives for Desolation Sound (2005)[2] and Okeover Inlet (2005)[3] are recommended for monitoring impacts from recreational use.

- Work cooperatively with adjacent tourism facilities to encourage and support appropriate commercial tourism activities.
- To protect lakeside vegetation and a sensitive fishery at Unwin Lake, limit trail and other facility developments to areas near Unwin Creek and near the southwest corner of the lake.
- Manage vegetation values to allow the natural succession from the existing second growth conditions to a more diverse spectrum of plant types, sites and associations. In particular, protect existing pockets of old growth forest.
- Work with agencies, organisations and individuals to research and monitor vegetation and wildlife values, particularly any rare or endangered species, plant communities or habitats. Develop a more complete understanding and inventory of values.
- Manage wildlife values to allow natural processes to occur and to increase the diversity of species and habitats.
- Implement a fire management plan in cooperation with the Ministry of Forests and Range. All of Desolation Sound and Copeland Islands Marine Parks will be closed to campfires.
- Work with agencies, organisations and individuals to identify, research and monitor marine values. Develop a more complete understanding and inventory of marine values.
- Maintain closure of commercial harvesting of wild shellfish stocks within the Marine Parks.
- Work cooperatively with Ministry of Forests and Range and the forest sector to limit or restrict off road recreation vehicle access to or near the eastern boundary of Desolation Sound Park.
- Work with Federal agencies to formally close anchorages at Tenedos Bay and Grace Harbour to sewage dumping.
- In cooperation with communities and appropriate agencies, encourage and support the closure of the entire Malaspina Inlet complex to sewage dumping from recreational or commercial boat traffic.
- Provide information to sea kayakers as part of broader sea kayak information sources. Messages should include information encouraging sea kayakers to explore the outer areas of Desolation Sound and that the Lancelot and Okeover Inlet areas of Desolation Sound Marine Park contain no developed overnight camping facilities.
- Work cooperatively with the Department of Fisheries and Oceans, recreational fishing stakeholders, First Nations and others to maintain a recreational fishery and shellfish harvesting experience while protecting conservation values.
- Manage the Unwin Lake fishery to ensure protection of coastal cutthroat populations.
- Maintain and manage a trail system within the Desolation Sound Marine Park to minimize environmental or water quality impacts, increase public safety, and improve the quality of the visitor experience.
- Allow camping at both designated and dispersed sites as is appropriate. In general, where significant impacts begin to occur, development of designated sites will be considered and

[2] Ministry of Water, Land and Air Protection. 2005. *Water Quality Assessment and Objectives: Desolation Sound*. Environmental Quality Division, Environmental Protection, Lower Mainland Region.
[3] Ministry of Water, Land and Air Protection. 2005. *Water Quality Assessment and Objectives: Okeover Inlet*. Environmental Quality Division, Environmental Protection, Lower Mainland Region.

constructed to manage and control the impacts. Develop benchmarks or measurements of impacts which can be used to monitor for the need to consider developing designated sites.

- As is feasible, toilets will be provided at designated camping locations. Toilet designs will be based on local site conditions but must ensure protection of both fresh and marine water values.
- New camping sites will need to be designed and developed at Cochrane Bay, near Josephine Island, Call Bight and Curme Islands. As part of the development of these sites a long-term maintenance and funding strategy must also be developed.
- Develop and implement a strategy to support a high quality commercial recreation experience and to involve commercial operators helping to provide and maintain basic facilities within the Marine Parks. This is particularly relevant for sea kayak guides and rental operations.
- Roofed accommodation will be provided outside of the parks in nearby adjacent communities and resorts. These are presently already in existence in Malaspina Inlet, Lund, Powell River and on Cortes and Quadra Islands.
- Provide information on the parks' conservation and recreation values, on the need to minimize impacts and to protect the adjacent marine water quality, on the need to respect adjacent activities, on the types of recreation activities appropriate for the parks, on appropriate locations for recreation activities, and on ethics and methods for appropriate use of marine areas.

Tux'wnech Okeover Arm Provincial Park

MANAGEMENT PLAN

Prepared by
Lower Mainland Region
Environmental Stewardship Division

BCParks

Tux'wnech Okeover Arm Provincial Park

This portion of the overall plan provides more specific direction for Tux'wnech Okeover Arm Provincial Park.

3.2 Natural and Cultural Values Management

The following sections of the plan provide detail on management of natural and cultural values within the park. Due to the park's small size and its primary focus on providing recreation opportunities, this part of the plan has fewer issues and sections than for Desolation Sound and Copeland Islands Marine Parks.

Vegetation

Vegetation within Okeover Arm Park consists primarily of a tree cover of western red cedar, Douglas fir, western hemlock, broad leaved maple, wild cherry, and red alder. Under-story vegetation is relatively sparse with the exception of road edges and open disturbed areas. There are also moderate size patches of invasive Himalayan blackberry. Although the park does not have outstanding vegetation values, the natural forest cover is important for protection of soils, a First Nation midden site, and for visual and noise screening for campers.

Objective:
Protect and maintain the forest cover and vegetation values of the park.

Strategies:

- Work closely with other agencies and adjacent landowners to manage vegetation values along park boundaries. Encourage appropriate management techniques that will not adversely impact park values.
- Design recreation facilities and manage activities to maintain the quality and diversity of the forest values within the park. Ensure facilities (e.g. trails) are properly located, designed and managed to minimize impacts.
- As feasible remove and control the Himalayan blackberry areas within the park.

Cultural Heritage

Tux'wnech Okeover Arm Provincial Park continues to be important to the Sliammon First Nation as an accessible traditional site. The park contains an archaeological site (midden and fish trap) and continues to be used by Sliammon elders. Tux'wnech Okeover Arm Park historically had direct connections to the various First Nations cultural and archaeological sites found in Desolation Sound and Copeland Islands Marine Parks. This is recognized by the cooperative effort between the Sliammon First Nation and BC Parks in naming the park and in providing education signs on traditional First Nations activities.

Objective:
In cooperation with Sliammon First Nation protect and present the cultural and traditional values of the park.

Strategies:

- In cooperation with Sliammon First Nation continue to protect the shoreline shell midden.
- In cooperation with Sliammon First Nation continue to encourage the use of the park by Sliammon elders and to present, as is appropriate, educational messages regarding First Nations traditional use of the Desolation Sound and Malaspina Inlet areas.

3.3 Recreation Values Management

Recreation opportunities at Okeover Arm Park are centred primarily on car accessible camping, ocean shoreline day use, and as a staging area for kayaking within Desolation Sound Marine Park. Recreation facilities consist of a 17 site campground, a small grass day use area, and a limited parking area. At the nearby Okeover Harbour Authority facility both docks and a rustic boat launch are available.

The following sections outline how recreation will be managed within Tux'wnech Okeover Arm Provincial Park.

Access Management for Adjacent Marine Parks

Access to Okeover Arm Park is provided by public roads and requires no actions under this plan. The park provides an important role as a staging area for sea kayakers accessing Desolation Sound Marine Park and may over time play an increasing role as an overnight stop or staging area for hikers on the Sunshine Coast Trail.

Objective:
Provide staging and access opportunities for sea kayakers to Desolation Sound Marine Park.

Strategies:

- Work cooperatively with the Powell River Regional District, the Okeover Harbour Authority, Sliammon First Nation and the community of Okeover Arm to encourage and maintain parking and small boat and kayak access to the Desolation Sound area. Include within this opportunity information on appropriate kayaking destinations within the Marine Parks.

Camping

Camping will be managed to provide a quality ocean side camping experience with basic facilities. The campground will remain at or near its present size.

Objective:
Provide camping opportunities for kayakers and other recreational users while minimizing impacts on natural and cultural values and on adjacent marine water quality.

Strategies:

- Manage recreation activities and facilities to ensure no sources of pollution or other impacts affect marine water quality. If marine water quality is found to be negatively impacted by recreation activities then undertake management actions to prevent or control those impacts.

- Manage campground activities and facilities to prevent or minimize impacts on natural or cultural values.

Other Activities

BC Parks policy provides for a variety of recreation activities to take place across British Columbia's park system. However not all of these activities are suitable for each individual park such as Tux'wnech Okeover Arm Provincial Park. This may be due to their impacts on the environment, impacts on other users, the availability of other opportunities within close proximity to the park, or to the lack of appropriate facilities. Table 4 provides additional information on activities within the park.

Commercial Recreation Opportunities

Due to the small size of the park commercial recreation opportunities are limited within Tux'wnech Okeover Arm Provincial Park. Commercial activities which are compatible with the overall direction of the Park will be encouraged and supported.

Visitor Information

Management Messages
The key management messages will be the protection and management of Okeover Arm Park's natural, cultural and recreation values, protection of the adjacent marine water quality, and the safe and appropriate use of the park. Opportunities may also be explored in partnership with the mariculture industry of providing information on the history and methods of shellfish harvesting and the importance of protecting water quality.

Awareness
Information provided within the park will focus on safety, regulatory needs, and protection of cultural or natural values. Information provided outside of the Parks will include these messages and further information to assist trip planning for both this park and for adjacent Marine Parks. Information will be included in standard Environmental Stewardship Division information brochures, maps and on the BC Parks website, other government information opportunities, and by broader recreation or community information opportunities.

Okeover Arm Park may also be identified by formal highway signage on Highway 101 directing the public to the park area.

Natural and Cultural Education
In cooperation with Sliammon First Nation education themes will focus on the First Nation historical and traditional use of the park and adjacent areas. The education messages will primarily be delivered through the use of signs.

3.4 Land Uses and Interests Management

Adjacent Patterns of Land Use

Adjacent land uses primarily consist of public roads, the small Okeover Harbour Authority dock facility, a commercial restaurant development, and residential and tourism developments. Although there are no mariculture operations at this time operating immediately adjacent to the Park, it does

border the shoreline of the Malaspina Inlet complex. Therefore a key management direction is to manage park activities and facilities to protect the adjacent marine water quality.

In the Okeover Harbour area there is a serious shortfall of available parking for recreation visitors, industrial operations and for local residents. This has resulted in inappropriate use of park land for parking. The Okeover Harbour Authority has initiated a strong effort to provide an alternate larger parking area.

Objective:
Support the Okeover Harbour Authority in development of an alternate parking facility.

Strategies:
- Support the Okeover Harbour Authority in development of an alternate parking facility. Upon completion of the construction of their facility close the areas within the park's road edges which are presently being used for parking.

3.5 Protected Area Zoning

Zoning is used in park planning to develop general management guidelines for areas of a park on a geographical and ecological basis. Each zone reflects a general level of management with respect to natural, cultural and recreational values. The entire land base of Tux'wnech Okeover Arm Provincial Park is included in a single zone, the Intensive Recreation Zone.

Zone Objective
The objectives of this single zone is to provide an area of developed recreation facilities for overnight car accessible camping, for ocean shoreline day use activities, and to support a parking and staging area for sea kayakers and small boaters accessing Desolation Sound Marine Park.

Zone Description
This zone includes all of the area, 4 hectares, found within Tux'wnech Okeover Arm Provincial Park.

Zone Rationale
This zone was chosen for the following reasons:
- The area will be managed with relatively high levels of facility development over most of the park area.
- The primary management directions will be the provision of recreation facilities, the maintenance of a natural setting over the non developed areas of the park, and the protection of First Nation cultural values and natural shoreline values.
- The area is relatively small and must be managed as a single unit or zone.

Zone Activity
Table 4 indicates the activities and uses that will apply within the Intensive Recreation Zone in this park.

Table 4: Acceptable Uses, Activities and Facilities in Tux'wnech Okeover Arm Provincial Park.

Activity/Use/Facility	Acceptable Uses	Comments
First Nation Traditional Use	Y	Subject to conservation and public safety.
Hunting	N	Park area is too small and immediately adjacent to public roads.
Fishing	Y	Fishing from shoreline subject to fishing regulations.
Other domestic animals	M	Restricted to domestic pets (e.g. dogs) on leash.
Trails	M	Limited to trails within campground area.
Overnight Camping	Y	Restricted to designated sites within campground area.
Campfires	Y	Restricted to designated sites within campground area.
Commercial Recreation	Y	Activities compatible with park purpose and plan.
Road Access	Y	Road access to campsites.
Commercial Filming	M	Subject to provincial policy.
Forest Insect/Disease Control	M	Subject to provincial policy.
Noxious Weed Control	N1	Subject to provincial policy.
Exotic Insect/Disease Control	M	Subject to provincial policy.
Scientific Research (specimen collection)	M	Subject to provincial policy.
Scientific Research (manipulative activities)	M	Subject to provincial policy.

Y= allowed subject to conditions identified in the management direction statement or management plan
M= may be permitted if compatible with park objectives
N= not allowed
N1= allowed for expressed management purposes only

4.0 Plan Implementation

Due to the small size of this park and the relatively small number of proposed strategies, direction on the priorities is not provided.

Appendices

Appendix I: BC Parks Conservation and Recreation Goals

Protected Areas Strategy Goals for Protected Areas

Goal 1: Representativeness
To protect viable, representative examples of the natural diversity of the province, representative of the major terrestrial, marine and freshwater ecosystems, the characteristic habitats, hydrology and landforms, and the characteristic backcountry recreational and cultural heritage values of each ecosection.

Goal 2: Special Features
To protect the special natural, cultural heritage and recreational features of the province, including rare and endangered species and critical habitats, outstanding or unique botanical, zoological, geological and paleontological features, outstanding or fragile cultural heritage features, and outstanding outdoor recreational features such as trails.

BC Parks Conservation Goals

Goal 1: Landscapes
To conserve B.C.'s natural diversity by protecting viable, representative examples of our 59 different landscapes.

Goal 2: Special Features
To protect B.C.'s key natural and cultural features. These have been identified as physical, biological or cultural elements and evaluated as to abundance, significance and value in terms of conservation, education and recreation.

BC Parks Recreation Goals

Goal 1: Tourism Travel Routes
To provide parks and services which enhance tourism travel routes.

Goal 2: Outdoor Recreation Holiday Destinations
To provide park attractions which serve as or improve key destinations for outdoor recreation holidays.

Goal 3: Backcountry
To provide outstanding backcountry recreation opportunities throughout the province.

Goal 4: Local Recreation
To ensure access to local outdoor recreation opportunities for all residents of this province.

Appendix II: BC Parks Zoning Framework

Protected Areas Zone Descriptions			
	Intensive Recreation	**Nature Recreation**	**Special Feature**
Objective	To provide for a variety of readily-accessible, facility-oriented outdoor recreation opportunities.	To protect scenic values and to provide for backcountry recreation opportunities in a largely undisturbed natural environment.	To protect and present significant natural or cultural resources, features or processes because of their special character, fragility and heritage values.
Use Level	Relatively high density and long duration types of use.	Relatively low use but higher levels associated with nodes of activity or access.	Generally low.
Means of Access	All-weather public roads or other types of access where use levels are high (see "Impacts" below).	Motorized (powerboats, snowmobiles, all-terrain vehicles) and non-motorized (foot, horse, canoe, bicycles). Aircraft and motorboat access to drop-off and pick-up points will be permitted.	Various; may require special access permit.
Location	Contiguous with all-weather roads and covering immediate areas, modified landscapes or other high-use areas.	Removed from all-weather roads but easily accessible on a day-use basis. Accessible by mechanized means such as boat or plane.	Determined by location of special resources; may be surrounded by or next to any of the other zones.
Size of Zone	Small, usually less than 2,000 hectares.	Can range from small to large.	Small, usually less than 2000 hectares.
Boundary Definition	Includes areas of high facility development in concentrated areas.	Boundaries should consider limits of activity and facility areas relative to ecosystem characteristics and features.	Area defined by biophysical characteristics or the nature and extent of cultural resources (adequate to afford protection).
Recreation Opportunities	Vehicle camping, picnicking, beach activities, power-boating, canoeing, kayaking, strolling, bicycling, historic and nature appreciation, fishing, snow play, downhill and cross-country skiing, snowshoeing, specialized activities.	Walk-in or boat-in camping, power-boating, hunting, canoeing, kayaking, backpacking, bicycling, historic and nature appreciation, fishing, cross-country skiing, snowmobiling, river rafting, horseback riding, heliskiing, helihiking and specialized activities.	Sightseeing, historic and nature appreciation. May be subject to temporary closures or permanently restricted access.
Facilities	May be intensely developed for user convenience. Campgrounds, landscaped picnic or play areas, trail accommodation or interpretative buildings, boat launches, administrative buildings, service compounds, gravel pits, disposal sites, woodlots; parking lots, etc.	Moderately developed for user convenience. Permitted: trails, walk-in or boat-in campsites, shelters, accommodation buildings, facilities for motorized access (docks, landing strips, fuel storage, etc.)	Interpretative facilities only; resources are to be protected.
Impacts on Natural Environment	Includes natural resource features and phenomena in a primarily natural state, but where human presence may be readily visible as both recreation facilities and people using the zone. Includes areas of high facility development with significant impact on concentrated areas.	Area where human presence on the land is not normally visible. Facility development limited to relatively small areas. Facilities are visually compatible with natural setting.	None: resources to be maintained unimpaired.
Management Guidelines	Oriented to maintaining a high-quality recreation experience. Intensive management of resource and control of visitor activities. Operational facilities designed for efficient operation while unobtrusive to park visitors.	Oriented to maintaining a natural environment and high-quality recreation experience. Visitor access may be restricted to preserve the recreation experience or to limit impacts. Separation of less compatible recreational activities and transportation modes. Designation of transportation may be necessary to avoid potential conflicts (e.g., horse trails, cycle paths, hiking trails).	High level of management protection with ongoing monitoring. Oriented to maintaining resources and, where appropriate, a high-quality recreational and interpretative experience. Active or passive management, depending on size, location and nature of the resource. Visitor access may be restricted to preserve the recreation experience and to limit impacts.
Examples of Zoning	Campground in Rathtrevor Beach Park; Gibson Pass ski area in E.C. Manning Park.	Core area in Cathedral Park; North beach in Naikoon Park.	Botanical Beach tidepools in Juan de Fuca Park; Sunshine Meadows in Mt. Assiniboine Park.

Protected Areas Management Planning Zone Descriptions		
	Wilderness Recreation	**Wilderness Conservation**
Objective	To protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities, depending on a pristine environment where air access may be permitted to designated sites.	To protect a remote, undisturbed natural landscape and to provide unassisted backcountry recreation opportunities, depending on a pristine environment where no motorized activities will be allowed.
Use Level	Very low use to provide solitary experiences and a wilderness atmosphere. Use may be controlled to protect the environment.	Very low use to provide solitary experiences and a wilderness atmosphere. Use may be controlled to protect the environment.
Means of Access	Non-mechanized & non-motorized. May permit low-frequency air access to designated sites; foot, canoe and horse access may be permitted.	Non-mechanized & non-motorized; foot, canoe and horse access may be permitted.
Location	Remote, not easily visited on a day-use basis.	Remote, not easily visited on a day-use basis.
Size of Zone	Large, greater than 5,000 hectares.	Large, greater than 5,000 hectares.
Boundary Definition	Defined by ecosystem limits and geographic features. Boundaries will encompass areas of visitor interest for specific activities supported by air access.	Defined by ecosystem limits and geographic features.
Recreation Opportunities	Backpacking, canoeing, kayaking, river rafting, nature and historic appreciation, hunting, fishing, cross-country skiing, snowshoeing, horseback riding, specialized activities (e.g., caving, climbing).	Backpacking, canoeing, kayaking, river rafting, nature and historic appreciation, fishing, cross-country skiing, snowshoeing, horseback riding, specialized activities (e.g., caving, climbing).
Facilities	Minimal facility development for user convenience and safety, and protection of the environment e.g., trails, primitive campsites. Some basic facilities at access points, e.g., dock, primitive shelter.	None.
Impacts on Natural Environment	Natural area generally free of evidence of human beings. Evidence of human presence is confined to specific facility sites. Facilities are visually compatible with natural setting.	Natural area generally free of evidence of human beings.
Management Guidelines	Oriented to protecting a pristine environment. Management actions are minimal and not evident. Managed to ensure low visitor use levels. Visitor access may be restricted to protect the natural environment and visitor experience.	Oriented to protecting a pristine environment. Management actions are minimal and not evident. Managed to ensure low visitor use levels. Visitor access may be restricted to protect the natural environment and visitor experience.
Examples of Zoning	Quanchus Mountains Wilderness in Tweedsmuir Park; Wilderness Zone in Spatsizi Park.	Upper Murray River watershed within Monkman Park; Garibaldi Park Nature Conservancy Area.