

Social Impact Assessment of the Potential For National Park Reserve Lands on Bowen Island

Prepared for:

Parks Canada
300 – 300 West Georgia Street
Vancouver, BC V6B 6B4

Prepared by:

Lions Gate Consulting
207-2902 West Broadway
Vancouver, BC
t/f: 604.733.5622
info@lionsgateconsulting.ca



In association with:

Robinson Consulting and Associates Ltd., Victoria, BC
Peak Solutions Consulting Inc., Kamloops, BC

June 27, 2011

Executive Summary

Introduction

Parks Canada has embarked on an assessment of the feasibility of establishing national park reserve lands on Bowen Island. The feasibility assessment determines whether establishing national park reserve lands on Bowen Island is practical and desirable. As part of the feasibility process, Parks Canada has commissioned this study of the social implications of the proposed national park reserve lands.

This social impact assessment identified three key impact areas and related valued social components which are the focus of study (Table ES-1).

Table ES-1 Project Impacts and Related Valued Social Components

Project Impact	General Issues and Concerns	Valued Social Component
Displacement from Park Footprint	<ul style="list-style-type: none"> • Land is protected but also removed from alternative future uses • Use levels by residents and visitors may change 	Land Use
Change in Land Governance	<ul style="list-style-type: none"> • Loss of Local Control to Federal Government; (-) • Protects local character/heritage(+) 	Land Management
Temporary and Permanent Population Change	<ul style="list-style-type: none"> • Increase in tourism will increase economic activity and possibly enhance local character and heritage • Conversely, it may adversely affect transportation and ferry services and other quality of life measures. 	Quality of Life

Social Effects

The social effects of the proposed park reserve are summarized in Table ES-2. In terms of land use and management, the conversion of Crown lands to park will entail a transfer of management responsibilities and land use policies to Parks Canada and the authority of the *Canada National Parks Act*. Commercial extraction and motorized recreation activities will cease while the majority of tenure rights will be permitted under the park scenario. The public will see a change in the land management regime, including a change in enforcement presence. Local involvement in land management will also change but is unlikely to be substantively different than current Crown land management. Quality of life indicators would likely improve under the park scenario, but the increase in off-island visitors will aggravate already weak infrastructure, specifically in Snug Cove and on the ferries. The effect of the proposed park reserve will be to bring forward in time infrastructure problems that islander’s will have to deal with in the future anyway, even in the absence of the proposed park reserve.

In summary, and based on community feedback received in the McAllister survey and the Bowen Island Municipality’s National Park Community Advisory Committee Consultation report, we believe the social effects of the proposed park reserve to be positive on many indicators and negative on some others, mainly to do with population effects. Mitigating these adverse effects could effectively bring net social benefits to the community.

Table ES-2 Social Effects Summary

Valued Social Component	Effects
Land Use	<ul style="list-style-type: none"> • Most Crown tenures rights preserved. • Forestry, mining and other resource extraction not allowed. • Motorized recreation will not be allowed and while most public uses will be allowed the regulatory regime will be more strict than is currently the case. • Municipal community (surplus) land excluded.
Land Management	<ul style="list-style-type: none"> • Continued active local involvement in lands already in protected status. • Greater level of local involvement in Crown land now subject to Integrated Resource Management.
Quality of Life	<ul style="list-style-type: none"> • Creation of the national park reserve would be unlikely to create adverse effects in terms of socio-economic indices. • Protection of natural open space would have a positive future effect on real estate values . • Marginal changes in population can be expected to exacerbate the weak spots in some service areas such as ferry services; however, future population growth will force new management solutions anyway, even in the absence of the proposed park.

Table of Contents

1	Introduction	1
1.1	Background.....	1
1.2	Previous Economic Impact Assessment	1
1.3	Purpose	2
1.4	Social Impact Assessment Methodology	2
2	Assessment of Social Impacts	4
2.1	Introduction.....	4
2.2	Scoping.....	4
2.3	Land Use	8
2.4	Land Management.....	14
2.5	Quality of Life	21
3	References	24
3.1	Literature Cited.....	24
3.2	Personal Communications.....	25

Abbreviations

BIM.....	Bowen Island Municipality
ha.....	hectares
GDP.....	Gross Domestic Product
km.....	kilometres
LHA.....	Local Health Area
MFLNRO.....	Ministry of Forests, Lands and Natural Resource Operations
NPCAC.....	Bowen Island Municipality’s National Park Community Advisory Committee
OCP.....	Official Community Plan
QoL.....	Quality of Life
VSC.....	Value Social Components

1 Introduction

1.1 Background

Parks Canada has embarked on an assessment of the feasibility of establishing national park reserve lands on Bowen Island. The purpose of their assessment is threefold:

1. To determine, from Parks Canada's perspective, whether the lands and adjacent marine environment of Bowen Island offer sufficient potential for engaging greater Vancouver's urban audience in a memorable national park experience, and contribute sufficiently to the representation of the Strait of Georgia Lowlands Natural Region in the national park system, to warrant the establishment of national park reserve lands.
2. To determine, from Bowen Island's perspective, whether there is community support for the establishment of national park reserve lands on Bowen Island.
3. To determine if there is First Nations support for the proposal.

The feasibility assessment determines whether establishing national park reserve lands on Bowen Island is practical and desirable. It does not determine whether park reserve lands will be established, but identifies the scope of the park proposal and its associated opportunities and challenges. The feasibility assessment involves a number of different phases and associated actions, including technical studies and consultations. One of the key elements is the development of a park concept to provide a broad overview of what lands could be included, and how they could be operated and managed, if national park reserve lands were to be established on Bowen Island.

In addition, prior to the conclusion of the feasibility assessment, Bowen Island Municipality (BIM) will hold a community vote to determine if there is support on the island for the concept of national park reserve lands. If the result is majority support, and the overall assessment determines that national park reserve lands are feasible, governments may decide to proceed with negotiation of a park agreement.

During negotiations, governments determine whether the park concept can be implemented, and whether concerns raised during the feasibility assessment can be overcome. If successful, negotiations result in a formal agreement to establish national park reserve lands on Bowen Island.

1.2 Previous Economic Impact Assessment

In January 2011, Lions Gate Consulting Inc. completed an evaluation of the economic costs and benefits of the proposed park reserve lands on behalf of Parks Canada. The study addressed positive and negative economic impacts that the establishment of national park reserve lands might have on local businesses and institutions, and what an estimated potential increase in visitation would mean for community services and infrastructure. The following valued social components (VSCs) were studied:

- Private businesses (mostly related to businesses directly affected by increased expenditures associated with the proposed national park reserve lands);
- Non-commercial institutions and organizations that contribute to the island's economy;
- Physical infrastructure, particularly roads and the ferry service; and
- A range of municipal services.

1.3 Purpose

When the economic impact assessment was commissioned, Parks Canada indicated that an analysis of social costs and benefits of park establishment would be conducted separately. The purpose of this assessment, then, is to review the social implications of the proposed national park reserve lands. As with the economic assessment, the social assessment is strictly from the perspective of Bowen Island and does not consider the implications for Parks Canada, the province or society in general.

1.4 Social Impact Assessment Methodology

In this report, social impacts are loosely defined to include issues and concerns not directly assessed in the economic impact assessment, specifically those related to the social fabric of the community and the well-being of individuals and families. Such values could be affected by changes in the land use and management regime, population and demographic change or economic change. Net economic benefits are often associated with national parks and protected areas, yet other factors such as population growth, new development pressures or civic engagement could lead to change that some residents might deem negative. Yet other residents might take the opposing view that the act of creating national park reserve lands would, in fact, generate benefits both economic and social, through the protection of the land and the environment and the derivative activities associated with park operations (e.g. new opportunities for learning, exploration, interpretation). Many residents use the Crown land base for a variety of activities (mostly recreational in nature) and while these activities may not contribute significantly to key economic measures such as gross domestic product (GDP), they have perceived value in the view of most residents. Here too, the act of creating a park may be viewed as positive by some and detrimental by others.

A major challenge in setting up a social assessment framework is that values are variable and personal to the extent they do not lend themselves to independent, quantifiable, aggregate measures. There are some social values that could be considered core community values because they have been articulated or institutionalized through government or some other civic engagement process. Bowen Island Municipality's Official Community Plan (OCP) would be an example. These are assumed to take precedence in interpreting community values and will be the focus of this assessment. Many issues or concerns would not necessarily speak to core values but would nevertheless be recognized as important to the local lifestyle of the community.

The analytical and evaluation framework used in this study is the same as the economic assessment, namely:

- The park concept is defined and described as clearly as possible;
- Key values and how these might interact with the national park reserve lands are identified;
- Baseline conditions are documented for values most likely to be affected; and

- The potential effects of the national park reserve lands are identified according to the nature of change in key indicators.

The major sources of information for this assessment included:

- McAllister phone survey;
- Bowen Island Municipality's National Park Community Advisory Committee (NPCAC)¹ Consultation report;
- Parks Canada consultation record; and,
- Personal interviews.

¹ NPCAC is a consultative committee commissioned by and reporting to the municipality.

2 Assessment of Social Impacts

2.1 Introduction

The issues examined in this social impacts assessment were identified by Parks Canada, based on community consultations and other feedback. The first task is to identify those issues where a relationship to the national park reserve might reasonably be expected. Where this is the case, the matter is examined further, in particular to understand the nature of the relationship and identify relevant indicators. For issue and concerns where a causal link is not established, perhaps because the issue is not well defined, the relationship is not well understood, or no interaction is expected, the matter is set aside.

The challenge in a social assessment is that the matters are not necessarily manifest in external expressions, such as market transactions or activity rates, but may include individual values and aspirations. Social impacts are often assessed at the community level, which might entail an aggregation of individual or family views. It is difficult to gauge how intense these values are held by an individual or by the community. Would intense opposition by a few members of the community outweigh less intense support by a larger number of persons? This assessment does not attempt to aggregate resident views. Rather, the objective is to better understand the national park reserve lands' incremental contribution, both positive and negative, to the values and concerns expressed by Bowen Island residents as a community.

Our understanding of the Bowen Island residents' values and expectations generally, and with regard to the national park reserve proposal specifically, is drawn from the McAllister (2011) survey and the consultation report from the National Park Community Advisory Committee (2011). Our understanding of the national park reserve proposal is as stated in the Revised Park Concept.

The following scoping section is intended to move the analysis from the general to the specific by identifying the social impacts of consequence associated with the project. Examination of these effects is the focus of the remaining report.

2.2 Scoping

2.2.1 Pathways for Effects

It is important to view Bowen Island residents' perception of the national park reserve proposal within the context of what they feel makes Bowen Island a good place to live as well as their concerns about the island's future. McAllister's (2011) survey of island residents is used here as a gauge of these values because of the sound sampling methods applied. The findings of the survey are summarized in Table 2-1. The survey is important in terms of identifying the range of issues and their relative importance to Bowen Island residents. Upon first examination, the national park reserve would appear to be compatible with several of the attributes widely held as being "best aspects" of living on Bowen Island, or in addressing several of the widely held concerns.

Table 2-1 Important Issues for Bowen Island

Value	Percent of Responses
Best Aspects of life on Bowen Island	
Environment/Access to Nature/Forest/Ocean	26%
Quiet/Privacy	24%
Sense of Community	20%
Rural Setting/Size of Community	13%
Safety/Good for Children	6%
Distinct from Vancouver	4%
Concerns for the Future	
Development/Overdevelopment	48%
Population growth	24%
Ferry	23%
Environment	17%
Water shortages	10%
Municipal Planning	9%
Infrastructure	8%
Lack of Amenities	7%
Losing Sense of Community/rural	4%
Traffic/Transportation	3%
Taxes	2%
Safety	1%

Source: McAllister (2011)

Note: responses that were classified as other, don't know and not applicable responses not reported

The next step is to consider Bowen Island residents' attitudes toward the national park reserve proposal specifically, which McAllister also addressed. This requires a good understanding of the Revised Park Concept and how the national park reserve will potentially interact with social values. It is important to note that the Revised Park Concept used in our assessment is limited to reasonably understood terms, definitions, policies and expenditures as confirmed by Parks Canada. BIM's National Park Community Advisory Committee report has a considerable body of proposed options and recommendations for dealing with adverse effects; however, not all mitigations measures are confirmed, remaining as points of discussion for future park planning. Our assessment here focuses on the effects of national park reserve lands as can be predicted based on the Revised Park Concept and not on unforeseen mitigation that may arise in future negotiations.

The creation of national park reserve lands would entail a change in land use and management policy, which in itself may not directly affect social values. But once that change is implemented, a series of key events would take place that would have implications for social values, primarily along the following pathways:

- **Population:** National park reserve lands may attract new visitors to Bowen Island, and may induce some persons to move to/away from the island. The change in temporary and permanent

population has implications for a range of social issues and concerns. A national park reserve visitor forecast was estimated in the Economic Impact Assessment and is adopted for this analysis of social impacts.

- **Displacement of non-compatible land uses inside the national park reserve boundary:** Certain activities that are currently allowed on the land base would no longer be permitted on the national park reserve lands. The curtailment of these activities may have social (as well as economic) implications, that is desirable to some and not to others.
- **Governance:** Bowen Island residents hold a range of values and interests in the land base and operation of national park reserve lands and it is important to them that these are integrated into the choices and the decision making related to the national park reserve.

2.2.2 Key Issues

McAllister (2011) gathered residents’ views of the proposed national park reserve, as it was understood at that time. Again, the survey is valuable in terms of identifying the issues and their relative importance. The relative importance is provided by the percentage of respondents in Table 2-2. The survey gathered views on both the positive and negative features of the national park reserve as perceived by the respondents.

Table 2-2 Park Specific Issue/Concerns as related to Project Impacts

Reasons for Views	% of answers	National Park Reserve Lands Impacts		
		Population effects	Displace from Park Footprint	Governance and Relationships
Those responding Park is a “good” idea				
Protects land and marine ecosystems	70%		✓	✓
Protects local character/heritage	10%			✓
Tourism benefit	12%	✓		
Other	9%			
Those responding Park is a “bad” idea				
Loss of Local Control to Federal Government	31%			✓
Ferry Capacity/Traffic	21%	✓		
Loss of tranquility / local character / heritage	12%			✓
Too many visitors	10%	✓		
No reason for park	9%			
Distraction from more important issues	9%			
Park does not improve protection	5%			
Oppose park	2%			
Ties up land	1%		✓	

Source: Reasons and Survey results from McAllister (2011)

The table also relates the issues and concerns to one or more of the impacts of national park reserve lands that were introduced above. For example, the protection of land and marine ecosystems is a consequence

of displacing incompatible land uses. An increase in visitor population may be correlated with increasing the tourism benefit. Similarly, governance arrangements will address the concern about losing control of the land base. The check mark in the cell indicates our initial view that a potential interaction may occur between an element of the national park reserve and an important issue or concern held by Bowen Island residents. This table gives direction to the scope of the effects assessments that follow. Cells that are not checked are not considered further. This is primarily because the issue or concern was not sufficiently defined.

The Value Social Components (VSC) are intended to capture a locus of concerns and issues that are similar in nature. Hence it is commonly the case that a number of concerns or issues may be contained in one VSC. The VSC is intended to represent the social impacts. In order to assess the national park reserve effect, changes in the VSC must be identifiable, at least the direction (e.g. qualitative) if not magnitude.

Table 2-3 lists the three VSC’s that capture the issues and concerns identified by Bowen Island residents, as recorded in the McAllister report, BIM’s NPCAC Consultation report and Parks Canada record of consultations. The table also lists the indicators available to “measure” the change in the social value attributed to the national park reserve. It is noted that the issues and concerns reflect both perceived beneficial and detrimental influences of the national park reserve on Bowen Island residents.

Table 2-3 Bowen Island Valued Social Components

Project Impact	General Issues and Concerns	Valued Social Component	Indicators of Change
Displacement from Park Footprint	<ul style="list-style-type: none"> • Protects land and marine ecosystems (+) • Protects local character/heritage (+) • Tourism benefit(+) • Use and enjoyment by Bowen Island residents (+,-) • Resident user fees (-) • Encumbers or ties up Crown land (-) • Potential future loss of private land (-) 	Land Use	<ul style="list-style-type: none"> • Environmental values • Tourism activity • Use and activity levels • Levels of acceptable use • User costs • Resource development • Development land availability
Change in Land Governance	<ul style="list-style-type: none"> • Loss of Local Control to Federal Government; (-) • Protects local character/heritage(+) 	Land Management	<ul style="list-style-type: none"> • Local input • Decision making processes • Dispute resolution • Heritage resources
Temporary and Permanent Population Change	<ul style="list-style-type: none"> • Tourism benefits (+) • Influx of visitors (+-) • Change in tranquility/local character heritage(+) • Adverse effects on transportation services (-) • Increased crime (-) • Too many visitors (-) • Increased/decreased fire risks (+) • Ferry Capacity/Traffic(-) • Costs and availability of housing/real estate (-) 	Quality of Life	<ul style="list-style-type: none"> • Socio-economic indices • Property values

2.3 Land Use

National park reserve lands on Bowen Island are fundamentally about a change in land use from one set of guidelines to another. When this occurs, some uses now happening on the land base will be allowed to continue, some will not and others might continue but under a different set of rules and regulations. Each could set off social impacts, which in this assessment is confined to the perspective of residents of Bowen Island. The land use issues and concerns outlined in Table 2-3 are grouped into three areas of concern to facilitate discussion. They are:

- Tenured land uses;
- Public land uses; and
- Local government land use.

2.3.1 Baseline Conditions

Tenured Land Use

A list of tenures compiled from an initial analysis of the areas of interest for national park reserve lands is shown in Table 2-4. If the process proceeds to negotiations, not all lands and waters identified may be included in the final boundary. An initial tenure analysis found a total of 133 tenures, the majority of which are for individual or government use, with the remainder held by commercial enterprises.

- Tenures held by individuals and private organizations include crown grants, water licences for residential or personal use, water works connected to licences, rights-of-way and a transportation permit.
- Institutional interests include several provincial government licensees, BIM, Metro Vancouver, Islands Trust and the Department of Fisheries and Oceans. Tenures would be mainly for environmental protection (watershed and ecological reserves, parks) or infrastructure access (waterworks, water leases, navigation aide).
- Utility companies have licences for communication sites and utility lines.
- The tenures related to potential resource development activity are as follows:
 - A quarrying reserve notation is held by BIM as a potential future source of aggregate. The value of this deposit is unknown.
 - There are two mineral claims, located on Mt. Gardner and covering a total of 50 hectares, held by an individual in Lions Bay. The tenures were issued in 2004 and prospecting work was carried out in 2005-06, to a total estimated value of \$1934.

An occupant licence to cut of 0.34 hectares exists on Crown Block 5. This tenure is issued for the cutting, or cutting and removal, of timber from Crown land or private land where the timber impedes the occupant's ability to exercise his rights of occupation. It is generally issued for a specific area over a relatively short period of time.

Table 2-4 Initial Tenure Analysis of Crown Land Tenures within Areas of Interest

Responsible Agency	Description	# of Tenures	Interest Area (Hectares)
Agriculture Land Commission	Agriculture Land Reserve	1	86.8
MFLNRO	Communications Sites	6	2.5
MFLNRO	Communications Right of Way	3	3.3
MFLNRO	Environmental Protection/Conservation	1	49.7
MFLNRO	Fee Simple (Island Trust & Municipal)	3	27.7
MFLNRO	Fee-Simple (Metro Vancouver)	5	n/a
MFLNRO	Planning/Marketing/Development	1	50.0
MFLNRO	Recreational Residential Lease	1	0.3
MFLNRO	Residential Crown Grant	2	0.6
MFLNRO	Sand and Gravel Quarry/Notation	1	22.4
MFLNRO	Transportation Reserve/navigation aid	1	1
MFLNRO	Transportation Permit/Roadway	1	n/a
MFLNRO	Utility Licence/water line	1	0.7
MFLNRO	Utility Licence/telecommunication line	1	0.2
MFLNRO	Utility Right-of-way/electric power line	6	1.2
MFLNRO	Utility Right-of-way/water line	4	0.9
MFLNRO	Use, Recreation and Enjoyment of the Public Reserve	1	n/a
MFLNRO	Recreation Reserve	1	n/a
MFLNRO	Watersheds Reserve	8	1,780.5
Ministry of Energy & Mines	Mineral Claims	2	50.0
Ministry of Environment	Ecological Reserve	1	399.6
Ministry of Environment	Guide Outfitter Area Certificate	1	n/a
Ministry of Environment	Park Designation (Apodaca Park)	1	11.6
Ministry of Environment	Snug Cove Water Lot Lease	1	1.9
Ministry of Environment	Water Works/connected to water licence	53	n/a
Ministry of Environment	Water Licences/Domestic Use	17	n/a
Ministry of Environment	Water Licence/Federal	1	n/a
Ministry of Environment	Water Licences/Irrigation	1	3,083.7
Ministry of Environment	Water Licences/Local Gov. Land Improvements and Waterworks	3	n/a
MFLNRO	Occupant Licence to cut ¹	1	0.3
MFLNRO	Forest Recreation/Mt. Gardner Trail	1	n/a
n/a	Municipality Right of way on Islands Trust Fund property ²	1	n/a
Total Number		133	

Note 1: Associated with a tenured right-of-way.

Note 2: Bowen Island Municipality holds a statutory right of way for trail purposes across the north portion of the property. A trail may be developed and managed, within the right of way, by the Bowen Island Parks and Recreation Commission.

Key: MFLNRO-Ministry of Forest, Lands and Natural Resource Operations.

- A guide outfitter company that operates out of Powell River, BC has an area certificate which covers a large area including all of Bowen Island, and allows the company to exclusively guide non-resident hunters on Crown land. However, the Wildlife Branch has a no shooting notice in effect for the Island that disallows resident and non-resident hunting with rifles. The Agricultural Land Commission has designated 86.8 hectares of agriculture land reserve within

the proposed national park reserve properties. At one time, this property supported a dairy farm; there is no recent record of commercial production. It is an important use area for the Bowen Island Horse Owners and Riders Association (BIHORA).

There is no mineral production or commercial timber harvesting activity occurring on Crown lands proposed for inclusion in the national park reserve. The District Manager Ministry of Forests, Land and Natural Resource Operations has indicated that there has been no expressed interest in harvesting on Bowen Island by forest licensees in recent years, nor have any licensees submitted or indicated an intention to put Bowen Island into a Forest Stewardship Plan (FSP). (NPCAC 2011)

Public Land Use

In terms of public use of the land base, the data is lacking. No records are kept of Crown land use, although outdoor recreation users understand anecdotally where the important use areas are and what activity levels are occurring. It is fair to say that the proposed park encompasses the vast majority of outdoor recreation sites on the island.

The only site with reasonably reliable use data is Crippen Regional Park, for which attendance estimates were presented in the Economic Impact Assessment. In recent years, the park has received roughly 275,000 “visits” annually by island residents², fulfilling a critical need as an outdoor recreation venue in support of numerous activities from walking, hiking and jogging to dog walking, nature observation and cultural pursuits. One of the key benefits enjoyed by islanders is that they do not have to pay to enter or use Crippen Regional Park, although fees are to be paid for reservable facilities including group picnic shelters and the ball field.

Local Government Land Use

The main issue for local government in the event of national park reserve land creation is the source of future development land in the Snug Cove area. Crippen Regional Park is seen as a future source of development lands that the community would require for Snug Cove (NPCAC 2011), but it is not clear if Metro Vancouver is or would be willing to cede existing park lands to the municipality for area development. Additionally, the new Bowen Island OCP has fundamental objectives that support land preservation and land development in Snug Cove—the first six goals of OCP emphasize preservation and environmental stewardship while goal 11 recognizes Snug Cove as the commercial and community heart of Island that will require future expansion (BIM 2010). Parks Canada has indicated they would be interested in acquiring Crippen, even if a portion were removed for community development.

2.3.2 Land Use Effects Assessment

Tenured Uses

The anticipated effects of the national park reserve status on crown tenures are shown in Table 2-5. It is important to note some areas of interest may not be included in the final boundary. If national park

² Crippen Park also receives approximately 30,000 off-island visitors annually.

reserve lands were to be established, existing provincial designations would no longer apply, such as ecological, park and recreation reserve designations.

The Agricultural Land Reserve designation within Crippen Regional Park would no longer apply if the lands are designated under the *Canada National Parks Act*. While large-scale agriculture is not permitted in national parks, small-scale activities such as community and collective gardens are allowed.

Parks Canada has indicated it will honour residential tenures, access points and marine infrastructure while water rights will be continued through formal agreements respecting the maintenance of ecological integrity within the park. Parks Canada will not prevent people from using historic access points.

As is the practice in other national parks, pre-existing utility tenures for communications, transportation and navigation will be permitted.

Parks Canada has indicated it could exclude the sand and gravel quarry notation in Crown Block 1 from their area of interest, thus allowing the municipality future access and development of this resource for community infrastructure. The active quarry in Crown Block 6 is excluded from the area of interest.

If negotiations support the establishment of national park reserve lands, tenured activities that are not compatible with the *Canada National Parks Act* would then be phased out or not included in the boundary. Adverse social impacts for islanders are not anticipated in this respect.

The occupant licence to cut is associated with a utility right-of-way. The right-of-way can continue to be maintained, but it must occur in a sound ecological manner, thus conditions may be applied, such as restrictions in regards to the use of chemicals and the timing of work.

The anticipated social impacts outlined in Table 2-5 are from the perspective of the baseline, that is, conditions on Bowen Island today. If we were to project forward in time and measure effects against future expected conditions in the absence of national park reserve lands, then adverse social impacts could arise due to more restrictive permitting policies. For example, recreation leases, Crown grants and other forms of personal use tenures would no longer be available to the public. Of course, islanders as a group may deem this a benefit of protecting these same lands as they would then be available for public enjoyment rather than individual use.

The same can be said for forestry and mining activities. Even though there is no forest licensee interest in harvesting timber on Bowen Island, the Crown forest remains in the timber harvesting land base and could conceivably be subject to harvest in the future. The Squamish Forest District Manager has indicated that there is almost no probability of future harvest, but the possibility still exists. One opportunity that the community would foreclose on is the potential for a community forest. The District Manager has proposed this as a future opportunity in communications with the NPCAC. (NPCAC 2011) Similarly, it is possible that a commercially feasible mine development could proceed in the future in the absence of the park. That likelihood appears low given what we know about the geology and exploration history of the island, and even if a development were to be proposed it might not be permitted through the environmental assessment process. However, like commercial forest harvesting, the possibility of future development does in fact exist. It would not with the national park reserve.

Table 2-5 Anticipated Effects on Crown Land Tenures

Category	Allowed Use	Future Status	Anticipated Social impacts
Agriculture Land Reserve	n/a	Convert to park	No loss of commercial production as ALR is already in a park Allowance for community gardens
Reserves other than ALR, and trails	n/a	Convert to park	None
Utility sites and rights-of-way	Yes	Permitted	None
Watersheds, water licences, water works, leases	Yes	Permitted	None
Residential Crown grants, recreation leases, fee simple properties	n/a	Boundary exclusion	None
Sand and Gravel Quarry/Notation	No	Boundary exclusion	None
Mineral Claims	No	Extinguished or Boundary exclusion	None
Guide Outfitter Area Certificate	No	Extinguished from outfitter area / Business licence may be issued for commercial guiding (no hunting)	None
Occupant Licence to cut (associated with a utility right-of-way)	n/a	Permitted with conditions	None

Public Uses

The issue of public access and use of a potential national park reserve is multi-faceted and complex. It entails numerous activities that most, if not all, islanders consider part of the local social fabric, things like walking, hiking or walking their dogs in Crippen Regional Park. The connection between the environment and the community's sense of place is intimate and enduring, a relationship that is reflected in the OCP and in existing partnerships with Metro Vancouver. In order to assess how the national park reserve might affect public use and enjoyment of Crown land and Crippen Regional Park, it would be helpful to identify critical causal factors and pathways:

- Most existing public use will be allowed within the national park reserve, but some will not, including motorized off-road recreation. This will benefit the majority of users but disadvantage others.
- Existing uses such as dog walking that will be allowed in the national park reserve will nevertheless be subject to spatial or other restrictions. This will be seen as an adverse outcome by some but a positive outcome by others.

- Facilities and infrastructure will be improved and maintained to higher standards than is currently the case. Parks Canada will invest in new park infrastructure, specifically trails, public areas, interpretation and cultural facilities.
- Over time, levels of recreational service and facilities will be determined through consultation. User fees could subsequently be applied and used to supplement the cost of maintaining those facilities. The increase in off-island visitors attracted by the national park reserve will increase “competition” for park spaces and could potentially alter the user experience.
- Enforcement and compliance of land use regulations will be more rigorous than is now the case in either Crippen Regional Park or on Crown land.

A major challenge in further describing the potential cause-effect relationships of the national park reserve is the interpretation of the Revised Park Concept. Parks Canada has updated and amended the park concept in response to community comments on the preliminary concept presented on February 26, 2011. The Revised Park Concept, while it helps clarify many issues concerning public use, will continue to be supported by some residents and opposed by others.

In reviewing Parks Canada and BIM’s NPCAC community consultation records, it is clear that opinions are also being shaped not only by the Revised Park Concept, but by differing interpretations as to what constitutes current and future conditions in the absence of national park reserve lands. Three key factors in this regard include:

- Base Case conditions – the Economic Impact Assessment presented population, visitor and ferry demand forecasts for Bowen Island in the absence of the national park reserve lands. We know from this research that population, visitation levels and ferry use will inevitably grow in the future and that what residents see or experience today on Bowen Island will not exist in the future. We believe islanders’ concerns about public use levels, congested trails and resource use conflicts are legitimate but that the most likely future causes are not incremental park visitation but population growth that will occur even if the national park reserve lands did not exist.
- Technical versus actual land uses – Provincial and Metro Vancouver land use policies have many restrictions that may or may not be observed by the public. Trails are not supposed to be created on Crown land but they do appear. Christmas trees are not supposed to be cut on Crown land without a permit but permits are rarely obtained by individuals. There are leash laws for dog walking in Crippen Regional Park but dog owners themselves recognize that these rules are not always followed. (NPCAC 2011). In these cases and others, social benefits can be obtained through the improper use of Crown land. This presents methodological challenges for the analyst seeking to identify effects attributable to the proposed national park reserve lands. Should incremental change be measured against what is happening on the land base or what is supposed to be happening on the land base?
- Compliance and enforcement – a closely related factor to the preceding questions is the change in land management regime, which is more fully explored in the next section of this report. In brief, we believe social impacts are more likely to be generated not so much by changes in land use (what is and is not allowed on the land base) but by compliance and enforcement practices. These are much more likely to be observed under Parks Canada management.

In summary, public land use patterns will change as a result of the national park reserve but we are not in a position to say that the magnitude of that use will actually decline or that the enjoyment of the experience will be less. As the McAllister and NPCAC findings show, many residents will welcome this change but others will not.

Local Government Land Use

As the NPCAC Consultation report points out, there are concerns by many in the community about land options for the future development of Snug Cove. Even without national park reserve lands those options appear to be limited as most are contained within Crippen Park, which is, of course, a protected area. Bowen Island Municipality did submit recommendations to Parks Canada for accommodating the municipality's needs to acquire some lands currently within Crippen Regional Park, specifically to deal with village development and ferry marshalling. Parks Canada has indicated that it would be interested in acquiring Crippen as part of a national park reserve even if portions were removed to accommodate BIM's needs, but that any land agreements would in fact be negotiated with Metro Vancouver. The municipal community (surplus) lands are not included in the area of interest considered by Parks Canada.

2.4 Land Management

As discussed earlier, if the national park reserve lands were to be created, ownership and jurisdiction to land and resource use would be transferred from current authorities to the federal government and managed according to the *Canada National Parks Act*. A concern held by a number of residents is that this would reduce the level of control or influence residents currently have with respect to land management matters. This is the central issue examined in this section.

The land proposed for inclusion in the national park reserve is currently owned and/or managed by the provincial Crown, municipality, Metro Vancouver Parks or Islands Trust Fund. It is possible that private land may be incorporated into NPR land base but this is not part of the current proposal, and is not considered in this assessment.

Presently, there are "layers" of management responsibilities held by different agencies for land and resources on the land base proposed for the national park reserve. This includes a number of provincial ministries, giving effect to provincial statutes (e.g. *Land Act*, *Water Act*, *Forest Act*), Islands Trust, Bowen Island Municipality and Metro Vancouver. The degree local interests may participate or influence the direction of each "layer" is addressed in the discussion of Base Case conditions.

The nature and scope for resident participation in the establishment and operation the national park reserve is drawn from our review of the Revised Park Concept.

Our focus here is local participation at the strategic policy or management levels of decision making, including the granting of tenure and setting allowable land uses, among others. Decision making at the operational level is excluded. However, it is noted that ad hoc partnerships are typically the avenue for local participation at the operational level.

In order to address the basic concern raised by some residents, a metric for measuring, at least in qualitative terms, the role of local interests in the management of Crown lands, both presently, and if the national park reserve proposal were to proceed, is helpful. Four levels of influence are suggested here, ranging from the least to the greatest level of local participation, and summarised in Table 2-6.

Table 2-6 Degrees of Local Participation

Local Input level	Input or Participation of local interests relative to statutory decision maker
None	Minimal information sharing and little to no local input
Referral/Liaison	Public advertisement. Public views invited, may involve public presentations.
Advisory	Input from residents or their representatives actively sought and views considered in the decision making process. Information flows in both directions. May include formal advisory body with specified responsibilities.
Co-management	Shared role in decision making and may include implementation. Generally involves a joint management board.

The four categories are intended to be representative of different degrees of local participation in decisions relating to land allocation and resource use. In practice, local input is often a continuum. For the purposes of this assessment, the main feature of “Referral/Liaison” is that information mainly flows from the agency vested with responsibility to the local interests,. The “Advisory” category involves two way flow of information, where the implementing agency would share its initiatives with local interests, and modify its plans as appropriate based on the feedback received. “Co-management” involves sharing of decision making responsibility with another entity. This allocation of decision making is not an option for the management of national parks in Canada.

2.4.1 Baseline Conditions

The lands being considered for the national park reserve include many of the BC Crown lands, provincial protected areas (Apodaca Provincial Park and Apodaca Mountain Ecological Reserve), two Islands Trust Fund Nature Reserves (Fairy Fen and Singing Woods), Crippen Regional Park, Quarry Park and the Davies Creek Corridor municipal park lands. The marine areas that might be included in the national park reserve are not addressed in this assessment

The Bowen Island Municipality and Islands Trust convey a “layer” of management direction consistent with the respective jurisdiction over provincial Crown lands. The mechanism for conveying management direction from the municipal level is primarily through the official community plan (OCP) and the adoption of municipal by-laws. The current process for updating Bowen Island’s OCP involves a steering committee and is highly reliant on public consultation and will ultimately be subject to public hearing. (Stelling 2011, pers. comm.). The process of implementing the OCP (i.e. the adoption and enforcement of by-laws) is less consultative in nature.

Table 2-4 summarizes the various valid tenures issued under provincial legislation held by private interests on the proposed national park reserve land base. Many of them are small in size. In the absence of national park reserve status, Crown land /resources will continue to be available for tenuring. The role

of local interests in the granting and on-going exercise of the various provincial tenures is discussed below and summarized in Table 2-7.

Table 2-7 Local Input in Crown Land Management (Base Case)

Tenure Type	Local Involvement				
	Stage	none	Referral, Liaison	Advisory	Co-management
OCP Land Designations and land use by-laws	Planning			✓	
	Implementation		✓		
Land Act, Lease, licences, rights of way, permits to enter or occupy Crown land.	Application		✓		
	Post-grant	✓			
British Columbia Park Act, Ecological Reserve Act	Planning		✓		
	Operation		✓		
<i>Water Act</i> tenures, mostly connections.	Application	✓	✓		
	Post-grant	✓			
<i>Mineral Tenure Act</i> , mineral (exploration) claims	Application	✓			
	Post-grant	✓			
Forest Act, (Occupant licence to cut)	Application	✓			
	Post-grant	✓			
Metro Vancouver-Crippen Regional Park	Planning			✓	
	Operation			✓	

Notes:

- ✓ indicates level of local involvement for “routine” proposal
- ✓ indicates potential level of local involvement if not routine

Access and/or occupation of Crown land is granted by the appropriate tenure issued under the *Land Act* (e.g., licence of occupation, lease, right of way, permit). The tenure application is received by Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) and is routinely referred to the local government for opinion and the need for special studies. A granted application is subject to it aligning with local rules and by-laws.(Douglas 2011, pers. comm.). The process activity of MFLNRO is characteristic of a referral/liaison level of local involvement. However, if the grant requires a re-zoning application, local interests have the opportunity to participate in the municipal process. It is noted that most of the Crown land proposed for the national park reserve is designated as Rural Reserve. The management objective of this designation is to maintain the rural resource values as set out in the OCP

and by-law. Tenures granted under the *Land Act* in the absence of the national park reserve would therefore be consistent with this designation, unless explicitly excluded. The exclusion process would be expected to involve the opportunity for input from local interests in the municipal process.

During the term of a *Land Act* tenure, the tenant has the right of “quiet enjoyment”, which might be disturbed at the request of the local government. Otherwise, a re-consideration of the terms of tenure would occur at the time of renewal and would typically not trigger the need for local input.

A water licence granted under the *Water Act* is required for the use or diversion of water and may include infrastructure for conveying water. In receiving an application, MFLNRO would assess the implications to adjacent water users to ensure existing rights are not infringed. This may involve contacting them. Where there is negligible impact, the application is granted. (Morgan 2011, pers. comm.). Relatively large scale proposals (e.g. dam structure and reservoir) may warrant greater public notice and public meetings. The water licences in the proposed national park reserve lands are for domestic consumption and connecting water works.

Permission to harvest Crown timber is granted under the *Forest Act*. For relatively large scale operations, this would involve the formulation of a Forest Stewardship Plan, which involves public consultation process by the applicant. On Bowen Island there is presently no active proposal by the forest industry, or the community, to undertake commercial scale forest management. Permission for an ‘occupation licence to cut’ has been issued to remove a small volume of timber. The permission is based on the primary tenure and is not subject to local referral. (Southam 2011, pers. comm.).

The right to explore for and develop Crown owned sub-surface mineral resource is conveyed by a mineral title issued under the *Mineral Tenure Act*. There are two mineral claims recorded on the Crown lands in the proposed national park reserve. On the presumption there is not a prior valid claim in existence and the mineral resource is not reserved (e.g., beneath a park), the claim by a qualified applicant is recorded by the government. Actual exploration and development work that causes surface disturbance is subject to approval by the Chief Inspector to ensure impacts on environmental and cultural resources are minimized. The approval is subject to referral, but typically does not involve public notice or hearings. Where a commercial deposit is discovered, before proceeding to development the holder may be required to obtain approval under the *Environmental Assessment Act*. The Act provides for extensive consultation with affected parties. This potential outcome is not portrayed in Table 2-7 because it occurs infrequently.

Apodaca Provincial Park and Bowen Island Ecological Reserve are provincial Crown land managed by BC Parks according to a park management (1983) and a management statement for the ecological reserve (1990). The park objectives are preservation and recreation (day use and walk-in overnight use) (Ministry of Lands Parks and Housing 1983). The ecological reserve was established to protect a representative undisturbed coastal forest close to Vancouver and universities. (Ministry of Lands Parks and Housing 1990). BC Parks engages with Bowen Island residents on the management of these protected areas on an ongoing basis as issues require. There is regular communication with the volunteer ecological reserve warden to identify management concerns. Parks staff visit the park and ecological reserve about 2-3 times per year, and respond to any community concerns and questions raised. (Hudson 2011 pers. com.). In

practice, the level of local engagement in these two protected areas is not particularly active, and most closely corresponds to liaison and information sharing relationship.

Crippen Regional Park is operated by Metro Vancouver consistent with the concept plan developed in the late 1980's – early 1990's. There was extensive consultation with local interests in developing the management plan, as it was before incorporation of the municipality, there was a high level of public interest (Paris 2011, pers. comm.). Since then, Metro Vancouver has developed working relationships with a number of local interests and has responded to local initiatives for park development. Active partners include the Heritage Preservation Association, Fish and Wildlife Club, Horse Owners and Riders Association, Softball Association, and the Memorial Garden Society, among others. These organizations are active in the park in their respective area of interest, such as maintaining facilities, coordinating events, etc.

With respect to new initiatives, the process may begin with the local interests approaching Metro Vancouver with a proposal or plan, or Metro Vancouver may propose a program or facility development (e.g. Festival Field Group Picnic Facility). In either case, discussion would follow to investigate the proposal and judge the level of support. Public information meeting or open house may be the vehicle for assessing general support for the initiative. A proposal may evolve through a number of interactions and may ultimately come before the Metro Parks Committee and Board for decision. Bowen Island has a representative on both the Parks Committee and the Board. The process clearly allows a two-way information flow while reserving final decision making, which corresponds to the advisory level of public involvement.

2.4.2 Land Management Effects Assessment

Parks Canada follows a sequence of steps in the process of determining whether a national park is feasible and desirable; and if so, a process for its establishment. The process is set out in the Revised Park Concept document (Parks Canada 2011). The early steps involve extensive consultation with residents to better understand the opportunities and challenges that might be involved in establishing national park reserve lands. If the process moves forward, the next step is negotiation with the provincial government, and if successful leading to a formal agreement. The agreement addresses the relinquishment of non-compatible tenures, the transfer of compatible uses and transfer of land, which is the establishment process. Park management planning would commence and the resulting park management plan would be subject to annual reporting and a 5-year review. The development of management plans, interim or long term, requires public consultation. Advisory bodies, where established, collaborate with Parks Canada staff in the development of management plans.

In the establishment of national park reserve lands, the Revised Park Concept indicates that activities compatible with the national park reserve's principles will be converted to a park use permit or agreement pursuant to the *Canada National Parks Act*. The intentions of Parks Canada are set out in the Revised Park Concept document. In its vision of operating the national park reserve, Parks Canada sets out several objectives it would work towards. Those objectives that have possible implications for local involvement in decision making and implementation include:

- Maintain or restore ecological integrity;
- Showcase Bowen Island's unique cultural heritage;
- Draw on community knowledge and resources to support education and outreach programs;
- National park reserve management respects the rural island character and community values; and
- Establish positive and respectful working relationships with community.

The Revised Park Concept also indicates that national park reserve lands on Bowen Island would be managed as part of Gulf Islands National Park Reserve. Permanent staff and a seasonal workforce would be located on Bowen Island. The concept indicates that a number of local partners and contractors would support the operations.

The Revised Park Concept indicates that the management of national park reserve lands would be supported by a local park advisory board.

“The board would advise the Park Superintendent and the Coastal BC Field Unit Superintendent, as appropriate, on matters relating to the planning, management and operation of national park reserve lands. Membership of the board would be balanced to effectively represent the interests of local residents, First Nations (should they be interested in participating on such a board) and those interests of Canadians focused on the protection, visitor experience and education mandate of national parks.”

Bowen Island residents were unanimous in desiring a Bowen Island advisory board which Parks Canada addressed in the Revised Park Concept. Parks Canada has indicated that:

“Bowen Island would have its own advisory board to provide advice on issues relating to park lands on the island. This board would also contribute to overall management direction for Gulf Islands National Park Reserve. The structure of boards varies across the country, as each park establishment agreement reflects the local context. The exact structure and membership of an advisory board is determined through negotiations.”

At this time the makeup and the responsibilities of the Bowen Island advisory board are subject to future discussions. It is noted that Parks Canada commits to partnering with local organizations and continuing activities. The facilities specifically identified for continued partnering include the fish hatchery, memorial garden, ball diamond, heritage cabins, museum, orchard, meadow, horse ring and horse trails.

Based on this interpretation of the Revised Park Concept, the degree of local involvement in land management in the national park reserve case is summarized in Table 2-8.

Table 2-8 Local Input in National Park Reserve Management

Tenure Type	Local Involvement				
	Stage	None	Referral, Liaison	Advisory	Co-management
National Park Reserve Establishment Process	Feasibility Assessment		✓	✓	
	Negotiation	✓			
	Establishment	✓			
	Interim Planning		✓	✓	
	Management Plan		✓	✓	
National Park Reserve Operations	Granting use permits	✓			
	Planning		✓	✓	
	Operations	✓	✓		

The issue of whether there is a loss of local influence or input to land management matters needs to recognize the different status of lands.

In the first case, lands that are presently in protected status, there is active local participation and mechanism/institutions for considering new activities and roles. Parks Canada is intending to continue these relationships. We conclude that both arrangements generally correspond to an “advisory” level of local involvement.

The second case corresponds to the Crown land base that is presently subject to integrated resource management and municipal by-laws. Local participation flows primarily through the participation in formulation of by-laws. Local participation in the consideration of provincial tenures is generally constrained to information sharing at most. With the national park reserve, existing and potential uses that are not compatible with the *Canada National Parks Act* would be excluded. Hence, there is a narrower scope of matters that might potentially be addressed by local interests, but we would expect the potential level of local participation to be greater. The local participation on the management of these lands would occur at the feasibility stage, and a role in a formal public consultations and an advisory function after national park reserve lands are established.

It is noted that the scope of responsibilities of the advisory board are not yet determined, but would presumably address a number of the issues raised by local interests in the feasibility assessment (e.g. access, fees, outreach programs).

2.5 Quality of Life

Quality of Life (QoL) is defined as the way of living of individuals, families (households), and societies, as manifested in the day to day interaction with their physical, psychological, social, and economic environments. QoL is expressed in both work and leisure behaviour patterns and (on an individual basis) in activities, attitudes, interests, opinions, values, and allocation of income.

Many organizations have developed quantitative models to measure QoL. International organizations such as the *Economist* magazine and Mercer Human Resource Consulting annually publish QoL indices based on several criteria used to compare the liveability of countries and cities. Invariably safety, stability, health and environmental sustainability are considered. (Mercer 2007)

The indicators of QoL used in this assessment include BC Stats' socio-economic index and property values. The rationale is as follows:

- The advantage of using these indicators is that they are quantitative, aggregate measures that provide a benchmark for assessing potential social impacts.
- BC Stats, in cooperation with the social ministries, has developed a comprehensive set of 80 indicators describing socio-economic conditions across British Columbia regions. In an effort to effectively synthesize and communicate these results, an index was developed that is now regularly published to aid decision-making by social agencies in Local Health Areas (LHAs) and Regional Districts in BC. Bowen Island is part of the West Vancouver-Bowen Island LHA.
- In an effort to understand the willingness to pay or the value placed on the quality of life enjoyed by residents of Bowen Island a hedonic pricing method is considered. Hedonic pricing indirectly estimates economic values for quality of life and natural environment by looking at market prices of some other good that is directly affected. Hedonic pricing applications typically use residential housing prices to estimate the value of environmental and lifestyle amenities. The method is based on the assumption that people value the characteristics of a good, or the services it provides, rather than the good itself. Thus, prices will reflect the value of a set of characteristics, including environmental characteristics that people consider important when purchasing the good (D. King, M. Mazzotta. 2000).
- There is an extensive research base where property values are a leading benchmark for deteriorating QoL (e.g. beside airports, under high-voltage transmission lines, in decaying urban neighbourhoods with high levels of crime) as well as for enhanced QoL. The latter is often related to the phenomena of Amenity Migration, the growth of communities in proximity to parks and protected areas. Amenity Migration is the result of the environmental benefits and relative land use certainty that people perceive will contribute to enhancing QoL. In other words, a community with an attractive QoL will be positively valued by households and this will be reflected in stable or rising property values.

2.5.1 Baseline Conditions

The socio-economic index draws on an aggregation of indicators covering human economic hardship, crime, health, education, and children and youth risk. Of the 77 BC LHAs ranked in 2009, West Vancouver-Bowen Island LHA (LHA 45) scored as having the best overall well-being in British Columbia

in 2009. The LHA also achieved the highest ranking on five of the five composite measures, including crime, health, education, children at risk and youth at risk. (BC Stats. 2010) In addition, LHA 45 has consistently scored high in previous year rankings. Although Bowen Island represents seven percent of the total LHA population, our discussions with service providers during the Economic Impact Assessment indicated that the index was reasonably representative of the local community.

In general, the price of a house is related to the characteristics of the house and property itself, the characteristics of the neighbourhood and community and environmental characteristics. Therefore the communities that are judged to be better off, based on the socio-economic index of BC Stats should in general reflect higher property values.

This is apparent in Table 2-9, where LHAs with higher socio-economic indices have higher property values. One of the reasons for Bowen Island’s high property values is the perceived benefit of living in proximity to ecological assets, including forested Crown land, parks and ocean waterfront (as well as close proximity to urban areas). According to McAllister, one quarter of all residents see the best aspect of living on Bowen Island as the access to nature, forest and ocean (Table 2-1). Presumably, one of the reasons property values do not approximate those in West Vancouver is transportation cost; that is, the perceived time commitment, direct cost and uncertainty associated with ferry travel (a major concern of Islanders according to McAllister) is likely a factor in willing to pay for property and is therefore seen as a negative influence on QoL.

Table 2-9 Housing Values By LHA, 2010

LHA	Socio-Economic Index Rank	Key Municipality	Housing Value
LHA 45 (West Van-Bowen Is)	77 (Best off)	Bowen Island West Vancouver	\$778,110 \$1,443,075
LHA 63 (Saanich)	76	Saanich	\$589,641
LHA 44 (North Vancouver)	75	City of North Vancouver District of North Vancouver	\$739,726 \$829,762
LHA 24 (Kamloops)	40	Kamloops	\$327,769
LHA 15 (Penticton)	31	Penticton	\$363,160
LHA 85 Van Island North	4	Port McNeill Port Hardy	\$184,977 \$151,034
LHA 31 (Cariboo-Chilcotin)	3	Williams Lake	\$186,655
LHA 32 (Hope)	2 (Worst off)	Hope	\$221,068

Source: BC Stats (2010) and Ministry of Community, Sport and Cultural Development (internet site).

2.5.2 Quality of Life Effects Assessment

Table 2-3 indicated that population change was the most likely contributor to changing QoL values on Bowen Island. In assessing how the national park reserve would contribute to population change and therefore be a source of change in QoL, it is necessary to characterize base case conditions on the Island in the absence of the park. The baseline conditions outlined above are those that exist today, but it is self evident that those conditions will change over time and be different in the future. A determination of

social impacts should take into consideration those future conditions and not assume that current conditions persist in time. The critical base case conditions as outlined in the economic assessment are summarized as follows:

- The creation of the national park reserve was not seen as creating permanent population growth above and beyond what is already anticipated without the park. Bowen is a growing community and will continue to grow in the future, as explicitly laid out in the OCP. Population growth is inevitable on the island and that (and not current conditions) sets the context for potential social change.
- The national park reserve would create “temporary” population impacts through increased visitation levels, which would increase use in Crippen Regional Park and Snug Cove area and create more ferry congestion during peak summer periods, especially long weekends. Importantly, these effects would eventually appear on the island anyway because of local and regional population growth so what the national park reserve is really doing is bringing forward demand, and impacts, in time.

With specific reference to the issues identified in Table 2-1, the “best aspects of life” on Bowen Island are likely to be enhanced by the national park reserve, while “concerns for the future” are much more likely to be affected by base case conditions than the park. In other words, the national park reserve’s contribution to problem issues will be minor in comparison to the impact of future population growth without the park.

Our conclusion is that the creation of the national park reserve would be unlikely to create adverse effects in terms of our leading indicators, the socio-economic index and property values. In fact, park research around the world would suggest that the effects would be favourable. The national park reserve is likely to bring greater certainty as to what activities and usages will take place on the land base. In so doing, greater benefits will accrue to property owners on the Island but especially to those in close proximity to the park boundaries. The research shows that natural open space has a positive effect on real estate values and highlights homebuyers’ willingness to pay a premium for properties near natural open space (D. Curran. 2001).

Notwithstanding the anticipated positive long term effects, we recognize that the marginal changes in population, mainly through summer visitation, will contribute to a deteriorating QoL in the short term unless the adverse effects are suitably mitigated and managed. This includes summer ferry travel and Snug Cove congestion.

3 References

3.1 Literature Cited

- BC Stats. December 2010. Overall Regional Socio-Economic Index. Available at: http://www.bcstats.gov.bc.ca/data/sep/choose_i.asp. Access May 18, 2011.
- BC Stats. October 2010. British Columbia Regional Socio-Economic Indicators. Available at: <http://www.bcstats.gov.bc.ca/data/sep/method.pdf>. Accessed May 18, 2011.
- Curran, D. May 2001. Economic Benefits of Natural Green Space Protection. Published by Smart Growth British Columbia and, The Polis Project on Ecological Governance.
- D. King and M. Mazzotta. 2000. Ecosystem Valuation. University of Maryland with funding from US Department of Agriculture. Available at: <http://www.ecosystemvaluation.org/default.htm>. Accessed May 18, 2011.
- Lions Gate Consulting. January 2011. Economic Impact of the Potential For National Park Reserve Lands on Bowen Island.
- Ministry of Community, Sport and Cultural Development. Nd. Taxes and Charges on Representative House – 2010. Available at: http://www.cscd.gov.bc.ca/lgd/infra/tax_rates/tax_rates2010.htm. Accessed May 18, 2011.
- Ministry of Environment. March 1990. Bowen Island Ecological Reserve #48 Management Statement. Available at: http://www.env.gov.bc.ca/bcparks/planning/mgmtplns/bowen_er/bowen_ms.pdf
- Ministry of Lands, Parks and Housing. November 1983. Apodaca Master Plan. Available at: http://www.env.gov.bc.ca/bcparks/planning/mgmtplns/apodaca/apodaca_mp.pdf
- Morford, Shawn. August 2007. A Review of Social Indicators for Land Use Planning in British Columbia. Ministry of Agriculture and Lands.
- Municipality of Bowen Island. June 19, 2010. Towards a Sustainable Future – Official Community Plan Update (DRAFT).
- McAllister Opinion Research. 2011. Bowen Island Poll: Local Perspectives on the Proposed National Park Reserve – Final Results Fielded March 4-9, 2011.
- National Park Community Advisory Committee. April 2011. Bowen Island National Park Reserve Community Consultation Report.
- Parks Canada. September 2010. What We Heard: Phase 1 Public Consultations – A Feasibility Assessment of the Potential for National Park Reserve Lands on Bowen Island.
- Parks Canada. February 26, 2011. Preliminary National Park Reserve Concept for Bowen Island.
- Parks Canada. 2011. Revised National Park Reserve Concept for Bowen Island.

3.2 Personal Communications

Douglas, Ross. Section Head, Crown Land Authorizations. Ministry of Forests, Lands and Natural Resource Operations. Telephone interview May 17, 2011.

Hudson, Brett, Senior Parks and Protected Area Planner, Planning and Land Administration, Ministry of Environment. Commented on draft, e-mail dated June 14, 2011.

Morgan, Chris, Water Rights Specialist, Water Allocation and Safety, Ministry of Forests, Lands and Natural Resource Operations. Telephone interview May 16, 2011

Paris, Greg. Area Planner for West Area Parks, Metro Vancouver. Telephone interview May 16, 2011

Stelling, Hap. Director of Planning, Municipality of Bowen Island. Telephone interview May 17, 2011

Southam, Dave. Manager of Authorizations. Ministry of Forests, Lands and Natural Resource Operations. Telephone interview May 13, 2011