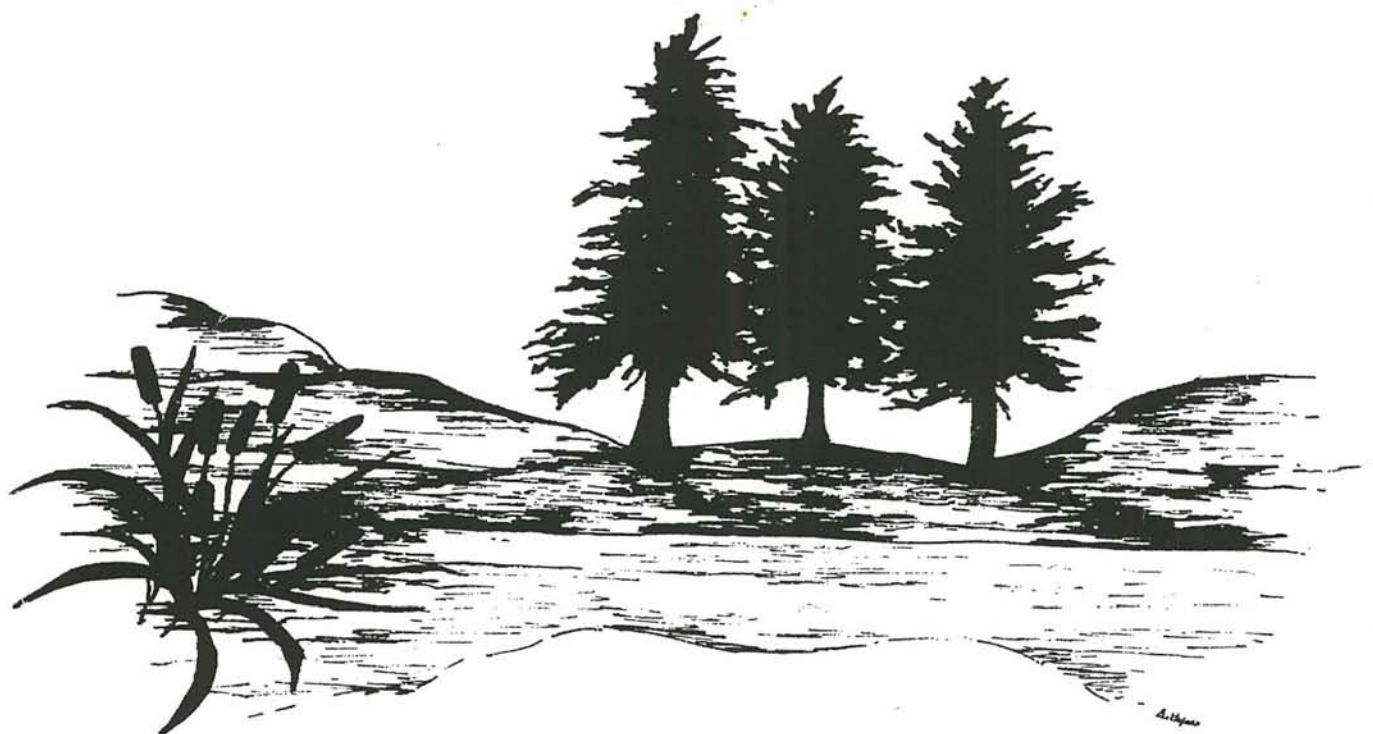


Your Community Backyard



A Community Study of the Wildlands Area

Contributors:

Neil Angus
David Atkinson
Billie-Jane Buell
Corrie Davis
John Embrett
Dr. Jill Grant

Ardelle Hynes
Paul Jordan
Greg Landry
Jamal Ramjohn
Juno Shum
Henri Steeghs

Nova Scotia College of Art and Design
Environmental Planning Studio II
Spring 1995



TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
2.0 APPROACH.....	3
3.0 THE WILDLANDS.....	4
4.0 LAND USE ON MAINLAND SOUTH.....	6
4.1 HISTORIC USES OF THE LAND.....	6
4.2 PRESENT AND PROSPECTIVE LAND USE	10
5.0 LAND OWNERSHIP.....	12
6.0 COMMUNITIES SURROUNDING THE WILDLANDS.....	14
6.1 COMMUNITY CHARACTER.....	14
7.0 COMMUNITY SURVEY	16
7.1 STRUCTURE	16
7.2 FINDINGS.....	17
<i>Spryfield (Central and South)</i>	17
<i>Spryfield (Williams Lake side)</i>	18
<i>Herring Cove</i>	18
<i>Williams Lake</i>	19
<i>Purcell's Cove</i>	19
8.0 KEY INFORMANT INTERVIEWS	22
9.0 COMMUNITY CONCERNS.....	24
10.0 OTHER ISSUES CONNECTED WITH THE WILDLANDS.....	28



11.0 CONCLUSIONS.....	30
11.1 RECOMMENDATIONS	30
BIBLIOGRAPHY.....	33
APPENDIX A: QUESTIONNAIRE	35
APPENDIX B: SAMPLING FRAME	36

LIST OF MAPS

LOCATION OF THE WILDLANDS.....	2
MAP 1: ENVIRONMENTALLY SENSITIVE AREAS WITHIN THE WILDLANDS.....	5
MAP 2: HISTORIC LAND USE.....	9
MAP 3: PRESENT LAND USE.....	9
MAP 4: LAND OWNERSHIP WITHIN THE WILDLANDS.....	13
MAP 5: RECREATIONAL USE IN THE WILDLANDS.....	21
MAP 6: RECREATIONAL USE AND ENVIORNMENTAL SENSITIVITY.....	27
MAP 7: AREAS WITH DEVELOPMENT POTENTIAL IN THE WILDLANDS	29



Preface

Putting a group of eleven second-year undergraduates together to form a team involves a certain measure of risk. Will they function effectively together? Will they produce useful results? Will they remain friends by the end of the semester? In this case, the answer to all questions seems to be "yes".

Between January and April a disparate group of students worked co-operatively to provide background information for the Halifax Mainland South community. With limited supervision they designed their own research strategy, collected relevant materials, surveyed community residents, prepared educational exercises, and organized a community open house. In the process of taking on the project the students demonstrated their ability to accept challenges and to produce valuable products for the community.

The Wildlands Working Group placed its faith in students this year; for that we at the College are extremely grateful. Without the co-operation of Fred Holtz, Kathleen Hall, and others we would not have been able to take on the project. Students wish to thank all the members of the Working Group for their support. We also appreciate the co-operation and interest of residents around the Wildlands. Commitment to the Wildlands is strong and growing, as we found in our dealings with both young and old in the area.

The report which follows may include some errors of oversight or omission. On behalf of the students, I apologize for any problems which remain with the document. Nonetheless, the report provides a useful starting point for the Wildlands Working Group in its continuing quest to protect and conserve the wilderness backyard of which they are justly proud.

Jill Grant

Faculty Advisor



1.0 Introduction

In the fall of 1994, members of the Wildlands Working Group (hereafter known as WWG), a coalition of community groups interested in planning to protect the land between Herring Cove Road and Purcell's Cove Road, approached Environmental Planning students at the College of Art and Design for assistance in considering future land use of the Wildlands. The WWG is committed to:

- 1) protecting water quality and existing species and habitats,
- 2) improving and preserving access to existing trails, lakes and vistas,
- 3) planning future land use consistent with the above.

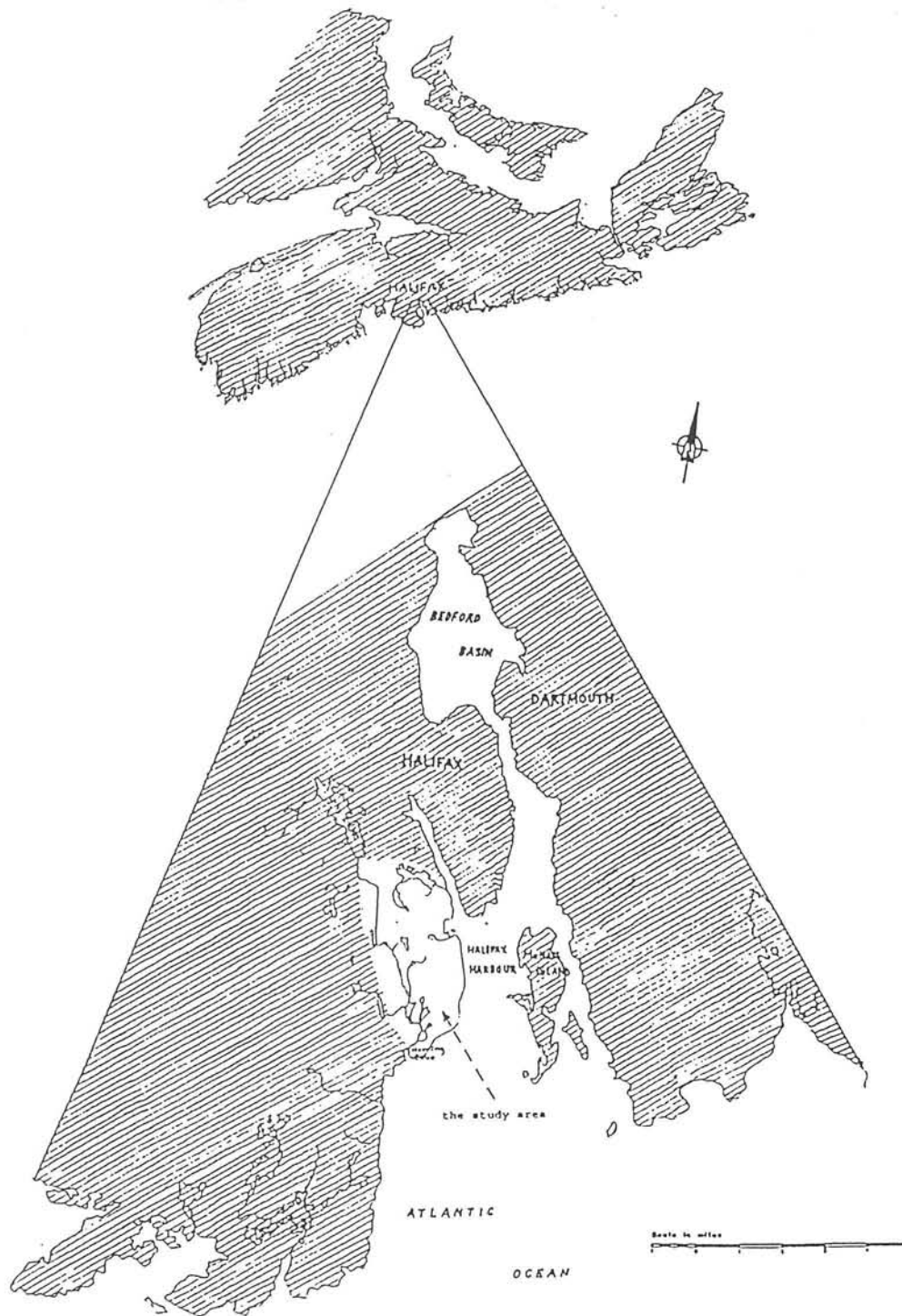
Environmental analysis showed that the area is ecologically unique and sensitive for a number of reasons, including the presence of a large number of wetlands, lakes and watercourses, extensive rock outcrops, and shallow soils. It is about 10 square kilometers in size and located on the southeastern half of Mainland South in Halifax County, bordered by developments along the Herring Cove, Purcell's Cove, and Williams Lake Roads. This report refers to the undeveloped land as the "Wildlands."

Environmental Planning Studio II set out to prepare background studies to support detailed area planning for the Wildlands. Our objectives included:

1. to analyze current and historic land uses, including recreational and resource uses of the Wildlands;
2. to determine the attitudes, values and perceptions that community members hold about the Wildlands area.



LOCATION OF THE WILDLANDS





2.0 Approach

In order to approach the issues of future land use planning comprehensively, the Planning Studio first conducted an environmental resource analysis of the natural processes within the Wildlands' watersheds. This information is available in the form of individual reports from the planning students' 1994 fall semester (see Steeghs 1994). This spring, we examined the communities that affect the area, or are affected by it: how people use the land, who owns it and what issues concern nearby residents. This report presents the community study and survey results.

Historic archives, reports, books and land registry information helped determine past and present land use, land ownership and jurisdictional information. To add to published information, we selected various individuals to interview on the basis of their particular knowledge about the Wildlands. These people are referred to in the report as "Key Informants".

In order to determine residents' attitudes towards the Wildlands, a qualitative survey was designed for the communities of Spryfield, Williams Lake, Purcell's Cove, and Herring Cove. We chose these communities because of their proximity to the Wildlands, which suggested that residents would be familiar with the area. We approached over 110 households, divided between the four communities identified above. It is important to note that due to the approach used for the interviews, the results obtained from our survey are qualitative only and cannot be used for statistical purposes. Further details about the survey are outlined in section 7.0 of this report.

The information which has come out of the past six months' study by students needs to be examined as a whole to create a clear picture of those areas which are of high priority. Of particular importance are environmentally sensitive areas, high-use recreation areas, and land ownership. Looking at all of these aspects together may indicate where it is essential that proper planning take place and may identify what type and where development is acceptable.

Results from this community analysis reveal important data and concerns. Together with the findings from the Environmental Resource Analysis, community residents and planners can use this information as they work towards developing land use plans for the Wildlands.



3.0 The Wildlands

The Wildlands comprise about ten square kilometers of undeveloped land. A large part of this natural expanse is located within the city limits, only 2.5 kilometers from downtown Halifax.

The environmental analysis conducted last semester examined topography, slope, bedrock, surficial till, soils, vegetation, hydrology and habitats. These elements of the landscape were then synthesized into a development capability map, which identified those lands which were most environmentally sensitive.

Map 1 shows areas within the Wildlands which are susceptible to damage by development. These areas are environmentally sensitive because they contain fragile ecosystems such as bogs, swamps and marshes. Slopes exceeding 15% were also included because they will erode very quickly once the vegetation that supports the soils is cleared. The areas adjacent to water bodies and watercourses are included as sensitive because the soils and vegetation in these areas help to filter runoff that enters the water. If these areas are exposed to development, runoff will have no chance to be filtered before it enters the watercourse. The results could be very damaging to the quality of water and the aquatic life throughout the Wildlands.

Thin soils, bogs, barrens, 30-50 year old softwood forests, and many small lakes and streams characterize the landscape. Three watersheds drain the Wildlands: the Purcell's Pond watershed, the Williams Lake/Colpitt Lake watershed, and the McIntosh Run watershed. At present, only the fringes of the Wildlands are developed. The area supports a wide range of indigenous plant, fish and wildlife species. Local residents appreciate the unspoiled beauty of this natural landscape so close to the city.

Map 1
Environmentally Sensitive Areas Within the Wildlands



Base Map Source: Land Registration Information, Amherst, Nova Scotia, 1991



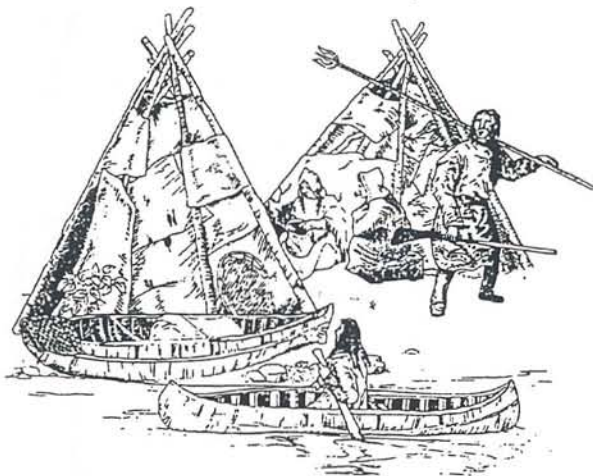
4.0 Land Use On Mainland South

As part of the community analysis, we examined present and historic land uses in and around Purcell's Cove, Williams Lake, Spryfield and Herring Cove. We looked at available information on ownership, jurisdiction and zoning to determine significant land use trends.

Land use patterns can have long-term social and environmental implications. For instance, many of the property lines established with the original 'granting' of the land over 200 years ago are clearly evident today. Developments bordering the Wildlands, including streets and designated parklands reflect these old property boundary lines.

4.1 Historic uses of the land

Coastal forests, supported by a thin veneer of soil, stood amidst the winds and weather of the North Atlantic for several thousand years. Since prehistoric times large colonies of seabirds, abundant fish and other wildlife have populated coastal inlets and the lands beyond.



Paleo Indians, following the receding ice of the last glaciation, were the first people to have crossed the Isthmus of Chignecto onto 'Nova Scotia'. Descendants of these people seasonally inhabited the Mainland South Peninsula over a thousand years ago. The Mi'kmaq made their camps to hunt and fish the land and waters. These people also may have set fires on occasion in an effort to increase the yield of berry crops.



When Europeans first arrived about 400 years ago, they came to fish the coastal waters and discovered that the nearby basin-inlet was a well protected harbor. Small fishing villages grew in Purcell's Cove, Ferguson's Cove, and Herring Cove. In an effort to provide safe places for fishermen to land, the British established a strategic Defence post in the early 1700s at York Redoubt. Within a few years peace treaties were signed with the Mi'kmaq Nation, and settlement by European immigrants began. In 1749 Halifax was founded as an important military post. Within three years, fishermen established the settlement of Herring Cove, from which they could supply the nearby forts as well as passing ships.



In an attempt to raise produce and meat for the developing communities, a sea captain named William Spry bought land from several early settlers around 1768. He cleared many sections of forest and began farming. Hoping to attract more settlers, the colonial government sponsored clearing of more land. In the 1780s James Williams acquired land around 'Williams' Lake in order to develop an ice trade. Just before the turn of the 19th century Britain commissioned the expansion of York Redoubt, which became part of a chain of coastal Defences.

The 19th century was a time of many changes to the land. Locally the best stands of timber were cut and large scale hunting efforts rapidly reduced populations of seabirds and other wildlife. Excessive stoniness and constant fog during the short growing season made farming difficult and unprofitable. In response to a demand for building materials, a local stone cutting trade developed. Quarries in many locations extracted slate and granite for new buildings in the nearby growing city. Around 1783 George McIntosh purchased large sections of land, including the failed farms of Captain Spry, in hopes of reselling the land for profit. By 1848 the Beaver Lake outflow was

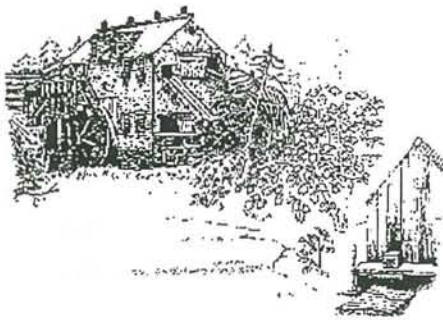


Should cite references



dammed to form the Long Lake reservoir. Within three years these waterworks started supplying drinking water to the city.

In 1865 the Halifax Ice Company was exporting ice from Williams Lake. Cunning men rode the large frozen blocks through a wood flume to waiting ships below. A dam and water-wheel, built in the nearby stream, supplied power to a flour mill belonging to George McIntosh. The Atlantic Sugar House established a refinery along the North West Arm for cane brought back in the fish trade with the West Indies. Map 2 shows the location of general historical land uses throughout the Wildlands and its surroundings from 1750 to 1950.

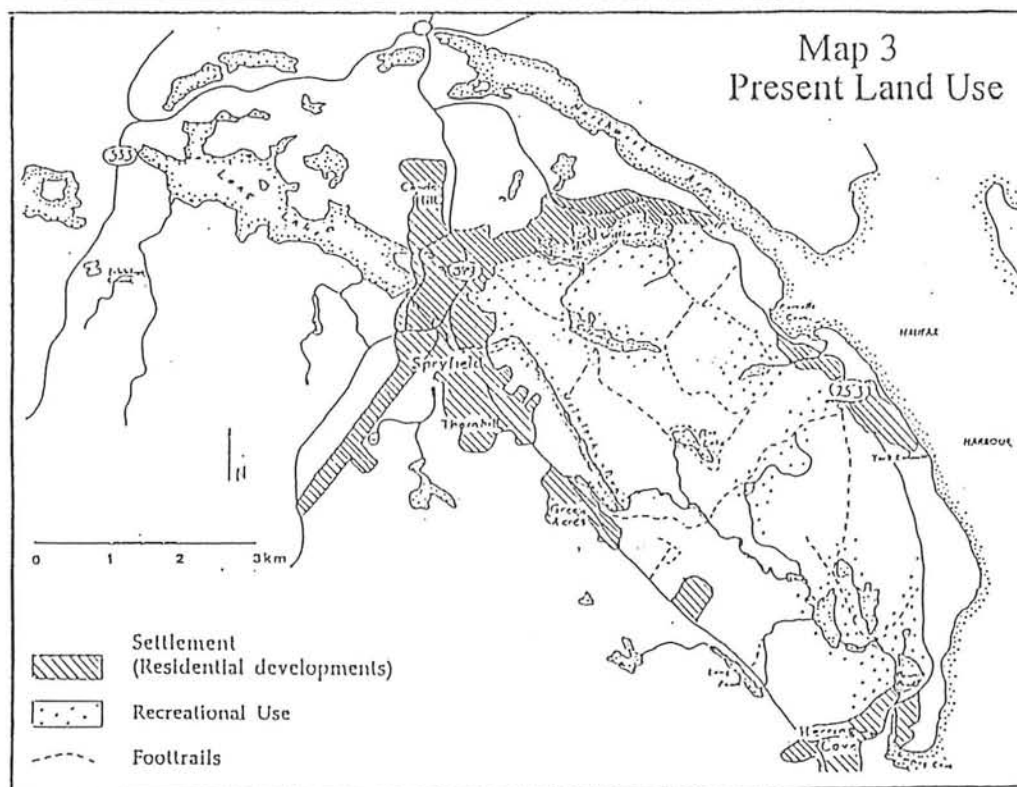
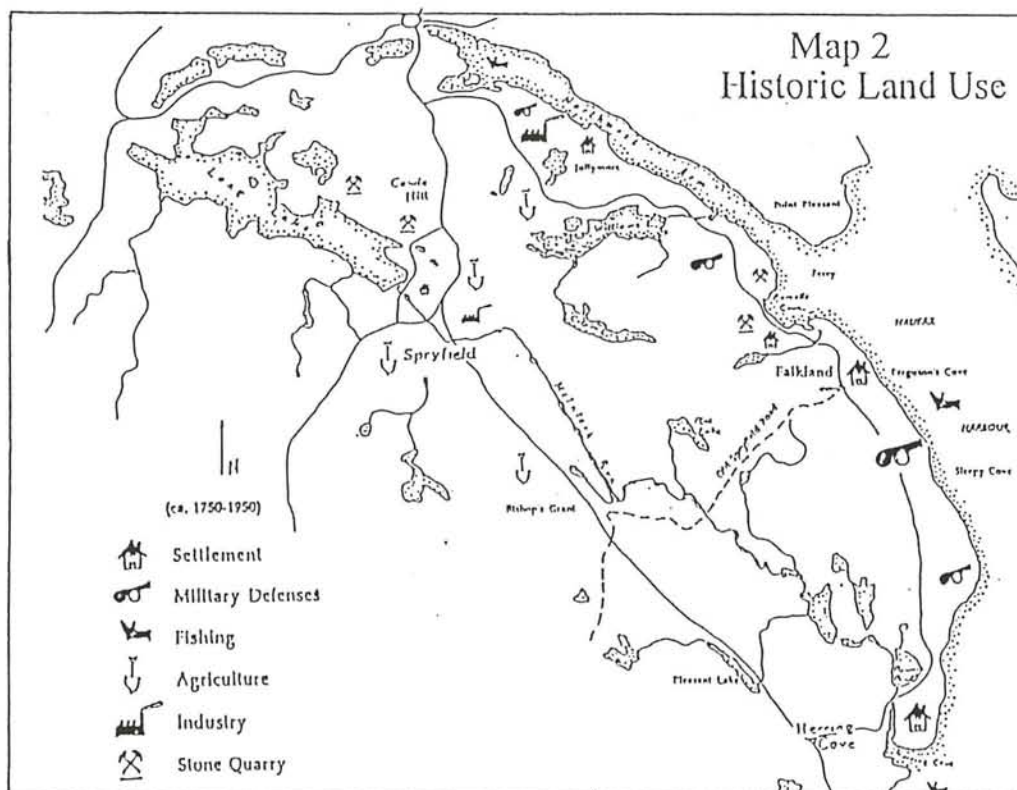


By the beginning of the 20th century, as Halifax industrialized, Mainland South abandoned its reliance on the land. Farming proved too difficult, fish and wildlife had strongly diminished, and the forests' resources were depleted. However, clear lakes and open space with country air made outings to the area a popular activity. Winter skating on local lakes became so popular that a local skate factory ^{became an} gained international concern.

The development of the automobile allowed people to commute, thereby encouraging suburban growth. In the 1950s when the first subdivisions were built around Williams Lake, all resource industries on the peninsula were in decline or gone, and the area began to see a steady growth in residential homes.

Since the early days of European settlement, the area has seen major land use changes. Fishing, forestry and agriculture granted settlers' basic essentials, and resources provided employment. During the last 50 years land use has become largely residential and recreational.

Map 3 shows present day land use of the Wildlands and its^d surroundings.





4.2 Present and Prospective Land Use

Over the past 40 years Mainland South has seen a steady growth in residential development on privately owned land within the city and county. Most of this development has taken place on soils where services were easy to install. Lands outside the present city limits and within the Wildlands have not been available for private development because they are largely held by federal and provincial governments. This includes Department of National Defence, the Province of Nova Scotia and Parks Canada.

The City of Halifax has designated most of the Wildlands as a Residential Development District (RDD) in the generalized future land use map of the plan. The Mainland Planning Strategy indicates that Mainland South is characterized by low density residential developments with some small scale neighbourhood retail businesses and service outlets. Proposed developments can only exceed 22 persons per acre if calculated sewer capacity is not surpassed. Because of a lack of infrastructure, the Land Use Bylaw zones the land "Holding", so anyone wishing to develop the land would have to apply for a *development agreement*. A development agreement is a comprehensive plan which includes many criteria which must be agreed upon by the developer and City Council.

Studies by Municipal Affairs indicate a moderate demand for housing on Mainland South for the next ten years. Constraints in transportation (congested roads) and high development costs (granite bedrock) will contribute to this 'measured' growth prediction. Although development will be costly because of surface bedrock, the Wildlands' proximity to Halifax will make it attractive residential building land. While at the moment other sites in the County are cheaper and easier to develop, growth in housing demand will sooner or later put pressure on the Wildlands, particularly near Williams Lake, Purcell's Cove and Spryfield; these areas are within easy commute to the city.

The wilderness and natural beauty represents one of the area's greatest assets. For many years local residents have explored the Wildlands through a network of established trails. Many of the recreational access points into the Wildlands are zoned RDD, and depending on development agreements these lands can be developed. The Wildlands form "an integral part of the defining character" (Manuel, 1993) of local communities, which is one of the reasons residents feel strongly about preserving its distinctiveness. If major development does occur, it will have negative impacts on the water quality, which has been affected in the past. For example, when Bayers Lake Industrial Park development exposed acid



producing rock, and at many other times when silt-laden run-off from construction threatened lakes and streams.

The generalized future land use in the Municipal Planning Strategy for district 5, Chebucto Peninsula (September, 1988) designates the county lands within the Wildlands residential. Lands owned by the Provincial Crown are designated conservation.

provincial crown



5.0 Land Ownership

Part of examining land use involves land ownership. The Wildlands are divided roughly in half with the northwestern portion within the city limits and mostly privately owned. The southeastern portion is primarily provincial and federal Crown land and is at present part of Halifax County. The City of Halifax owns a few small parcels which have been designated as parkland in its development plan. 'Pencil Park' is a narrow strip of parkland extending from Purcell's Cove Road back to Flat Lake.

Map 4 depicts general land ownership within the Wildlands. An individual report on land ownership was produced and is available from Nova Scotia College of Art and Design, Environmental Planning Department (Land Ownership Report - Wildlands, 1995).

The parcel sizes vary from 2.9 acres to 384.0 acres and ownership does not appear to influence how residents use the land. With the exception of Department of National Defence land, local residents have traditionally enjoyed unrestricted access to the Wildlands regardless of property boundaries. Through Land Registration Information Services we compiled a list of land owners which we found to be both individuals and companies. While it is reassuring that the Wildlands are in the hands of many, we can assume that owners calling themselves "development corporations" will develop if the opportunity arises.

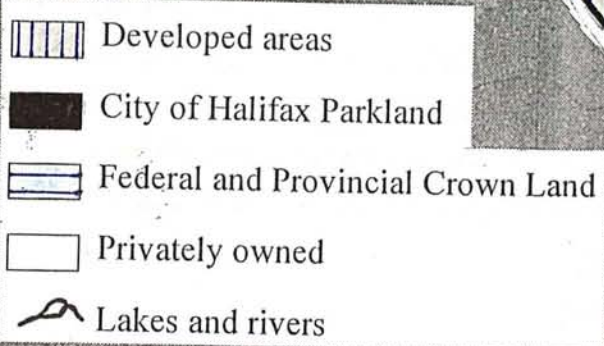
There are two large private properties in the Wildlands: lot #22, the Flemming B. McCurdy estate, is held in trust by Canada Trust. The property includes ruins of World War Two Defence battery, and is within the Colpitt/Williams Lake watershed. The other major land owner is ASC Residential Properties Ltd. of Stellarton, N.S. This land, running parallel to the Herring Cove Road, includes 360 acres and a portion of the McIntosh Run in the north end of the lot. The area has exposed rock barrens, but is close to Spryfield with city water and sewer services.

Surface bedrock will make installing water and sewer services on these properties expensive because blasting is required. Cost, however, may not be enough to halt development. New neighbourhood development requires extending water and sewer services, and will push suburban growth further into the undisturbed Wildlands.

Map 4 shows land ownership as of 1992.

*map says
1991?
ownership report
says 1995*

Map 4
Land Ownership Within the Wildlands (1992)



Base Map Source: Land Registration Information, Amherst, Nova Scotia, 1991



6.0 Communities Surrounding the Wildlands

The communities that surround the Wildlands range from quiet, rural settings to busy urban and suburban settlements, complete with small commercial areas. Purcell's Cove and Herring Cove are coastal communities, with roots as fishing villages since the 1700s. In the time of the first settlers, no roads connected these small coastal villages and transportation was by sea. As roads improved, these settlements became better connected but have retained a strong sense of community from their early days of isolation.

6.1 Community Character

Herring Cove: Herring Cove is the oldest community in the area. It was founded two years after Halifax and has a long history as a fishing post and supply base. Many old houses give the village a unique character, and some descendants of the original settlers still own land here. The little harbor is still used by fishermen who sail their boats past one of the City's major sewer outfalls. In recent years, some private roads have been developed into the Wildlands, and a number of new homes built on large parcels of land.

Purcell's Cove: Purcell's Cove has a long history as the ^{? finest} first protected cove in the harbor inlet. Before the settlement was annexed by the City of Halifax, it functioned as an independent community. This settlement has the lowest-density housing of the four communities that surround the Wildlands. Many homeowners in this area also own large parcels of land that extend into the Wildlands.

Williams Lake: Williams Lake includes the first suburban residential community on Mainland South. Built north of the lake during the 1950s and 60s, it offered spacious lots with large detached homes. Residents enjoy easy access to the lake for year-round recreation. Two nearby yacht clubs provide important recreational facilities as well. Williams Lake has a well-documented history as a resource-based local economy, and today still has a strong sense of community. The south side of the lake, which borders on the Wildlands, has not yet been developed.



Spryfield: Because Spryfield has some of the most productive soils near Halifax, much of it was cleared for agriculture over a century ago; however, the stoniness of the land made cultivation difficult. One hundred and fifty years ago, the McIntosh Run was dammed to form Long Lake Reservoir, to provide drinking water to the city of Halifax. During the 1960s and 70s, Spryfield grew rapidly in response to a demand for economical housing, and has become the largest and most densely populated settlement around the Wildlands. Many of the streets run directly into the Wildlands. Residents can access the Wildlands through paths at the end of their streets and along the trails near the McIntosh Run. Parts of Spryfield contain a somewhat transient population with a large number of rental units. It may be for this reason that Spryfield lacks the sense of community which was evident in other local settlements. City water and sewer services have allowed the area to become built up and several commercially zoned sites have developed along the Herring Cove Road.

Although neighborhoods in the communities have different histories, building styles, and social character, residents have a common interest in the Wildlands. Many people stated that the natural open space nearby is important to them and it is the very reason they live there. Our survey results point to heavy recreational use in some parts and consistent use throughout the Wildlands. Almost all respondents expressed concern about the future of the undeveloped expanse.



7.0 Community Survey

The communities surrounding the Wildlands are constantly changing. Residential development is growing in all communities bordering the Wildlands which means increased human impact on undeveloped sections. This population growth means increasing demands for recreational space.

In order to gain insight into how these changing communities use and feel about the Wildlands as a recreational resource, we decided to conduct interviews and sample local residents. These interviews were designed and structured to determine residents' attitudes and values, and give insight into local concerns about the Wildlands and its future.

Due to time limitations, we decided to focus the survey on four communities bordering on the Wildlands: Herring Cove, Purcell's Cove, Williams Lake and Spryfield. We expected people in these communities to use the Wildlands more frequently because of their proximity. This does not exclude people outside these communities from holding an interest in the Wildlands, but we could not interview everyone who uses the area. Nevertheless, the small number of interviews conducted in each neighborhood did allow us to interpret general attitudes. The issues discussed by respondents in each of these communities shared certain similarities as outlined in section 7.2. An separate survey report with complete results, is available from Nova Scotia College of Art and Design, Environmental Planning Department.

7.1 Structure

We conducted the survey as an informal list of questions (see Appendix A for a copy of our survey). Students worked in pairs; one asked questions while the other took notes. The aim of this approach was to put respondents at ease and allow them to share more opinions and experiences than would be possible with a structured questionnaire. Questions dealt with how familiar respondents were with the Wildlands, what type of activities they engaged in while there, and their feelings and concerns towards the Wildlands. Respondents usually shared positive views, such as appreciation of nature and recreation opportunities, as well as concerns about issues like litter, water quality and future development.

Over two weeks, between March 6th and 19th, we conducted 113 interviews in settlements that border the Wildlands. A total of five areas were selected in four communities (Spryfield was divided in half



because of its size). Two students were assigned to conduct twenty interviews in each of the five areas. The selected neighborhoods have streets cutting directly into the Wildlands and many of the houses actually back into the Wildlands. We assumed that people in these areas would be the primary users of the Wildlands and would have the most to say about the area. Survey streets were selected randomly. A table listing each community, the streets selected, and the number of surveys completed on each street is included in Appendix B for reference. We attempted to include several streets from each community, so that we would receive as wide a range of views as possible given the time constraints for the study.

Respondents' concerns, attitudes and values were similar in each of the four communities, although we found some variation. We will first summarize our findings by community.

7.2 Findings

Spryfield (Central and South)

A total of 32 individuals were interviewed in this section of Spryfield. Most of the respondents were middle-aged adults. The older respondents knew the Wildlands and had used the area in the past, but were not able to use it anymore because of physical constraints. Many young adults did not know the area because they had only lived in Spryfield a short time.

We conducted more interviews in this section of Spryfield because the original 20 interviews did not contain sufficient information.

Middle-aged respondents who did use the area felt that the land should be conserved for the benefit of future generations. Popular summer recreational activities included hiking, fishing, walking dogs, feeding ducks, hunting, and swimming. Few people mentioned winter activities other than walks along the McIntosh Run. The respondents who used the area wanted to see more trail systems developed. They wanted existing trails to be well marked, cleaned up and maintained.

Respondents had complaints about litter and pollution in the Wildlands along trails and in the water. People who fished the lakes and McIntosh Run blamed low trout levels on pollution. Some felt the source of water pollution to be Spryfield, Long Lake or the Bayers Lake Industrial Park. Respondents felt



that the area would benefit if the litter was cleaned up, a proper trail system developed, and pollution of the lakes and streams diminished. Some respondents thought of the Wildlands as their backyard.

Respondents who did not use the Wildlands still felt the area was unique and important to the community for recreation. Many older residents noted that they had lived in the area since they were young and thought that increased development might bring a corresponding increase in crime. We conducted additional interviews in Spryfield because a number of respondents had little concern or did not know about the Wildlands, due to temporary residence, or recent arrival in the area.

Spryfield (Williams Lake side)

Twenty individuals were interviewed in the northern part of Spryfield. As in the previously mentioned section of Spryfield, most respondents were elderly people. Age and/or physical condition kept them from venturing out to use and enjoy the Wildlands but they mentioned using the area when they were younger. Many respondents felt that the area should be protected from development so that future generations could take advantage of the recreation that the Wildlands provided.

Other respondents relayed concerns about the quality of water in the McIntosh Run, its tributaries, and other lakes in the area, saying they swim and fish there. Residents appeared to make limited summer use of the area with activities such as hiking, berry-picking and swimming. Again, quite a number of respondents in this neighborhood did not use the Wildlands, but they still felt the land should remain undeveloped and available for recreation.

Herring Cove

A total of 21 people were interviewed in the village of Herring Cove. The residents take part in a variety of activities including fishing, berry-picking, hiking, canoeing, swimming, nature watching, and skating. Many respondents spoke about fishing on the Run or in West Pine Island Pond. These same respondents mentioned their concern that stocks have steadily declined over the past few years.

Respondents from Herring Cove mentioned several trails and points of interest. Some of the more popular walking trails include the Pumphouse Road, trails near Purcell's Cove, and trails around East and West Pine Island Ponds. Respondents noted that a series of trails around the East and West Pine Island



Ponds constructed between 8 and 15 years ago have fallen into a state of disrepair. It appears that some bridges crossing the streams, have rotted away and at some points the trails have become impassable.

Residents expressed strong concerns about sewage infiltration into the McIntosh Run at Roach's Pond. Many respondents feel this pollution has caused a decline in mayfly populations, which need good water quality in order to thrive. A drop in mayfly populations may indicate a decline in water quality, with negative effects on fish stocks.

Interviews in Herring Cove reflected a genuine interest in the future of the Wildlands area and its ability to support both wildlife and recreational uses by many of the residents.

Williams Lake

Twenty people were interviewed in Williams Lake. Respondents all voiced the importance of the undeveloped Wildlands to them. Most people interviewed use the Wildlands regularly and articulated strong concerns about the future of the place. These residents enjoy walking and would like to see more trails developed. Many of them access the existing trails right from their own backyards. Their main concerns include decline in water quality and new developments which would cut into the Wildlands and destroy the natural beauty of the area. They also mention litter as a problem, saying that many people go to the lake to swim and picnic in the summer and leave litter in the woods. These respondents feel that the Wildlands have a unique and beautiful character that increases the attractiveness and value of their community, and provides a link to nature in their community.

Purcell's Cove

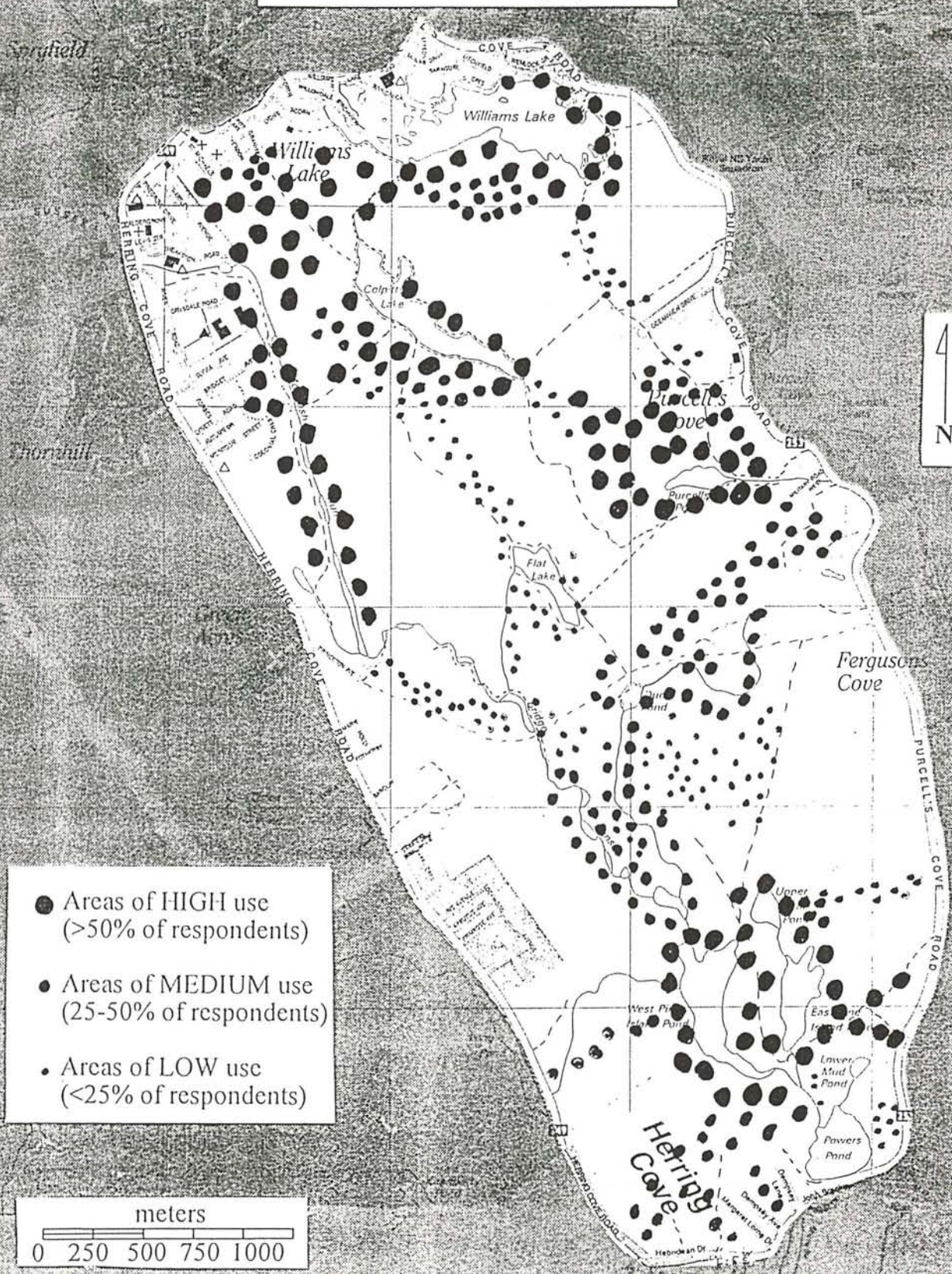
Twenty people were interviewed in Purcell's Cove. Respondents use the trails routinely and several appeared well acquainted with the entire Wildlands. Residents expressed concerns about future development as well as the water quality in local lakes and streams. A few residents identified the Wildlands as a distinct part of Purcell's Cove. They felt that the wilderness adjacent to their neighborhood gave important character to their community. The quiet natural setting adds to the beauty and peacefulness of this community. This character, combined with close proximity to downtown of Halifax, is thought to enhance the value of the properties in Purcell's Cove.



The recreational importance of the Wildlands to its surrounding communities cannot be overlooked. The area is used by members of all the communities as a recreational resource. To many residents, the Wildlands is a vital part of the character of their community, although to a lesser degree in Spryfield. Passive recreational activities such as hiking, nature watching and berry-picking are popular activities in the Wildlands. Since many of these activities take place near environmentally sensitive areas, recreational use makes the need for planning in these areas acute.

Map 5 shows the areas where respondents from our survey use the Wildlands for various recreational activities.

Map 5
Recreational Use in the Wildlands
(of Those 113 Surveyed)





8.0 Key Informant Interviews

To obtain more detailed and specific information about the Wildlands and the issues concerning the area, we spoke with a county official, a city planner, a water specialist, and individuals with extensive and specific knowledge of the Wildlands.

A study of the Wildlands was conducted in 1993, entitled "Cultural Interpretation Study of Williams Lake-Purcell's Cove Backlands." When we compared its findings with our own we discovered many similarities. We interviewed the author to find out more about its structure and to see if she had other information to share with us. She pointed out trails around Williams Lake, Colpitt Lake, Purcell's Cove and the McIntosh Run as hiking, berry-picking, nature-watching and lake access paths for local residents. She described Williams Lake as "quite clean considering all the development around it."

Residents who use the Wildlands intensively have noted a lot of wildlife such as beavers, loons, bald eagles, foxes and deer. One key informant pointed out that local residents should realize that the Wildlands function quite well as a healthy ecosystem despite being surrounded by so much development.

Residents around Williams Lake complain about the odor and swampyness caused by sedimentation in the already shallow lake. Water pollution concerned many respondents in our study, so for information on water quality, we turned to the Department of Fisheries and Oceans. They told us that water quality information for the Wildlands was outdated and that more tests would be conducted in the future, although Williams Lake appears clean enough to be used as a backup water supply by the Royal Nova Scotia Yacht Squadron.

One Halifax County official who lives near the Wildlands felt "it is an integral part of the community fabric and would be a model for conservation." He said he did not feel that area designation would be affected by changes in the city boundary.

Another key informant, involved in the management of Bayers Lake Industrial Park, stated that runoff from the Park once affected the entire watershed downstream from Long Lake, including the McIntosh Run and Herring Cove. Acid runoff from exposed slate in Bayers Lake Industrial Park raised pH and aluminum levels in Long Lake in 1986. The Industrial Park has since solved this problem by paving over exposed slate and monitoring water quality through daily testing.



Your Community Backyard

Some longtime residents have historical knowledge of the Wildlands. One Oceanview Drive resident who has lived in the area all his life remembers an old army battery near the "big swamp" north of Purcell's Pond. The battery was called the "45" and was used for training exercises during the second World War. He remembers the army giving tours of the "45" to show civilians how soldiers were trained for battle. Today, the remains of the "45" can be found south of Williams Lake.



9.0 Community Concerns

During the interviews of area residents, various concerns came to our attention. We found variation between communities, but many similar issues were brought up repeatedly. Many residents feared the threat of continued development around the Wildlands; they worried that residential build-up could eventually take over the wilderness and rob the area of its unique character. Considering that a number of development corporations own large parcels of land within the Wildlands, the development scenario appears realistic. Residents felt very strongly about the possible loss of access to trails and lakes. In many instances, especially in Purcell's Cove, Herring Cove and Williams Lake, people cited the nearby Wildlands as the reason for living where they did. Several community groups would like to protect all or parts of the Wildlands, from Williams Lake to McIntosh Run. The focus of these groups is mainly on conservation, water quality and recreation. They are at present working independently, but share similar concerns. Many people fear that development will continue to reduce the open space and eventually will change the character of the area.

<i>Trails</i>	The survey indicated heavy and consistent use of the Wildlands with a wide range of activities. The people interviewed expressed great interest in the hiking trails. They hoped for improvement and expansion of the trail system and noted the need for bridges and clear markings.
<i>Access</i>	Respondents also mentioned the restricted access in the Purcell's Cove and Williams Lake area, brought by private development around lake shores. Many wanted to ensure that access to the Wildlands and its lakes would remain public, especially in the event of more development.
<i>Pollution</i>	Pollution in the Wildlands remains a long-term concern of residents. Areas near Spryfield, along the McIntosh Run as well as other trails such as the 'Pumphouse Road' contain unsightly garbage dumps. The sewage pumping station at Roach's Pond presents a serious source of contamination when it overflows. During heavy runoff, raw sewage flows directly into the McIntosh Run, and pollutes the Run as well as lakes and ponds downstream. Residents of Herring Cove feel that this sewage has contaminated nearby water bodies and therefore they can no longer swim in the lakes.



Your Community Backyard

- Habitat Loss* Respondents believe that urban runoff and sewage overflows have affected fish habitat. In recent years mayfly populations, an important food source for trout, appear to have declined.
- DND* The fire fighting training school, operated on Department of National Defence land, south of York Redoubt, is mentioned as a cause for concern by some residents. Some people suspect pollution of the atmosphere and nearby water bodies by a variety of toxic and dangerous contaminants used at the facility.
- Hunting* Although hunting is prohibited within the city limits, some people fear for their safety during hunting season and wish the entire Wildlands were off limits to firearms.
- Fire* Landowners in Purcell's Cove and Williams Lake are worried about brush fires. During summer months, youths occasionally build campfires. On windy days, a fire could spread rapidly and would be difficult to reach with fire fighting equipment. Several fires have occurred in recent years.



Map 6 depicts the areas where respondents from our survey use the Wildlands for various recreational activities. The map illustrates the relationship between the people and the land. Recreational activities take place in almost all of the environmentally sensitive areas within the Wildlands. This is important when planning for the future use of the Wildlands because these are the areas which should be set aside for passive recreational use (low impact on the land). It is evident that these areas are being used by the surrounding communities and others who visit the area. Setting these areas aside for recreational use would prevent development (high impact on the land) from occurring within environmentally sensitive areas and protect the fragile environments within the Wildlands. Recreational uses of the Wildlands are not derived from a representative sample of the communities: it is only based on the 113 surveys conducted. A comprehensive study would be required to create a detailed area plan, but the information displayed here gives a good sense of local use.

MAP 6

RECREATIONAL USE AND ENVIRONMENTAL SENSITIVITY

- Areas of HIGH use (>50% of respondents)
- Areas of MEDIUM use (25-50% of respondents)
- Areas of LOW use (<25% of respondents)

- Sensitive areas
- Developed areas
- Lakes and rivers
- Existing trails

0 250 500 750 1000
meters



10.0 Other Issues Connected With The Wildlands

Although the southeastern half of the Wildlands area is Crown land, its future is not clear. In recent years, the Province of Nova Scotia has made land swaps in order to obtain desired acreage elsewhere. Ocean frontage belonging to the Crown between Purcell's Cove and Herring Cove has been swapped and lost to the public in the past few years.

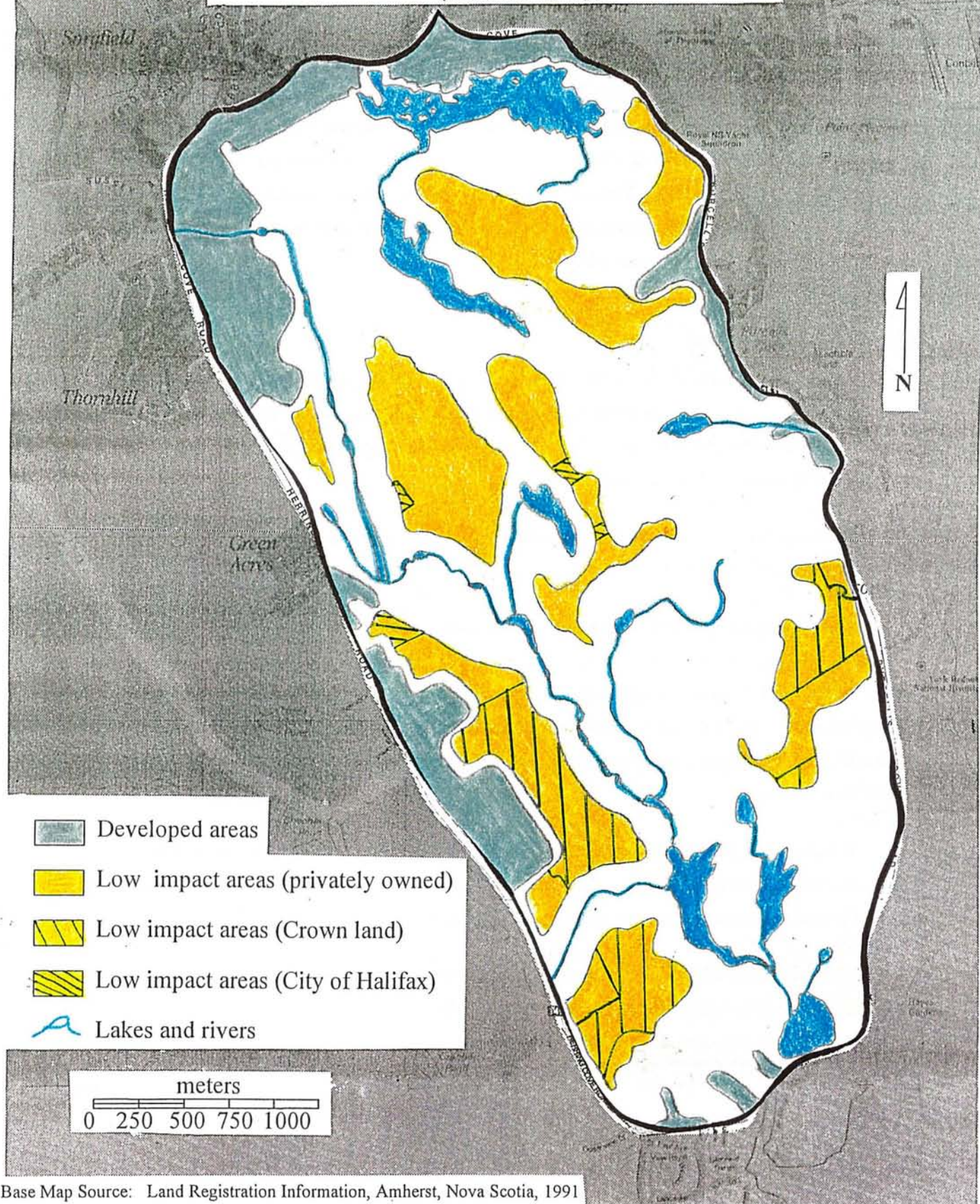
Runoff from Bayers Lake Industrial Park flows into a drainage ditch directed into Long Lake. In 1986 the Industrial Park allowed acidic runoff from slate exposed during construction. This affected water quality in Long Lake. Since then the problem of acidic runoff has been brought under control by various methods controlling runoff. Daily water tests at six stations in the Industrial Park show that the problem is currently under control.

The City's Parkland Strategy identifies the district as having functional difficulties, access problems and generally inadequate facilities for recreation. The report expresses a commitment to "encourage more intelligent use of spaces." (pg. III-4)

The undeveloped Backlands consist of a thin and fragile soil over slate and granite bedrock, unlike the deeper soil, of nearby Spryfield. Developers will face high costs installing services where bedrock breaks the surface. Maintaining native soil and vegetative cover will provide a real challenge.

Map 7 illustrates the areas within the Wildlands where, if development occurred, it would have the least impact on the surrounding environment and would not interfere with recreational use. This map displays the general boundaries of these areas and whether it is Crown land or Privately owned. Many of these development opportunity areas consist of terrain that is rugged and sparsely vegetated (many rock barrens and outcrops). Development in these areas would be costly but could have less impact on the rest of the Wildlands, if proper environmental standards are applied. If development is to occur in the Wildlands, these areas should be considered first. A more detailed study may reveal more areas suitable for development within the Wildlands.

MAP 7
Areas With Development Potential in the Wildlands
(and ownership)





11.0 Conclusions

To many of the people who live around the Wildlands, the future use of the land has become an important issue. Water quality and wildlife habitat as well as the accessibility of the lakes and trails are everyone's concern. Residents in all Mainland South communities have witnessed the effects of development on their environment. Water quality decline, habitat destruction and urban sprawl have resulted from the last twenty-five years of growth. The citizens we interviewed seemed well aware of what hasty or poorly-planned development can bring.

11.1 Recommendations

To plan future land use of the Wildlands the City can develop a detailed area plan. The Wildlands Working Group can coordinate community groups in planning the area and act as community stewards throughout the development of the plan. Environmental and recreational values as well as development rights can all be considered in a detailed area plan.

Before preparing a detailed area plan, clear goals and overall objectives must be established. This process involves city planners as well as the communities and groups that have an interest in the plan.

Our approach to planning future land use has been to identify areas with environmental sensitivities such as wetlands, water bodies, riparian zones, and steep slopes, based on physical landscape factors (see Map 1). Then we determined places with important recreational value by interviewing residents and key informants about their perceptions as well as their actual use of the Wildlands (see Map 5). We illustrated development potential by combining the environmental and recreational information with land ownership (see Map 6).

If our approach is used in assembling of the detailed area plan, the city and community groups must define which criteria they will use to identify environmentally sensitive areas (ESAs), survey the site to identify which areas to protect, and establish policy to facilitate designation.

The environmental resource study referred to in this report has certain limitations. The scale at which we mapped information is not sufficiently detailed for site designation. Moreover, the city and community residents may decide to use different criteria for selecting ESAs.



Once criteria for defining ESAs have been agreed upon, experts can survey the land and produce more detailed maps. A management strategy for these can then be developed to deal with issues such as:

- controlling sewage overflow and urban runoff into lakes and streams;
- collecting data on water quality and fish populations;
- ensuring garbage collection where needed (e.g. trails);
- restricting use of open fires during the dry season;
- identifying substances used by DND at the fire training school and seeing where they end up.

Our study describes general recreational use from a small sample of residents. Once city planners and community groups define goals and objectives for recreation, further detailed information needs to be collected through extensive community input. This process will involve mapping of all trails, establishing key entry points and determining use patterns and places of special interest. With this information decisions can be made about priorities and the kind of policies required to meet recreational demands in the future. A management plan for the Wildlands can then be developed to address recreational issues. These may include improving old trails, repairing or building of footbridges and developing a clear trail marking system. Negotiations with private landowners could ensure continued access to important recreational areas.

Areas that are not environmentally sensitive and not important recreationally can then be identified as having development potential. Map 7 shows areas with development potential, indicating which are privately or publicly owned. Where public land is identified as having development potential, the city can explore with other levels of government options for its use. For example, the government may consider 'swapping' public for private lands. Although the planning act currently doesn't accommodate transfer of development rights, this may be an option in the future: some provinces have legislation that allows property owners to move development rights from one parcel to another in order to secure a public interest. The city can also encourage cluster developments on suitable parcels in exchange for environmental or recreational values elsewhere in the Wildlands.



Community groups and coalitions that represent the interests of local citizens should ensure that proper environmental standards for development are set by the city and adhered to if development takes place. Community groups should continue to work together. This is particularly important if the Wildlands are to be planned as whole functioning watersheds.

The Wildlands represent a distinct natural area within the city limits. The long term goal of the detailed area plan is to preserve the integrity and character of the Wildlands for future generations, to protect fish and wildlife habitats, and to provide a unique passive recreational resource.



Bibliography

- Asea Brown Boveri Ltd., Earth Summit 1992, The United Nations Conference on the Environment and Development, Switzerland, 1992.
- British Columbia, Government of, Health Indicator Workbook, B.C. Ministry of Health, 1987.
- Buchholm, Rogene A., Principles of Environmental Management, Prentice-Hall, Englewood Cliffs, New Jersey, 1993.
- Causey, Ann S., Environmental Action Guide, Cummings Publishing Co., 1991.
- Coblentz, H., Halifax Regional Housing Study, The Royal Printing and Litho Company, Halifax, N.S., 1963.
- Dandekar, Hemelata C., The Planner's Use of Information, Planners Press, APA, Washington, D.C., Chicago, Illinois, 1988.
- Canada, Government of, Evaluation: How Are We Doing?, Health and Welfare Canada, 1988.
- Canada, Government of, Federal Water Policy, International Committee on Water, Ottawa, 1990.
- Foster, Carroll, A Guide to Agenda 21, International Development and Canadian Issues, International Research Centre, 1993.
- Halifax, City of, Mainland South Secondary Planning Strategy, Development and Planning Department, 1987.
- Halifax, City of, Halifax Regional Housing Survey, Development and Planning Department, 1963.
- Halifax, City of, Parkland Strategy, Development and Planning Department, 1994.
- Halifax, City of, Preliminary Halifax Annexation Study, Urwich, Currie Limited, 1966.
- Halifax, City of, Population and Housing, Development and Planning Department, 1991.
- Halifax, City of, Mainland South Holding Zone Report, Development and Planning Dept., 1989.



Leedy, Paul, Practical Research: Planning and Design, (5th edition) MacMillan, New York, 1993.

Lynch, K., The Image of the City, MIT Press, New York, 1960.

McGraw, Joanne T., Approaches to Coastal Zone Management, EP VI Studio, Nova Scotia College of Art and Design, Halifax, N.S., 1992.

Nova Scotia Dept. of the Environment, The Nova Scotia Environment Act: 1993, Consultation Committee Report, 1994.

Nova Scotia Department of Fisheries, Adopt-A-Stream, Halifax, N.S., 1994.

Ontario, Government of, Fact Sheets, Ontario Ministry of Agriculture and Foods.

Public Archives of N.S., Place Names and Places of Nova Scotia, Mika Publishing Co., Belleville, Ont., 1976.

Regan, J.W., Sketches and Traditions of the Northwest Arm, Halifax, 1908.

Simon, Julian L., Basic Research Methods in Social Science, Random House, New York, USA, 1969.

Steiner, Frederick, The Living Landscape. An Ecological Approach to Landscape Planning, McGraw Hill Inc., 1991.

Steeghs, H., The McIntosh Run: Environmental Resource Analysis, Nova Scotia College of Art and Design, Halifax, N.S., 1994.

Watts, H., Beyond the Northwest Arm: A local history of Williams Lake, Halifax, N.S., 1978.



Appendix A: Questionnaire

INTERVIEWER GUIDELINE TO CONVERSATION

These questions are put forth as a guideline for relatively informal conversation with the respondent. Do not simply read the questions, try to create a conversation. Use the questions as a starting point, but encourage respondents to elaborate or explain.

Introduce yourselves and explain to the person that we are Environmental Planning students from Nova Scotia College of Art and Design. We are conducting a survey to understand how local residents use the study area.

Show the person the map of our study area. Explain to respondent that the highlighted area is our study area. Then show the respondent where he/she lives in relation to the study area. (Refer to the map if necessary throughout the interview.)

Are you familiar with the study area?

if Yes

if No

Is any one else in your household familiar with it?



if Yes, ask if they are available

if No, thanks them for the time and

and begin again

move on to next house

Do you ever visit the study area?

if Yes

if No

Is there any particular reason you don't visit the study area?



move on to right column



I wonder if you could describe for us your last visit to the study area?

Do you remember when it was?

Could you sketch out for us on this map the route that you took?

Why did you choose this path?

Did you stop anywhere?

(why there?)

Who was with you on your last visit?

(Child/Teen/Adult)

GO TO NEXT COLUMN



Are there any activities that you or other members of your household like to do in the study area? (Wait and see what they say first)

Berry-picking, Biking, Canoeing, Fishing, Hiking, Nature watching, Picnicking, Skiing, Swimming,
Others _____

In what way(s) is the study area important to you personally? Why?

Do you think the study area is important to the community?

Is there anything you dislike about the area?

Do you have any other comments or concerns about the area?

Thanks for your time To close the conversation, let the respondent know that the results of the survey will be available on April 21 at South Centre Mall (in Real Atlantic Superstore Entrance) and/or after April 22 Wildland Working Group will have the survey result analysis.



Appendix B: Sampling Frame

Communities and Streets Surveyed

Communities and Interviewer / Recorder's names	Street Surveyed	Number of households (HH) on the street	Number of surveys completed on the street
Spryfield Dave and Paul	McIntosh Street	37 HH	2
	Autumn Drive	46 HH	1
	Lynett Road	64 HH	3
	Sylvia Avenue	86 HH	5
	River Road	109 HH	4
	Theakston Street	20 HH	5
Purcell's Cove Henri and Ardelle	18th Battery Drive	10 HH	3
	Halls Road	8 HH	3
	Litchfield Road	29 HH	5
	Saraguay Place	8 HH	2
	Purcells Cove Road	61 HH	7
Williams Lake Jamal and Billie-Jane	Williams Lake Road	48 HH	3
	Lyons Road	30 HH	3
	Acorn Road	19 HH	5
	Letson Crecent	4 HH	1
	Birchview Drive	19 HH	5
	McNab Drive	11 HH	3
Herring Cove Neil and Corrie	Purcells Cove Road	13 HH	5
	Joe's Road (formerly Dempsey Lane)	3 HH	2
	Dempsey Avenue	6 HH	2
	Margret Lorne Drive	12 HH	5
	Brackett Crecent	2 HH	1
	Hebrideen Drive	19 HH	5
Spryfield Greg and John	Colpitt Lake Road	15 HH	3
	Yeadon Avenue	6 HH	2
	St. Michael's Avenue	18 HH	5
	Pinegrove Drive	46 HH	2
	Hartlen Drive	62 HH	4
	Williams Lake Road	37 HH	1
	Levis Road	23 HH	2