

Summary of Findings and Recommendations following from  
Studies of the Biophysical Character,  
Cultural Significance and Recreational Use  
of the Purcell's Cove Backlands

Prepared for the Williams Lake Conservation Company  
by  
Patricia Manuel, PhD  
and  
Martin Willison, PhD

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The following is a summary of the main findings and recommendations resulting from a study of the biophysical character and the cultural significance and recreational use of the Purcell's Cove Backlands, or Wildlands. For a more detailed presentation of method and discussion of results, the reader should refer to the main documents 'A Biophysical Survey of the Williams Lake-Purcell's Cove Backlands, Halifax County, Nova Scotia' and 'A Community Wilderness Backyard: Report of a Study of the Cultural Interpretation and Significance of the Williams Lake-Purcell's Cove Backlands'.

The area known as the Purcell's Cove 'Backlands' or 'Wildlands' is seven square kilometres of wild, undeveloped land encircled by urban and suburban development in Halifax's Mainland South. This landscape of woodlands, barrens, bogs, lakes and streams is bordered by Williams Lake Road to the north, Herring Cove Road to the west and Purcell's Cove Road to the east and by the communities or neighbourhoods of Jollimore/Williams Lake, Spryfield, Herring Cove and Purcell's Cove.

We conducted our study of the Backlands in order to document the biophysical character of the area and to identify and better understand how the area is used and what it means or signifies to the people who live in the neighbouring communities. The need for this information was motivated by the proposal, as part of the Halifax Harbour Sewage Treatment project, to route a sewage trunk line across the Backlands.

The survey of the physical landscape and vegetation structure of the Backlands involved a combination of aerial photo interpretation and

observations along field transects. Our interpretation of the cultural significance and recreational use of the Backlands is based on the results of direct, open-ended interviews with 32 participants from the local communities. Our study approach combines both quantitative and qualitative techniques and integrates objective and subjective information and interpretations of the character of the Backlands.

Our work represents a first step in documenting the character and use of the Backlands. We were limited in doing this work by both time and funding. For the biophysical study, these limitations dictated the size of the area that could be traversed, the detail (or scale) in mapping vegetation assemblages and habitats, the emphasis on late summer species and the emphasis on a phytobiotic survey while having to exclude zoobiotic and limnological studies. For our cultural and recreational study, these limitations dictated our emphasis on a qualitative study and restricted the number of interviewees we could include in the investigation. Nonetheless, the information which we have collected provides useful baseline information about the area and can support a well-informed and meaningful discussion and assessment of impacts and concerns related to any development or planning exercise that might impact on or involve the Backlands.

The ethnographic study documents the quality of the Backlands experience and demonstrates how the Backlands are highly valued by the residents of the Halifax Mainland South communities. The source of this value is in the natural outdoor recreational experience of the Backlands; in the rural, country-like quality they impart to these predominantly suburban neighbourhoods; and the continuity they provide with the community's past and also its future.

Residents of this area know the Backlands well. They use the area year-round for a wide variety of recreational activities, including swimming, canoeing, hiking, berry picking, fishing, picnicking, camping, bird watching, skating, cross-country skiing, snow shoeing, photography, sketching or simply enjoying nature's design in the surrounding landscape. The Backlands also provide a place for spiritual reflection and quiet contemplation. Local users move into and through the area by well-known and well-traveled routes, as well as by more cryptic paths and trails requiring special knowledge of the area. They are familiar with the area's wildlife and habitats and are aware of special and unique places in the Backlands. The contrast between this wild landscape and the surrounding urban development and the fact that the Backlands are not intensively used heightens the quality of the recreational experience. The Backlands offer the unique opportunity of a

natural wilderness experience in the city; that the Backlands are familiar and non-threatening, that they are close to home, makes this experience comfortable and accessible.

Residents' appreciation of the Backlands is also influenced by their concerns. They see urban development intruding further into the Backlands, threatening both environmental quality and public access to the area. They are also concerned that development is more and more likely as Halifax considers areas like Mainland South for future expansion. Our study suggests that while residents would prefer to see the Backlands remain 'as is' they are adopting a realistic perspective of the future. However, they would only be willing to support future development if a large area of the Backlands is reserved for recreational use, if public access to the area is assured and if the wilderness quality is preserved. They would oppose any activity that might encourage development if the future of the Backlands wilderness is not first secured. This suggests land use planning. Interviewees in this study indicated that they were concerned by the lack of interest shown in the area on the part of Halifax City and Halifax County Councils. In the past, this was probably a benefit. Lack of attention meant that the area was left pretty much alone. But recent development events and interests suggests this lack of interest could lead to uncontrolled and unplanned development. Residents are worried about losing a very special part of their community, a place they have enjoyed and appreciated for generations and a place that, they believe, also offers a great deal to the greater Halifax area.

The study of the cultural significance and recreational use of the Backlands demonstrates that natural areas do not have to be officially recognized and managed nor do they have to be ecologically unusual, or large, in order to be important or significant. The Backlands are, for the most part, what conventional land capability evaluations reveal to be relatively unproductive, unexceptional landscapes for this part of Nova Scotia. This has not, however, deterred from the appreciation that local residents have for this natural area. The Backlands have been a part of their communities since these communities existed. The area very adequately satisfies residents' recreational needs throughout the year and it is a place that provides people with a comfortable familiarity. Some of the more 'unproductive' elements of the Backlands, notably the bogs and barrens, provide for some of the most enjoyable experiences. These include a sense of remoteness and ruggedness, the open views and picnic spots and the crops of blueberries, huckleberries and cranberries harvested every summer and fall. The Backlands really do not need any ecologically unique, unusual or representative areas to make them special or worthy of more careful consideration. Nonetheless, the

biophysical study indicates that there are some special places in the Backlands and that even the 'ordinariness' of the area could be the focus of a recreational opportunity for the Halifax region.

The Backlands are an extremely rich mosaic of land forms and vegetation communities. What at first and from a distance looks to be a relatively uniform surface of barren granite outcrops broken here and there by scrubby forest stands and lakes, is in fact more heterogeneous. The landscape is dominated by ericaceous fire barrens, but highly interrupted by small boggy patches, larger wetlands of considerable variety in depressions and at lake shores, numerous small scrubby mixed-wood successional forest stands as well as more mature coniferous and deciduous forests and ponds, lakes and streams. So much variety in such a relatively small place provides the opportunity for experiencing, during a short walk, many different types of habitats, not to mention the animals, especially birds and mammals.

The Backlands also offer some unusual opportunities for ecological and natural history investigations. The area supports a variety and abundance of lichens on the granite ridges. The composition of ericaceous shrubs is somewhat unusual in that huckleberry tends to dominate over other ericads. This is possibly related to the fire history of the area. In addition, the Backlands contain what, for this Province, is an uncommon vegetation component. The area is rich in jack pine (*Pinus banksiana*), a situation definitely attributable to the fires which have burned this area repeatedly over the years. The jack pine stands may offer a special habitat for birds where hardwood stands are relatively rare. Even more peculiar however is the association of jack pine with the bogs. Much of the jack pine grows on the dry barren ridges but some of it grows in wet bogs. To our knowledge, this particular variant jack pine ecosystem is unique regionally and unusual anywhere.

The biophysical study of the area suggests that there is more to the Backlands than first appearances and casual observation may suggest. We must stress, however, that this study was limited to the area north of Flat Lake. The lower section of the Backlands, from Flat Lake to Herring Cove was not part of this biophysical study, although the entire area is one contiguous natural landscape and should be treated as a unit. The Herring Cove Backlands are different from the northern section and their biophysical structure should be documented.

## Recommendations

1. The information which we have provided on the biophysical character, cultural significance and recreational use of the Backlands is quite limited, yet it is enough to demonstrate that the area is used extensively for recreation, that it is highly valued by local residents, that it is a rich mosaic of land forms and vegetation communities and that it contains some very unusual vegetation associations. Although limited, this information suggests much potential for the future. We believe that a sewage trunk line through the Backlands jeopardizes this potential. This conclusion is based on the concern that the trunk line could enable future development in the Backlands. We do not believe that the risk is warranted. Although we still know very little about the Backlands, we have described an area that is already established as a community wilderness recreation resource with considerable potential for the greater Halifax area and an area that enhances the natural biological diversity of our region.

Considering what this initial information and concerns regarding future development suggest, and considering the time and resources that would be needed to properly study and plan for land use in the Backlands, **we believe that it is inappropriate to route the proposed STP connector tunnel through the Backlands. We therefore recommend that the proponent be required to select another routing option outside of the Backlands. An earlier proposal submitted by the Wildlands Working Group is one option that could be reconsidered.**

If this recommendation is unacceptable then it will be necessary to adopt a more immediate, more proactive strategy for studying and managing the Backlands. The following recommendations are **general** with respect to what we believe would be necessary in terms of addressing the immediate concerns regarding development in the Backlands and in supplying future information requirements and land use planning for the Backlands and **specific** with respect to the impacts of the proposed Halifax Sewage Treatment Plant (STP) connector tunnel through the Backlands.

## 2. Rezoning and Land Use Planning

Considering what we have documented about the vegetation associations of the Backlands and the character and quality of the Backlands experience, we believe that any activity that promotes or enables development in the Backlands should not be permitted without first investigating the impacts of a

development proposal on the valued ecosystems or recreational opportunities of the Backlands. Associated with this is the need to clearly define a land use plan for this area. We therefore recommend that the ~~RDD zoning~~ <sup>proposed</sup> for this area be reviewed in light of the recommendation of the regional Detailed Area Planning Committee (1980) that the Backlands remain undeveloped. The DAPC recommendation was made prior to an investigation of the Backlands. Our current findings support this earlier recommendation. Hence, we further recommend rezoning all public lands within the area as 'parkland reserve' and investigating other zoning options or management approaches for ecologically and recreationally 'special places' on private land. The entire area should be subject to land use planning, requiring the cooperation of both the Halifax City and County Councils and a detailed examination of the relationship between land ownership, current use patterns and future residential and commercial development needs.

The implications of such rezoning for the design of the STP and its related current or future infrastructure would need to be reviewed.

## 2. Protection of Core Recreational Area

With the study of the cultural significance and recreational use of the Backlands we were able to demonstrate the quality of the Backlands experience. We documented how the Backlands are used and what the area means to people who are familiar with it. Our approach was based on the knowledge that this area is used by local residents and our intent was to understand something of the nature and quality of the use experience. We did not, however, determine the actual level of use, that is a quantitative survey of how many people use the area or how frequently. Also, although we did identify some travel routes and special places in the Backlands, this was not a true 'use-mapping' exercise. Surveys of this type require considerably more time and resources than what was available to us for this preliminary investigation of the Backlands. Therefore, in order to develop a more complete and effective documentation of the recreational significance of the Backlands we recommend that a representative survey of Mainland South residents be conducted to determine the actual extent and level of use of the Backlands among the general population. We further recommend detailed identification and mapping of access routes, travel routes and special and favoured recreational sites within the Backlands. This mapping should include the entire area from Williams Lake Road through to the Village of Herring Cove.

Such information would be very valuable for future land use planning for the Backlands. With respect to the STP proposal, the purpose of the exercise would be to identify the core recreational areas so that these can be protected from impacts resulting from the development and operation of infrastructure associated with the STP.

### 3. Protection of Regional Natural Diversity and Hydrology

The biophysical study revealed considerable variety in the vegetation structure of the Backlands. We were also able to identify some unusual plant associations. The survey was, however, based on somewhat dated photography, flown in 1981. Since this time, there have been several fires, as well as revegetation in areas unaffected by recent fires. We were also limited by time and resources. These limitations, combined with the extreme heterogeneity of the landscape meant that the vegetation survey was not as detailed as we would have liked and that we had to restrict our study to the northern half of the Backlands. The limitations also meant that we were only able to include the late summer species in the survey, that we could not extend the survey to animals (vertebrates and invertebrates) nor could we conduct any limnological or hydrological investigations. Therefore, in order to develop a complete and detailed documentation of the biophysical character of the Backlands, we recommend that the area be re-flown and re-mapped using new aerial photographs. Mapping should be extended into the Herring Cove section of the Backlands and field work should include phytobiotic, zoobiotic and limnological surveys conducted through spring, summer, fall and winter in order to accommodate seasonal variations and changes. We also recommend that a detailed hydrologic study be conducted, investigating the ground water regime and the ground water-surface water relationships, especially with regard to the wetlands in the area.

Such information would be very valuable for future land use planning for the Backlands. It would also support future ecological and natural history studies in the area, possibly as part of environmental studies and research at schools and universities in the Halifax region. Considering in particular the STP proposal, the purpose of a detailed biophysical inventory and hydrological study would be to protect the natural regional diversity and hydrology from impacts that may arise from the infrastructure associated with the STP. With respect to the area's wetlands, the project proponents would need such information to ensure that the STP infrastructure will not adversely impact on wetland function. Such a requirement is dictated by the Federal Government's new policy directive of 'no net loss of wetland function'.

#### 4. Protection of Genetic Diversity

Jack pine is not a common tree species in this province. It represents less than one percent of the forest landscape. In addition, the particular condition of its growth in parts of the Backlands (the jack pine bog) constitutes a very unusual plant association. For this reason alone, there should be some form of protection of the entire area where jack pine occurs. In order to better appreciate the significance of this stand, we recommend that research be initiated into the significance of the area's jack pine relative to other, more common jack pine associations in the Province.

While such research is not appropriate for an EIA, it may be of interest to local university and other researchers. With respect to the STP proposal, we recommend that the jack pine population be protected from any impacts that could arise from developing and operating the infrastructure associated with the STP in order that its special genetic and ecological characteristics are retained for future research. It is important to note that the current proposal routes the connector tunnel directly under one of the more unusual stands. The fact that this stand is in a bog is of even greater concern because of the lack of information on the potential impacts of the tunnel on the regional hydrology.

Our recommendations are based on the assumption that the trunk line will be a tunnel. If, for any number of reasons, a tunnel proves to be unfeasible and the sewage trunk line becomes a surface feature, then the magnitude of the impacts will be substantially greater, increasing the urgency for detailed, accurate biophysical and cultural information about the Backlands.