On the Path to Community Well-Being
Indicators for Active Recreation

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Executive Summary

Atlantic Canadians rank significantly below the national average for physical activity. In order to address the sedentary lifestyles, staggering health-care costs and to ensure opportunities to engage in physical activity, planning for the built environment in Nova Scotia must provide opportunities to make citizens active and mobile. To provide a more supportive environment for physical activity, public health and planning professionals can eliminate or reduce barriers in the built environment (Forsyth, 2003). Enhancing access and improvement to recreational trails is one area of the built environment that can facilitate physical activity (Robbins, 2005).

A growing area of research examines built environment indicators related to active recreation. The study looks to add to this body of information by contributing to the Nova Scotia Community Counts database. In reviewing and evaluating built environment indicators the study engages the community of Spryfield in conjunction with Action for Neighbourhood Change to determine which indicators are useful in empowering local communities in accessing recreation trails.

The method in the study focuses on three areas for gathering information on useful indicators: literature review, a public workshop, and follow-up discussion with civil servants and trail experts. The literature review summarizes the current research on the impacts of the built environment on human health, recreational trails and determinants of active recreation. The public workshop provided an opportunity to seek input on what community members feel are important attributes in recreational trails; and determine what information is available to the community on trails. The discussion with civil servants and trail experts provided a resource in understanding useful indicators for the public and information valuable for trail initiatives. Criteria used in evaluating each indicator included its relevance to community interests, its recognition within the literature and its usefulness for trail initiatives and programs.

The findings from the literature, community feedback and input from civil servants have contributed to identifying 28 potential built environment indicators useful in improving access to trails. The discussion highlights why community members and civil servants identified specific indicators as useful. Based on completeness of the evaluation criteria indicators are selected and the availability of information and how the community can collect new information are discussed. Recommendations from the study include:

- useful indicators for inclusion in the Community Counts database;
- the formalisation of indicators;
- an outline for a community workbook on useful indicators for the community; and
- action the community can take to improve access to recreational trails.

The study is a first step along the path to community well-being.

Acknowledgements

I would like to thank Dennis Pilkey from Nova Scotia Community Counts who has provided support, contacts, feedback and enthusiasm for the study from the start. Paul Shakotko from Action for Neighbourhood Change provided the opportunity to work on a project involving capacity building at the local level. This experience provided valuable insight into challenges communities' face in accessing recreational trails. A warm thanks to Marjorie Willison from Action for Neighbourhood Change who was more than willing to listen, bounce ideas, and provide support at the community level. I would like to acknowledge and thank Professor Jill Grant for her continuous support, willingness to listen, and her attention to details.

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1.0 Introduction

Action for Neighbourhood Change brings together local residents, not-for-profit agencies, and public and private sector partners to learn how locally-driven neighbourhood revitalization strategies can enhance the capacity of individuals and families to build and sustain strong, healthy communities (Action, 2005).

The initiative currently taking place in the community of Spryfield, Nova Scotia involves residents, community groups and Action for Neighbourhood Change working together to determine and catalogue available resources in the community. The Province of Nova Scotia Community Counts program is contributing to the initiative. Community Counts is an online database that provides public access to socio-economic and health data for Nova Scotian communities. The data presented in Community Counts is used for quantitative measures. However, to provide a complete picture of a community's well-being qualitative measures or indicators that provide subjective analysis of data is needed. Reliable and useful information on the broader condition of society that reflects citizens' perceptions is meaningful data that can influence action at the local level. The study aims to contribute by examining built environment indicators. Various indicators can help communities gauge the impacts of the built environment on community health, with the overall aim of providing communities with the resources to more effectively lobby decision makers for positive change in their neighbourhoods.

The built environment encompasses community design, physical structures and infrastructure as well as including patterns of human activity within the physical environment (Handy, 2002). A flurry of new research has begun to illustrate the impacts of the built environment on physical activity and community health (Ewing, et at., 2003, Frank et at., 2003, Frumkin, 2002, Shields, 2005). In examining the relationship a new trend has emerged in the United States and Canada to improve public health by constructing and promoting recreational trails. To explore community health benefits associated with recreational trails, communities or agencies need measurable data.

In efforts to understand what data is essential to contribute to the new emerging research on the built environment, as well as uphold the mandate for both Action for Neighbourhood Change and Community Counts, the study builds on three fundamental pillars. First, the study contributes to research now underway examining the relationship between the built environment and human health. Much of the literature covered in the study comes from the United States where current studies tend to examine larger communities (Ewing, et at., 2003, Frank et at., 2003, Frumkin, 2002). By contrast the Spryfield study contributes to future research on smaller communities.

Secondly, the study can help policy planning and program management. The information generated for Community Counts intends to ease the difficulty of obtaining accurate, current data supported by analytical resources and tools to help improve evidence-based decision-making for policy development, program planning and management (Pilkey, 2005).

For the last pillar, the study emphasizes community empowerment. Every community is unique and in order to address specific issues strategies must reflect local experience (Action, 2005). The interest in the study is to take the findings from the emerging research, and communicate with the local community to answer the question of what built environment indicators do residents believe to be most useful in working towards improving access to

recreational trails in their communities? The study brings together different sectors of the community to identify local assets and develop solutions in improving access to information on recreation trails.

2.0 Health and the Built Environment

2.1 Physical Activity and the Health of Nova Scotians

Research indicates close connections between physical activity and health. Physical activity provides health benefits such as protection against heart disease, stroke, hypertension, type 2 diabetes, various cancers, osteoporosis, obesity, depression, anxiety and stress (Walker and Colman, 2004). However, Atlantic Canadians rank significantly below the national average for physical activity. According to the Canadian Fitness and Lifestyle Research Institute, 62% of Nova Scotians are currently too inactive to reap the health benefits of regular physical activity (Colman, & Hayward, 2002).

One consequence of physical inactivity is obesity which has reached epidemic proportions across age, race/ethnic, and socioeconomic groups (Ewing, et al., 2003). The dramatic rate of increase of obesity and overweight individuals is a global trend and both a cause of illness and a symptom of deeper social trends (Colman, 2000). Nova Scotia has one of the highest rates of obesity in the country (Colman, 2000). Contributing factors of obesity include a junk food explosion, a more sedentary lifestyle, higher rates of stress and overwork, poverty and nutritional illiteracy (Colman, 2000). According to Statistics Canada, the likelihood of being overweight or obese amongst adolescents tends to rise as time spent watching TV, playing video games or using the computer increases (Shields, 2005). High-tech, labour-saving devices and sedentary occupations are all contributing to a decline in the amount of physical activity individuals get in their daily routines (Day, 2003).

Physical inactivity can be a preventable behaviour pattern (Frank, et al., 2003). Physical inactivity costs the Nova Scotia provincial health care system an estimated $66.5 million a year in hospitals, physicians, and drug costs alone (Colman and Hayward 2002). In addressing this enormous economic burden a new public health focus for physical activity interventions has recently shifted from vigorous exercise to promoting lower intensity activities such as brisk walking (Reed, et al., 2004). Walking is consistently the most popular physical activity of Canadians over the last decade (CFLRI, 1995, and Reed, et al., 2004). However, low-income communities and people with lower levels of education often get too little physical activity (Day 2003). Such individuals have limited leisure time for physical activity as they often hold two or more jobs and deal with high care-giving burdens (Day, 2003).

In order to address the sedentary lifestyles, staggering health-care costs and creating the opportunities to engage in physical activity, planning for the built environment in Nova Scotia must provide opportunities for active and mobile citizens.

Sedentary lifestyles

2.2 Physical Activity and the Built Environment

New partnerships between communities, policy makers, health professionals, and those within the planning field are just starting to work together to identify how the built environment influences the opportunity for residents to engage in physical activity. Recently, the built form is drawing attention to how urban sprawl may contribute negatively to human health. Studies conducted in the United States have indicated that people living in areas with sprawling development are likely to walk less, weigh more and have a greater prevalence of hypertension than individuals living in less sprawling communities (McCann and Ewing, 2003). Urban sprawl, therefore, may reduce the opportunities for citizens to be physically active.

Physical features of the built environment that may explain lower rates of active living in urban environments included insufficient parks, high crime rates and fears for safety, pollution, lack of jobs to walk to, dirty streets and sidewalks, and aesthetics (Day, 2003). To provide a more supportive environment for physical activity, public health and planning professionals can eliminate or reduce barriers in the built environment (Forsyth, 2003). One approach to eliminating or reducing barriers involves structured interventions. For example, providing safe separated multi-use paths close to home and leading to purposeful destinations it makes it easier to incorporate physical activity into a daily routine (Lusk, 2003 and Wang, 2004). One opportunity communities should consider for incorporating movement through the built environment is integrating multi-use paths with sidewalks, streets, front yards, backyards, alleys and playgrounds (Lusk, 2003). The built environment can indeed influence a community's physical activity levels as it provides cues for accessible, convenient, safe and appealing opportunities (Giles-Corti, 2002; King et al., 1995; Sallis & Owen, 1996). Individuals must choose to exercise, but communities can make that choice easier (Trails and Greenways Clearinghouse, 2005). Enhancing access and improvement to recreational trails is one area of the built environment that can facilitate physical activity.

Opportunities for physical activity

3.0 Outdoor Physical Activity

3.1 Active Recreation

The physical activity and recreation literature emphasize the availability, access, location and quality of recreational trails within a community. These aspects of recreational trails can contribute to the outside perception and liveability of a community. In contributing to the research on access to recreational trails the study will consider trails as an opportunity for active recreation. Therefore, for the purpose of the study active recreation encourages residents to be physically active through non-motorized recreation. Hiking on trails during leisure-time is one example of promoting physical activity.

Studies show that providing locations for physical activity increases the level of physical activity participation in a community (Giles-Corti & Donovan, 2002).

The U.S. Task Force on Community Preventive Services strongly recommends creating or enhancing access to trails for physical activity. Trail advocates and health-care organizations are joining forces to improve public health by building and promoting the use of recreational trails (Robbins, 2005).


Non-motorized recreation

3.2 Recreational Trails and Trail Users

Trails are off-road non-motorized paths primarily recreational in nature but also used for active transportation. For example, one type of trail encompasses hiking trails where the primary purpose of the trail is for hiking, walking or mountain biking. Another type of trail is a secondary purpose trail: for example, pedestrian walking paths that connect residents with end-destinations. The trail therefore becomes a means to another activity or purpose. The study considers both urban walking paths and hiking trails because the public has different perceptions of what constitutes a trail. Nova Scotia legislation indicates sidewalks as multi functional paths. By this designation sidewalks allow for various activities to occur on a multi-use path parallel to the road (Scrutton, 2005).

As the study focuses on users who participate in non-motorized activities the study does not discuss trail use by off-highway vehicles such as snowmobiles, ATVs and motorbikes. The study categorizes trail users as hikers, bikers, walkers and dog walkers.

3.3 Benefits of Trails

Benefits to recreational trails include social, health, heritage and environmental benefits. Trails foster community involvement and provide an opportunity for people of varying backgrounds and experiences to interact. Common trail activities such as walking, bicycling and cross-country skiing are all relatively inexpensive, unorganized activities, providing accessible recreation opportunities (Trail Monitor 2, 2005).

Age and skill level does not limit participation in physical activity on trails. Formal and informal groups that organize participation in local activities such as soccer and softball restrict individuals with particular schedules, skills and group affiliations (Lusk, 2003). Many activities require significant amounts of time and money to acquire specialized skills or equipment, and rarely continue year-round. In contrast, multi-use paths are free, accessible, inclusive and only require shoes (Lusk, 2003).

With appropriate trail design, trails can offer excellent opportunities for all ages to pursue physical activity in a natural setting. Trails promote environmental stewardship, healthy recreation and transportation options by providing attractive, safe, accessible places to be physical active. Trails provide an opportunity for individuals to run errands or commute while building in physical activity into their daily routines. With scenic trails and appealing landscapes people actually want to be outside enjoying the natural environment (Trails and Greenways Clearinghouse, 2005).

Trails offer a place to see and interact with others who are exercising. The perception of others participating in activities encourages physical activity

among others. For health professionals, trails offer a cost-effective tool against the staggering health-care costs associated with a sedentary lifestyle (Robbins, 2005). New research demonstrates that while trails require an up-front investment, they produce savings in health-care costs later on (Robbins, 2005). A study published in the *American Journal of Public Health* (2004) found that trails cost an average of $235 per user to build and maintain, while they offered a direct medical savings of $622 per person in 2002 (Robbins, 2005). By this calculation trails paid for themselves three times over.

These are all positive attributes contributing to the quality of life for individuals and the community. However, the hard question for communities is how do they measure such attributes and what should they do with the information? The study will take advantage of the developing field of built environment indicators as an approach that communities can take when examining recreational trails.


Enjoying trails at any age

4.0 Indicators of the Built Environment

4.1 Indicators

The potential impact of the built environment on community health is attracting the attention of professionals from a wide range of disciplines interested in measuring the trail-health connection. A new area of research examines built environment indicators related to active recreation. The study looks to add to this body of information by contributing to the Nova Scotia Community Counts database. The power of statistics can help shape policy and planning agendas. Good public decision-making needs good data, and the data in Community Counts provides benefits to many key government programs and community initiatives (NS Community Counts, 2005). However, at this time, no indicators in the Community Counts database focus on the built environment and community design. Built environment indicators, specifically those related to trails, will contribute to broadening the Community Counts database.

There are two main streams within the literature on physical activity and the built environment. One from the travel behaviour literature, the other from physical recreation literature. Depending on the physical activity, either destination orientated trips or leisure time activities, different elements of the built environment may influence physical activity. For example, travel behaviour literature suggests distance, access and time spent travelling to a destination are indicators for active transportation (Frank et. al., 2003). The physical recreation literature studies suggest aesthetically appealing landscapes, trees, and design features like benches encourage physical activity during leisure time. Different indicators may take priority depending on what the community is trying

to measure, making it essential to know in advance the purpose of the indicators.

5.0 Approach and Methods

5.1 Research Question

The study uses indicators to explore the relationship between the built environment and the opportunity residents have to engage in physical activity using recreational trails. In reviewing and assessing built environment indicators the study engages the community of Spryfield in conjunction with Action for Neighbourhood Change to determine which indicators are useful in empowering local communities in accessing recreation trails. The study recommends useful indicators for including in the Community Counts database to improve public availability of information on recreational trails. Overall, the research study looked to answer the following question:

What built environment indicators do residents believe most useful in working towards improving access to recreational trails in their community?

5.2 Approach

Residents and community members of Spryfield expressed interest in pedestrian connections through trails and walking paths at the Spring Community Forum 2005. The report "Our Community is on the Go!" (2005), noted that residents would like a highly walkable community. To achieve this goal, I encouraged community members to identified important attributes in accessing recreational trails. I engaged civil servants and trail experts from the community to determine appropriate indicators most useful to the public. Finally, I provide a list of useful indicators for residents and community groups that will enable them to continue to work on their own behalf to improve trail access. A second list of indicators will guide Community Counts as useful information for advancing community trail initiatives and programs.

5.3 Study Objectives

The research study seeks to:

a) Review and evaluate built environment indicators relevant to trails.
b) Determine what information the community has on trails and how the community might participate in improving access and availability to trails.
c) Determine the usefulness of potential built environment indicators through community engagement and participation.

5.4 Methods

1. Literature Review

A thorough literature review summarizes the current research on the impacts of the built environment on human health. The review includes material on active recreation, recreational trails and the benefits of trails. The physical recreation literature covers research on determinants of active recreation. The literature review used resources available at Dalhousie University libraries. From the literature review, a potential list of build environment indicators were generated for recreational trails to use in discussion with civil servants and trail experts.

2. Public Workshop

In conjunction with Action for Neighbourhood Change on Saturday, October 15, 2005 a public workshop for residents and community groups interested in improving the safety, walkability and

access to trails in Spryfield provided an opportunity to:

- seek input on what community members feel are important attributes in recreational trails; and
- determine what information is available to the community on trails.

Co-ordinating the public workshop with two other student researchers, Andrew Curran and Rob Kostiuk, minimised redundancy and the time required from community members. The public workshop took place in the Captain William Spry Community Centre.

In preparing for the workshop, we emailed invitations to local organizations and active citizen groups listed in the Captain William Spry Community Directory (2004). I personally invited individuals to participate in the workshop. These individuals were potential key stakeholders. I did follow up phone invitations with the Chebucto Hiking Club, CRABapple Mapping Project, Friends of Long Lake, Long Lake Provincial Park Association, and McIntosh Run Watershed Association.

Another form of advertisement to notify the community of the workshop included written submissions to local church bulletins. A total of eight local churches agreed to include the announcement in their weekly bulletin. A public service announcement on several radio stations along with advertisement through posters provided the opportunity to inform residents of our workshop. Posters hung in the community medical centre, grocery stores, local mall, arena, and several bus stops. All advertisement material appears in Appendix A.

In conducting the workshop we divided our time into three sections. We had two and half-hours to discuss issues of safety, active transportation and accessibility and use of trails. I provided a map to everyone to highlight the trails within the study boundaries set by Action for Neighbourhood Change. I included a handout with the map that outlined four questions that would help facilitate discussion during the workshop. The questions revolved around characteristics of recreational trails that the community liked, disliked, wanted to improve and what information they needed to make the improvements. Appendix C outlines discussion questions. In providing feedback to the community, I typed up and emailed discussion notes to workshop attendees.

3. Discussion with civil servants and trail experts from the community

Through the sampling technique of snowballing I set appointments with contacts to discuss the usefulness and availability of trail information. I communicated with civil servants from Nova Scotia Office of Health Promotion – Sport and Recreation and knowledgeable trail residents from Spryfield to seek input on the perceived usefulness of the built environment indicators. The discussion with civil servants and trail experts provided a resource in understanding useful indicators for the public and information valuable for trail initiatives. These discussions helped in evaluating and selecting indicators for inclusion in the Community Counts database, and highlights suitable indicators for the community. A list of questions and a form used to guide the discussion is available in Appendix D.

4. Indicator Evaluation and Selection

Through the literature review I identified a potential list of built environment indicators. In narrowing the list of indicators, I completed an evaluation on each indicator based on the literature and feedback from community members, civil servants and trail experts. The following

criteria were used in the evaluation phase the:

- Relevance to community interests;
- Recognition within the literature; and,
- Usefulness for trail initiatives and programs

I developed an evaluation matrix based on the above criteria. The aim of the matrix is to generate two lists of indictors: One set of indicators to include in the Community Counts database and another for community members to use in continuing to improve trail access. I based indicator selection on the completeness of the evaluation matrix. However, along with matrix completeness I asked these questions:

a) Which indicators are important to the people of Spryfield?
b) Which ones help with decision making for trail initiatives and programs?
c) Which indicators require data that is available?

5. Collecting Trail Information

I collected information on trails in Spryfield through various sources. I accomplished this through a snowball effect starting with contacts from Action for Neighbourhood Change. The Captain William Spry Community Directory provided contacts for organisations related to recreational trails in Spryfield. Either by email or telephone I contacted representatives who provided information or directed me to another contact, for example, a contact name for the community group Friends of Long Lake.

Long Lake Provincial Park

Community Counts lent assistance in setting up contacts with the Office of Health Promotion to obtain trail information from the province. I initiated collecting information from Halifax Regional Municipality through the open space planning and parks and recreation departments. At the public workshop I made contacts with community members interested in discussing further recreational trail indicators.

6. Application of Indicators for Spryfield and Community Counts

Developing two lists of indicators satisfies the requirements for both Community Counts and Action for Neighbourhood Change. Community Counts is interested in approximately three to six indicators for the database. These indicators would help communities compare themselves with others to see how they fare in regards to access to recreational trails. The indicators will improve public availability of information on recreational trails.

The second list of indicators can help empower local communities interested in gaining more information on recreational trails. The list of indicators for the community highlight areas of the built environment that the community showed interest in improving to increase the accessibility of trails. To help enhance the capacity of individuals to build and sustain a strong healthy community that promotes recreational trails, communities need to know what is available. Therefore, the study provides techniques to collecting information on trails that community groups can use to lobby for change and improvements in recreational trails.

5.5 Limitations

Early on in the study I found it difficult to locate information on existing trails in Spryfield. I learned Spryfield did not have an official trail group associated with trails in the community. Instead, Spryfield has a number of community groups associated with different trails, for example, Friends of Long Lake and the McIntosh Run Watershed Association. Because of the various groups I had to contact each individual group to enquire about information on trails, rather than one central contact; this took more time than anticipated. Information provided by the province and Halifax Regional Municipality is limited to officially designated trails. They cannot provide trails information on private property without permission from the landowner. Therefore, even if the community frequently uses a trail on private property, information on the trail may or may not exist.

Stakeholders at the HRM, Park and Recreation Department did not contribute as thoroughly as I would have liked due to the time frame of the study. The turn over time in responding to inquiries made to HRM and others presented a major limitation in the study. Unfortunately, due to time constraints, I could not organise a planned activity involving youth from the Chebucto Boys and Girls Club to receive feedback on youth's perception of using trails for physical activity.

In the time available I had few opportunities to have one-on-one discussions with individuals in the community regarding the usefulness of indicators pertaining to trails. Instead, comments generated by civil servants and trail experts act as a scoping exercise to get an impression of useful indicators.

6.0 Findings

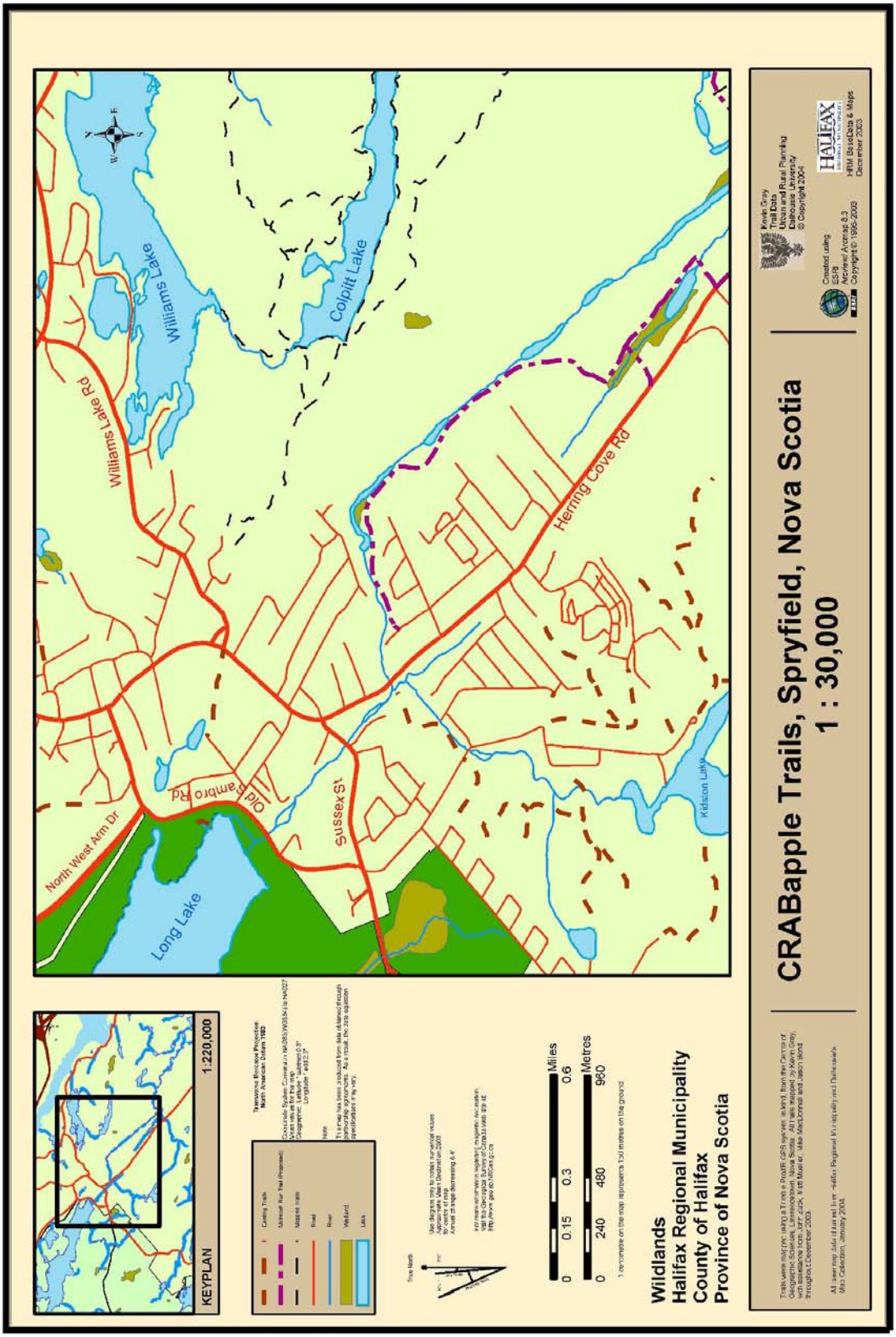
6.1 Information on Existing Trails

Various resources provided information on trails in Spryfield. The quantity and quality of information on existing trails is important because it demonstrates public accessibility to accurate trail information. The information collected came in the form of trail maps. The data that supports trail maps developed using a GPS (global positioning system) are not available at this time to the public for distribution due to licensing agreements. Therefore the study presents trail information collected in map form.

Halifax Regional Municipality

The most current information available on trails from the Halifax Regional Municipality consists of a detailed study of the Wildlands by Gray (2004). The study illustrates current trails bounded by Herring Cove Road, Purcells Cove Road and Williams Lake Road. Gray (2004) includes a trail map (Appendix E). The trails indicated in the map are not necessarily indicative of trails that will remain in the future. Map 1 illustrates trails within the study area of Spryfield.

Map 1. Trail Map of Study Area


CRABapple Trails, Spryfield, Nova Scotia
1 : 30,000
Wildlands
Halifax Regional Municipality
County of Halifax
Province of Nova Scotia
KEYPLAN
1:220,000
Williams Lake Rd
Williams Lake
Colpitt Lake
Herring Cove Rd
North West Arm Dr
Long Lake
Old Sambro Rd
Sussex St
Kidston Lake
Miles
Metres
HALIFAX

CRABapple Mapping Project

The Captain William Spry Community Centre has produced two brochures, *Walk of Spryfield Village* and *Spryfield Walk to the Rockingstone* illustrating walking routes and trails through the community of Spryfield. The brochures were completed under the CRABapple Mapping Project supported by "Go for Green" and available through the community centre. Appendix E provides a sample of the brochures.

Nova Scotia Office of Health Promotion

The Nova Scotia Office of Health Promotion maintains a database for official trails through the province and updates the Trails Nova Scotia web site. The web site provides information and a description of types of trails such as shared-use, snowmobile, Trans Canada and coastal view trails as well as canoe waterways and sea kayak routes. At this time, the only public record available on trails in the community of Spryfield is Rockingstone Park Trail. The database does provide the length, availability by season and activities permitted on the trail. Appendix E illustrates the information provided by the Office of Health Promotion.

Long Lake Provincial Park

A short distance from Spryfield lies a large track of land that has gained popularity in recent years as a destination for hiking, mountain biking and dog walking. The network of trails through the forests and skirting Long Lake are unofficial unmanaged trails. The Friends of Long Lake Provincial Park Association has undertaken a GPS mapping exercise to collect data on the location of trails throughout the park (Lake, 2005). At this time a management plan for Long Lake Provincial Park is underway with the Department of Natural Resources. These plans will officially designate trails as well as develop new trails. Appendix E illustrates the current trails in Long Lake Provincial Park. Managing the park will mean the closure of some trails (Willison, 2005). A report from the School for Resource and Environmental Studies, Dalhousie University, provides valuable information on visitor use in Long Lake Provincial Park (Atari, et al., 2001).

McIntosh Run Watershed Association

Appendix E provides maps on the multi-use trail and the nature trail along McIntosh Run (Tae, 2005). The multi-use trail map is from a draft trail report put together by the McIntosh Run Watershed Association. The multi-use trail exists with no status or maintenance by the city (Tae, 2005). The nature trail has GPS data available through the School for Resource and Environmental Studies. The nature trail is mostly on DNR land, but still needs approval; therefore the trail map is considered hypothetical. Most of the trail is hikeable except for the Tanglewood Access.

Photo: McIntosh Run Trail ~ courtesy of Martin Willison

6.2 Determinants of Active Recreation

The literature suggests that several factors contribute or inhibit participation in physical activity. For example, constraints stem from a lack of time, information,

money, social support, and poor health (Reed, et al., 2004). However, the physical recreation literature indicates that recreational trails provide a supportive environment for physical activity. Based on the literature, the following section highlights determining factors of active recreation.

Accessibility and Access

Easy accessibility and close proximity to recreational facilities increases the opportunities individuals have to lead a physically active lifestyle (Reed et al., 2004, Wang, 2004). Research by Giles-Corti (2002) illustrates that spatial access to recreational facilities may influence physical activity participation. According to Hansen (1959) four factors influence people's ability to overcome 'spatial separation' (i.e., distance or travel time) to access a facility or activity. This includes the importance of the trip to the user, attractiveness of the facility, the facility's location, and the user's access to transportation (Hansen 1959). Bauman et al. (1999) found that living near the coast where residents had plenty of opportunities to lead an active lifestyle, residents would achieve the recommended amount of daily exercise. Two determinants for active living include distance to a facility and the ease of accessing a facility.

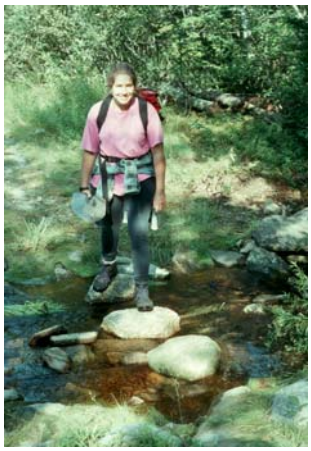


Photo: Hiking McIntosh Run Trail ~ courtesy of Martin Willison

Age, Education and Socioeconomic Status

Trail users often have common characteristics: they are young, have advanced education, and make more than US$35,000 a year (Reed et al., 2004). A study on the awareness and use of community walking trails found the level of physical activity decreased with age and lower level of education (Reed et, al. 2004). Giles-Corti (2002) noted a higher education level and household income had a positive association with physical activity. Additional work by Reed et, al. (2004) demonstrated individuals with a higher socioeconomic status had greater levels of participation in physical activity.

Likewise, Macintyre (1993) demonstrated that an inequitable distribution in recreational facilities in favour of high socio-economic status suburbs raised concerns that poor access in disadvantaged areas contributes to lower levels of participation in physical activity (Macintyre et al., 1993, King et al., 1995). The findings by Reed et al., (2004) show non-trail users as individuals in a lower income bracket and unaware trails existed in their neighbourhood or community. Clearly age, education and socioeconomic status contribute as factors in pursuing active recreation. Effort in promoting trail use should therefore be aimed at non-trail users.

Safety, Aesthetic and Design

Safety, aesthetic and design characteristics of a trail can contribute to whether or not residents use the trail. A neighbourhood watch patrol encourages residents to walk on the trails (Day, 2003). The perception of residents engaging in an activity encourages physical activity among others. Distance to a trail presents a barrier to using a trail, but often the attractiveness of an activity or area can moderate the willingness participants will travel to take part in the activity (Kim & Fesenmaier,

1990). Trail design and terrain contributes to the accessibility of a trail (Go for Green, 2005). Communities building trails for active living can follow trail guidelines and standards set by trail federations to ensure various trail users can participate.

Trail Development and Maintenance

Several cost-benefit and cost-effectiveness studies have been conducted on physical activity programs. Unfortunately, research on cost effectiveness of environmental interventions such as building pedestrian trails is lacking (Wang, 2004). Physical environments are among the least studied of the potential influences of physical activity (Wang, 2004). Often the cost of construction and maintenance of trails can contribute as factors in implementation. To promote trail use as an effective tool in health promotion strategies, costs between trails and current health care approaches need examination.

6.3 Potential Built Environment Indicators

Based on literature in physical recreation, green space and active transportation I have generated a list of potential built environment indicators relating to trails. A valuable resource that helped generate the list included indicators from Go for Green Active Transportation (2005). These indicators are interchangeable and applicable to recreational trails. I have divided the indicators into categories based on similar themes.

Trail Design
- Number of urban walking path and hiking trails
- Length of trails
- Design of trails (linear or loop design)
- Width of trail
- Surface design of trail
- Trail destinations
- Distance of trail kilometres per 1,000 residents
- Number of people in a given radius of a trailhead
- Distance travelled by trail participants to use a trail
- Number of access points per trail
- Available trail maps or signage
- Availability of trail - year round or seasonally

Safety
- Number of light posts along a trail or at trail entrance
- Sight-lines free of obstruction
- Frequency of security patrols
- Frequency of snow and ice removal

Amenities
- Available parking at the trailhead
- Available parking year-round
- Number of benches
- Available protection from weather and sun

Repair & Maintenance
- Frequency of trail and path maintenance
- Versatility of trails
- Number of garbage/recycling receptors
- Frequency of garbage/recycling collection
- Community investment into trails

Aesthetic
- Number of attractive features on the trail
- Number of outlooks on a trail

Organizations & Community Based Support
- Number of community trail walking/hiking clubs
- Number of events organized around a trail

6.4 Community Workshop

A well attended community workshop had residents, community leaders and youth representatives contributing to an interactive discussion on the positive aspects of walking, bicycling and trail use in their

community. A total of 18 attendees participated in the workshop.
The workshop had representation from J.L. Ilsley High School, Hand in Hand (a used clothing store), CRABapple Mapping Project, a local church, Long Lake Provincial Park Association, a local entrepreneur, Captain William Spry Community Centre Board of Director members, Spryfield Residents Association, Central Spryfield School and other local residents. Community members participated throughout the workshop providing valuable insight to their community.

Photo: Attendees activity contributing to community workshop ~ courtesy of Reg Horner

Activities emphasising the trail map confused some people. This may have caused residents unfamiliar with the area not to participate or comment, where others more familiar with trails became very critical. Recognising that not everyone is comfortable using a map, next time I would simply have community member discuss different aspects of trails. Regardless, the discussion on recreational trails in Spryfield unfolded first with community members speaking on positive aspects they liked about trails. For example Spryfield has various trails from urban walking paths to backcountry hiking trails. Many trails are near local residents.

Attendees provided feedback on aspects they did not find attractive about trails in the community. Attendees addressed access to trails as their biggest complaint. Attendees voiced concern about knowing the access points and routes to new trails built by mountain bikers. The discussion moved into ways the community could improve undesirable aspects of the trail environment. Things mentioned included better access to garbage bins in trailheads with frequent pick up along with community clear up projects.

The discussion ended on what type of information the community would find useful in making improvements to accessing recreational trails. Suggestions on useful information included a reliable and accurate map, description of trails along with information regarding land ownership. Appendix D contains the compiled discussion notes on recreational trails in Spryfield taken during the workshop.

6.5 Discussion with Civil Servants and Trail Experts

Discussions held with civil servants and trail experts proved useful in gathering more detailed information on the usefulness of specific built environment indicators. I used the questions prepared for the discussion as a guideline rather than asking participant for a specific answer. Doing so kept the discussion moving. Participants were interested in working through the list of potential indicators to identify useful indicators. Unfortunately, individuals had limited knowledge on the availability of information for indicators.

Civil Servants

The Office of Health Promotion provided valuable insight to indicators useful for examining the availability and access of trails in a community. Indicators most useful to the public, which the OHP identified, revolve around the length and

location of trails along with the number of people who have access to a trail. Indicators that demonstrated usefulness towards informing decision-makers on communities or neighbourhoods that lack trail initiatives or programs were also identified.

The top selected indictors include the number and length of trails, distance of trail kilometres per 1,000 residents, the number of people in a given radius of a trailhead, trail destination, available trail map, the dollar amount the community invests into trails and the number of community trail/hiking clubs.

Trail Experts

Community members who are familiar with trails in Spryfield provided feedback on useful indicators for accessing trails. Trail experts identified available trail maps as the single most useful indicator. From the expert's perception other indicators that stood out as useful to the public revolved around elements that measured the quality of a trail. Indicators identified by trail experts include the length of trails, the design of trails, the number of access points, frequency of security patrols, available parking, frequency of garbage/recycling collection and the number of attractive features.


Community needs trail maps

6.6 Indicator Evaluation

To highlight the usefulness of an indicator, each is evaluated on three criteria: first, its relevance to community interests based on feedback from the community workshop and discussion with trail experts; secondly, through recognition within the physical recreation and built environment literature; finally, its usefulness in trail initiatives, and programs in comparing communities and making decisions on recreation trails. An asterisk in the evaluation matrix indicates an indicator meets one of the above criteria. Appendix F illustrates the evaluation matrix.

7.0 Discussion

The study has focused on three areas to gather information on built environment indicators pertaining to recreational trails. The findings from the literature, community feedback and input from civil servants have contributed to identifying indicators useful in improving access to trails. The following discussion highlights why community members and civil servants identified specific indicators as useful. Based on completeness of the evaluation criteria Table 1 illustrates selected indicators. Discussion continues with indicators Community Counts can expect and why, followed by discussion on selected indicators useful for community planning. Discussion will close on the availability of information and how the community can collect new information to improve access to trails.

The literature identified twenty-eight potential indicators for examining the relationship between the built environment and the opportunity residents have in using trails for physical activity. Community members and civil servants did not weight indicators equally as seen in the evaluation matrix and discussion below.

The community workshop provided valuable insights to the issues and concerns residents have with accessing trails in Spryfield. The workshop offered an avenue for residents to discuss ideas and suggestions on information they feel would

help improve public access to recreation trails. Community members recognise they can accomplish projects by having the appropriate information. For example in maintaining green space for trails or urban walking paths it is possible for the community to initiate action and make a difference. The community provided the example of Sobey's development, which has a pedestrian cut through behind it connecting a residential development. This resulted from residents pushing for an urban walkway.

New development proposals that block or destroy trails concern community members. This demonstrates the emphasis on the need for an accurate trail map and a resolution on the issues around land ownership. Community groups need to know the location of existing trails and participate in the planning stages of community development to voice their views on keeping trails open to the public.

The availability of a trail map is another important issue for community groups. Having an accurate map produced by GPS stored in a database where community groups do not have access is not helpful. The issue on sharing information, data, resources is fundamental for community groups to initiate action and lobby for change. With evidence-based decision making for funding trail programs, community groups need available resources to effectively illustrate their need for improvements in access to recreational trails.

Spryfield needs available trail maps or signage

Once trails are identified community members can examine the conditions of the trails. As mentioned both in the literature and by community members the appearance and attractiveness of a trail encourages residents to use a trail. The issue of litter and dog feces along the trail is unsightly and a health concern. Placing garbage and recycling receptacle at trailheads will encourage people to use these receptacles; however, the frequency in collecting the waste demonstrates tidy trails are a priority to the community.

Community members and trail experts agreed the perception of safety influences the use of trails. Dark urban walking paths discourage people from using an area, particularly at night. Overall, community members feel safe walking around Spryfield, but recognise areas they avoid because they feel unsafe. Urban walking paths with poor lighting are unacceptable. These pedestrian networks should receive the same consideration as sidewalks. Many people use urban walking paths so appropriate lighting is necessary along these routes.

Community members expressed frustration in needing to expand the circle of people who get involved in activities and initiatives. With a few dedicated members, the same groups of people get involved in numerous organizations or committees. Having information on the number of community trail/hiking clubs in a community may help identify areas that lack an organized trail group. Communities can

pursue provincial or municipal assistance to provide direction on how a community can develop a trail group.

The provincial trail database has Rockingstone Park listed as the only official trail in Spryfield. Unfortunately, this misrepresents trails available in the community. Visitors or new residents have limited options in seeking information on trails within the community. With several unofficial trails frequently used in Spryfield, having trails recognised, promoted and listed in a central location would help inform residents looking to be active outdoors. A limitation that has prevented promotion of trails in the past is private property owners concerned with liability; therefore, many private trails do not get published on the provincial trail web site (Conrad, 2005).

Indicator Selection

From the potential list of built environment indicators, sixteen indicators met the evaluation criteria. Table 1 illustrates the selected indicators.

Table 1. Selected Indicators

Indicator	Relevance to Community Interests	Recognition within the Literature	Useful for Trail Initiatives and Programs
Number of urban walking paths or hiking trails		*	*
Length of trails	*	*	*
Distance of trail kilometres per 1,000 residents	*	*	*
Number of people in a given radius of a trailhead		*	*
Distance traveled by trail participants to use a trail	*	*	
Design of trails (linear or loop design)	*	*	
Trail destinations	*	*	*
Number of access points per trail	*	*	
Available trail maps or signage	*	*	*
Number of light posts along a trail or at trail entrance	*	*	
Frequency of security patrols	*	*	
Frequency of garbage/recycling collection	*	*	

Community investment into trails		*	*
Number of features that contribute to the attractiveness	*	*	
Number of community trail/hiking/or walking club	*	*	*
Number of events organized around trail use	*	*	

Indicators for Community Counts

Based on the indicators selected the study will recommend three to five indicators for inclusion in the Community Counts database. Indicators meeting the criteria of usefulness for trail initiatives and programs, have a heavier weighting than the other two criteria for selecting indicators for Community Counts. The rationale for weighting and narrowing the list is that certain indicators influence action at the municipal or provincial level.

Identifying indicators such as the distance of trail kilometres per 1,000 residents and the number of people in a given radius of a trailhead demonstrates if an area has sufficient trails servicing the population. This information is useful for community groups to compare trail accessibility in other areas. Such evidence influence decisions at the municipal or provincial level as it draws attention to areas limited in trails. Often communities of lower socio-economic status demonstrate barriers such as lack of information, social support, and transportation to access and use trails. Therefore by identifying communities with lower trail access, agencies that support trail initiatives and physical activity can provide support to encourage community engagement projects that address issues like access to information and feasible transportation.

Community investment in trails can refer to either monetary or intrinsic value. To examine the financial investment trail groups invest annually individual trail groups must be identified. Knowing the number of trail groups in a geographic location can help decision-makers recognise areas that could use guidance in setting up an official trail group or trail program. A community with few to no trails groups does not necessarily indicate that the community is disinterested; instead it could highlight a lack of capacity to organize a trail group.

In examining the dollar amount invested in trail programs decision-makers can evaluate where to direct funding. For example, if two communities apply for funding, one with an excellent proposal and a history of having received funding in the past, compared with a weaker application from a community just starting a trail group, decision-makers can appropriately allocate funding. Communities investing in various types of trails and programs provide abundant opportunities for physical activity. The intrinsic value trails bring to a community contributes to the liveability by protecting green space. The opportunity for residents to appreciate the natural environment also has intrinsic value.

Available trail map or signage is recognised in the literature, by community members and civil servants as essential to inform residents of trails. Community Counts can help to inform residents and community groups on information pertaining to trails. To best facilitate distributing information, Community Counts can provide a link to appropriate web sites

that contain data or trail maps, for example links to: Trails Nova Scotia or Trails Canada http://www.trails.gov.ns.ca/, http://www.trailscanada.com/english/00_home_e.cfm

Indicators for Community Planning & Engagement

The same procedure as selecting indicators for Community Counts is used in narrowing the list of indicators for community groups. Indicators meeting the criteria of relevance to community interests emphasises useful indicators in community planning and engagement. Identifying indicators such as trail destination influences trail design and access points. Trail destination demonstrates the flow and direction people move within the community. Recognising movement can assist community planning by enhancing the number of access points or desirable destinations. For example a linear design of a trail with separate access points to begin or end the trail will facilitate different activities than a loop design trail with one access point.

Communities need to recognise that access to trails provide an excellent avenue for physical activity, alternative transportation options and intrinsic value to the community. Municipal planning by-laws should set minimal standards for distance between residential development and walking trails. The Official Plan at a local level needs to incorporate trail planning for appropriate protection and development of official trails.

Available trail maps or signage is crucial for community planning. However, a community group may find undertaking the task of collect information on every trail difficult. Therefore, designating one or two key trails in the community to focus time, energy and funding to acquire land, develop, maintain and promote is an effective way to engage the community.

Useful indicators that community members and trail experts identified including indicators related to social activities can engage non-trail users to participate. Examining the number of events organized around trail use demonstrates community commitment to encouraging active lifestyles. For example, Spryfield held a community hike through the Wildlands to Herrings Cove last Canada Day. An annual event such as this promotes families and friends to access and use trails in their community. Education is another initiative communities can measure for comparing access to information. Education begins in schools with children and parents as a long-term initiative. Parents need the message too on safe use of trails and health benefits particularly physical activity opportunities trails provide. Community engagement organized around school or community events can contribute to improved access to recreational trails.

Photo: Community hike on McIntosh Run Trail, Canada Day 2005 ~ courtesy of Martin Willison

Potential Information Sources & Techniques for Collecting New Information

Community groups accessing information on trails can inform and improve community capacity to lobby for change in accessing recreational trails. Potential sources for obtaining information relevant to indicators identified as useful to

the community and decision-makers include the Office of Health Promotion and the local municipalities. The Office of Health Promotion has information on community trail groups throughout the province. Information on trail investments by trail groups is also available through this department. Municipal Parks and Recreation Departments would have information pertaining to amenities such as a schedule for garbage collection or lighting along a trail. Applying census information with GIS software for example could provide information on the number of people in a given radium of a trailhead.

Community groups can participate in collecting new information required to improved access to recreational trails. For example an option to administer a questionnaire to trail users to get an impression of such things as the distance traveled to participate on a trail, frequency and reason for using trails, and the level of satisfaction residents have with local trails. Other information collected in a survey may include identifying the access point of entrance, activities undertaken while on the trail or how participants found out about the trail. Field surveys conducted by community groups can provide information from visual observations of trail amenities, and trail conditions. Existing information or new information that needs collecting can help to improve community access to recreational trails.

8.0 Recommendations

Recommendations from the study include useful indicators for inclusion in the Community Counts database, the formalisation of indicators and an outline for a community workbook on useful indicators for the community and action the community can take to improve access to recreational trails.

Indicators for Community Counts

From the evaluation matrix four indicators stand out as useful indicators that provide valuable information to the availability of trails to local residences. Indicators recommended for inclusion in the Community Counts database include:

- Distance of trail kilometres per 1,000 residents
- Number of people in a given radius of a trailhead
- Community investment into trails
- Number of community trail/hiking clubs

Formalizing Indicators

Future steps needed for the above indicators include formalising each indicator. Community Counts staff can work with key partners to develop the indicators. To formalize each indicator a framework is developed for each indicator selected for Community Counts. The framework identifies each indicator, provides a definition and description of applications along with the rationale for using an indicator and the available data source. Community Counts follows a similar procedure before including any indicators in the database.

Community Workbook

An organisation or government department such as Nova Scotia Trails should develop a community workbook. Communities need a tool to help improve access to recreation trails. A workbook can encourage community engagement and help capacity building at the community level. The distinction between this workbook and other trail development workbooks is that community groups identified what indicators would be useful in improving access to trails, these include:

- Design of trails (linear or loop design)
- Number of access points per trail

- Available trail map or signage
- Frequency of security patrols
- Features that contribute to the attractiveness
- Number of events organized around trail use

Along with selected indicators, the workbook can provide suggestions on community projects that can help encourage and improve access to trails. For example Trails Canada operates a registry for community groups to register a trail. Information on the length and design of the trail is provided along with a description of the trail and directions. The community could improve available information on trails by registering a trail for Spryfield.

As mentioned at the workshop, the community knows about unsafe trails. What is needed is a community-based solution. Community members indicated increased security patrols by either volunteers or community police as a possible solution. Foot patrols during the high peak season or evening hours is a positive approach to monitoring activities on the trails. Having the presence of a foot patrol or by-law officer on the trail during peak season would help enforce the on-leash/pick-up by-law for dog owners. Enforcing this by-law would help improve the appearance and attractiveness of community trails.

In conjunction with addressing the appearance and tidiness of community trails a project the community could initiate in the spring and fall is a Trail Clean up Day. The local schools, the Chebucto Boys and Girls Club, and the Scout and Girl Guides could all participate in this activity. To heighten the awareness of trails it is wise to launch activities such as a clean up day for early June to coincide with International Trail Week.

Youth participating in Trail Clean Up

Events organized during Trail Week encourage residents to enjoy trails in their community. Activities organized using urban walking paths: for example, a fun run that uses the pedestrian walking path network in the community brings out the whole family. In organizing such activities it is recommended to invite government members to make an announcement to begin the event to further heighten the awareness of trails in the community.

A recommendation for the workbook is to include an outline for a trail description booklet. Community members expressed interest in having available information on trails provided in a booklet. Similar to the CRABapple walking brochures in Spryfield, but a booklet for trails. Halifax Regional Municipality has produced a booklet; unfortunately it does not include trails in Spryfield. A booklet for example, could include a short description of attractive features, the length and anticipated time to complete the trail, along with any amenities such as benches or shelters and either parking or the nearest bus stop. A community project describing each trail in Spryfield would provide valuable information to residents and visitors alike.

Finally, the workbook can highlight new partners community groups could approach for information, help in organizing an event

or educating residents on the benefits of trails. New partners could include health promoters (health units), local police, post-secondary institutions, and conservation authorities, along with new and existing trail organizations.

9.0. Conclusion

The study proposes build environment indicators that residents believe most useful in working towards improving access to recreational trails in Spryfield, Nova Scotia. Through the combination of information found in the literature, community feedback and input from civil servants the study presence two lists of indicators: one suitable for inclusion in Community Counts database and one appropriate for community groups to use in taking action to improve access to trails.

In undertaking the study I learned various lessons and insights in working at the community level. Organizing a public workshop or lining up individual meetings takes more time then anticipated. Within the community similar people often participate on numerous committees, but drawing out new attendees contributes to diverse discussion and solutions. Distributing announcements for the workshop in church bulletins helped to draw new participants.

The feedback from community members covers various issues related to accessing trails. I recognised in working at the community level residents have different perceptions of a trail. The study had to accommodate various ideas to represent the community's interest accurately.

Overall, the identified built environment indicators provide a useful tool in improving trail access and moving individuals from non-trail users into the category of trail users. The study is a first step along the path to community well-being. Future steps in formalizing indicators and providing additional tools like the community workbook can help capacity building at the local level to improve access to recreational trails.

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Appendices

Appendix A ~ Advertisement Package for Public Workshop
Appendix B ~ Interview Package
Appendix C ~ Workshop Discussion Questions
Appendix D ~ Compiled Workshop Discussion Notes
Appendix E ~ Trail Map of Halifax Regional Municipal Wildlands
~ CRABapple Mapping Brochures
~ Rockingstone Park Trail
~ Long Lake Provincial Park Trail Map
~ McIntosh Run Watershed Association Trail Map
Appendix F ~ Indicator Evaluation Matrix

Appendix A ~ Advertisement Package for Public Workshop

Workshop Invitation
~ please distribute widely to your contacts in Spryfield ~

Dear,

This e-mail is to invite you to participate in a workshop to help identify key issues in planning for a safer, more walkable, and greener Spryfield.

This past April the Board of Directors of the Captain William Spry Community Centre hosted a community forum called "Our community is on the go!" You may have heard about or participated in this forum. Those at the forum made it clear that, with so much change and development on the horizon, the need for citizen engagement and community coordination on a wide range of issues is greater than ever.

As a result, some exciting initiatives have recently been launched in Spryfield including "Action for Neighbourhood Change," coordinated by the United Way and "Healthy Housing, Healthy Community," coordinated by the Board of Directors of the Captain William Spry Community Centre. Several community groups, including graduate students from Dalhousie's School of Planning, are also involved with these projects.

At the forum back in April, some of the most pressing issues identified by participants were safety, walkability, and trail use/connected green space. With your assistance, this workshop hopes to identify the key issues and determine what information the community needs to work towards improving neighbourhood safety, walkability, and access to recreational trails in Spryfield.

Please join us at:

Spryfield: Safe, Walkable & Green
A Public Workshop
Saturday, October 15th
Captain William Spry Community Centre, Conference Room 3
9:30am – 12:00pm

Refreshments will be provided.

Please let us know if you plan on attending by either calling or e-mailing Mary Ellen Wood at 404-5312/meewood@dal.ca or Rob Kostiuk at 425-3513/r.kostiuk@dal.ca.

Sincerely,

Marjorie Willison
Spryfield Action for Neighbourhood Change

Public Service Announcement

Interested in improving the access to a safe, walkable community with opportunities to engage in recreational activities in Spryfield? Come to the Captain William Spry Community Centre, Saturday October 15th, 9:30a.m.-12p.m. to share your views in an interactive workshop. Action for Neighbourhood Change, Community Counts along with the Board of Directors of the Captain William Spry Community Centre and the Dalhousie School of Planning, welcome community participation to discuss the following:

- Are there areas of Spryfield that people avoid because of safety issues, and what aspects of these areas make it feel unsafe?
- What information does the community need to improve access to recreational trails and open space?
- And what things would make people want to walk, bike and engage in active transportation?

Help us identify information the community of Spryfield needs to know to contribute to planning for a safe, healthy and walkable community. Morning treats will be served. For more information please contact Mary Ellen Wood at 404-5312.

Attention: Church Bulletin – Sunday October 9th

Community Input Wanted.

Interested in improving community safety for walking, cycling and recreational trail use in Spryfield?

Action for Neighbourhood Change invites you to come to the Captain William Spry Community Centre, Saturday October 15th, 9:30a.m.-12p.m. to share your thoughts on information that Spryfield needs to plan for a safe, healthy and walkable community. A light brunch will be provided. For more information please contact Mary Ellen Wood at 404-5312.

Thank you for placing this notice in your Sunday Bulletin, it is much appreciated.

Sincerely,
Mary Ellen Wood

Action for Neighbourhood Change
Dalhousie School of Planning

Public Workshop Poster

Action for Neighbourhood Change

Spryfield

Safe, Walkable & Green

Want to make it happen? Help identify what information the community needs to improve neighbourhood safety, walkability, and access to recreational trails in Spryfield.

Come to a Public Workshop

Captain William Spry Community Centre

Saturday, October 15th

9:30am - 12:00noon

Conference Room 3

Refreshments provided!

For more information or to let us know you are coming please contact: Mary Ellen Wood at 404-5312 or Rob Kostiuk at 425-3513

Appendix B ~ Discussion Package for Civil Servants and Trail Experts

Name of Participate:

1. What factors influence public access to information on recreational trails?

2. How can public access to information on recreational trails be improved?

3. Please circle on a scale of one to five the importance of each built environment indicator in contributing to improved public access to information on recreational trails (one begin a low factor and five a high factor).

	Low				High
Trail Design	1	2	3	4	5
Safety	1	2	3	4	5
Amenities	1	2	3	4	5
Repair & Maintenance	1	2	3	4	5
Aesthetics	1	2	3	4	5
Organizations & Community Support	1	2	3	4	5

4. What information could be made public and useful for recreation trails?

5. What additional information do you feel is important to collect?

6. Could you contribute to data collection or are there other ways for gathering data?

7. Any other details or information to add?

Built Environment Indicators

Based on my review of the literature, I've identified the following built environment indicators that relate to trails.

Please provide feedback on:

a) how useful are indicators to the public

b) how available is the information to the public, can it be made public

Indicator	Usefulness	Availability
Number of urban walking paths or trails		
Number of wilderness hiking trails		
Length of trails		
Distance of trail kilometres per 1,000 residents		
Number of people in a given radius of a trailhead		
Distance traveled by trail participants to use a trail		
Design of trails (linear or loop design)		
Wide of trail		
Surface design of trail		
Trail destinations		
Number of access points per trail		
Appropriate trail signage		
Available trail guides or maps		
Availability of trail - year round or seasonally		
Number of light posts along a trail or at trail entrance		
Sightlines free of obstruction		
Frequency of security patrols		

Frequency of snow and ice removal		
Number of safe walk school programs		
Available parking at the trailhead		
Available parking year-round		
Number of benches		
Available protection from weather and sun		
Frequency of trail maintenance		
Versatility of trails		
Number of garbage/recycling receptors		
Frequency of garbage/recycling collection		
Community investment into trails		
Number of outlooks on a trail		
Number of features that contribute to the attractiveness		
Number of community trail/hiking/or walking club		
Number of events organized around trail use		

Appendix C ~ Workshop Discussion Questions

RECREATIONAL TRAILS – Discussion ONE (1)

What are some of the good things about recreational trails in Spryfield?

What are some of the things you don't like about trails in Spryfield?

RECREATIONAL TRAILS – Discussion TWO (2)

To improve recreational trails in Spryfield, we need to expand the positive things and reduce the negative things that you listed above.

What are some of the ways you think these improvements can be made?

RECREATIONAL TRAILS – Discussion THREE (3)

What information do we need to make the improvements you listed above? Together, how can we get this information?

Appendix D ~ Compiled Workshop Discussion Notes

What are some of the good things about recreational trails in Spryfield?

- trail by Roaches Pond is nice – needs to minimise trash
- Sobey's development has pedestrian connection behind it
- variety of trails – need to clearly define different types of trails (wilderness verse urban walkways – different facilities desired)
- McIntosh Run Watershed Association – creating 3 hour hiking trail to Herring Cove (fantastic wilderness opportunity)
- Heritage trails – 5 different ones (Walk of Spryfield Village, Spryfield Walk to Rockingstone – already brochures developed by the CRABapple mapping project)

What are some things you don't like about trails in Spryfield?

- ATV (all-terrain-vehicle) conflicts
- paths need better lighting and maintenance
- lack of lighting on Kidston path
- urban paths are often too narrow, overgrown
- big problem is ACCESS – need to get the info out personally on where trails exist
- need to expand circle of people getting involved – how to do this? (group influence helps involvement)

What are some aspects of the environment that could improve trail use?

- encourage one-way loops
- even terrain
- more access to garbage bins would reduce litter – appearance of cleanliness
- parking and transportation access
- signage to, at and through the trail
- connection and safety on short urban walking paths
- maintained, lit and appropriated sight lines on urban walking paths
- as development happens Spryfield needs to have well-planned, well-connected trail network
- CPTED principles (crime prevention through environmental design)
- interpretative signage on the trail

How do you find out about trails?

- through friends
- maps/signs and brochures – needs to be readily available to the public
- dog-walkers are a good sources of info

What information does the community have?

What are some ways to improve access to recreational trails?

- need to start with a good map of trails
- give people good information and they will use trails
- trail book from HRM – it indicators difficulty level, Spryfield needs something similar describing the trails in the area
- eco-pack – distribute information package into the community

- community trail groups can help develop new trails – but working with HRM can be tedious/long process (could community get private investment?)
- lovely trails but on private property – or some part is on private property
- need to work with landowners to keep these trails open
- Spryfield needs a clear vision on where/how community wants green space allocated
- Long Lake Provincial Park is undergoing a master trail planning exercise with the Department of Natural Resources, this will clarify designated trails
- signage from the village for the 5 different heritage walking routes
- ATV trails and mountain bikes need to be planned and clearly identified
- brochure shelf/info display in local businesses around town
- utilize the vast array of knowledge that we already have
- get access to people who don't or can't read, other who are too busy
- passport project – get passport stamped when you complete a trail (Adventure book used by scouts etc.)

Appendix E ~ Trail Map of Halifax Regional Municipal Wildlands
~ CRABapple Mapping Brochures
~ Rockingstone Park Trail
~ Long Lake Provincial Park Trail Map
~ McIntosh Run Watershed Association Trail Map

Existing Trails
Road
River
Wetland
Lake

Transverse Mercator Projection
North American Datum 1983

Coordinate System Conversion NAD83(WGS84) to NAD27
Mean values for this map
Geographic: Latitude * subtract 0.3"
Longitude * add 2.3"

Note

This map has been produced from data obtained through partnership agreements. As a result, the data aquisition specifications may vary.

True North

Use diagram only to obtain numerical values
Approximate Mean Declination 2003
for centre of map
Annual change decreasing 6.4'

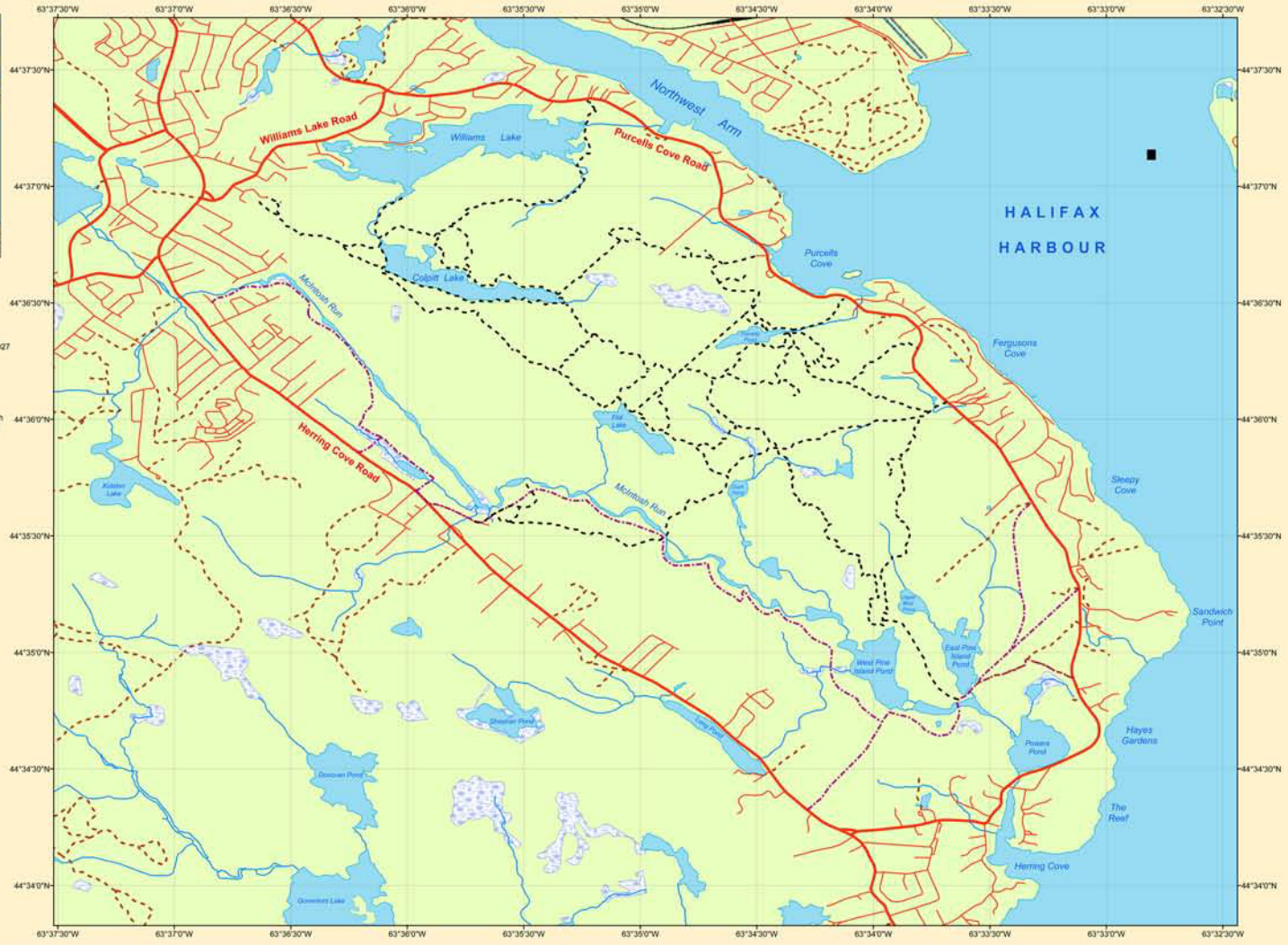
For more information regarding magentic declination, visit the Geological Survey of Canada Web site at: http://www.geolab.NRCan.gc.ca

Miles
0 0.15 0.3 0.6

Metres
0 550 1,100 2,200

1 centimetre on the map represents 150 metres on the ground

Wildlands
Halifax Regional Municipality
County of Halifax
Province of Nova Scotia



Trails were mapped using a Trimble ProXR GPS system, in kind, from the Centre of Geographic Sciences, Lawrencetown, Nova Scotia. All trails mapped by Kevin Gray, with assistance from John Zuck, Matt Mueller, Mike MacDonnell and Jason Bond throughout December 2003.

All basemap data obtained from Halifax Regional Municipality and Dalhousie's Map Collection, January 2004.

Wildlands
Halifax, Nova Scotia

Kevin Gray
Trail Data
Urban and Rural Planning
Dalhousie University

Created using
ESRI
Arcview/ Arcmap 8.3

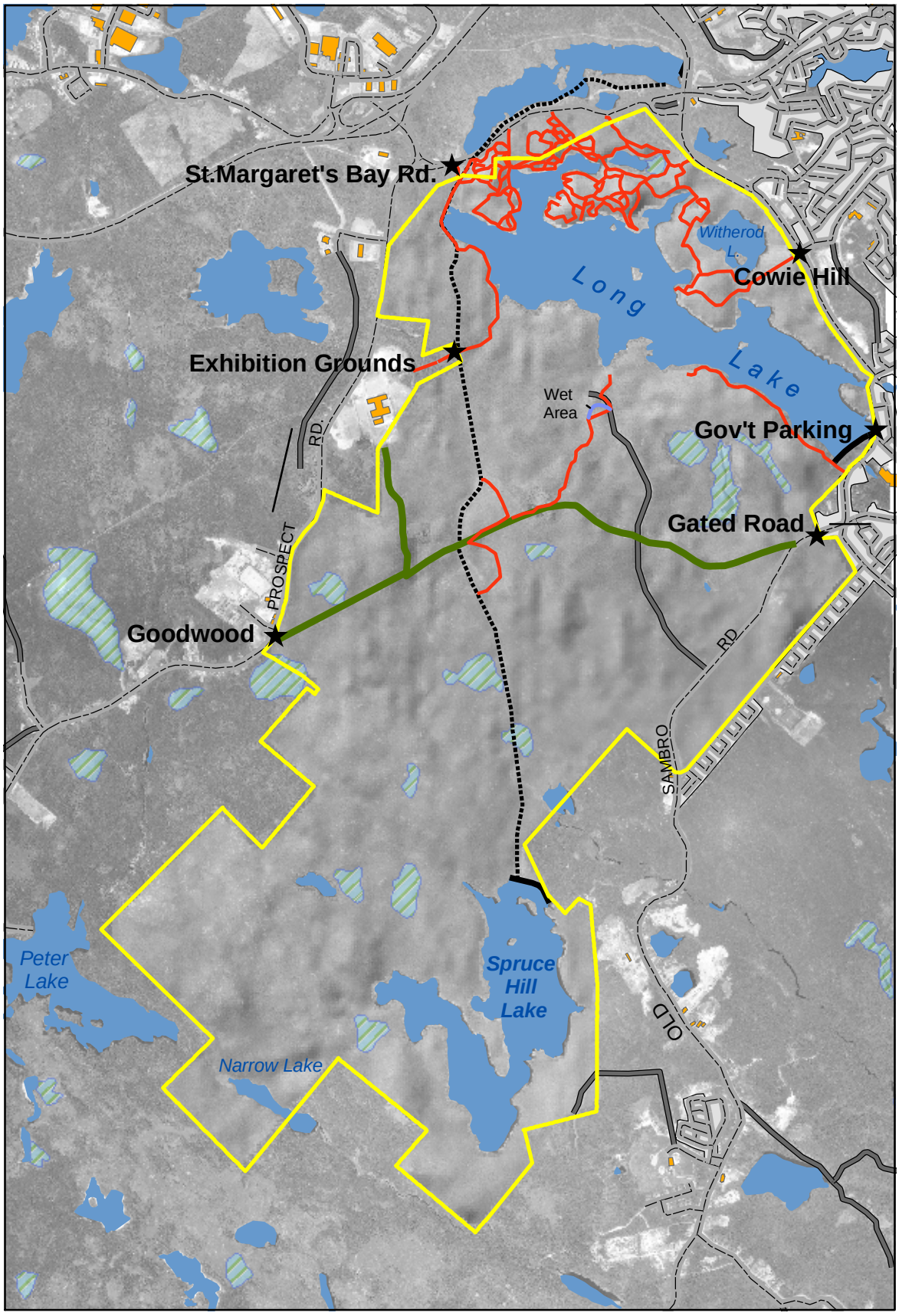
HALIFAX
REGIONAL MUNICIPALITY
HRM BaseData & Maps
December 2003

Rockingstone Park Trail

Trails Nova Scotia - Office of Health Promotion

Long Lake Provincial Park

Halifax, NS



Legend

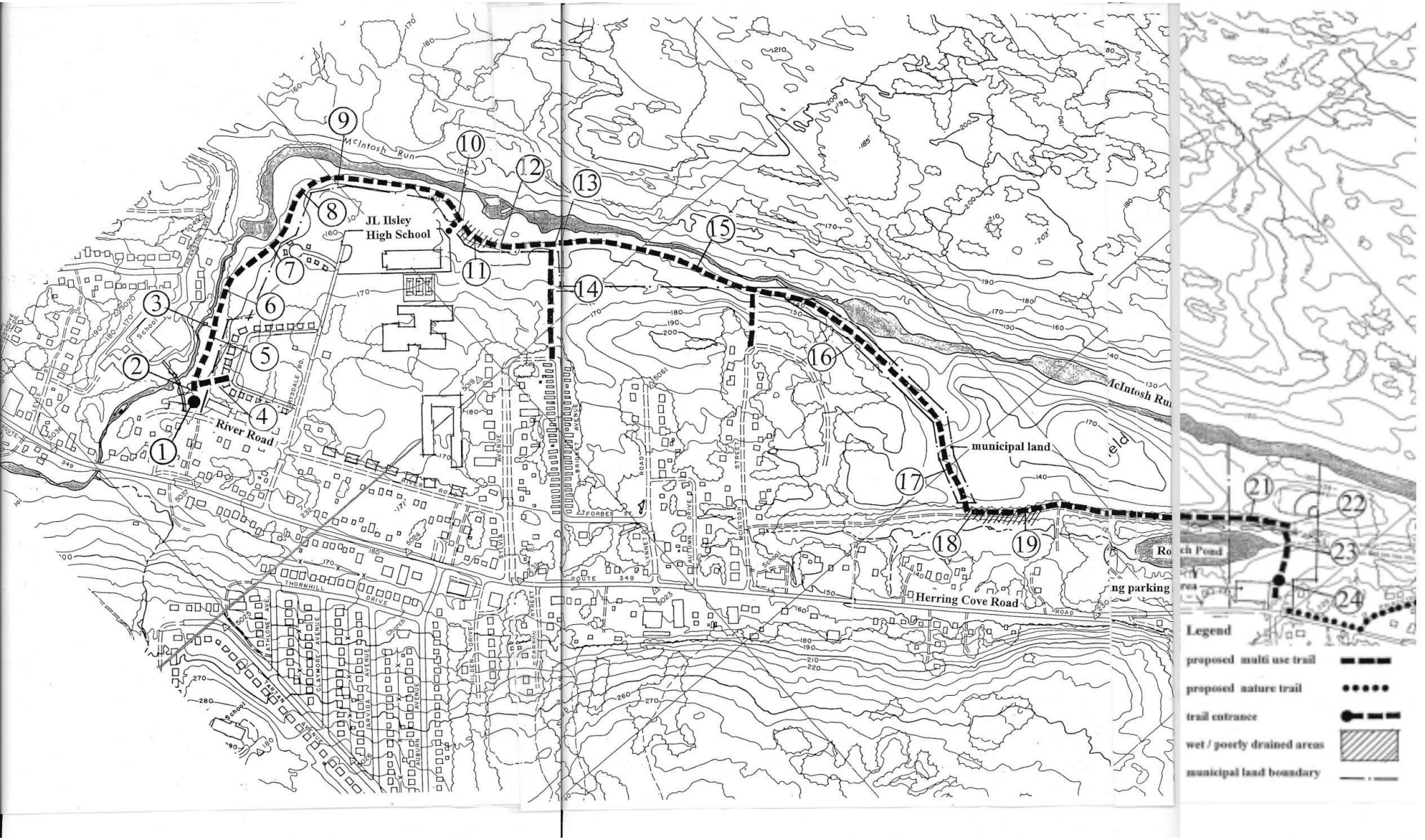
- Park Boundary
- Bike Trails
- Trail
- Pipeline
- Road
- Dam
- Building
- Residential Areas
- Water
- Wetland
- ★ Park Entrances

Map Projection: UTM Zone 20N
Datum: NAD83

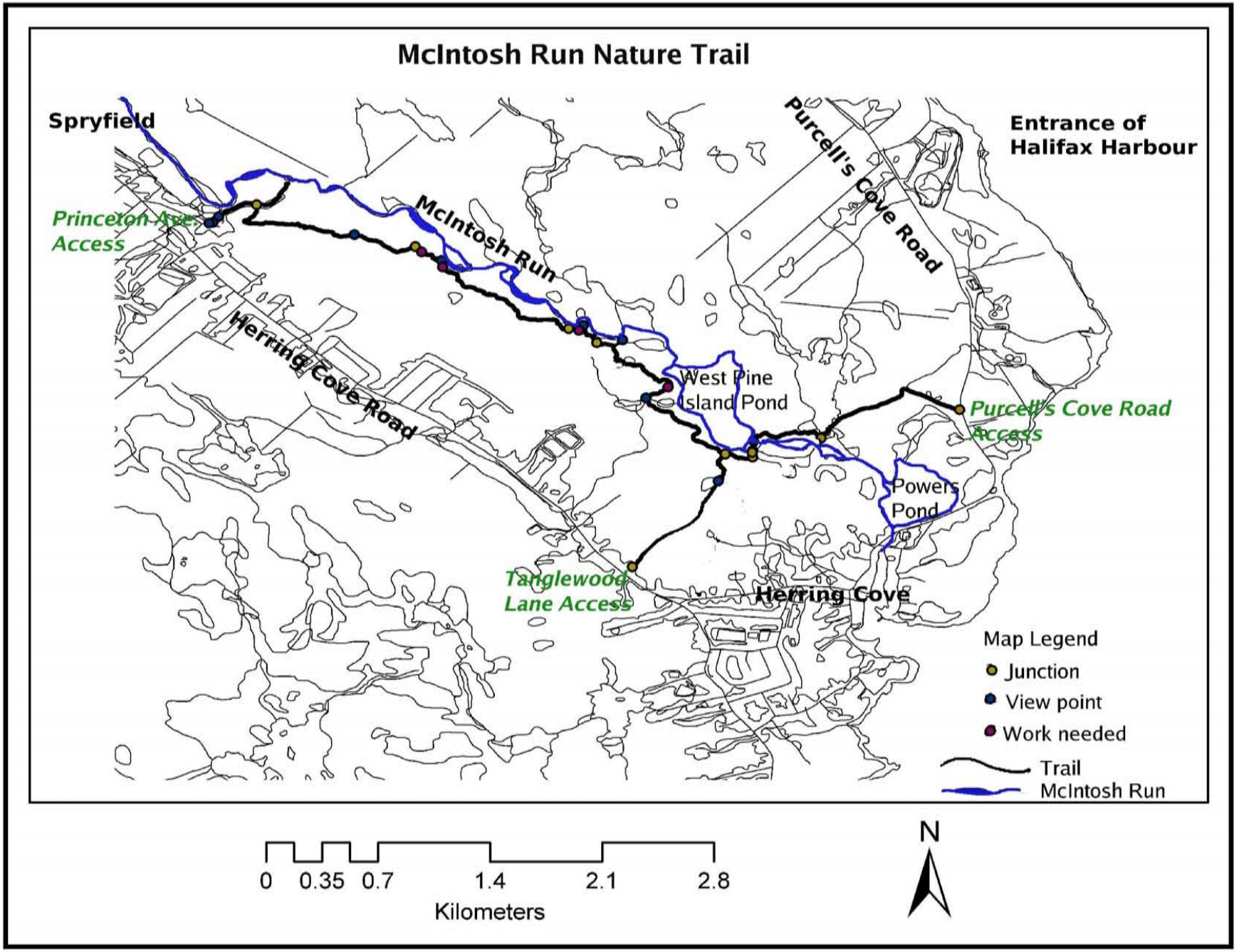
0 0.25 0.5 1 1.5
Kilometers

Planimetric Data Source: NTDB 1:50000
Aerial Photo: NS Land Information Center

McIntosh Run and multi-use trail through Spryfield



Nature trail along McIntosh Run through Herring Cove Backlands.



Appendix F ~ Indicator Evaluation Matrix

Indicator	Relevance to Community Interests	Recognition within the Literature	Useful for Trail Initiatives and Programs
Number of urban walking paths or hiking trails		*	*
Length of trails	*	*	*
Distance of trail kilometres per 1,000 residents	*	*	*
Number of people in a given radius of a trailhead		*	*
Distance traveled by trail participants to use a trail	*	*	
Design of trails (linear or loop design)	*	*	
Wide of trail		*	
Surface design of trail		*	
Trail destinations	*	*	*
Number of access points per trail	*	*	
Available trail maps or signage	*	*	*
Availability of trail - year round or seasonally		*	
Number of light posts along a trail or at trail entrance	*	*	
Sightlines free of obstruction		*	
Frequency of security patrols	*	*	
Frequency of snow and ice removal		*	
Available parking at the trailhead		*	

Number of benches		*	
Available protection from weather and sun		*	
Frequency of trail maintenance		*	
Versatility of trails		*	
Number of garbage/recycling receptors		*	
Frequency of garbage/recycling collection	*	*	
Dollar amount community invests into trails		*	*
Number of outlooks on a trail		*	
Number of features that contribute to the attractiveness	*	*	
Number of community trail/hiking/or walking club	*	*	*
Number of events organized around trail use	*	*	