Myers Point Co-Housing

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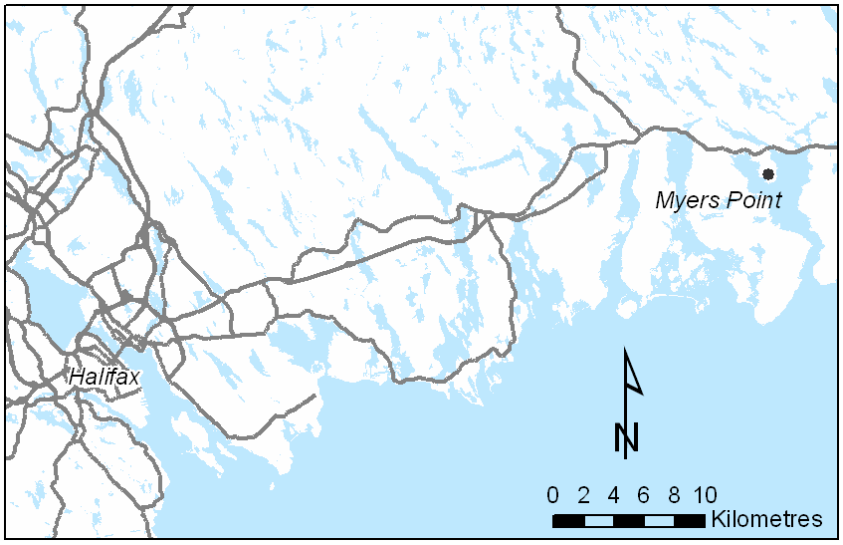
Executive Summary

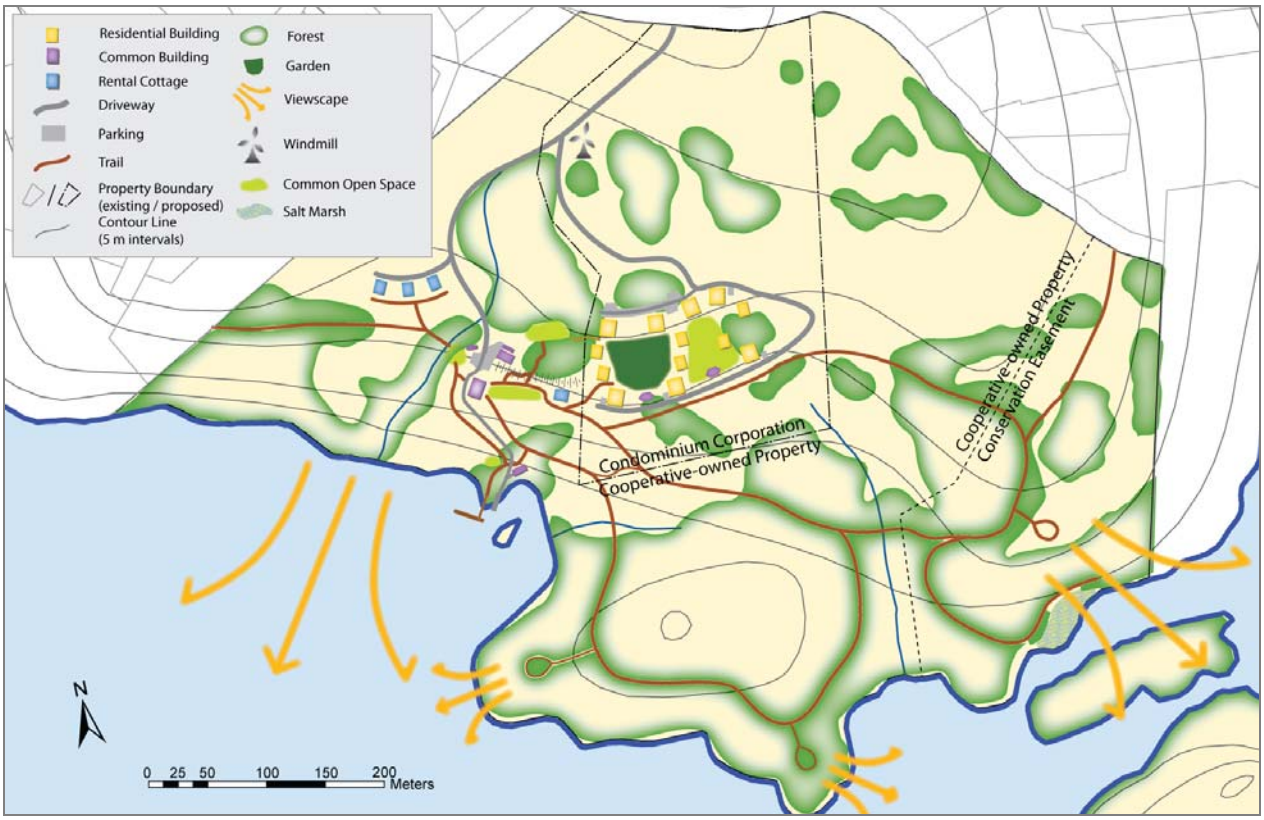
Myers Point is located within Jeddore Harbour, a sheltered navigable bay on the Eastern Shore of the Halifax Regional Municipality (HRM). The client owns a waterfront property on the southern tip of the point. She wishes to develop a cooperative housing project that will provide a supportive community for residents, preserve and enhance the local environment, and provide amenities to the broader community.



The site has great potential for cooperative housing. It is primarily south facing, thereby offering fantastic harbour views and opportunities for passive solar heating. The old orchard, stone wall and homestead provide a charming pastoral setting. Finally, the property is large enough to allow for a wide variety of uses, including medium density residential, agricultural, marine activities, recreation, and ecological preservation.

Co-housing is a housing model which encourages a sense of community and capitalizes on shared resources. This is achieved through physical designs which encourage social interaction and community engagement, and through tenure arrangements which establish common and private property.

Land use and subdivision bylaws applicable to the property restrict the alignment of new lot lines, and therefore impose limitation on the layout of the site. However, alternative means of development are available through the HRM's "Open Space Design" (OSD) process. This process allows greater design flexibility and higher densities than are permitted according to bylaws, but necessitates a more involved approval process. The design proposed in this report is based on an innovative approach to development that combines both of these development options. A portion of the property will be developed according to bylaws, while that component of the project that benefits from the OSD process (i.e. the housing cluster) will be developed accordingly. This preserves development flexibility on most of the site while achieving the desired residential density in the housing cluster.



Recommended Site Design

The resulting design draws upon the assets of the site and incorporates new elements to achieve the project goals. The homestead and orchard form the central common area of the site and offer places for social interaction. The marine heritage of the site is restored via a marina facility that will be open to residents, community members, and visitors. The housing cluster is set on a south facing slope to capture views and sun, and includes a large, central, shared garden area. Finally, much of the site remains undisturbed, other than the establishment of recreational paths, and a portion is set aside as a dedicated conservation area.

The Site and its Context

The study area is a waterfront property on the Eastern Shore of the Halifax Regional Municipality (HRM). It is located on English Point Rd, on the southern tip of Myers Point, approximately 60 km east of downtown Halifax. Myers Point extends into Jeddore Harbour, a sheltered, navigable bay.

THE HALIFAX REGIONAL MUNCIPALITY

The HRM is the political and economic centre of Nova Scotia. It has a strong economic base in the education, health care, and defence industries. It is home to an important port, the regional offices of many major companies, and Canada's East Coast Navy. The area of the HRM is vast, encompassing approximately 596,000 hectares. The types and intensities of land use vary significantly throughout the municipality, ranging from a dense commercial core on the Halifax Peninsula to low-density rural areas outside of this core.

MYERS POINT & MUSQUODOBOIT HARBOUR

Myers Point and the surrounding area are largely rural in nature. Land uses near the study site and in Musquodoboit Harbour include low-density residential, agricultural, and small-scale commercial. The commercial and cultural centre of the area is in Musquodoboit Harbour, which is 10 km west of the study site. The population density on Myers Point is low: approximately 1.2 persons per hectare (pph) (in comparison, Clayton Park in Halifax has a density of 40 pph).

Musquodoboit Harbour has a strong historical connection to the ocean (Connor, 1964). In the late 1800s and much of the 1900s, the primary industries in the area were fishing, agriculture and forestry. Before the construction of the railway in 1916, ships provided the primary means of transporting goods to Halifax and Dartmouth. This connection towards the ocean is reflected in the location and orientation of the homestead on the study site. The home is in close proximity to the water, perched at the top of a slope with a view of a small bay immediately in front of the property.

The character and demographic profile of Musquodoboit Harbour and its surrounding communities has changed significantly since the decline of the resource industries and the establishment of the highway to Dartmouth and Halifax. Private vehicles now provide the primary means of transportation, and only 11.2% of residents are employed in fishing, agriculture, or forestry. Manufacturing, construction, health-care, and public administration now account for nearly 40% of employment, and many residents commute to Halifax or Dartmouth for work. Communities surrounding Musquodoboit Harbour are increasingly looking towards tourism as an economic opportunity.

Most services, including health and dental offices, a hospital , a library, and commercial services are available in Musquodoboit Harbour, a 15 minute drive from the site. Fire and police

stations are also located in Musquodoboit Harbour. There is a grocery store and post office at the Head of Jeddore, 6 km from the site via Highway 7.

Municipal services on Myers Point include solid waste disposal and recycling (along public roads only), and road maintenance. The site is connected to the electricity grid and telephone services. However, there are no municipal sewer or water services and it is not expected that such services will be extended to the site. The two dwellings on the site are each served by independent septic dispersal fields, and water is obtained from a dug well. High speed internet is not available on the site.

DEMOGRAPHICS & COMMUNITY VALUES

Unless stated otherwise, all demographic data provided in this report are from the 2006 Canada Census, for dissemination areas (DAs) 824, 826, 827, and 828. These four DAs were chosen because they are all in close proximity to the ocean and highway and therefore offer a better representation of the demographics of Myers Point than the data for the entire census tract 153 (seeMap 1 for census division boundaries). Where comparisons are made between the 2001 and 2006 censuses, only DAs 824, 826 and 827 are considered because the boundaries of DA 828 were altered between these years.

Figure 1 shows the age profiles for Myers Point and the surrounding area, and for the entire HRM. The profile shows a high proportion of middle-aged people and children. There is a notable lack of persons aged 20 – 35 in the Myers Point area in comparison to the HRM.

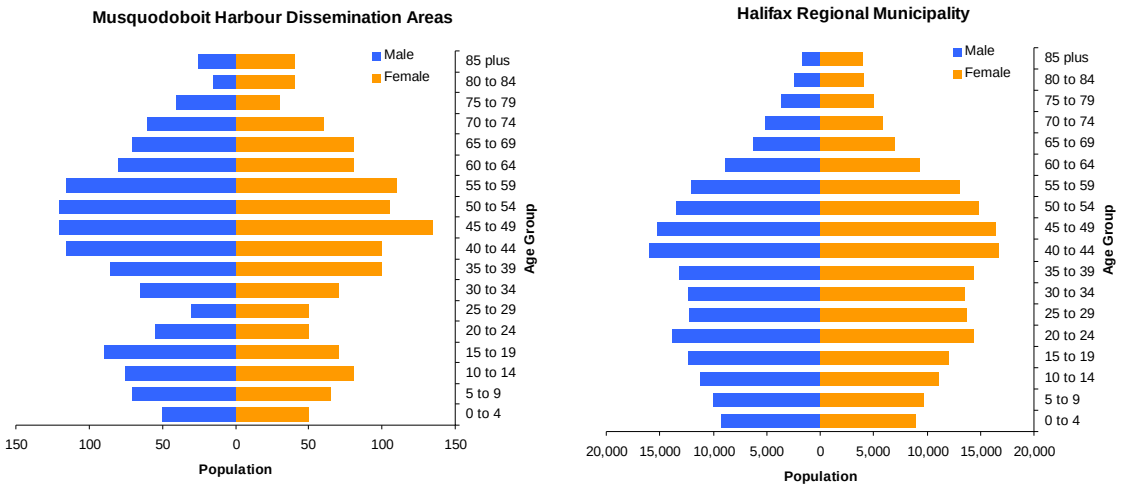


Figure 1. Age Profiles for Myers Point and the HRM.

Figure 2 shows the mobility of different age groups in the Myers Point area between 2001 and 2006. Positive bars indicate cohorts that moved to the Myers Point area between 2001 and 2006, and negative bars indicate cohorts that moved out of the area. The graph shows that 45 people who were between the ages of 15 and 19 in 2001 (more than half of that age group) moved away from the Myers Point area between 2001 and 2006. The 30 to 60 year old age groups experienced moderate to high growth, with the 35 to 45 year old groups showing the strongest growth, and age groups below 14 years

old showing low to moderate growth. This suggests that young families and recent empty-nesters are moving to the area, and that young adults are moving away.

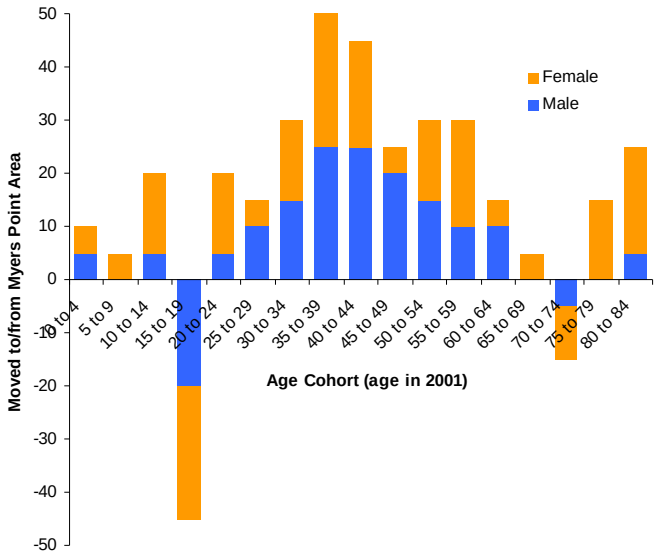


Figure 2. Age Cohort Mobility, 2001 to 2006.

The HRM conducted a community visioning exercise in Musquodoboit Harbour in 2007. Residents expressed their values and concerns regarding their community through surveys and focus groups (HRM, 2007a). Residents identified the need to accommodate seniors, increase recreation opportunities and facilities, provide a wider variety of housing options and increase community events. Residents are supportive of growth that preserves the rural character and ecological values of their community.

Musquodoboit Harbour is a moderately growing community. Between 2001 and 2006, the population of the Myers Point area increased by 345 people (equivalent to 69 people or approximately 4.1% per year). Mobility data for the area suggests that the population is geographically stable and that the area attracts a disproportionately small share of newcomers to Halifax and people moving within Halifax (Figure 3). These statistics suggest a low to moderate demand for new housing in the area.

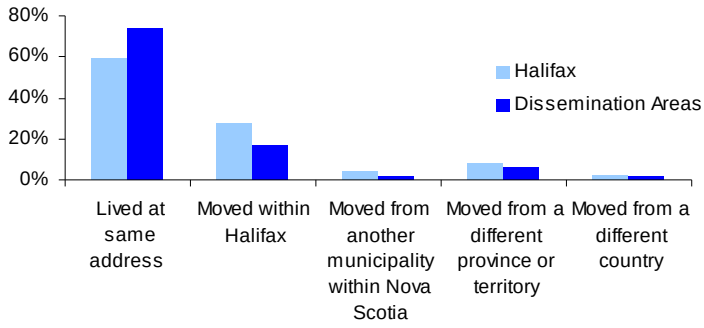


Figure 3. Resident Mobility.

SITE GEOGRAPHY, TOPOGRAPHY & GEOLOGY

The property is situated at the end of English Point Rd, on the southern end of Myers Point. It comprises 34 hectares, and is bounded by English Point Rd. to the north, the harbour to the south, and private properties to the east and west.

The slope of the property increases with proximity to the ocean. On the northern portion of the property, slopes average 2-6%, while closer to the water some slopes exceed 30% (see Map 2). Much of the property is south facing (see Map 3). This creates excellent opportunities for passive solar heating and views.

The soil type on the site is the Halifax Soil Series which is classified as "good to excessively drained". It is expected that it will be straightforward to design and locate a sufficient number of individual wastewater dispersal fields, or one shared field of a sufficient size (if permitted by regulations), to serve the number of residents desired by the client.

Jeddore Harbour is a well protected harbour accessible from the open ocean via navigable channels. There is much opportunity for ocean-oriented recreational and commercial activities.

CLIMATE

The local climate at the site is very similar to that of central Halifax. Temperatures vary from average lows of -10°C in the winter to average highs of 23°C in the summer. Rainfall is consistent throughout the year, with some precipitation falling as snow from January to March (Figure 4).

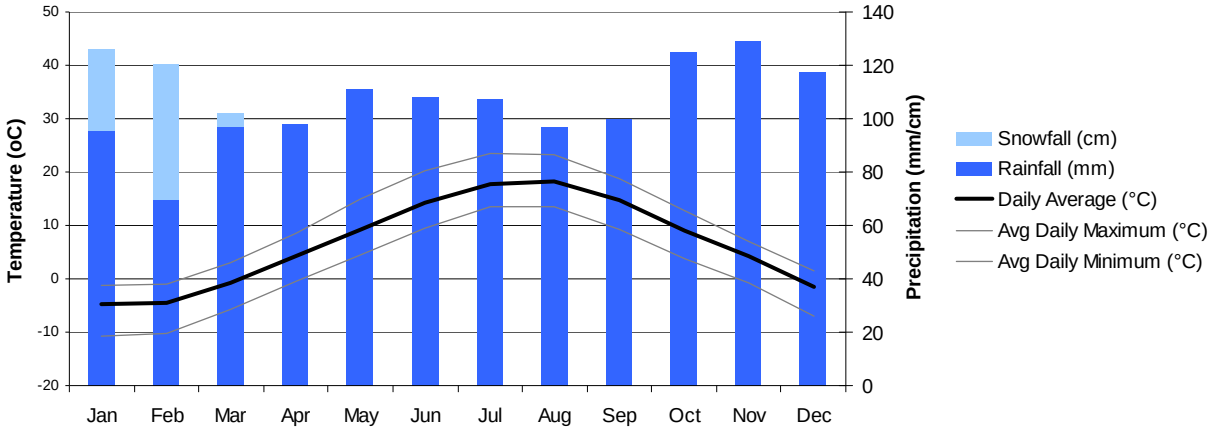


Figure 4. Average monthly temperature and precipitation amounts.[1]

The Nova Scotia Wind Atlas (Nova Scotia, 2007) provides estimates of wind speed across Nova Scotia for the purposes of determining the feasibility of wind power generation. According to this data,

[1] Unless stated otherwise, all weather data provided in this report were derived from data for the Shearwater weather station, in Dartmouth (Environment Canada).

wind speeds at the site, 30 m above ground level, are between 6 and 7.5 m/s. According to the Wind Atlas, this speed is sufficient to warrant wind power generation.

ECOLOGY

The predominant forest type on the site is Coastal White Spruce and Balsam Fir. Deciduous species include maple and birch. Hurricane Juan left much of the property denuded of forest, particularly in areas of higher elevation. The hurricane debris has been removed from the site. However, the remaining stands of trees are susceptible to further wind damage because of their abrupt edges and lack of shelter. Thus, there has been further blowdown since Hurricane Juan. While there has been no effort to promote forest regrowth on the site, natural regrowth appears vigorous.

The islands and salt marsh are areas of particular ecological value. Salt marshes are significant habitats; they host important and highly productive plant and animal communities. Bald eagles inhabit the islands and other bird species are common to the area, including osprey, piping plovers, great blue heron, and common goldeneye.

CO-HOUSING

The owner of the property has indicated an interest in a "co-housing" development. Co-housing is a housing model which capitalizes on shared resources and encourages a sense of community amongst its members. These goals are achieved through physical design and by establishing a framework for shared decision making and ownership of common facilities.

In a typical co-housing property at least some of the property and buildings are owned collectively, and a decision-making process is established which distributes authority among residents. Residents may live in multi-unit buildings or separate single-unit houses. Often these units are privately owned. However, the design typically incorporates a central shared space where residents can interact.

Co-housing projects require the establishment a legal ownership arrangement and decision making framework. These arrangements vary from project to project. Options relevant to the Myers Point property include a condominium corporation or land trust. The condominium corporation has the benefit of being familiar to regulatory agencies. This is important, since the Nova Scotia Department of Environment and Labour (DEL) must recognize an ownership model in order to permit a shared on-site wastewater system.

Condominium corporations provide one means of achieving co-ownership. A condominium agreement simply divides property (including buildings and land) into portions that are commonly owned and privately owned. The commonly held property may be extensive, and the agreement can include terms that hold all members commonly responsible for the upkeep of common property. Thus, condominium arrangements can provide an effective means of implementing a co-housing development

PLANNING POLICY CONTEXT

The Halifax Regional Municipal Planning Strategy (RMPS) (HRM, 2006a) divides the municipality into future land use types. Myers Point falls just within the eastern boundary of the Rural Commuter Designation. The stated intention of this designation is "to focus low to medium-density uses within defined centres which are within easy commuting distance to the Regional Centre ...and to protect the natural resource base and preserve the natural features that foster the traditional rural community character" (RMPS, S 3.3.1).

In this land use designation, the HRM facilitates development via two alternative regulatory processes: "as-of-right" development, and development agreements.

As-of-right development conforms to the provisions of relevant zoning and subdivision bylaws. Property owners must apply for the necessary permits, however the process is relatively straightforward. Zoning bylaws set out the allowed uses, building heights, and required setbacks, while subdivision bylaws describe how a single lot may be divided into multiple smaller lots. The HRM bylaws relevant to as-of-right development on the study site are the "Eastern Shore (West) Land Use Bylaw" (LUB) (HRM, 2006b) and the "Regional Subdivision Bylaw" (SBL) (HRM, 2006c).

A development agreement is a negotiated contract between a property owner and a municipality that confers development rights to an owner. Development agreements typically allow developments that differ from municipal bylaws. However, development agreements must still conform to policy (in this case, as set out in the Halifax RMPS and the Eastern Shore (West) MPS). It is important to note that development agreements are specific; if a property owner wishes to undertake a use or construct a building not described in the original development agreement, the agreement must be amended. Such an amendment would require further negotiation with the municipality, and an amendment may or may not be granted.

The HRM allows development agreements in certain rural areas through a process called Open Space Design (OSD). The RMPS (Chapter 3.5) (HRM 2006a) and "Guide to Open Space Design" (HRM 2007b) describe the OSD process and design criteria. OSD prioritizes the conservation of open space and site assets by requiring a detailed site inventory and careful siting of buildings and roads. Within the OSD framework, the HRM may allow more flexible design and higher residential densities than would be allowed as-of-right.

Two forms of OSD, "Classic" and "Hybrid" are provided by HRM. Hybrid OSD involves the subdivision of a property into many smaller properties, while Classic OSD involves the clustering of dwellings on a portion of the lot with the rest remaining as undeveloped open space, and sharing on-site wastewater services.

The restrictions and requirements of both as-of-right and OSD development are described in detail in the tables below. Table 1 describes regulations that are common to both the as-of-right and OSD options, Table 2 describes regulations that are unique to as-of-right development, and Table 3 describes development considerations that are unique to OSD.

Development Regulation	*Relevant Bylaw or Policy*
Riparian and Watercourse Buffers	
All watercourses: 20 m from high water mark, plus 1 m for each degree of average slope above 20%, up to a maximum of 60 m.	AOR: Eastern Shore West Land Use Bylaw s. 4.18 and 4.18A (HRM 2006b)
Oceans: 2.5 m elevation above high water mark	DA: RMPS Policy S-15 (l) (HRM 2006a)
Wetlands	
No development within wetlands greater than 2000 m^2	AOR: Eastern Shore West Land Use Bylaw s. 4.29 (HRM, 2006b)
	DA: RMPS Policy E-9 and S-15 (l) (HRM 2006a)
Well Buffer	
Watewater tanks and dispersal fields may not be located within 30.5 m of a dug well.	Nova Scotia DEL (2000), p. 10.

Table 1. Development regulations common to both As-of-Right and Open Space Design. "AOR" indicates the relevant as-of-right provisions, and "DA" indicates the relevant Open Space Design provisions.

Development Regulation	*Relevant Bylaw (HRM 2006b)*
Minimum of 100 ft. of road frontage	LUB, S 6.2, "Minimum Frontage"
Minimum lot area of 40,000 sq. ft.	LUB, S 6.2, "Minimum Lot Area"
Minimum 16 ft. separation between main buildings on the same lot	LUB, S 4.7.
Maximum of 2 dwellings units per lot.	LUB, S 6.1, "Residential Uses"
Allowed uses (only those relevant to project listed here, se LUB for complete list): - single unit dwellings - two unit dwellings - senior citizen housing - boat sheds - commercial entertainment uses - bed & breakfasts - convenience stores - theatres and cinemas - restaurants - offices - marinas - commercial accommodation - agricultural uses - forestry uses - open space uses - recreation uses	LUB, S 6.1

Table 2. Development regulations – As-of-Right.

Development Regulation	*Relevant Policy (HRM 2006a)*
Density Restrictions *Hybrid Design:* Maximum site density: 1 unit / ha. Buildings, including all structures, driveways and disturbed areas (not including dispersal fields) must not exceed 20% of the lot area. 80% of the lot must be retained as a non-disturbance area. A portion of this space may also be used by community facilities to service the development.	RMPS S-15 (f) and (g)
Classic Design: Maximum site density: 1 unit / 0.4 ha. 60% of site must remain undisturbed, be retained under single ownership, and must only be used for passive recreation, forestry, agriculture, conservation. A portion of this space may also be used by community facilities to service the development.	RMPS S-16
Open Space Conservation & Connectivity Connectivity with open space on adjacent parcels should be preserved and priority should be given to the connectivity of open space over road connections.	RMPS S-15 (h) and (i)
Allowed Uses Developments may include a mix of residential, associated public or privately-owned community facilities, home-based offices, day cares, small-scale bed and breakfasts, forestry and agricultural uses.	RMPS S-15 (c)

Table 3. Development regulations – Open Space Design.

Other provisions of RMPS Policy S-15 indicate that the preservation of significant habitat, trails, scenic views, historic buildings, pastoral landscapes, and mature forest are important criteria under the Open Space Design framework.

The lack of sewer services on Myers Point further restricts as-of-right and Hybrid OSD development potential. Any development proposal will be subject to a provincial assessment of the site's capacity for on-site wastewater systems, even if alternative means of treatment are being considered. According to Nova Scotia DEL regulations, wastewater treated by on-site systems must not cross property lines. Thus, all subdivided properties must have individual wastewater systems. This restriction limits the number of units that could be clustered together under as-of-right or Hybrid OSD development.

Under Classic OSD, all homes fall within a single lot. This allows for shared on-site wastewater services, which in turn provides for greater flexibility in design because houses can be clustered together without needing to set aside space for individual dispersal fields. However, a shared on-site wastewater system for a development with multiple owners would necessitate a condominium corporation, since this is currently the only co-ownership model recognized by the Nova Scotia DEL. Thus, in order to realize the benefits of the Classic OSD option, a condominium corporation is necessary.

It is important to remember that development agreements and any amendments require negotiation with municipal staff and a resolution of the municipal council. These processes can be slow, time-consuming, and expensive.

CONSERVATION EASEMENTS

The Nova Scotia Conservation Easements Act (Nova Scotia, 2001) allows a landowner to enter into an agreement with a recognized conservation organization whereby the owner transfers development rights to the organization for the purpose of protecting, restoring, or enhancing the ecological value of the land. Ownership is not transferred, but the landowner is no longer able to develop the specified portion of the property. A conservation easement may results in a lower assessed value of the property, thereby reducing property taxes for the landowner, if the assessment reflects the development restrictions imposed by the easement. Conservation easements may be terminated at any time by written agreement between the landowner and conservation organization.

Problem

The owner of the property wishes to develop co-housing on the site. She indicated that her preferred market is seniors. Her vision includes shared facilities and a design that encourages social interaction between residents and with the broader Myers Point community. She also expressed an interest in a design that is sensitive to the ecological values of the site, and suggested that she might be interested in dedicating part of the property to an environmental organization as a conservation area.

A proposed design must also conform to the development regulations described in the *Background* section of this report.

Criteria

The design of the development on Myers Point should reflect the values of the client and the surrounding community. The design must also be feasible; it must respond to the anticipated housing market, be affordable to build, and consistent with development regulations. The following is a list of project goals and specific objectives aimed at achieving those goals.

Goal 1. Reflect the interest of the property owner.

- The design should allow for 20 units.
- The design should accommodate and be attractive to seniors.

Goal 2. Reflect the values of co-housing.

- The design should incorporate clustered houses.
- The design should incorporate common space and facilities that encourage social interaction.
- Spaces on the property should exist along a gradient of "private" to "common".

Goal 3. Minimize environmental impact both on and off the site.

- The design should not include buildings or roads on ecologically sensitive areas or areas of mature forest.
- The design should incorporate a conservation easement to ensure protection of areas with high ecological value.
- The design should reflect principles of energy efficiency and incorporate practical alternative energy solutions.
- The design should allow for on-site production of food.

Goal 4. Create a design that is inclusive, attractive, comfortable and exciting.

- The design should be accessible[2].
- The design should capitalize on the existing assets of the site, including scenic views, waterfront, and the orchard.
- The design should offer opportunities for recreational, social, and creative activities.

Goal 5. Respect and enhance the historical qualities of the site.

- The historical relationship between the property and the harbour should be restored.
- The original homestead setting should be preserved and enhanced.

Goal 6. Create a housing option that will be financially viable.

- The design should allow opportunities for revenue generation.
- The design should reflect the anticipated housing market while maintaining flexibility so that the project is resilient to an unpredictable market.
- The design should avoid construction on slopes greater than 15%.
- The design should minimize the construction of infrastructure, including driveways, power lines and poles, water distribution systems, and wastewater treatment systems.

Goal 7. Reflect the interests of the surrounding community.

- Incorporate elements into the design which benefit the surrounding community.
- Ensure that impacts on the surrounding community will be minimized.

The design must also meet development regulations, as described in the *Background* section. Many of these regulations involve geographic constraints which prohibit development in certain areas of the site. These constraints are described in Map 4.

[2] Throughout this report, "Accessible" means conformance with the American Disabilities Association "Uniform Federal Accessibility Standards" (American Disability Association, 2002).

Options

Three options exist for the development of Myers Point: As-of-right, Hybrid Open Space Design, and Classic Open Space Design. These options are explored in detail below. Conceptual plans are provided that illustrate possible site designs under each scenario. These plans comply with the development restrictions described in the *Background* section of this report, and reflect the constraints and opportunities described in the *Criteria* section.

Each concept locates housing on the south facing slope in order to maximize views and passive solar heating. The houses surround a common garden. Each concept also incorporates common areas, including the orchard, common building, outdoor gathering places, and an improved waterfront. The concepts also incorporate an area of rental cottages connected to the common area.

All options also allow for the creation of a conservation easement.

Under all options, the lot would be subdivided to create a property to be owned by a cooperative. The lot would contain many of the common buildings and facilities, including the rental cottages. The cooperative would be responsible for maintenance of these facilities, and would derive income from services provided on the site. Residents of the development would be required to become members of the cooperative, either through deed covenants (as-of-right and Hybrid OSD options) or condominium regulation (Classic OSD option).

This approach to ownership is recommended in order to retain flexibility in the development of the property. Development agreements are restrictive; a property owner can only construct what is permitted under the agreement. Amendments to agreements require renegotiation and may not be granted. It is therefore in the interests of the property owner to pursue a development agreement for only that portion of the project that it benefits. In this case, the benefits of the development agreement pertain only to the housing cluster. Thus, the agreement should only be pursued for this portion of the project.

AS-OF-RIGHT

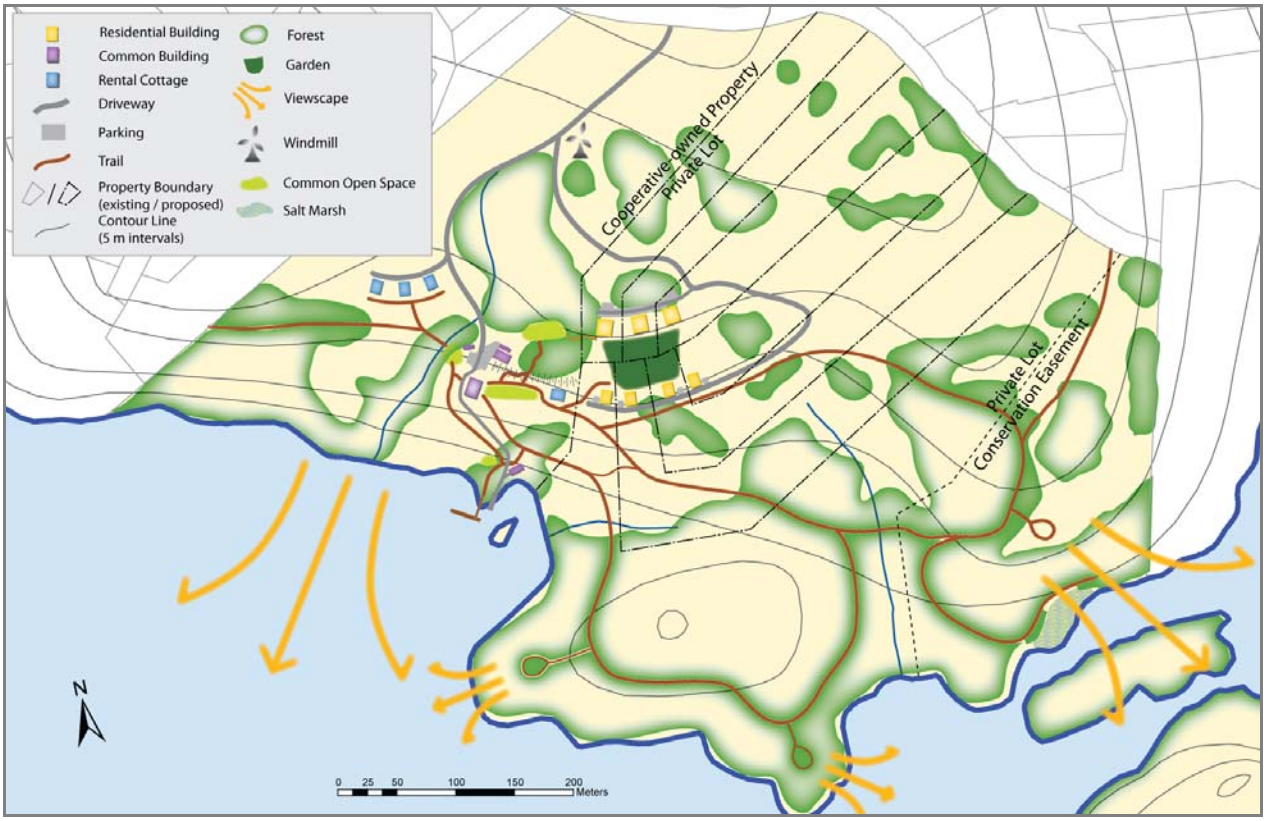


Figure 5. As-of-Right Concept.

The primary challenge to as-of-right development is achieving a lot configuration that allows clustering of houses while still providing each lot with enough space for an on-site wastewater system and providing each house with a view. To achieve clustering, boundaries have been drawn so that all lots converge at the location of the housing cluster. The number of houses that can be clustered together is limited by the area requirements for dispersal fields.

The as-of-right concept provides for 10 units in 7 houses (up to 36 dwelling units would be possible if lots were arranged as narrow strips perpendicular to the road and a duplex were constructed on each lot. However such a design would fail to meet most design objectives).

The driveway, trails and utility infrastructure (telephone, cable and electric) would traverse multiple private lots. This would be formalized by easements so that each property owner was guaranteed access to their dwelling, use of the trails, and the ability to install and maintain utilities. Broader easements could also be considered, which would allow access and limited clearing to the bulk of the private lots.

It is also important to note that under the as-of-right option, sewage from the houses higher on the slope would need to be pumped uphill to a dispersal field. This is possible but involves increased construction and maintenance costs.

HYBRID OPEN SPACE DESIGN

The Hybrid OSD option involves the subdivision of the property. Thus, it meets the same challenges as development under the as-of-right option. The resulting concept for Hybrid OSD is therefore identical to that of the as-of-right option. The Hybrid OSD would require the negotiation of a development agreement. This added cost and effort would not result in any benefits to the project.

Given the maximum allowable density under Hybrid OSD (1 unit per hectare) and the size of the lot (34 hectares), the Hybrid OSD option would allow a maximum of 34 dwelling units on the property.

CLASSIC OPEN SPACE DESIGN

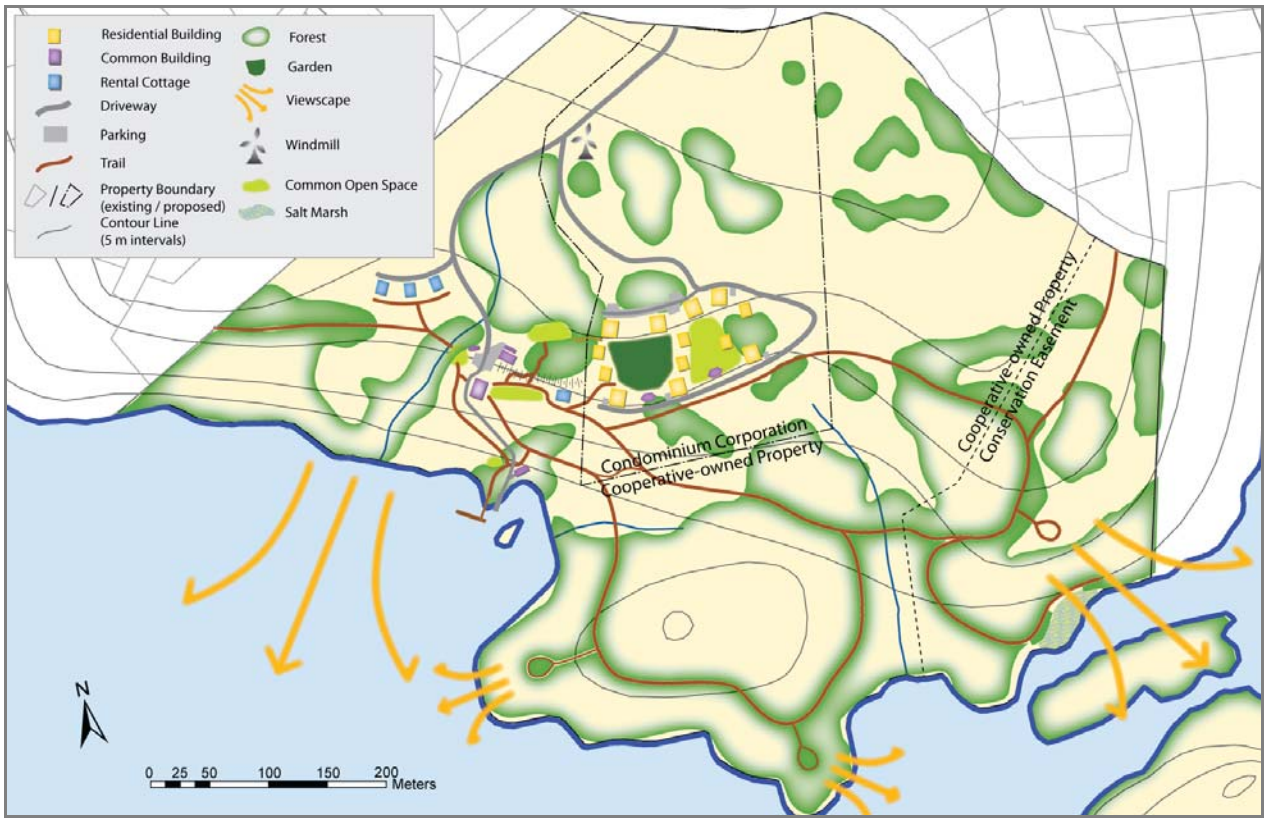


Figure 6. Classic Open Space Concept.

Classic OSD, which according to current regulations implies the creation of a condominium corporation, does not necessitate subdivision of the property into individual lots for each house. This provides much greater flexibility in site design because houses can share wastewater systems and because the location of housing is not restricted by lot configuration rules. Under this model, a greater number of houses can be built in a cluster.

The Classic OSD concept provides for 20 units in 13 houses[3]. These houses are arranged so that each has a view of the ocean. This number of houses allows for variation in character throughout the housing cluster. Some houses surround a common garden, while others are distributed on a sparsely treed slope.

The proposed ownership arrangement under Classic OSD would involve a condominium and a cooperative. In accordance with the provisions of the subdivision bylaw, the property would be subdivided into two lots. A Classic OSD development agreement would be negotiated on the lot containing the housing cluster. Its boundaries would be such that 60% of the land remains as undisturbed open space and that sufficient area is available for a shared dispersal field. The remainder of the site would form the second lot, to be owned by the cooperative. This lot would contain the common building, orchard, rental cottages, dock and boathouse, workshop, and most of the trails. Any development on this second lot would be undertaken as-of-right, in accordance with the zoning bylaw.

The recommendations provided here reflect current regulations, however it should be noted that future changes to DEL regulations may allow shared on-site wastewater services under other ownership arrangements than condominium corporations, such as land-trusts or cooperatives. If this were the case, the Classic OSD option could be pursued via other ownership arrangements than those considered here.

Choice

The negotiation of a development agreement is more onerous process than as-of-right development. Also, under the Open Space Design framework there are greater procedural requirements pertaining to the identification of ecological and cultural conservation values (i.e. the same conservation goals are achievable under as-of-right and OSD development, however the OSD framework prescribes strict mapping and inventory processes that would not be necessary under as-of-right development). The benefits of the OSD provisions must be weighed against these added costs.

The main differences between the options are the number and arrangement of the houses in the housing cluster, the legal arrangement for the common buildings and facilities, and the amount of effort required to obtain development approval.

The Classic Open Space Design option offers the greatest potential to achieve the goals and objectives described above. The as-of-right option and Hybrid Open Space Design options allow fewer units than is desired by the property owner and allow a less satisfactory housing configuration than Classic OSD.

[3] Classic OSD would allow for a maximum of 85 units, given the provision of 1 unit per 0.4 ha of the OSD policy.

Design

A detailed design has been developed according to the Classic Open Space Design framework (see Figure 7 and Figure 8Figure 1). The design is guided by the goals set out in the *Criteria* section and the relevant development regulations.

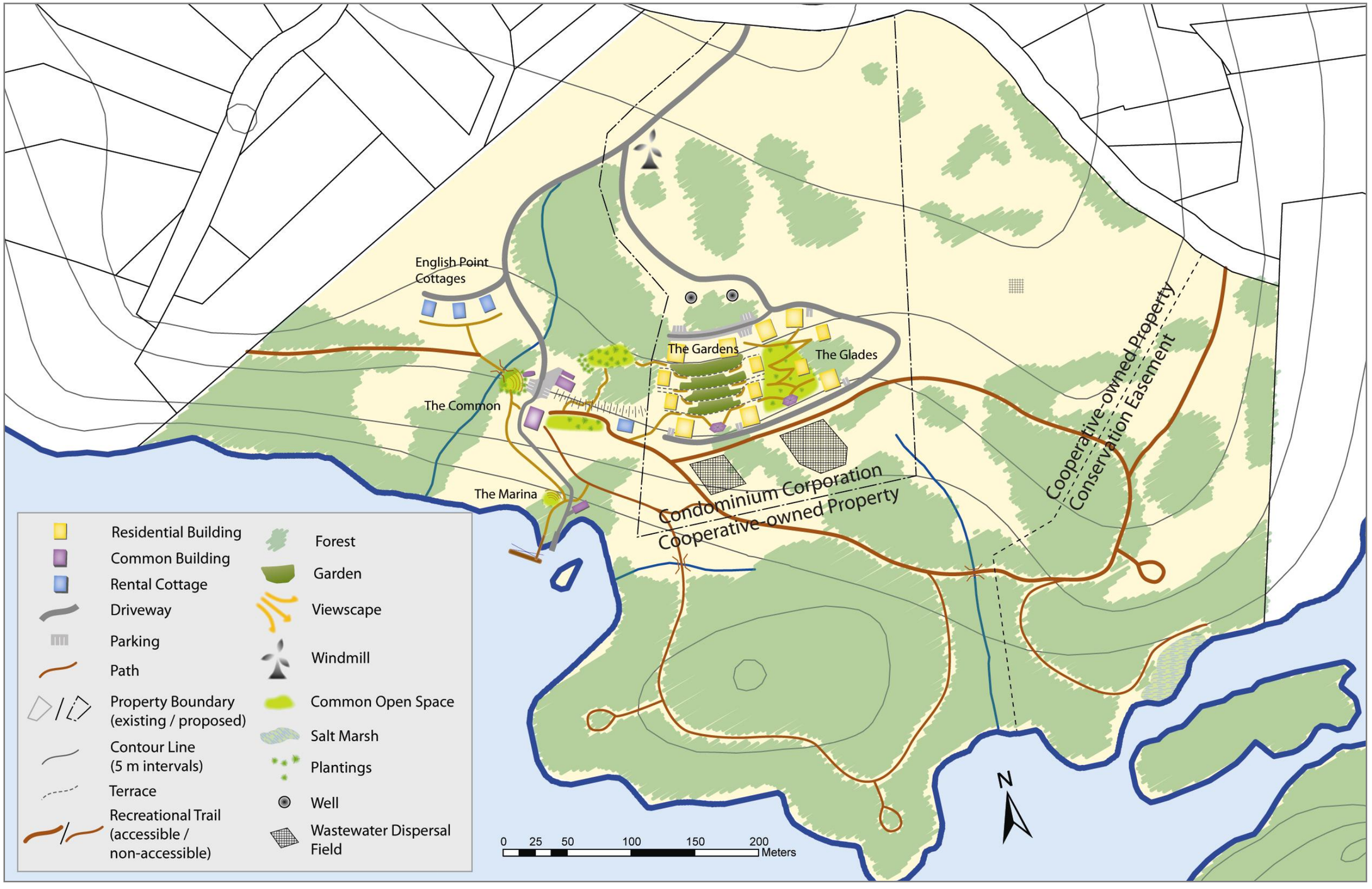


Figure 7. Classic Open Space Design Schematic.

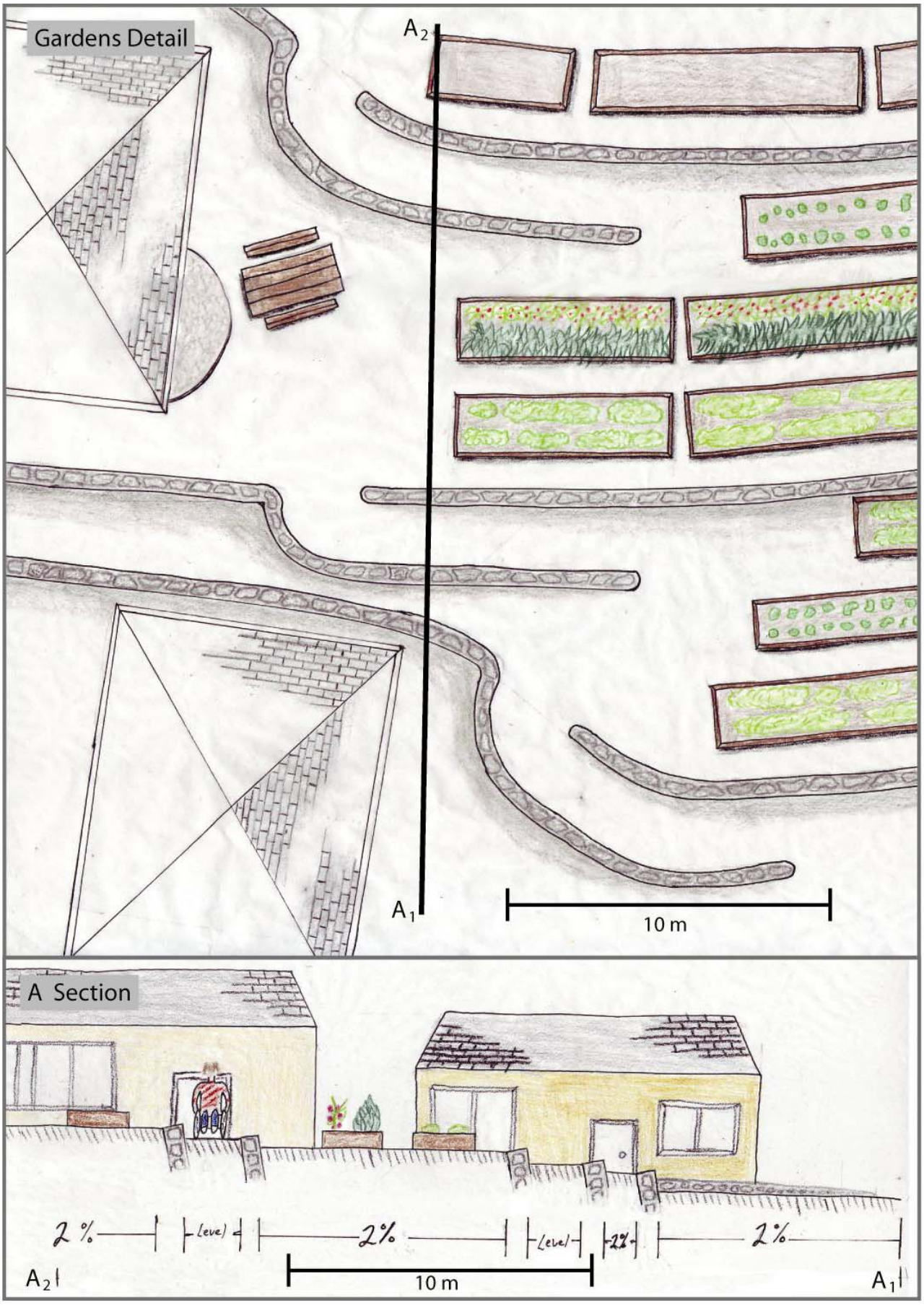


Figure 8. The Gardens - Detail.

THE COMMON

The common is the centre of the design. It includes the common house, the orchard, workshop, and amphitheatre. The common house provides a place for social gatherings, meetings, an office for the rental cottages, and space within may be rented out by the cooperative as office or studio space to residents. Despite its name, the common house is not a residence. The common space adjacent to the common house provides a place for leisure, picnicking, and appreciation of the view.

The orchard, accessed by trail from either the housing cluster or the common house, is a place for reflection and quiet interaction. The natural forest enclosure provides a sense of seclusion and peacefulness. The addition of seating, including a glider swing, and native plantings at the orchard's western edge would accentuate these values.

The stone wall to the south of the orchard has significant heritage and aesthetic value, yet this feature is currently neglected. The wall would become a feature of the site. It would be exposed and restored, and a staircase would be built into it as part of the trail to the orchard. An accessible ramp would provide an alternate route.

The workshop provides facilities for metal and woodworking. The cooperative can use it for maintenance and construction on the property and residents can work on personal projects. This sharing of responsibility for common facilities reflects the values of co-housing. The workshop is located so that it is convenient to both residents and visitors of the property and so that it is removed from other site facilities to avoid noise impacts.

The amphitheatre provides a venue for theatre or music and theatre productions hosted by the cooperative. The nearby building can be used to store stage equipment and can provide an alternative venue during winter. The amphitheatre is located adjacent to the stream because of the aesthetic quality it provides. This falls within the 20 metre riparian buffer, however the site can be selected such that no grading is required, and there are no permanent structures proposed as part of this feature. Disturbance would be limited to the construction of steps, to create a terraced seating area.

HOUSING

The housing cluster is designed to take advantage of the view and to create opportunities for social interaction. Each house has a partial view of the ocean, but the best view is from gazebo shelters at the south of each cluster. The intention of the design is to attract people to these locations. These gazebos can be fitted with heaters so that they are comfortable during winter.

The design creates a gradient between private and common space. The space in front of each house provides a transition between the private and common realms. They would be designed as semi-private areas, but would not be physically separated from the common space. The condominium agreement would prohibit the erection of fences in the front yards.

The gardens and the glades are foci of the housing cluster. They provide spaces where residents can interact and work on communal projects. The garden is terraced in order to create a grade suitable

for gardening. Ramps between each terrace provide accessibility. The garden also provides the opportunity to produce food on-site, reducing residents' reliance on imported food.

Electricity and telephone service could be provided either by poles and overhead wires along the driveway, or underground. The latter option would be more expensive but would create a more pleasant aesthetic.

The driveway along the southern edge of the cluster is necessary to provide vehicle access to these houses. This driveway requires a lengthy graded switchback to the east. This results in a total amount of driveway greater than might be necessary if houses were arranged linearly along a contour of the site. However, without the southern driveway, only 9 of the 20 units would have direct vehicle access. The design achieves a balance between convenience, construction costs and ecological impacts.

All homes are accessible.

THE MARINA

The marina restores the site's marine heritage. The dock, boat house and boat launch facilities would be available to residents and visitors. Visiting boaters could dock or anchor overnight and enjoy the services provided by the cooperative, including the rental cottages, picnic lunches, campfires, showers and laundry, produce from the garden, and events in the amphitheatre.

THE TRAIL NETWORK

The trail network offers recreational opportunities and provides access to areas of the property with ecological interest and good views. The trails are arranged as loops so that walkers need not cover the same ground twice. "Lollipop" side trails create a sense of destination, and provide access to viewpoints so that walkers who stop to enjoy the view are not interrupted by passerbys. The trails connect to the streets to the east and west of the property, to encourage use by neighbours and tourists.

The portion of the trails that fall within the conservation easement will be maintained by the recipient conservation organization. Interpretive signage could be installed to highlight ecologically significant features such as the salt marsh.

The more northern loop meets ADA accessibility standards.

ENGLISH POINT COTTAGES

The rental cottages will be made available to the travelling public who may arrive by car or boat. They are located to take advantage of the view and to be separated from the permanent homes. They are connected to the amphitheatre, common area, orchard, and marina by trails. Site amenities and activity opportunities make the cottages an attractive accommodation option for travellers. The cottages will be owned and operated by the cooperative.

DESIGN ACHIEVEMENTS AND FEATURES

The various facilities within the common and marina will likely be of interest to residents in the broader community on Myers Point. By providing access to these facilities, the cooperative can foster positive relationships with neighbours and contribute to their community.

All facilities on the site except the southern loop trail are accessible.

Wind power is proposed to be located at the main branch of the driveway. This location will receive high winds because it is at the top of a hill. The location has road access to facilitate construction and maintenance, and is close to the existing power grid. The windmill will be visible to all visitors and residents of the site as they drive in. This reinforces the environmentally responsible identity of the development.

Forest regeneration on the site could be encouraged through selective thinning and the protection of vulnerable stands. The cooperative could consult with an ecological organization to determine the best means of promoting regrowth.

It is important to note that not all aspects of the proposed design need to be implemented at the outset of the project. The project could be phased so that only a portion of the houses or rental cottages are initially constructed. As the cooperative accumulates capital, they could invest in upgrades to the property. However, the ultimate design for the condominium property should be included in a development agreement because significant changes to a design are not possible without an amendment to the agreement.

Evaluation

Goal 1. Reflect the interest of the property owner.

- The design allows for 20 units.
- The design is attractive to seniors. Opportunities for gardening, walking, boating and socializing are available on site, and with the exception of the southerly loop trail, the site is fully accessible.

Goal 2. Reflect the values of co-housing.

- The design incorporates clustered houses which face each other.
- The design incorporates common space and facilities that encourage social interaction. The layout of the housing cluster encourages shared responsibility for the garden. The workshop provides the opportunity for residents to engage in the construction and maintenance of the site facilities.
- Front yards of the houses provide a transition area between the private homes and common gardens/glades, thus creating a smooth gradient between private and common space.

Goal 3. Minimize environmental impact both on and off the site.

- The buildings and structures do not encroach on the ecologically sensitive areas of the site. The amphitheatre falls within the riparian buffer, but it will be located at a place with a suitable grade so that only the construction of the terrace steps is required.
- The design incorporates a conservation easement which would transfer development rights to a conservation organization. This organization could install interpretive signage on portions of the trail system that fall within the easement to highlight its ecological values.
- The design incorporates an investment in wind power generation that is expected to be economically viable. Houses are located on a south facing slope to allow for passive solar heating.
- The design incorporates a large garden for the on-site production of food crops.

Goal 4. Create a design that is inclusive, attractive, comfortable and exciting.

- All buildings and paths are accessible. The trail *destinations* are all accessible, however the southerly loop trail has steep grades would likely not be accessible to mobility-impaired users.
- The design capitalizes the site's scenic views, waterfront, and the orchard. These assets are highlighted in the orientation and location of the buildings and trail system, the proposed marina development, and the revival of the orchard.
- The common spaces and facilities offer a range of social and solitary activities. There is a wide diversity in character of the common spaces. The common house provides for vibrant social interaction, while the orchard is a place for self-reflection or quiet interaction.

Goal 5. Respect and enhance the historical qualities of the site.

- The marina reconnects the property to the ocean, reviving the marine history of the site.
- The original homestead is an integral and distinct component of the site. It is a focus of diverse activities for residents and visitors.

Goal 6. Create a housing option that will be financially viable.

- The design creates opportunities for revenue generation for the cooperative through its rental cottages, marina facilities and services, and performance venue.
- The design reflects the anticipated housing market. It will be attractive to both seniors and families who are moving to the Myers Point area. The design allows for phased development. The innovative inclusion of as-of-right development on much of the site, allowed by the proposed low density, allows for much flexibility in design.
- The design does not include construction on slopes greater than 15%.
- The amount of driveway and utility construction is greater than might be necessary if houses were arranged linearly along a contour of the site. However, given the clustered arrangement of houses, the driveway is necessary in order to provide direct vehicle access to most of the homes.

Goal 7. Reflect the interests of the surrounding community.

- The design incorporates many elements, including the marina, trails, and amphitheatre which will be made openly available to the surrounding community. Other site facilities, including the workshop and garden may be informally shared with the neighbours, at the

discretion of residents and the cooperative. These features create opportunities to foster positive neighbourly relations, and reflect the community's desire for increased facilities as expressed during the Musquodoboit Harbour Community Visioning process.

- The areas of intense activity on the site are located at the centre of the expansive property. This ensures that any possible noise disturbance is minimized. The traffic impacts on English Point Road would be negligible, given the excess capacity available on this road.

Recommendations

The property owner should proceed with a combination of Classic Open Space Design and as-of-right development, as described under the *Design* section of this report. The Classic OSD component entails a condominium corporation which allows for flexibility in siting dwelling units while the as-of-right component allows flexibility in future development of the common property. Given the slow growth of the Myers Point Area, the owner should consider a phased development approach.

The surrounding community should be consulted to determine their level of support and interests in the development. This will set the stage for future positive relations.

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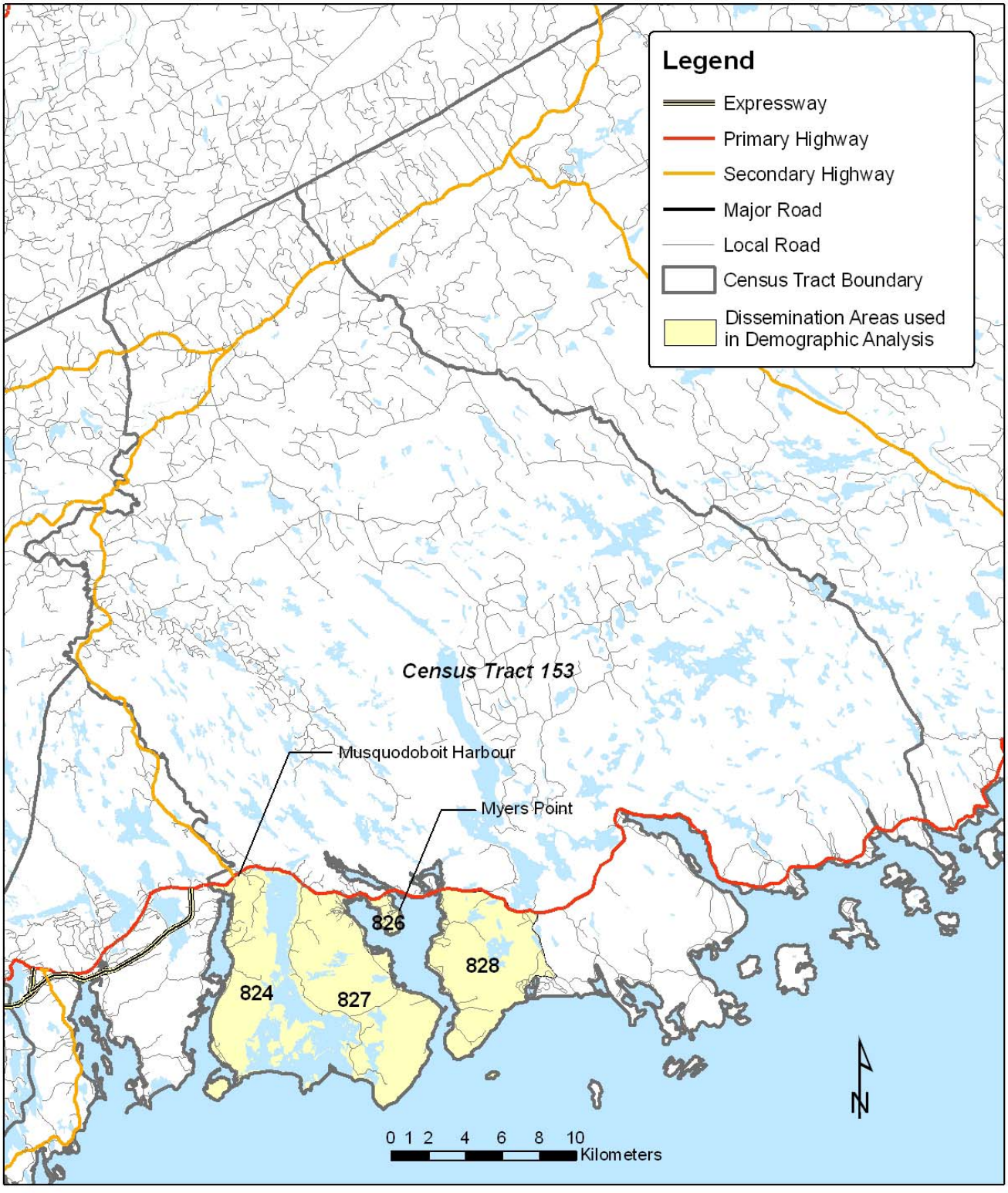
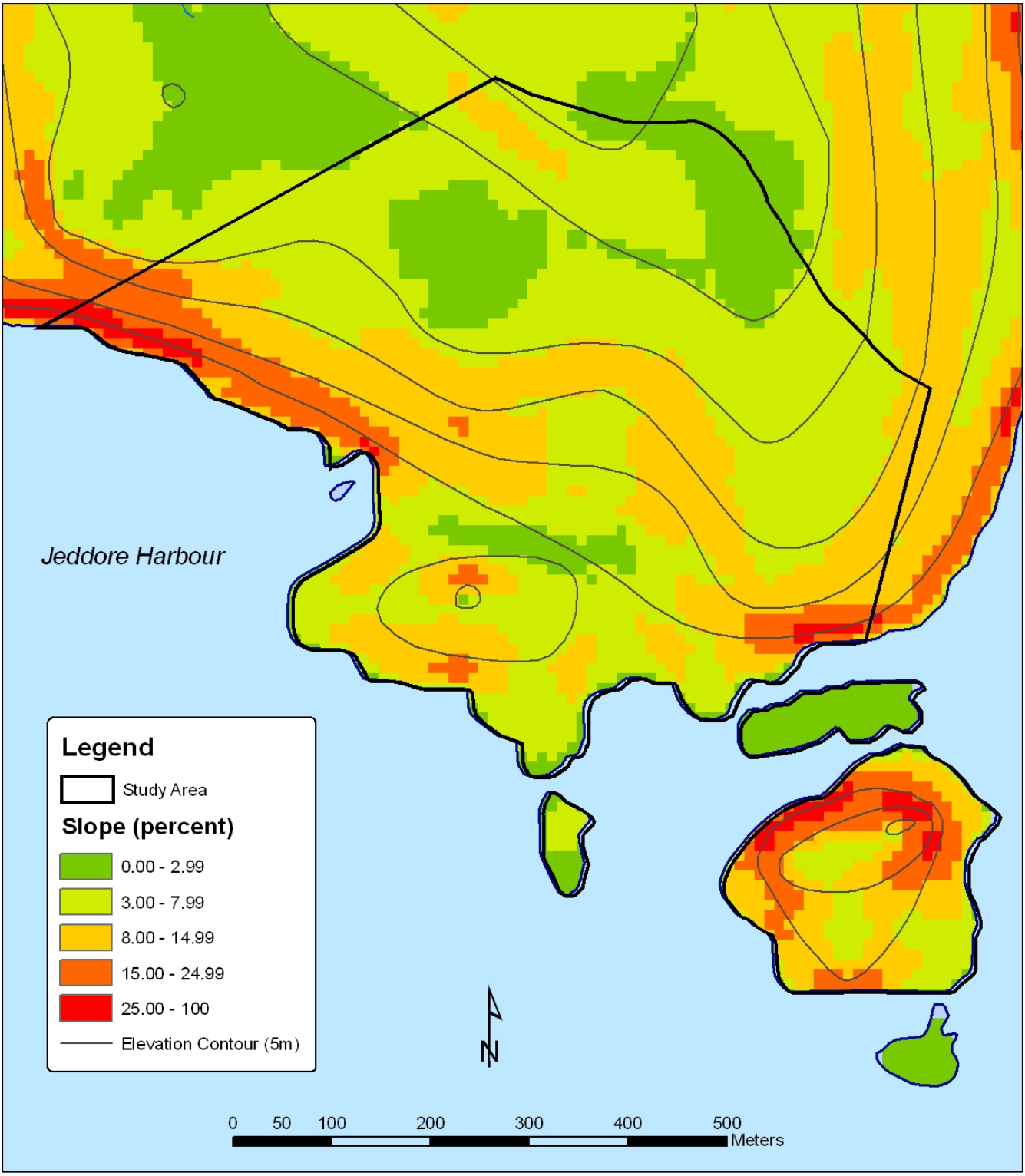
- MAP APPENDIX -



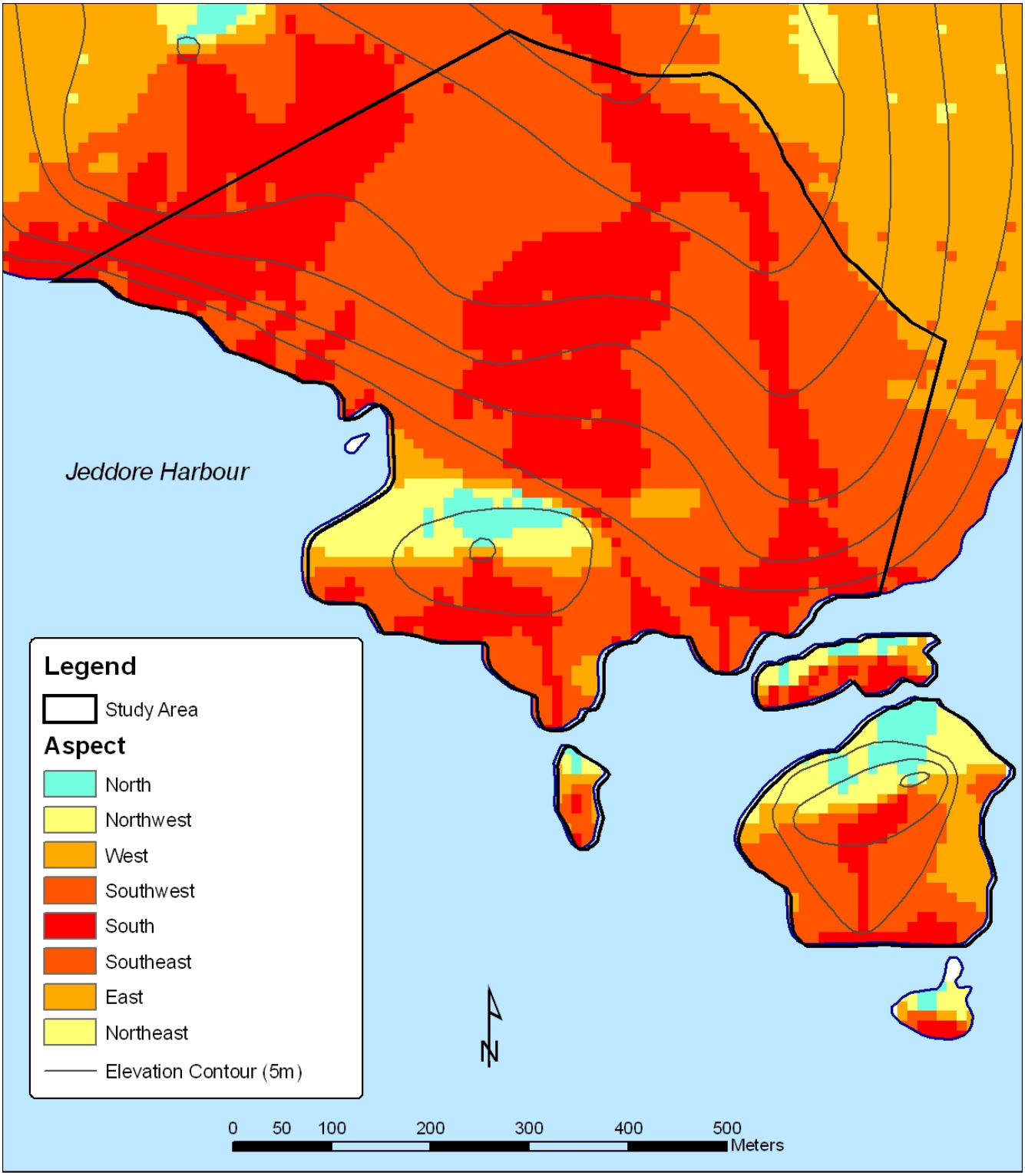
Map created April 4, 2008
Data sources: DMTI Spatial Streetiles and Census Canada
Projection: ATS 1977 MTM Zone 5 Nova Scotia

Map 1. Census Tract and Dissemination Area Boundaries.



Map Created April 4, 2008
Data Source: Halifax Regional Municipality
DEM produced using ArcGIS "Topo to Grid" tool
Projection: ATS 1977 MTM Zone 5 Nova Scotia

Map 2. Site Slope.



Map Created April 4, 2008
Data Source: Halifax Regional Municipality
DEM produced using ArcGIS "Topo to Grid" tool
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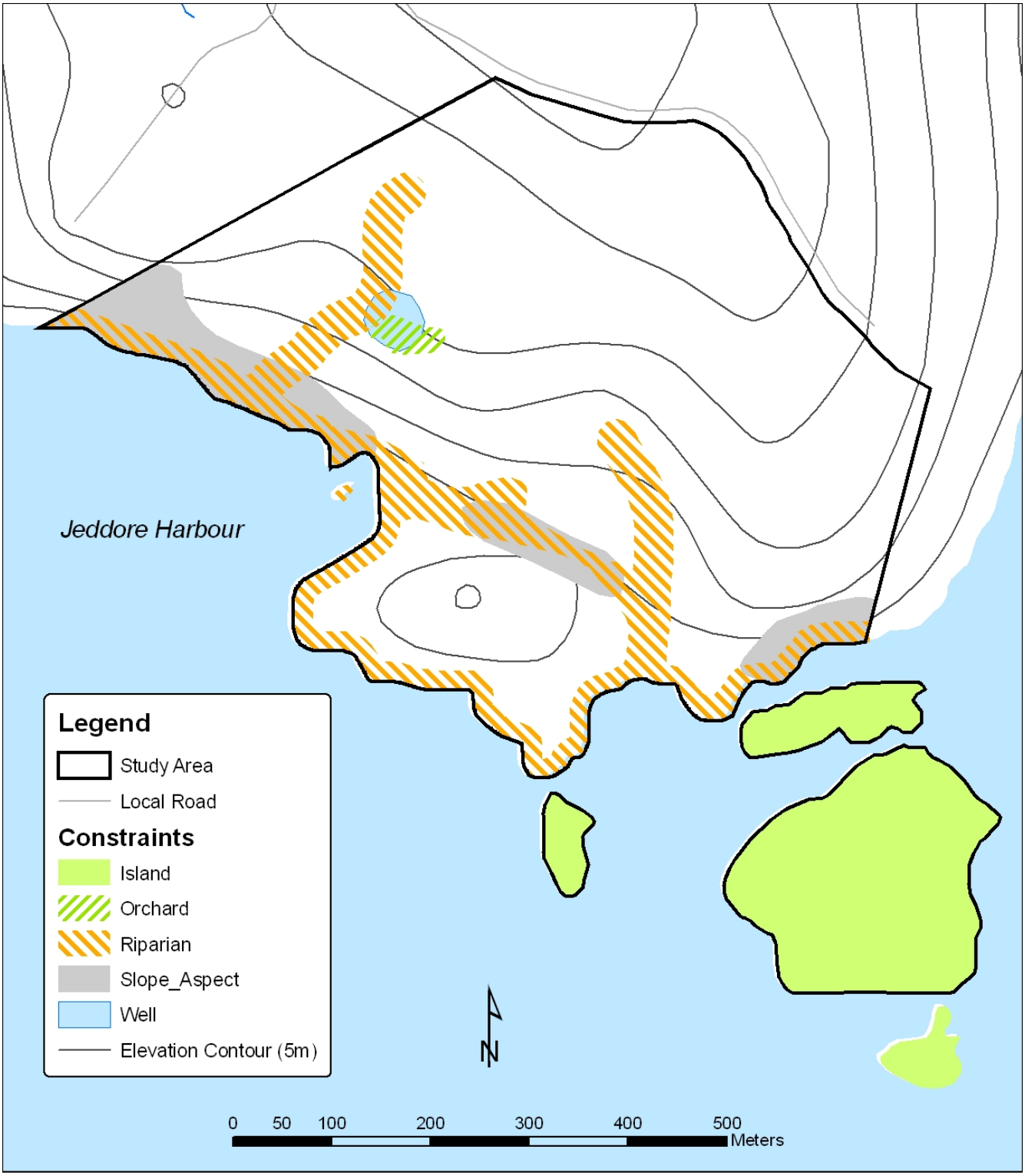
Map 3. Site Aspect



Map Created April 4, 2008
Contours, street, and coastline data provided
by Halifax Regional Municipality
Projection: ATS 1977 MTM Zone 5 Nova Scotia

Map 4. Site Constraints.