
MEMORANDUM

TO: Chairperson and Members of the Halifax Waters Advisory Board

FROM: Andrew Bone, Senior Planner

DATE: July 25, 2012

SUBJECT: **Case 17736: Open Space Subdivision by Development Agreement - Stage II, Brookhill Drive, Grand Lake.**

Background

An application has been submitted by Sunrose Land Use Consulting on behalf of Caliber Consulting to enter in to a development agreement to permit an open space subdivision at PID# 00512186 and 41186396, Brookhill Drive, Grand Lake.

Proposal:

The Regional Plan requires suburban subdivisions develop as open space development subdivisions through a development agreement process. Open Space Development is a creative form of subdivision designed to conserve open space. The basic principle of the design is to locate homes on the portion of the site where the soils are best suited for development while retaining the remainder of the site as open space.

Please find attached a copy of HRM's Open Space Development Guide. Please review this guide as it will answer many questions you may have regarding this new form of development.

The first phase of the review process for open space subdivisions requires the identification of areas for protection. Please see attached a copy of the application outlining the findings of this phase. The developer has chosen to develop approximately 19 lots units under a hybrid design. A hybrid subdivision is designed with on-site well and septic services on each lot for each dwelling.

The second phase of the review process involves the conceptual layout of the subdivision. Please find attached a copy of the concept plan for your review. The proposal is for a 19 lot hybrid subdivision. For reference, a context map, concept plan and stormwater plan are provided.

Attached are the relevant policies from the Regional Plan. Please comment on the proposed land uses and any concerns your department may have.

Background Information:

The subject lands are within the Shubenacadie Lakes watershed and partially within the sub-watershed for Bennery Lake. Because Bennery Lake is a water supply for the Halifax International Airport, there are Provincial Regulations for development in the Bennery Lake which is attached for reference. The site is located above the 14m flood contour known for Shubenacadie Grand Lake.

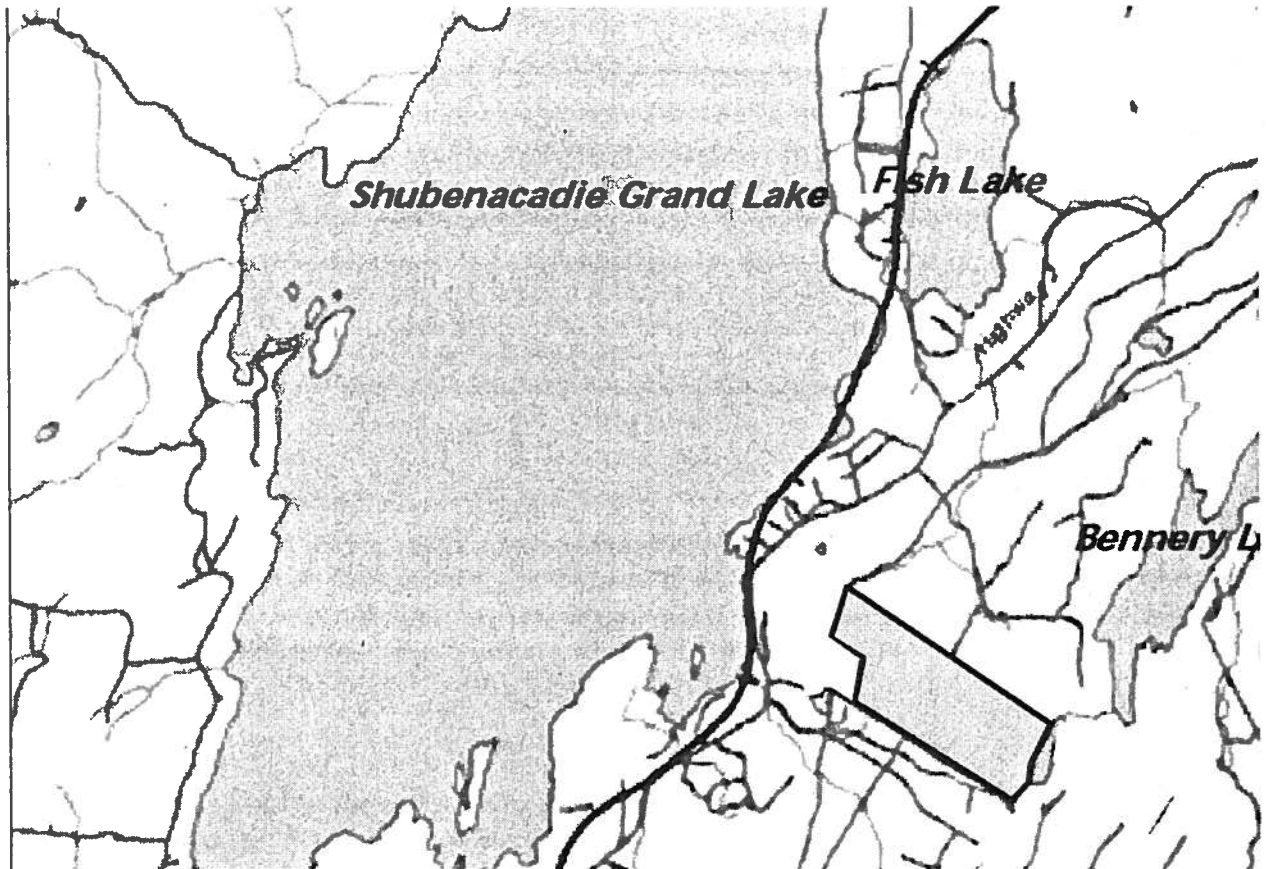


Figure 1 - Shubenacadie Lakes Watershed - Brookhill Area

Site:

The subject site contains numerous watercourses and wetlands which are identified on the concept plan. Riparian buffers of 20m are also indicated on the plan.

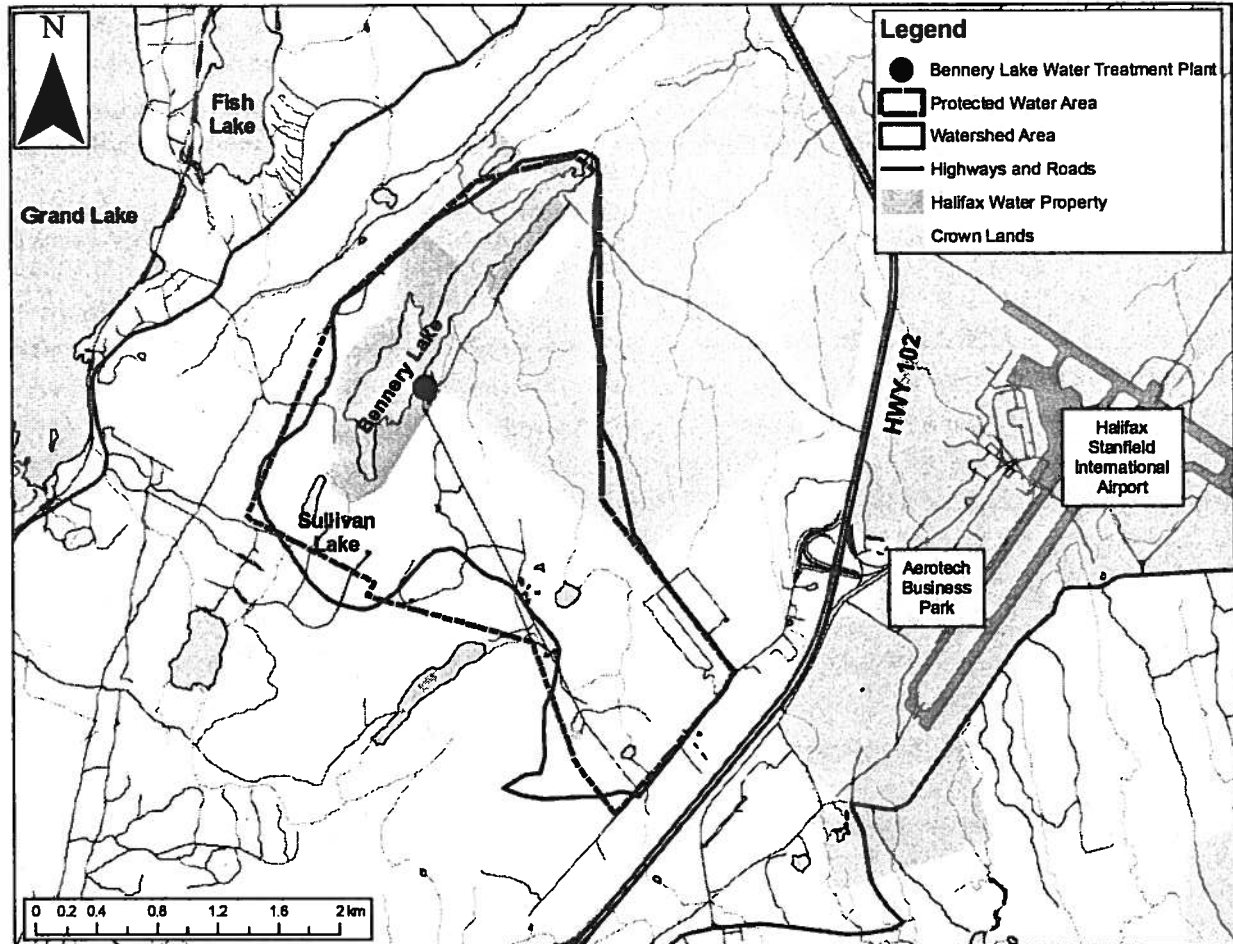
COMMUNITY & RECREATION SERVICES – DEVELOPMENT APPROVALS

Planning Applications – Central Region

Tel: (902) 869-4226 Fax: (902) 869-4230

E-mail: bonea@halifax.ca Web Site: www.halifax.ca

Bennery Lake Watershed Area



* This map is for informational purposes only and should not be used for legal, engineering, or surveying purposes.

Watershed Advisory Board:

Pursuant to the Board's terms of reference, your input with respect to the potential impact on the areas watercourses is requested. Please find attached relevant MPS Policies that the application will be reviewed under.

If you have any questions on the above matter, please contact me at 869-4226.

Attachments:

- Regional MPS Policies – Open Space Subdivisions
- Open Space Subdivision Guide
- Bennery Lake Watershed Regulations
- Context Map – Brookhill Subdivision
- Concept Plan – Brookhill Open Space Design Subdivision
- Stormwater Plan – Brookhill Open Space Design Subdivision
- Aerial Photo of Site

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Regional Plan MPS Policies

3.5.1 Open Space Design Developments

Large-scale residential development may be considered through a development agreement if it is in some form of Open Space Design. Open Space Design Development is a creative form of development designed to conserve a connected system of open space. It begins with the identification of primary conservation areas to be protected - such as riparian buffers, wetlands, vernal pools, natural corridors, slopes exceeding 30%, rock outcropping, archeological sites, floodplains, and natural resources. It follows with the identification of secondary conservation areas that should be protected or carefully developed. These include mature forests, slopes between 15% and 30%, scenic views, trails, historic sites and buildings. Building sites are then located on the lands where soils are best suited for development and are then connected through a common road system. Lot lines are then drawn to delineate the extent of private or public ownership of the parcel.

In its classic form, Open Space Design Developments are designed to achieve connectivity in open space by retaining conservation areas under single ownership such as in the form of a condominium corporation or HRM. There are concerns, however, that the small lots required to achieve the classic form of Open Space Design may not be feasible in all areas of HRM without experiencing interference between private wells. There is also a desire by some homeowners to service the dwelling units with individual on site sewage disposal systems and the Nova Scotia Department of Environment and Labour will not allow these systems to be located off-site into the commonly owned lands. It may, therefore, be necessary to allow the entire parcel or portions of the development to be subdivided into large, privately-owned lots. HRM will strive to achieve Open Space Design in these areas by establishing maximum building site disturbance areas and minimizing the extent of road development to avoid impact on the primary and secondary conservation areas. This form of Open Space Design Development may be considered only in the Rural Commuter and Rural Resource Designations.

In areas where there are sufficient soil and water conditions to allow the developer to set aside a significant majority of the parcel as common open space, densities will be increased from one unit per hectare to one unit per 0.4 hectares. This form of Open Space Design Development may be considered in all rural designations, including the Agricultural Designation, as it would leave a substantial amount of the conservation land intact under single ownership. This would minimize the impact of development on larger tracts of land required to maintain a viable commercial farm.

To provide an opportunity for more active use of the common open space, consideration of golf courses as an appropriate use within the classic form of Open Space Design Development shall be given during secondary planning processes. Given the prevalent use of pesticides and irrigation needs of golf courses it may be most appropriate that golf courses only be considered within centres where municipal water distribution systems are to be provided. Analysis at the secondary planning level will benefit from the findings of watershed studies and community visioning.

S-15 HRM shall permit the development of Open Space Design residential communities, as outlined in this Plan, within the Rural Commuter and Rural Resource designations and within the Harbour designation outside of the Urban Service Area, but not within the portions of the Beaver Bank and Hammonds Plains communities as identified in the Subdivision By-law under Policy S-25 and within the Rural Area Designation under the Eastern Passage/Cow Bay Plan Area. HRM will consider permitting the maximum density of such developments to one unit per hectare of gross site area. In considering approval of such development agreements, HRM shall consider the following:

- (a) where the development is to be serviced by groundwater and as determined through a hydrogeological assessment conducted by a qualified professional, that there is an adequate supply of ground water to service the development and that the proposed development will not adversely affect groundwater supply in adjacent developments;
- (b) that there is sufficient traffic capacity to service the development;
- (c) the types of land uses to be included in the development which may include a mix of residential,

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- associated public or privately-owned community facilities, home-based offices, day cares, small-scale bed and breakfasts, forestry and agricultural uses;
- (d) whether soil conditions and other relevant criteria to support on-site sewage disposal systems can be met;
 - (e) the lot frontages and yards required to minimize the extent of road development, to cluster building sites on the parcel and provide for appropriate fire safety separations;
 - (f) that the building sites for the residential units, including all structures, driveways and private lawns, do not exceed approximately 20% of the lot area;
 - (g) approximately 80% of the lot is retained as a non-disturbance area (no alteration of grades, except for the placement of a well or on-site sewage disposal system in the non-disturbance area shall be permitted and provision shall be made for the selective cutting of vegetation to maintain the health of the forest);
 - (h) that the development is designed to retain the non-disturbance areas and to maintain connectivity with any open space on adjacent parcels;
 - (i) connectivity of open space is given priority over road connections if the development can be sited on the parcel without jeopardizing safety standards;
 - (j) trails and natural networks, as generally shown on Map 3 or a future Open Space Functional Plan, are delineated on site and preserved;
 - (k) parks and natural corridors, as generally shown on Map 4 or a future Open Space Functional Plan, are delineated on site and preserved;
 - (l) that the proposed roads and building sites do not significantly impact upon any primary conservation area, including riparian buffers, wetlands, 1 in 100 year floodplains, rock outcroppings, slopes in excess of 30%, agricultural soils and archaeological sites;
 - (m) the proposed road and building sites do not encroach upon or are designed to retain features such as any significant habitat, scenic vistas, historic buildings, pastoral landscapes, military installations, mature forest, stone walls, and other design features that capture elements of rural character;
 - (n) that the roads are designed to appropriate standards as per Policy T-2;
 - (o) views of the open space elements are maximized throughout the development;
 - (p) opportunities to orient development to maximize the capture of solar energy;
 - (q) the proposed residential dwellings are a minimum of 800 metres away from any permanent extractive facility;
 - (r) the proposed development will not significantly impact any natural resource use and that there is sufficient buffering between any existing resource use and the proposed development to mitigate future community concerns; and
 - (s) consideration be given to any other matter relating to the impact of the development upon surrounding uses or upon the general community, as contained in Policy IM-15.

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**A Guide to
Open Space Design Development
in Halifax Regional Municipality**



May 2007

Introduction

Pursuant to Section 3.5 of the Regional Municipal Planning Strategy (RMPS), subdivision of land may proceed as an open space design development within the Agricultural, Rural Resource and, non-growth management areas of the Rural Commuter designation, through the process of a development agreement (Appendix 1 - Designations).

This Guide provides an introduction to the concepts, application process, information and studies required to carry out two forms of open space design development pursuant to policies S-15 and S-16 of the RMPS.

What is Open Space Design Development?

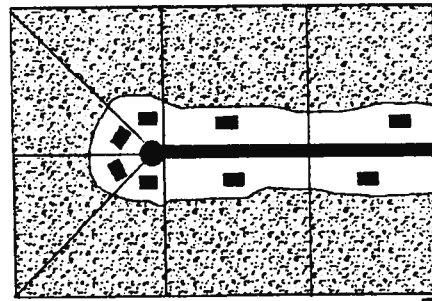
Open Space Design Development is a creative form of subdivision designed to conserve open space. The basic principle of the design is to locate homes on the portion of the site where the soils are best suited for development while retaining the remainder of the site as open space.



Randall Arendt

Hybrid Open Space Design Development

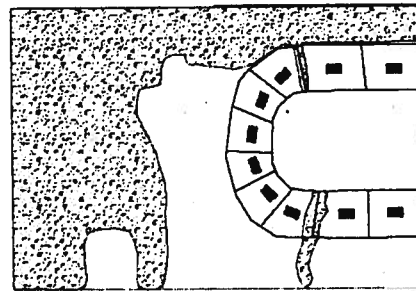
Policy S-15, of the RMPS, allows the development of a hybrid form of open space design within the Rural Commuter and Rural Resource designations. A hybrid open space design development preserves open space by restricting the area for lawns, pavement and buildings to a maximum of 20% of the lot. All of the open space within these subdivisions, except parkland, is located on large individually owned lots. The maximum density of this form of development is 1 unit per hectare.



Hybrid Open Space

Classic Open Space Design Development

Policy S-16, of the RMPS, allows the classic form of open space design development within the Rural Commuter, Rural Resource and Agricultural designations. A classic open space design development preserves culturally and environmentally sensitive areas by clustering smaller lots on a maximum of 40% of the site and preserving 60% of the overall development as common open space. The maximum density of this form of development is 1 unit per 4000 square metres.



Classic Open Space

What is the process?

All open space design development agreement applications shall follow a two stage process. Stage 1 is a preliminary site design process intended to determine open space areas to be preserved and potential areas for development. Stage 2 involves the delineation of roads, lots, parks and other physical design features of the development. The Stage 2 Plan requires approval of the applicable community council in the form of a development agreement. If approved, the Stage 2 Plan forms the conceptual plan for future final subdivision applications under the *Regional Subdivision By-law*.

Stage 1: Preliminary Site Design

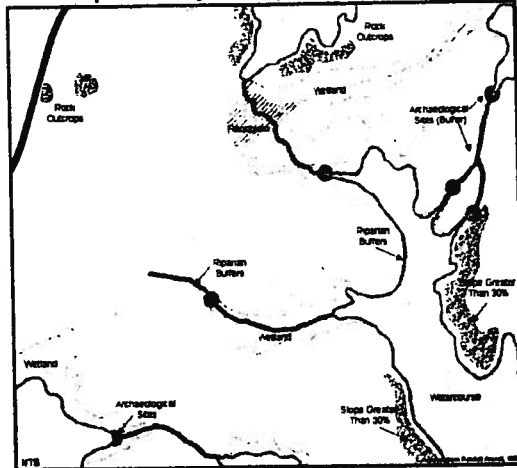
The Stage 1: Preliminary Design Process takes place in three steps as illustrated to the right. Applicants are required to submit **15 copies** of the **Step 3: Potential Development Areas Map**, showing the primary and secondary conservation areas, to be avoided. The map must also show the primary and secondary conservation features on adjacent lands for a distance of 300 metres on parcels of 40 ha or less and 600 metres on parcels greater than 40 ha. The applicant must also submit **1 reduced copy** of this Potential Development Areas Map, no larger than 11" x 17" in size.

Primary and Secondary conservation areas to be included, are outlined below:

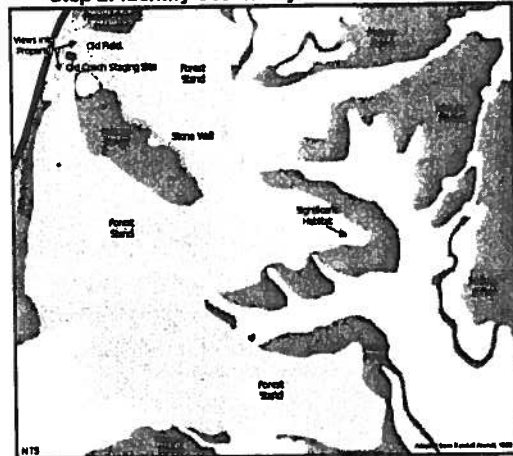
Primary Conservation Features

- Minimum riparian buffers and watercourse setbacks as per the requirements of the applicable land use by-law
- All wetlands including those identified in the schedule of the applicable land use by-law
- The approximate 1:100 year flood plains
- Rock outcroppings that should be avoided
- Class 1 - 3 Agricultural Soils as identified in the Canada Land Inventory mapping <http://geogratis.cgdi.gc.ca/cgi-bin/geogratis/cli/agriculture.pl>
- In areas of Class 1-3 Agricultural Soils, describe and show the location of any agricultural activities on the property and in the specified context area
- Potential Archaeological Sites as shown on Map 11 - Areas of Elevated Archaeological Potential - of the RMPS
- Any groundwater recharge areas
- Significant Habitat and Endangered Species as shown on Map 5 of the RMPS

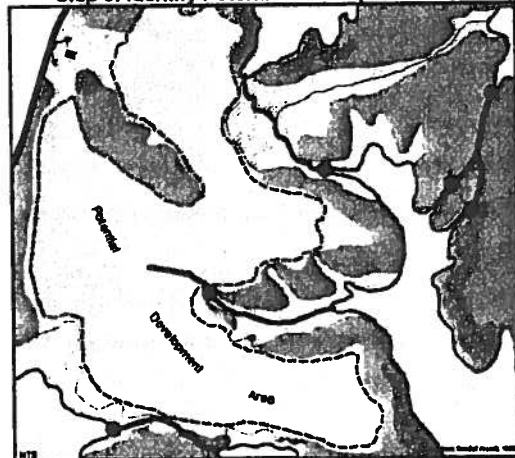
Step 1: Identify Primary Conservation Areas



Step 2: Identify Secondary Conservation Areas



Step 3: Identify Potential Development Areas



Adapted from Arendt, Randall. 1999. Growing Greener: Putting Conservation into Local Ordinances. Natural Lands Trust <http://www.greenerprospects.com/products.html> (accessed September 13, 2008)

Secondary Conservation Features

- Scenic Views** from within and onto the site from the surrounding area illustrated through maps and photographs
- Any municipally or provincially registered **heritage properties**
- Historic** buildings, stone walls, pastoral landscapes, oldfields, meadows & other important features
- Mature forests & other vegetation & comments** on their health & condition
- Trails and natural networks** shown on Map 3 - Trails and Natural Network - of the RMPS
- Parks and natural corridors** shown on Map 4 - Parks and Natural Corridors - of the RMPS
- Current & past land use**, all buildings & structures, waste disposal sites, geo hazards such as sulphide bearing slates or areas subject to geological subsidence.

Stage 1: Required Studies

In addition to the Potential Development Areas Map, the applicant must submit 3 copies of each of the following:

- Letter of intent** outlining the rationale for the potential development area, total ha of the site, total ha of potential development area, and proposed mix of land uses (See policy S-15 of the RMPS for permitted range of uses);
- Traffic Impact Statement** prepared in accordance with HRM's Guidelines for the Preparation of Transportation Impact Studies;
- Level 1 Groundwater Assessment Report** prepared in accordance with HRM's Guidelines for Groundwater Assessment and Reporting; and

- Preliminary proposed sewage treatment system** and identification of soils and other conditions capable of supporting the proposed system.

Stage 1: Recommended Study

To address wildfire safety concerns in the subdivision design, applicants are encouraged to review the Canadian Forest Service Fire Smart: Protecting Your Community from Wildfire at:

www.partnersinprotection.ab.ca/downloads/.

Review Process

Within 6-8 weeks following the filing of the completed Stage 1 information, the Planner shall:

1. circulate the proposal to all affected agencies and convene a meeting with the applicant and affected agencies to provide comment;
2. schedule a visit to the site with the applicant;
3. convene a public information meeting/workshop to receive public feedback on the potential development envelope (Policies S-15 and 16 deal with conservation site design features and any traffic and water related impacts; they do not authorize HRM to establish architectural controls on the proposed development);and
4. schedule and potentially meet with the applicable watershed advisory board to receive comments (dependant on WAB meeting schedule).

Stage 1 Sign-off

Modifications may be required to the potential development area pending inter-agency review, public and watershed advisory board input. The Planner will notify the applicant when the potential development area proposal meets the policy requirements and regulations. The applicant may then prepare a Stage 2: Conceptual Site Design Plan.

Stage 2: Conceptual Design

The Stage 2: Conceptual Design Process also takes place in three steps as illustrated to the right. Applicants are required to submit **15 copies** of the **Step 3: Conceptual Plan**, plus one reduced copy no larger than 11" x 17". The Step 3: Conceptual Plan must include the same information required in the *Regional Subdivision By-law* for concept plans (Appendix 2) including the following:

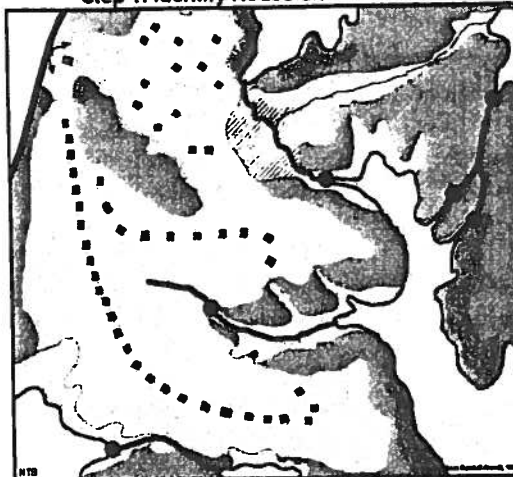
- Location and type of proposed land uses
- Total ha of the site, total ha of development area, and number of dwelling units;
- Proposed frontage, and front, side, and rear yard setbacks for each lot/unit;
- In a hybrid open space design development show development envelopes (disturbance areas not exceeding 20% of the lot) for each lot/unit, including areas for grading, lawns, pavement, buildings and septic systems;
- In a classic open space design, show location of communal or individual septic system areas;
- Total ha and location of areas to be retained as open space (conservation areas, parks, trails, etc.) and include a breakdown of total ha to be dedicated for public use and the total ha to be retained in non municipal ownership; and
- Trails and natural networks.

Stage 2: Required Studies & Information

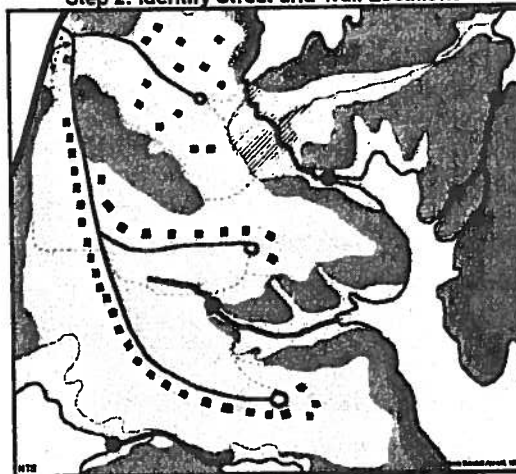
The applicant shall also submit 3 copies of each of the following studies and plans, if required by HRM:

- Level 2 Groundwater Assessment Report** prepared in accordance with HRM's *Guidelines for Groundwater Assessment*;
- Traffic Impact Study** in accordance with HRM's *Guidelines for the Preparation of Transportation Impact Studies*;
- Proposed sewage treatment system** prepared with a sufficient level of information for NSDEL to conclude that it is feasible to service the development;

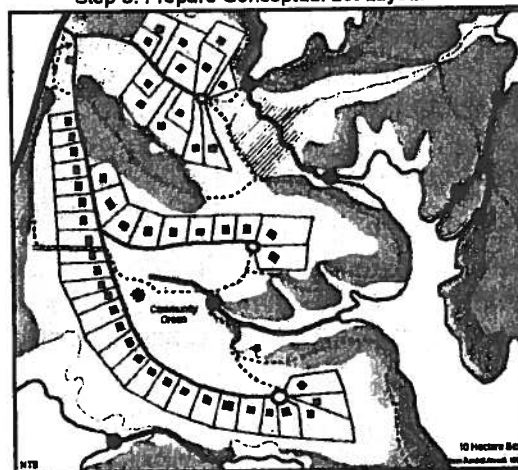
Step 1: Identify House Site Locations



Step 2: Identify Street and Trail Locations



Step 3: Prepare Conceptual Lot Layout



Adapted from Arendt, Randall. 1999. Growing Greener: Putting Conservation into Local Ordinances. Natural Lands Trust <http://www.greenerprospects.com/products.html> (accessed September 13, 2006)

Stage 2: Required Studies Continued

- Archaeological Assessment** if required by the NS Museum;
- Stormwater Management Plan**;
- Maintenance Plan** for long-term care of wells and septic systems for any communal system not managed by a Condominium Corporation pursuant to the *Condominium Act*; and
- Open Space Management Plan** for the long-term restoration and management of open space areas.

Stage 2: Recommended Study

To address wildfire safety concerns when siting and designing houses, applicants are encouraged to review the Nova Scotia, Department of Natural Resources. "*How to Protect Your Home and Property from Wildfire*".

Review Process

Within 6 to 8 weeks following the filing of the completed Stage 2 information, the Planner shall:

1. circulate the proposal to all affected agencies and convene a meeting with the applicant and affected agencies to provide comment; and
2. schedule and potentially meet with the applicable watershed advisory board to receive comments (dependant on WAB meeting schedule).

Stage 2 Sign-off

Modifications may be required to the Conceptual Plan pending inter-agency review. The Planner will notify the applicant when the Conceptual Plan meets the requirements of the policy and all applicable regulations. Following Stage 2 Sign-off, the Planner will prepare a report and development agreement.

Statutory Approval

The development agreement is brought forward to the respective Community Council pursuant to the requirements of the *Municipal Government Act*. In accordance with the Act, a public hearing must be held to receive public feedback on the proposed development. The decision of Community Council is also subject to a period for appeal before the Utility and Review Board.

The agreement only takes effect after the appeal period has lapsed or any appeals have resulted in an approved agreement. Following the conclusion of the statutory process and the signing of the agreement, applications may be made for final subdivision approval pursuant to the agreement and the *Regional Subdivision By-law*.

Where do I apply?

Please contact one of HRM's Planning Services Offices before preparing plans for submission:

Dartmouth Planning Services Office

Alderney Gate
40 Alderney Drive, 2nd Floor
Dartmouth, NS, B2Y 4P8
902-490-4472

Halifax Planning Services Office

West End Mall
6960 Mumford Road
Halifax, NS, B3L 4P1
902-490-4393

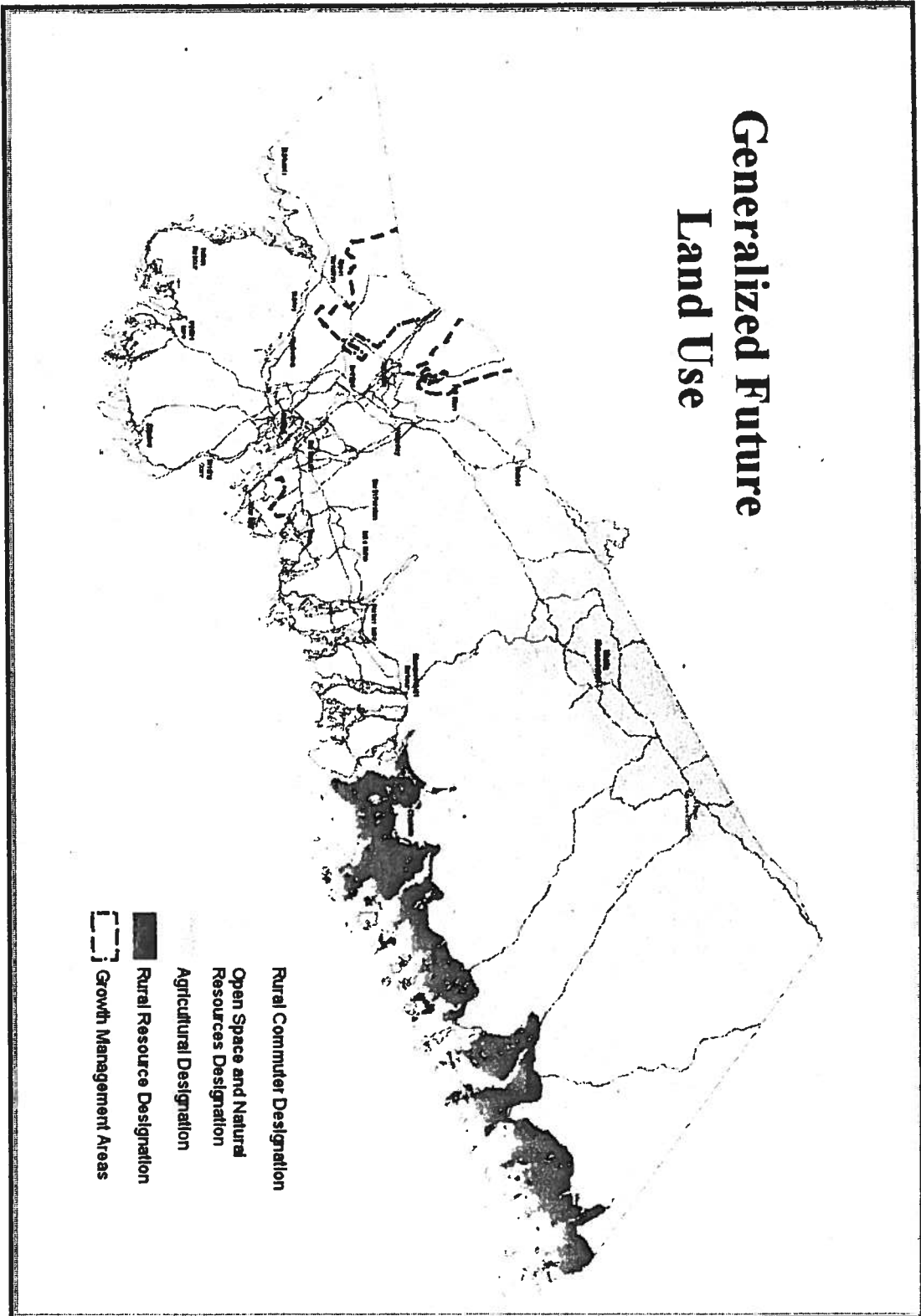
Sackville Planning Services Office

Acadia Centre
636 Sackville Drive
Lower Sackville, NS, B4C 2S3
902-869-4360

Additional Resources

Randall Arendt's publications:
www.greenerprospects.com/products.html

Appendix 1 - RMPS GFLUM



Appendix 2 - Excerpt from *Regional Subdivision By-law - Requirements for Concept Plans*

The concept plan shall be at a scale sufficient for clarity of all particulars of the plan. The concept plan shall be prepared by a Nova Scotia Land Surveyor or Professional Engineer and be based on the best available mapping or aerial photos. The plan shall illustrate:

- (a) the name of the proposed subdivision and of the owner of the area of land if different from the subdivision name, including the book and page number of the deed for the area of land as recorded in the name of the owner in the Registry of Deeds or Land Registration Office;
- (b) the name of each abutting subdivision or the names of the owners of all abutting land;
- (c) a key plan drawn to a scale not smaller than 1:50 000 located on the top right-hand corner of the plan, with the same orientation as the area of land, showing the scale to which the key plan is drawn and the community within or closest to which the proposed subdivision is located;
- (d) the North point;
- (e) the scale to which the plan is drawn;
- (f) the internal street system of the development with connections to abutting public streets or highways and private roads, and anticipated major pedestrian traffic patterns;
- (g) the location of all watercourses and wetlands within and adjacent to the area of land, any prominent rock formation, wooded area, area subject to flooding and any other prominent natural feature which might affect the provision or layout of sanitary sewer systems, storm sewer systems, water distribution systems, or public streets or highways and private roads;
- (h) the proposed street names in accordance with the *Civic Addressing By-law*;
- (i) the words "Concept Plan" above the title block along with an estimated lot yield figure, based on zoning and the Department of Environment and Labour's lot size requirements, if applicable;
- (j) a clear space for stamping, measuring at least 10 cm wide by 25 cm high and located in the lower left-hand corner of the plan;
- (k) the proposed subdivision phasing sequence;
- (l) the proposed location of the park dedication in the form of land, including the delineation of any 1 in 10 year flood plain within the site;
- (m) existing on-site development, and existing and proposed community and commercial uses;
- (n) all existing registered easements and rights-of-way;
- (o) contours at a 5m interval minimum;
- (p) the location of any municipal service boundary on the site; and
- (q) any other information required by the Development Officer to determine if the concept plan conforms to this by-law.

Please note the above section is reproduced for convenient reference. Please refer to the Halifax Regional Municipality, Regional Subdivision By-law for complete and official reference.

This consolidation is unofficial and is for reference only. For the official version of the regulations, consult the original documents on file with the Registry of Regulations, or refer to the Royal Gazette Part II.

Regulations are amended frequently. Please check the list of Regulations by Act to see if there are any recent amendments to these regulations filed with the Registry that are not yet included in this consolidation.

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Bennery Lake Watershed Protected Water Area Designation

made under Section 106 of the
Environment Act
S.N.S. 1994-95, c. 1
N.S. Reg. 210/2003 (December 4, 2003)

Canada
Province of Nova Scotia

In the Matter of: the *Environment Act*, S.N.S. 1994-95, c.1, s.106

In the Matter of: the designation of an area surrounding Bennery Lake, Halifax Regional Municipality, as a Protected Water Area, to be known as the "Bennery Lake Watershed Protected Water Area"

Designation of the Bennery Lake Watershed Protected Water Area and the Making of Regulations with Respect Thereto

Whereas Section 106 of Chapter 1 of the Acts of 1994-95, the *Environment Act*, provides for the designation by the Minister of Environment and Labour of a protected water area and the making of regulations under subsection (6) to prohibit, regulate or require the doing of any act or acts in a protected water area that may impair or prevent the impairment, as the case may be, of the quality of the water in the Protected Water Area;

Whereas the operator of the Bennery Lake Water Treatment Plant, the Halifax Regional Municipality, has requested that the Minister of Environment and Labour designate a portion of the Bennery Lake Watershed as a Protected Water Area in order to protect the quality of the surface water and groundwater resource as a water supply;

And whereas Halifax Regional Municipality has provided opportunities for public consultation, including public meetings and the establishment of the Bennery Lake Watershed Management Committee, an advisory committee comprising representatives of the Province of Nova Scotia, the Halifax Regional Municipality, the Halifax Watershed Advisory Board, members of the general public and landowners;

Therefore pursuant to Section 106 of Chapter 1 of the Acts of 1994-95, the *Environment Act*, the undersigned, Kerry Morash, Minister of Environment and Labour hereby

(a) designates an area surrounding Bennery Lake more fully described in Schedule "A" as a protected water area, to be known as the "Bennery Lake Watershed Protected Water Area"; and

(b) makes regulations respecting activity in the Bennery Lake Watershed Protected Water Area, in the form set forth in Schedule "B".

Sgd: *K. Morash*
Honourable Kerry Morash
Minister of Environment and Labour

Halifax, Nova Scotia
December 4, 2003

Schedule "A" -Bennery Lake Watershed Protected Water Area Boundary Description

All that certain parcel of land situated at Grand Lake, Halifax County, Nova Scotia and being Parcel BL shown on a plan titled "Compiled Plan of BENNERY LAKE WATERSHED" prepared by Robert Wentzell, N.S.L.S., dated January 26, 1999 and being on file at the office of the Director of Public Works and Transportation, Design Services, Halifax Regional Municipality as plan File No. 98031601 and being more particularly described as follows:

Commencing at Nova Scotia Co-ordinate Monument No.11751;

thence N 08° 18' 13" E, 767.038 metres to a point on the northwest boundary of Old Guysborough Road being the point of beginning;

thence N 37° 49' 10" W, 1455.218 metres to a point;

thence N 00° 00' 00" W, 2172.155 metres to a point;

thence N 52° 15' 00" W, 200.000 metres to a point;

thence S 74° 02' 10" W, 677.310 metres to a point;

thence S 49° 30' 10" W, 1235.887 metres to a point;

thence S 23° 22' 31" W, 1535.406 metres to a point;

thence S 60° 05' 26" E, 950.148 metres to a point;

thence S 29° 37' 41" W, 118.457 metres to a point;

thence S 77° 09' 02" E, 1149.643 metres to a point;

thence S 21° 41' 45" E, 831.015 metres to a point;

thence S 37° 51' 58" E, 463.052 metres to a point;

thence N 41°18' 25" E along the northwest boundary of the Old Guysborough Road, 990.579 metres to a deflection therein:

thence N 33° 32' 30" E along the northwest boundary of the Old Guysborough Road, 216.116 metres to the point of beginning.

Parcel BL contains 659.8 hectares.

ALL bearings are based on Zone 5, Central Meridian [Meridian] 64°30' West, of the Nova Scotia 3° Modified Transverse Mercator Projection of ATS77 Geodetic Datum.

Last updated: 20-03-2009

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Bennery Lake Watershed Protected Water Area Designation

**made under Section 106 of the
Environment Act
S.N.S. 1994-95, c. 1
N.S. Reg. 210/2003 (December 4, 2003)**

**Canada
Province of Nova Scotia**

In the Matter of: the *Environment Act*, S.N.S. 1994-95, c.1, s.106

In the Matter of: the designation of an area surrounding Bennery Lake, Halifax Regional Municipality, as a Protected Water Area, to be known as the "Bennery Lake Watershed Protected Water Area"

**Designation of the Bennery Lake Watershed Protected Water Area and
the Making of Regulations with Respect Thereto**

Whereas Section 106 of Chapter 1 of the Acts of 1994-95, the *Environment Act*, provides for the designation by the Minister of Environment and Labour of a protected water area and the making of regulations under subsection (6) to prohibit, regulate or require the doing of any act or acts in a protected water area that may impair or prevent the impairment, as the case may be, of the quality of the water in the Protected Water Area;

Whereas the operator of the Bennery Lake Water Treatment Plant, the Halifax Regional Municipality, has requested that the Minister of Environment and Labour designate a portion of the Bennery Lake Watershed as a Protected Water Area in order to protect the quality of the surface water and groundwater resource as a water supply;

And whereas Halifax Regional Municipality has provided opportunities for public consultation, including public meetings and the establishment of the Bennery Lake Watershed Management Committee, an advisory committee comprising representatives of the Province of Nova Scotia, the Halifax Regional Municipality, the Halifax Watershed Advisory Board, members of the general public and landowners;

Therefore pursuant to Section 106 of Chapter 1 of the Acts of 1994-95, the *Environment Act*, the undersigned, Kerry Morash, Minister of Environment and Labour hereby

(a) designates an area surrounding Bennery Lake more fully described in Schedule "A" as a protected water area, to be known as the "Bennery Lake Watershed Protected Water Area"; and

(b) makes regulations respecting activity in the Bennery Lake Watershed Protected Water Area, in the form set forth in Schedule "B".

Sgd: *K. Morash*
Honourable Kerry Morash
Minister of Environment and Labour

Halifax, Nova Scotia
December 4, 2003

Schedule "A" -Bennery Lake Watershed Protected Water Area Boundary Description

All that certain parcel of land situated at Grand Lake, Halifax County, Nova Scotia and being Parcel BL shown on a plan titled "Compiled Plan of BENNERY LAKE WATERSHED" prepared by Robert Wentzell, N.S.L.S., dated January 26, 1999 and being on file at the office of the Director of Public Works and Transportation, Design Services, Halifax Regional Municipality as plan File No. 98031601 and being more particularly described as follows:

Commencing at Nova Scotia Co-ordinate Monument No.11751;

thence N 08° 18' 13" E, 767.038 metres to a point on the northwest boundary of Old Guysborough Road being the point of beginning;

thence N 37° 49' 10" W, 1455.218 metres to a point;

thence N 00° 00' 00" W, 2172.155 metres to a point;

thence N 52° 15' 00" W, 200.000 metres to a point;

thence S 74° 02' 10" W, 677.310 metres to a point;

thence S 49° 30' 10" W, 1235.887 metres to a point;

thence S 23° 22' 31" W, 1535.406 metres to a point;

thence S 60° 05' 26" E, 950.148 metres to a point;

thence S 29° 37' 41" W, 118.457 metres to a point;

thence S 77° 09' 02" E, 1149.643 metres to a point;

thence S 21° 41' 45" E, 831.015 metres to a point;

thence S 37° 51' 58" E, 463.052 metres to a point;

thence N 41° 18' 25" E along the northwest boundary of the Old Guysborough Road, 990.579 metres to a deflection therein:

thence N 33° 32' 30" E along the northwest boundary of the Old Guysborough Road, 216.116 metres to the point of beginning.

Parcel BL contains 659.8 hectares.

ALL bearings are based on Zone 5, Central Meridian [Meridian] 64°30' West, of the Nova Scotia 3° Modified Transverse Mercator Projection of ATS77 Geodetic Datum.

Last updated: 20-03-2009

This consolidation is unofficial and is for reference only. For the official version of the regulations, consult the original documents on file with the Registry of Regulations, or refer to the Royal Gazette Part II.

Regulations are amended frequently. Please check the list of Regulations by Act to see if there are any recent amendments to these regulations filed with the Registry that are not yet included in this consolidation.

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Bennery Lake Watershed Protected Water Area Regulations

**made under subsection 106(6) of the
Environment Act
S.N.S. 1994-95, c. 1
N.S. Reg. 211/2003 (December 4, 2003)**

Citation

1 These regulations may be cited as the *Bennery Lake Watershed Protected Water Area Regulations*.

Interpretation

2 In these regulations,

- (a) "Act" means the *Environment Act*;
- (b) "biocide" means a substance capable of killing living organisms that is not registered as a pest control product and includes a toxic chemical;
- (c) "Committee" means the Bennery Lake Watershed Management Committee;
- (d) "Department" means the Department of Environment;
- (e) "developer" means a person who develops or proposes to develop land and includes any agent or contractor who works for the developer;
- (f) "development" means any disturbance of land for purposes of constructing roadways, residential dwellings, commercial establishments, recreation areas and parkland;
- (g) "forestry operation" means any activity related to the use of a forest for producing timber, wood fiber or Christmas trees, including but not limited to the following activities:
 - (i) forest management planning,
 - (ii) silviculture,
 - (iii) harvesting,
 - (iv) protection,

- (v) road construction, and
- (vi) operation, storage and use of equipment and supplies used in any aspect of the activity;
- (h) "grab sample" means a sample collected at a time and a place which represents only the composition of the source at that particular time and place;
- (i) "Minister" means the Minister of Environment;
- (j) "pesticide" or "pest control product" has the same meaning as set out in clause 2(q) of the *Pesticide Regulations* made under the Act;
- (k) "Protected Water Area" means the land and water designated by the Minister pursuant to subsection 106(1) of the Act as the Bennery Lake Watershed Protected Water Area, as described in Schedule "A" to the designation;
- (l) "release" means to spill, discharge, dispose of, spray, inject, inoculate, abandon, deposit, leak, seep, pour, emit, empty, throw, dump, place, drain, pump or exhaust;
- (m) "sulphide bearing material" has the same meaning as set out in clause 2(o) of the *Sulphide Bearing Material Disposal Regulations* made under the Act;
- (n) "vegetation" means any living plant or tree growth;
- (o) "Water Works Operator" means the Halifax Regional Municipality, operator of the Bennery Lake Water Treatment Plant;
- (p) "wetland" has the same meaning as set out in clause 2(y) of the *Environmental Assessment Regulations* made under the Act.
- [Note: the references to the Department in clauses (d) and (i) have been updated in accordance with Order in Council 2008-161 under the *Public Service Act*, R.S.N.S. 1989, c. 376, effective April 1, 2008.]

Restricted activities

- 3 (1) No person is permitted to swim, bathe, wash, or cut ice at any time in Bennery Lake or any other watercourse within the Protected Water Area.
- (2) No person is permitted to fish from the shoreline of or in Bennery Lake or any watercourse within the Protected Water Area.
- (3) No person is permitted to wash a vehicle in any watercourse or within 60 m of the shoreline or bank of any watercourse within the Protected Water Area.
- (4) No person is permitted to, at any time, operate a vessel of any kind, on, through or over Bennery Lake or any watercourse in the Protected Water Area, unless authorized by the Water Works Operator for the protection of the Protected Water Area.
- (5) No person is permitted to fill a gasoline tank or transfer any liquid fuel from tank to tank on or within 100 m of the shoreline or bank of Bennery Lake or any watercourse within the Protected Water Area, except for the purpose of operating the Bennery Lake Water Treatment Plant or a purpose reasonably incidental to the maintenance of private property.

Posting of signs

4 (1) The Water Works Operator must post signs around the perimeter of the Protected Water Area to provide notice to the general public of the designation of the Protected Water Area.

(2) The Water Works Operator must replace any signs posted under subsection (1) that have been damaged or removed.

(3) The Water Works Operator must take reasonable measures to advertise and provide notice to the general public of these regulations.

(4) No person is permitted to remove or alter any sign, notice or advertisement posted pursuant to this Section.

Fire restrictions

5 (1) No person is permitted to set, start, maintain or be responsible for an open fire in the Protected Water Area except for an open fire in a barbecue or fireplace designed for cooking purposes at a residential dwelling.

(2) Despite subsection (1), during the period from April 15 to October 15 of each year, a person may set, start, maintain or be responsible for a fire in the Protected Water Area if

(a) the person has a valid permit to burn issued pursuant to the *Forest Fire Protection Regulations* made under the *Forests Act*;

(b) the person complies with the permit to burn and the *Forest Fire Protection Regulations*; and

(c) the person complies with all the requirements of Halifax Regional Municipality By-law Number O-103, the Open Air Burning By-law.

Forestry operations

6 (1) No person is permitted to undertake a forestry operation within the Protected Water Area unless the operation is conducted pursuant to a forest management plan that

(a) is prepared by a professional forester in accordance with the objectives and policies approved by the Committee;

(b) does not permit any forestry operation within 100 m of Bennery Lake or within 30 m of any watercourse within the Protected Water Area;

(c) has as its primary objective the protection of the watershed and any watercourse therein, particularly with respect to impacts related to disruption of acid slate or sulphide bearing materials; and

(d) is approved in advance by the Water Works Operator.

(2) A forestry operation within the Protected Water Area must be conducted in accordance with the *Wildlife Habitat and Watercourses Protection Regulations* made under the *Forests Act* and the "Forest/Wildlife Guidelines and Standards for Nova Scotia" issued by the Department of Natural Resources, or its successor document or code of practice, as amended from time to time.

Road construction and maintenance restrictions

7 (1) No person is permitted to undertake any road construction within the Protected Water Area unless

- (a) written approval has been obtained in advance from the Water Works Operator; and
 - (b) the road construction is undertaken between June 1 and September 30, inclusive, in any year.
- (2) A person who is responsible for a road constructed under subsection (1) must maintain and repair the road.
- (3) No person is permitted to expose at any one time more than 1900 square metres of roadway subbase in the Protected Water Area.
- (4) No person is permitted to expose at any one time more than 1000 square metres of roadway subbase in the Protected Water Area if sulphide bearing or acid slate materials are present in the subbase.
- (5) No person is permitted to apply road salt on any roads or driveways within the Protected Water Area.

Water course or wetland alteration

8 (1) No person is permitted to construct a bridge or culvert or otherwise alter a watercourse or wetland within the Protected Water Area without first obtaining

- (a) written approval from the Water Works Operator; and
 - (b) an approval from the Department.
- (2) An owner, operator or person responsible for a bridge or culvert approved under subsection (1)
- (a) must maintain and repair the bridge or culvert; and
 - (b) is not permitted to remove the bridge or culvert without first obtaining an approval from the Department.

Roads and stream crossings

9 The construction of a forest access or wood lot road, stream crossing, culvert or other watercourse alteration within the Protected Water Area must be in accordance with the *Wildlife Habitat and Watercourses Protection Regulations* made under the *Forests Act* and the publication "Wood Lot Roads, Stream Crossings" issued by the Department of Natural Resources, or its successor document or code of practice, as amended from time to time.

Pest control products

10 No person is permitted to use a pest control product or biocide within the Protected Water Area unless the use is related to the operation of the Bennery Lake Water Treatment Plant and carried out under the supervision of the Bennery Lake Water Treatment Plant Supervisor.

On-site sewage disposal systems

11 (1) No person is permitted to install an on-site sewage disposal system within the Protected Water Area without first obtaining an approval from the Department.

(2) No person is permitted to construct or install or cause the construction or installation of an on-site sewage disposal system contrary to the *On-site Sewage Disposal Systems Regulations*, made under the Act, and the terms and conditions of an approval issued by the Department.

Prohibition on release of substance

12 (1) No person is permitted to release or cause or permit the release of oil, petroleum products, soap, detergent, toxic chemicals, pest control product waste, garbage, litter, solid or liquid waste, sulphide bearing or acidic slate materials, or any other material that causes or may cause an adverse effect within the Protected Water Area.

(2) A person who is using mechanical equipment or transporting gasoline or oil within the Protected Water Area is not permitted to release, and must take precautions to prevent the release of, a petroleum product onto the ground or into a watercourse or the runoff from the area.

Prohibition on landfills

13 No person is permitted to establish a dump, landfill, waste disposal site or disposal site for sulphide bearing or acidic slate materials within the Protected Water Area.

Easement restriction

14 No person is permitted to construct a road, pipeline, railway, telephone line, power line or other similar development or grant an easement on, over or across the Protected Water Area, without first obtaining the written approval of the Water Works Operator.

Stormwater management

15 No developer is permitted to commence any development unless the development is conducted according to a Stormwater Control Plan that is

(a) prepared by a professional engineer; and

(b) approved in advance by the Water Works Operator in consultation with the Department.

Erosion and sediment control

16 (1) No person is permitted to authorize or commence an operation to extract peat, gravel, rock or minerals within the Protected Water Area.

(2) No person is permitted to undertake an activity that causes or might cause soil erosion resulting in sedimentation of a watercourse located within the Protected Water Area.

(3) No owner, occupier, contractor or person responsible for a construction operation or an activity within the Protected Water Area requiring grubbing or earth moving that would expose more than 200 m² of subbase at any time is permitted to proceed unless they have

(a) developed an erosion and sedimentation control plan as described in the "Erosion and Sedimentation Control Handbook for Construction Sites", published by the Department; and

(b) obtained the prior written approval of the Water Works Operator.

(4) No person is permitted to release water that has a suspended solid concentration greater than 25 mg/L in a grab sample from any area within the Protected Water Area.

(5) All landscaping within the Protected Water Area shall be carried out between May 1 and October 31 inclusive, in any year.

17 If sedimentation occurs in a watercourse within the Protected Water Area, an operator or person responsible for the sedimentation must undertake immediate action to install erosion and sediment control measures, and immediately notify the Water Works Operator.

Vegetation removal restrictions

18 (1) No person is permitted to alter or remove vegetation within 100 m of Bennery Lake or within 30 m of any watercourse or wetland within the Protected Water Area unless such alteration or removal is

(a) approved in advance by the Water Works Operator; or

(b) related to the operation of the Bennery Lake Water Treatment System and following consultation with the Committee.

(2) No person is permitted to alter or remove vegetation within 15 m of any watercourse or wetland located on lands zoned AE-4 (Aerotech Business) under the Halifax Regional Municipality Land Use By-law for Shubenacadie Lakes (Planning Districts 14 and 17), within the Protected Water Area, unless approved by the Water Works Operator.

(3) No person is permitted to remove vegetation from an area greater than 50% of each residential lot at any time prior to and following development of and construction on any residential lot.

Watercourse setbacks and buffers

19 (1) No person is permitted to erect a structure, excavate, fill or alter the grade of land within 100 m of Bennery Lake or within 30 m of any watercourse or wetland located on lands zoned P-4 under the Halifax Regional Municipality Land Use By-law for Shubenacadie Lakes (Planning Districts 14 and 17), within the Protected Water Area, unless such activity is

(a) related to the operation of the Bennery Lake Water Treatment Plant; and

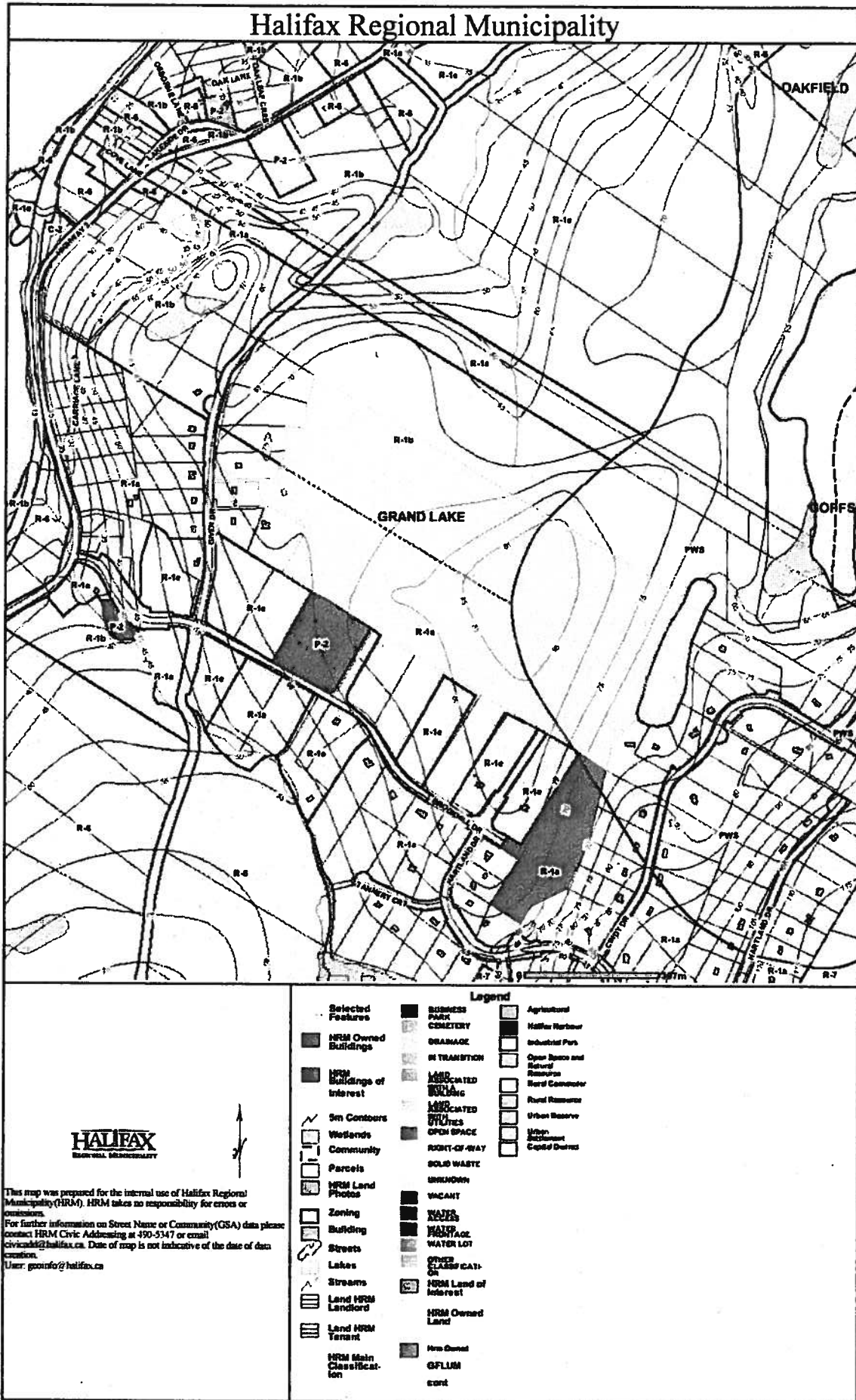
(b) approved in advance by the Water Works Operator.

(2) No person is permitted to erect a structure, excavate, fill or alter the grade of land within 15 m of any watercourse or wetland located on lands zoned AE-4 (Aerotech Business) under the Halifax Regional Municipality Land Use By-law for Shubenacadie Lakes (Planning Districts 14 and 17), within the Protected Water Area, unless such activity is approved in advance by the Water Works Operator.

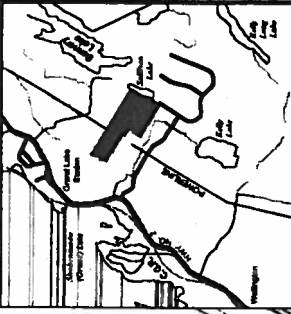
Consultation with the Committee

20 The Water Works Operator shall consult with the Committee before granting any authorization or approval required by these regulations.

Last updated: 28-10-2011



KEY PLAN



LEGEND

- Site Boundary
- Proposed Internal Property Line
- Adjacent Property Line
- Waterbody
- Watercourse
- Zone Riparian Buffer
- Non-Characterized Area (Approx. 80% per Lot)
- Possible Dwelling Location

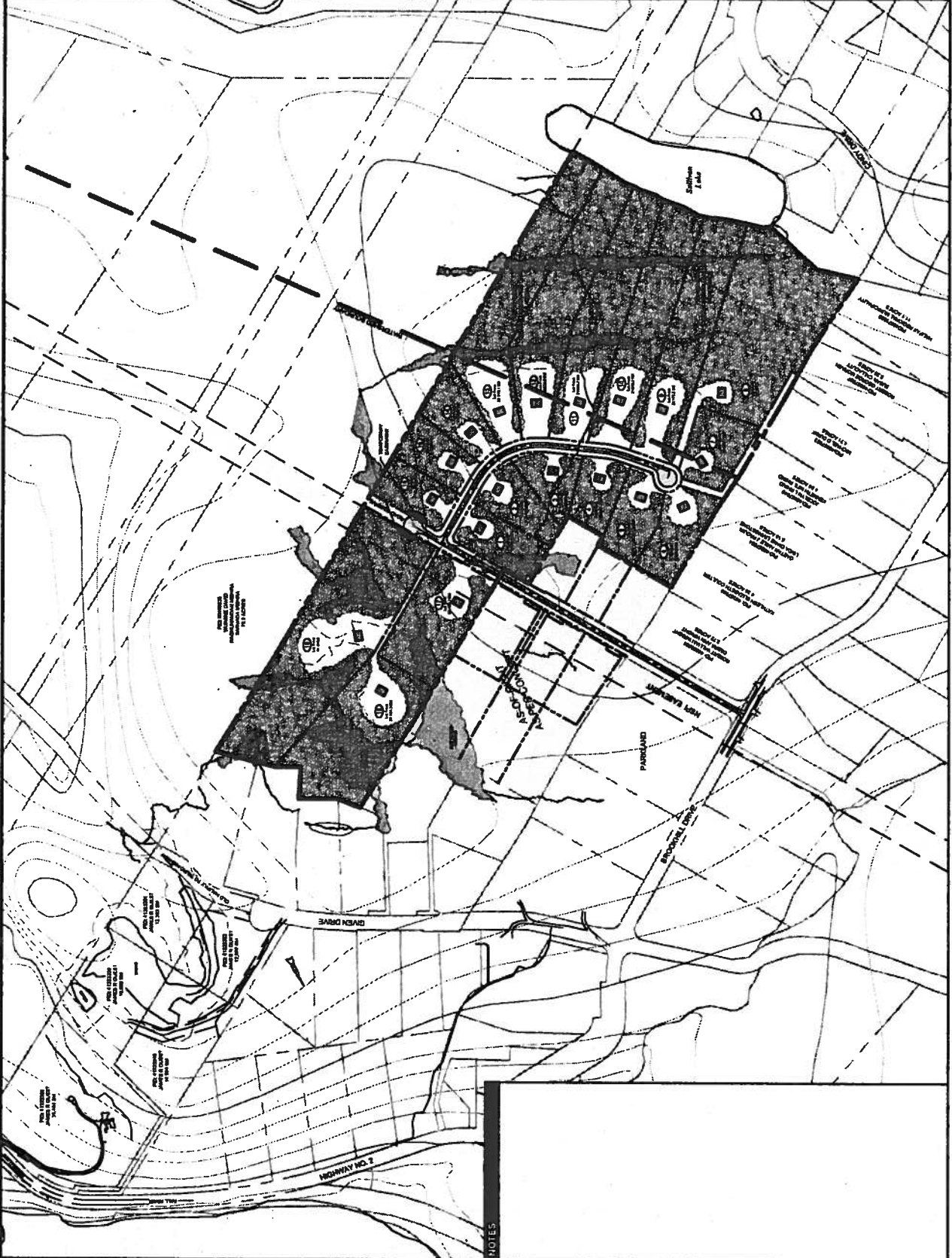
VERSION 1.6

CONCEPT PLAN
GRAND LAKE, NOVA SCOTIA

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December 26, 2011



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NOTES

Brookhill Subdivision

Planning Services

