Proposed River-lakes Secondary Municipal Planning Strategy and Land Use By-law

Presentation to HWAB

August 15, 2012

Fall River Vision and Action Plan

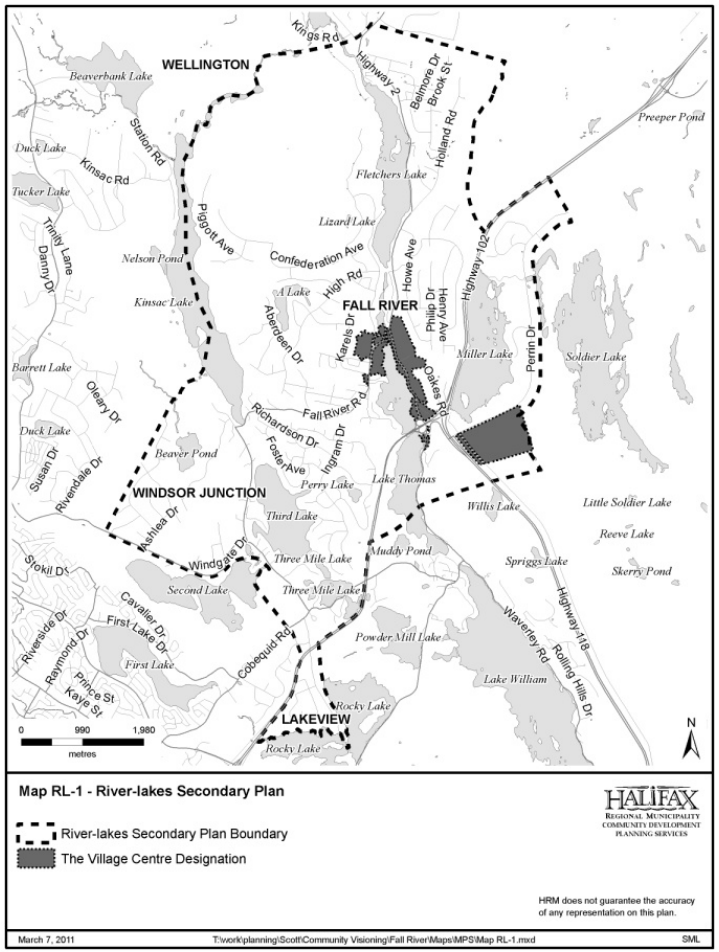
- Prepared by Fall River CLG
- Adopted by Regional Council-in-Principle as a framework to guide the formation of a Secondary Plan.

Proposed River-lakes Secondary Plan

- Process initiated Sept 2008
  - implement the Fall River Vision and Action Plan
  - Fall River Vision Implementation Committee (VIC) created to steer the formation of the plan
    - Consultation with the Fall River Community
    - Confer with HWAB – Seeking Input and Advice
    - Recommend a Plan to MDVCCC
  - MDVCCC responsible to recommend the Plan to Regional Council for Approval

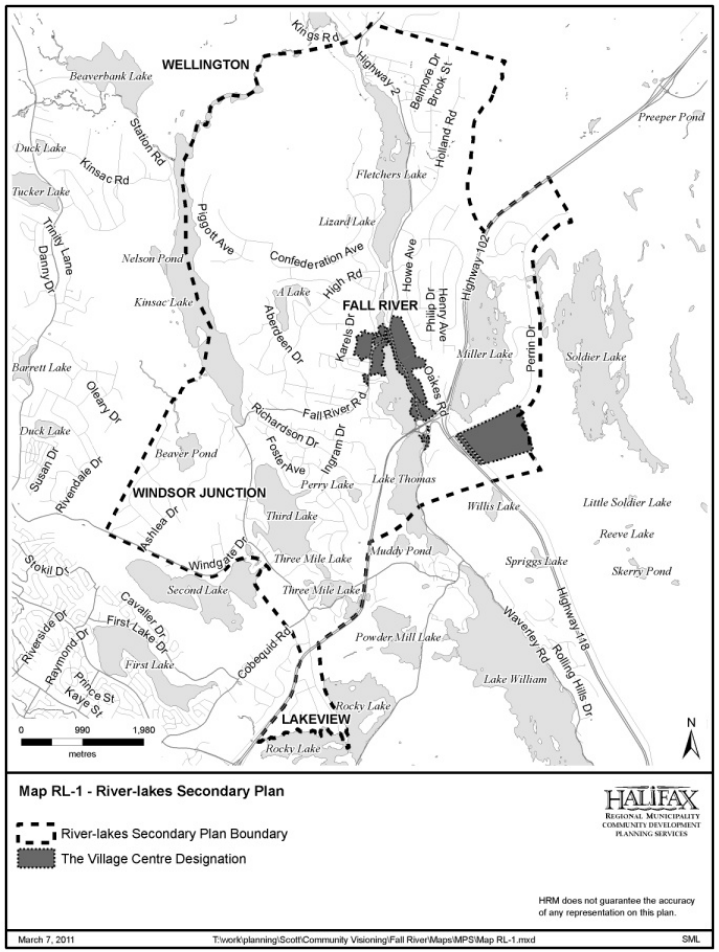
River-lakes Secondary Plan Area

- Phase 1 –
  - Village Centre Design & Regulations
  - Alternative Housing Development Provisions
  - Trails and Open Space
  - Environmental Protection Strategy
  - Transportation Policy Interim



River-lakes Secondary Plan Area

- Phase 2 – Examine Options for:
  - residential growth outside the Village Centre
  - central water service distribution and future transportation improvements



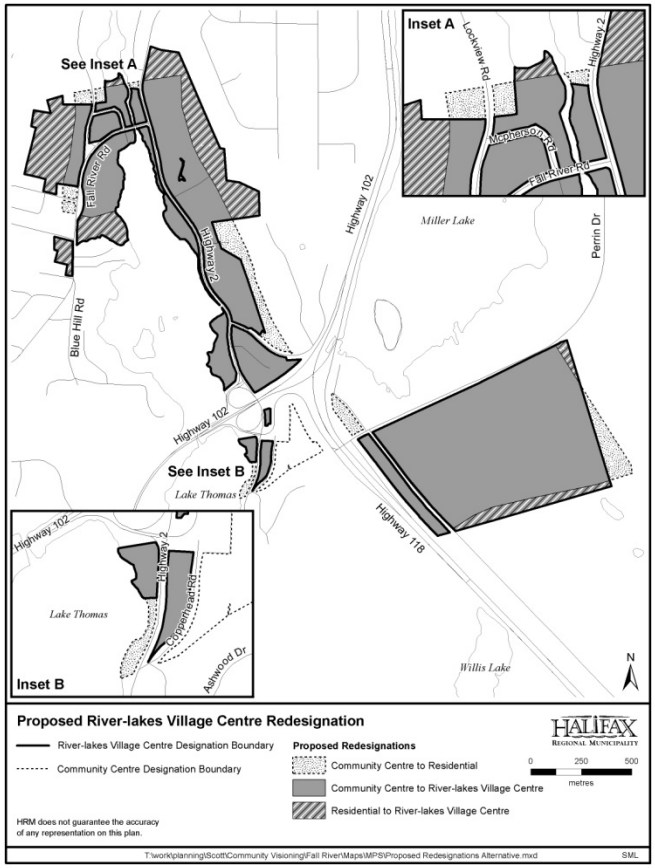
Proposed River-lakes Secondary Plan

- Vision
  - Maintain the rural village atmosphere and character of area;
  - Provide opportunities for alternative housing forms;
  - Foster the development of a socially cohesive community; and
  - Protect the natural and cultural assets of the communities such as the Shubenacadie Lakes.

Proposed River-lakes Village Centre Designation

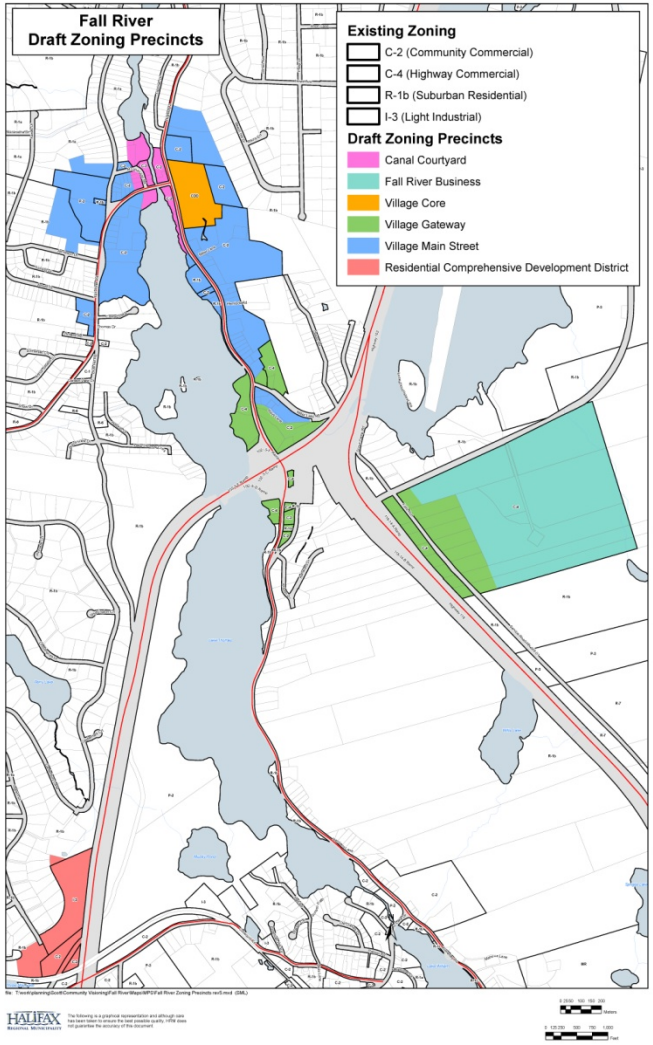
Redesignates:

- Vast majority of Community Centre Designation to VCD
- Some Community Centre to Residential
- Some Residential to VCD



Proposed Zones

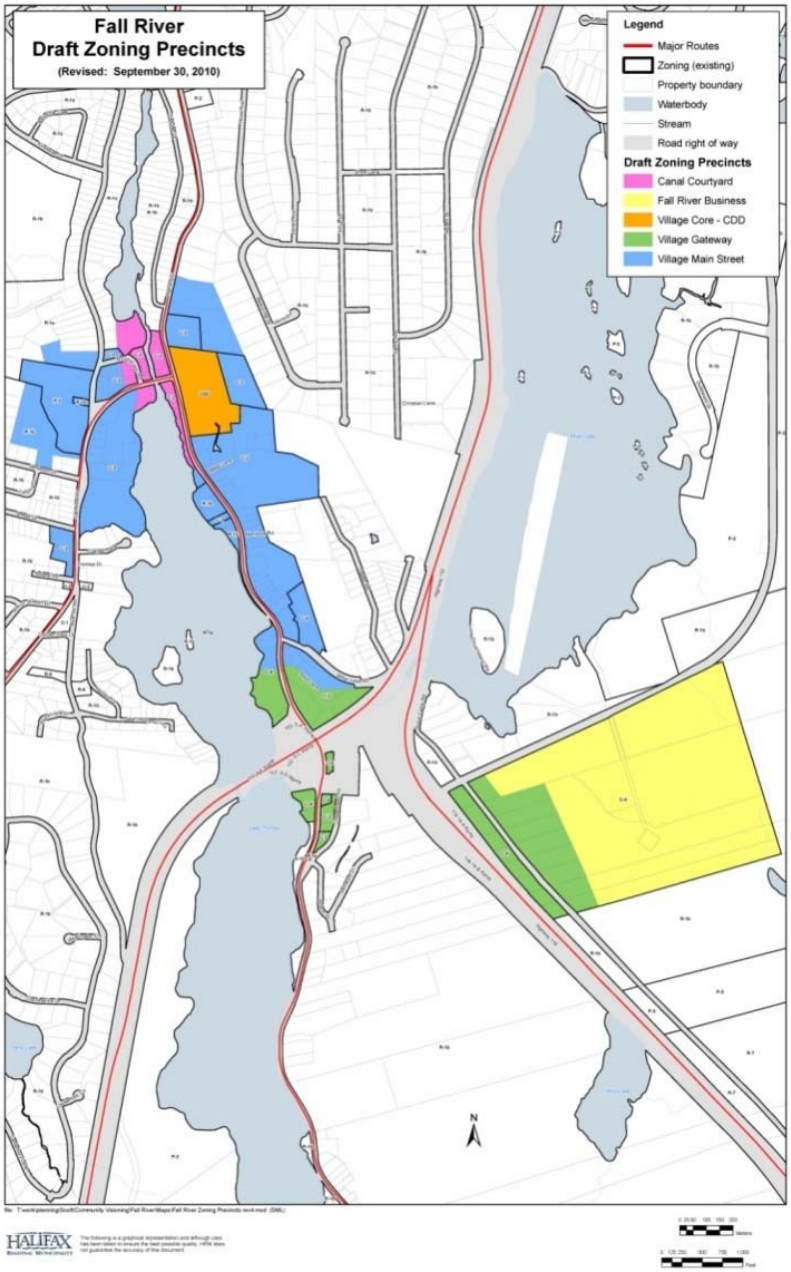
- 6 Proposed Zones
  - Canal Court
  - Village Mainstreet
  - Village Core CDD
  - Village Gateway
  - Fall River Business
  - Residential CDD



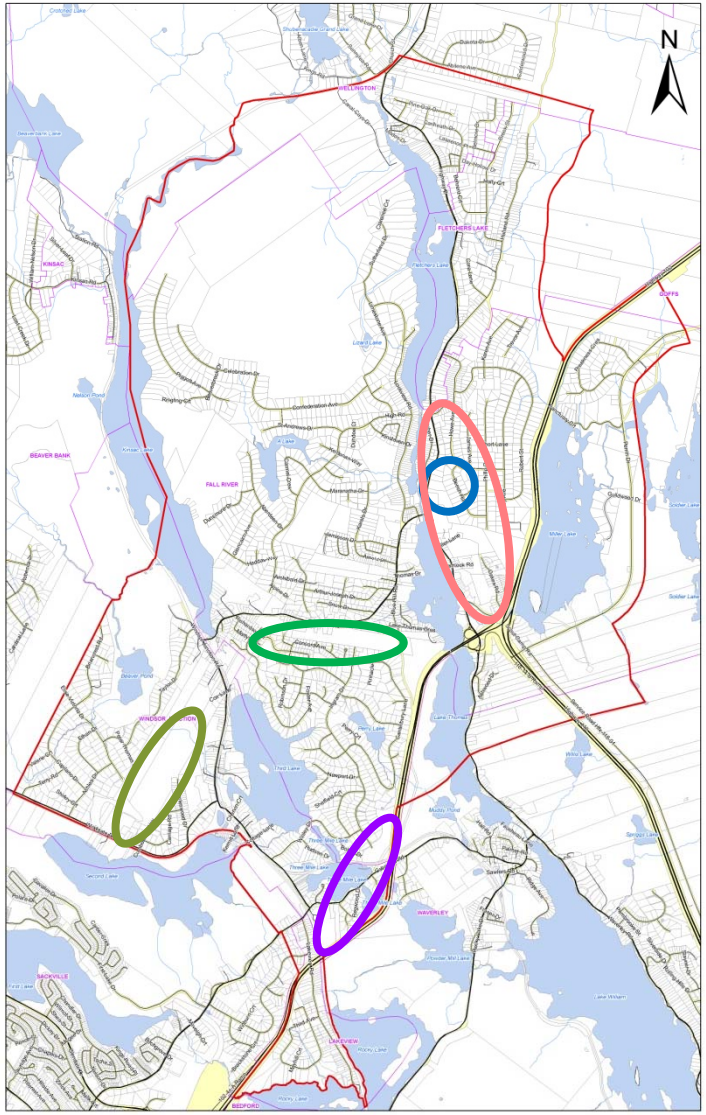
Proposed Zones

The Zones Regulate:

- Permitted Uses
- Building and lot layout
- Architecture
- Landscaping and Lighting



Housing Selected Sites



Village Centre	• 3 units per acre • Towns/multis Policy RL-11
Ziyad Chediac	• 6-8 units/ acre • 46 – 93 units • Towns/multis Policy RL-12
Baker Site	• 4 units per acre • 188 units • Towns/mult/single Policy RL-13
Gibson Site	• 4 units per acre •120 units • Towns/mult/single Storage/retail Policy RL-14
Charleswood	• 2 unit per acre • 84 town units Policy RL-15

Housing Policy Approach

- Consider by Development Agreement subject to: consideration of:
  - Built Form and Architecture
  - Overall Site Layout
  - Offsite Impacts on the Environment, Groundwater or Central Water Supply, Road Network and Adjacent Properties.

Environmental Protection Policy

Background Study

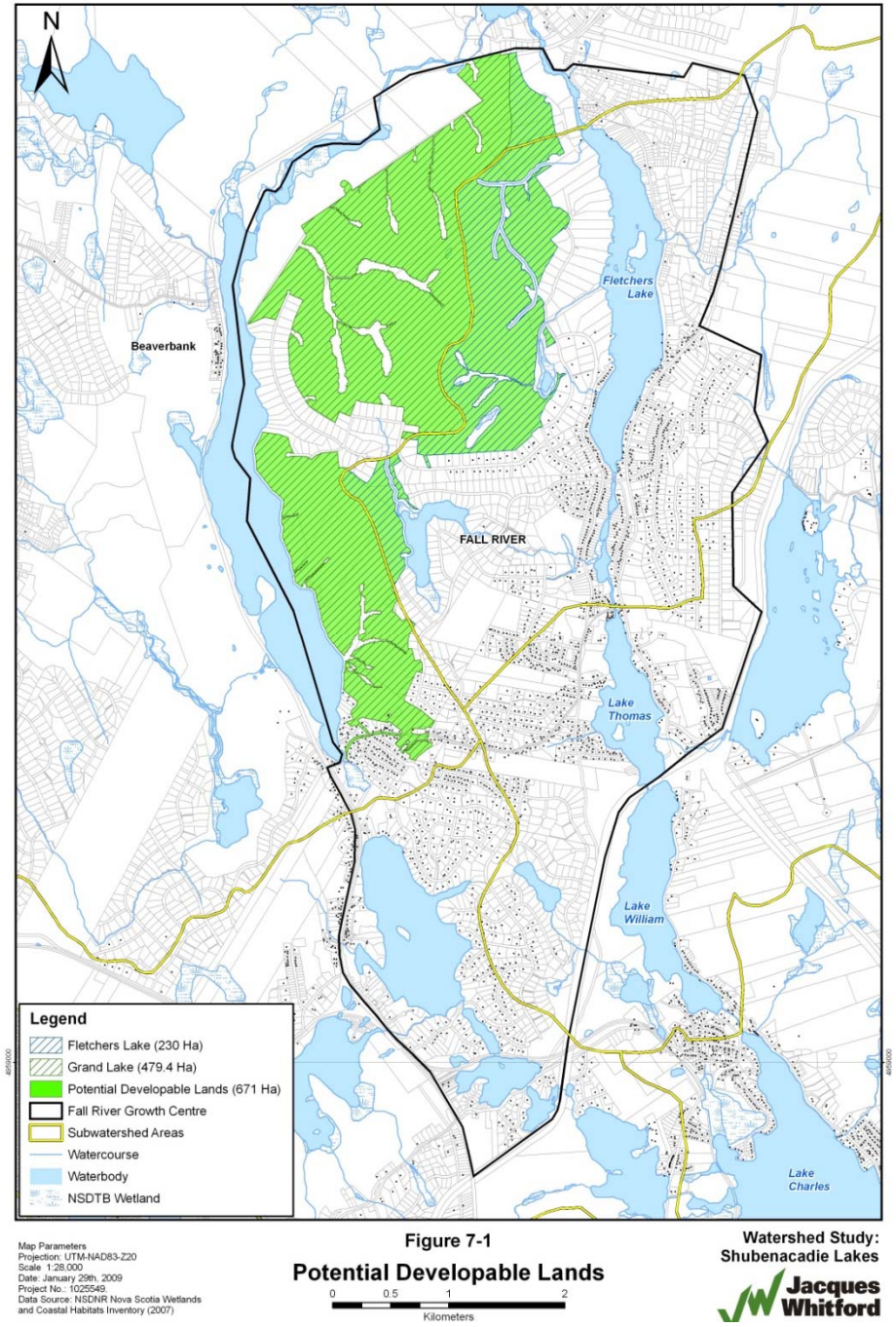
- Fall River Shubenacadie Lakes Watershed Study
- Findings of the Study were planned to be brought forward during Phase 2
- Proposed Housing Developments requires the preparation of a receiving waters protection approach now

Study Objectives

1. Identify ecological constraints and opportunities for development within the Shubenacadie Lakes watershed.
2. Examine servicing options (water and sewer) for growth within the Fall River Centre and Village Core
3. Determine the impacts of growth in the Fall River Secondary Plan Area

Development Scenarios

- **Village Centre**
  - 16 ppa
  - 1776 total pop
  - 670 additional units
- **Outside the Village Centre**
  - 1 unit/ac
  - 3120 additional pop
  - 1076 new units



Map Parameters
Projection: UTM-NAD83-Z20
Scale: 1:28,000
Date: January 29th, 2009
Project No.: 1025549.
Data Source: NSDNR Nova Scotia Wetlands and Coastal Habitats Inventory (2007)

Figure 7-1
Potential Developable Lands

0 0.5 1 2
Kilometers

Watershed Study:
Shubenacadie Lakes

Jacques Whitford

Existing Phosphorous Conditions – Existing Development

- All lakes currently oligotrophic
- Lake Charles, William and Fletcher are near the boundary for turnover to mesotrophic

Predicted Phosphorous Conditions – Existing Development

- Based on existing development within 1000 feet of lakes predicted that:
  - Lake William and Thomas will become mid range mesotrophic
  - Lake Fletcher will become upper range mesotrophic
  - Lake Charles and Grand Lake will become upper range oligotrophic

Phosphorus Effects - Lake Thomas

- <u>Village Centre Scenario</u>

  would move the lake from the mid- to upper- mesotrophic range

- <u>Outside Village Centre Scenario</u>

  Lake Thomas is unaffected by this scenario

Phosphorus Effects - Lake Fletcher

- All scenarios - Model predictions for all of the scenarios considered place the lake in the upper mesotrophic range

Phosphorus Effects - Grand Lake

- <u>Village Centre Scenario</u>
  would result is a slight increase in total phosphorus to 10.2 ug L-1 which is slightly above the oligo-mesotrophic boundary
- <u>Outside Village Centre Scenario</u>
  would bringing the lake into the low mesotrophic range

Recommended Water Quality Objectives

- Lake Thomas 20 ug/L
- Fletchers Lake 20 ug/L
- Grand Lake 10 ug/L

No Net Increase Phosphorus Loading Policy

- No net increase in phosphorus over current levels for any large scale residential development to be considered by a development agreement.
- Phosphorus export coefficient study required for pre- and post development.
- If phosphorus is predicted to exceed current levels then the proponent will have to reduce density and demonstrate how stormwater run-off can be treated naturally on-site.

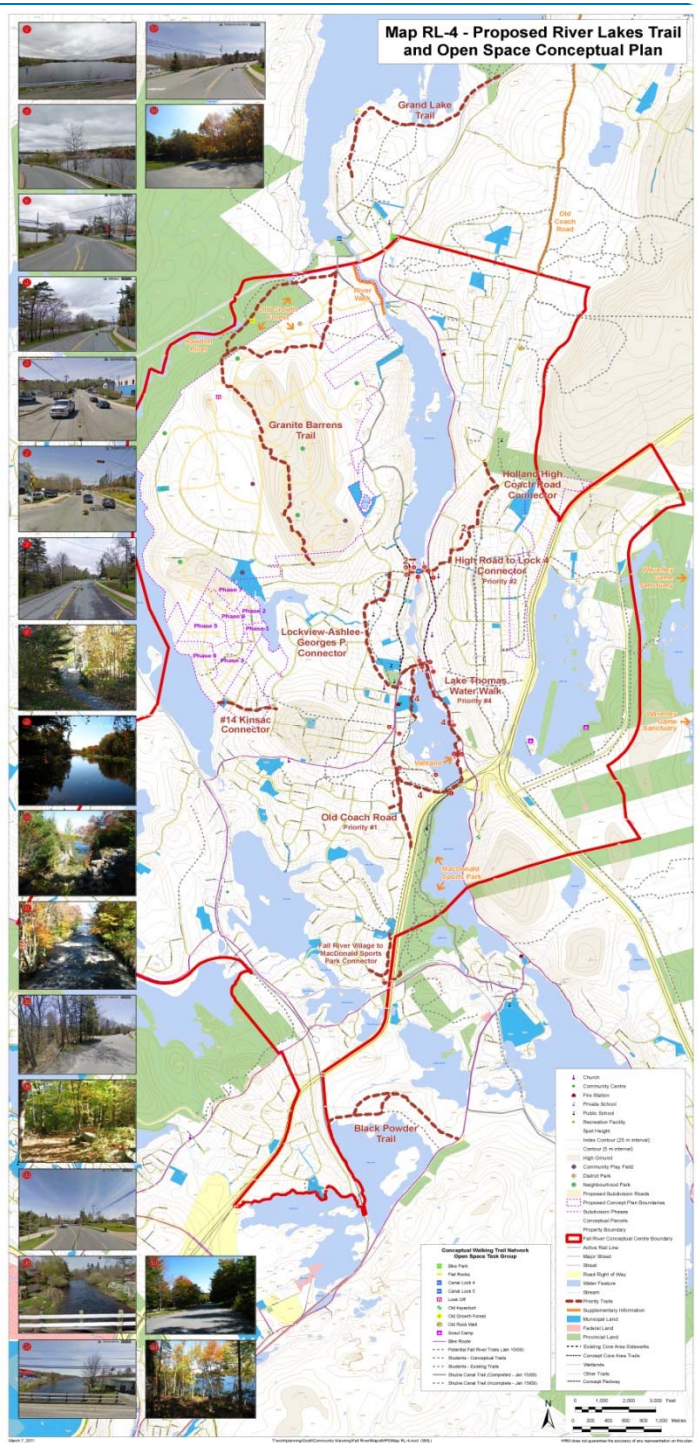
Additional Environmental Policies

- Requirement for the retention of a minimum 50% of the site as a non-site disturbance area for all development agreements.
- Requirement for the retention of 60% of the site for Open Space Designs.
- Requirement for stormwater management and E&R Plans for all development agreements.
- Retention of 50% of the site as pervious surface in the Village Centre.

Open Space and Trails





- Goal to create an interconnected system of trails between the communities, the schools, Community Centres, the Canal and the Village.

Priority 1: Old Coach Trail

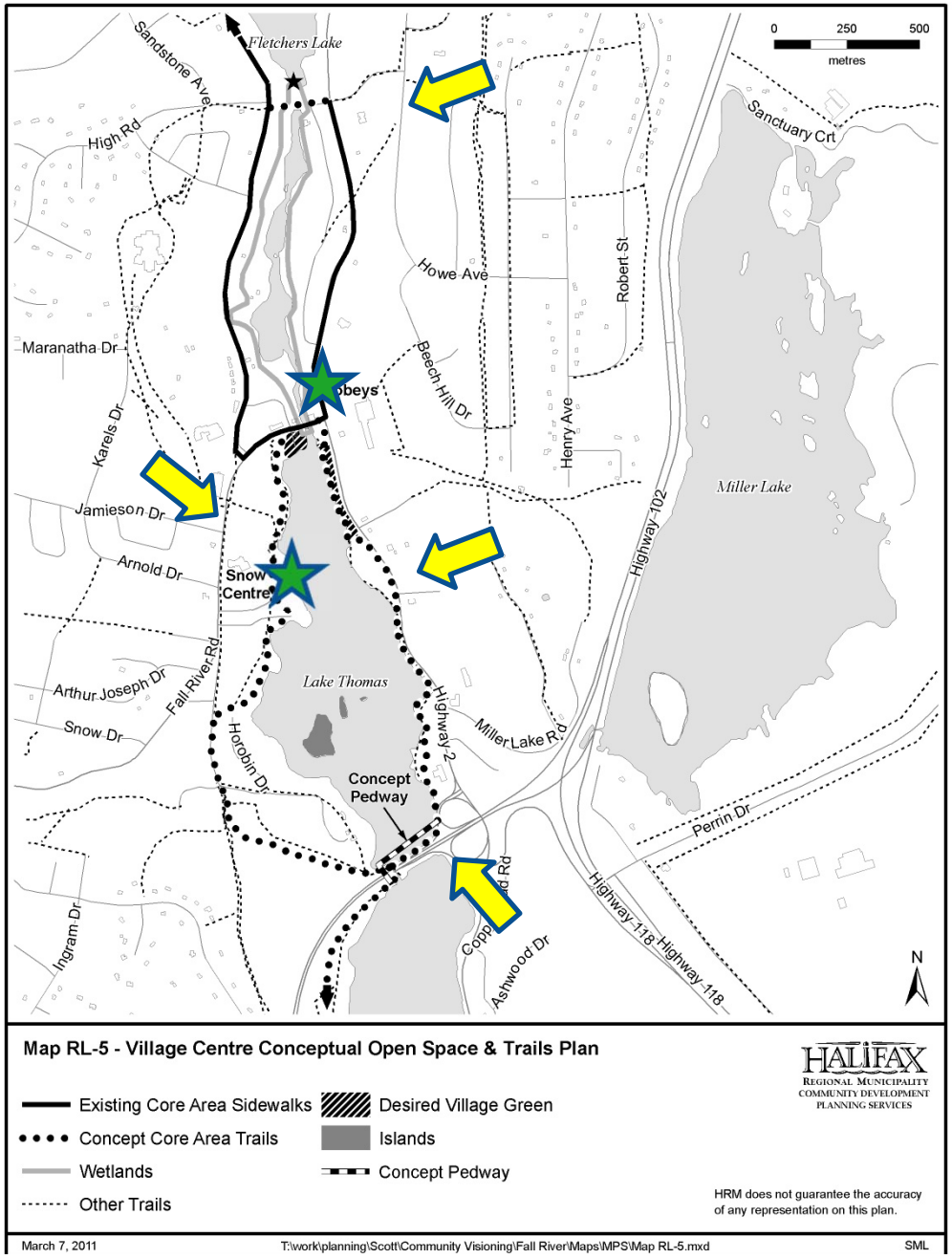
Priority 2: High Road to Lockview Connector

Priority 3:Lock 4 Connector

Priority 4: Lake Thomas Water Walk

Lake Thomas Water Walk Proposal

Develop a swimming dock with at the Gordon R. Snow Centre with minimum disturbance of the natural area



Proposed Strategies

- Work with Halifax Regional Trails Association (HARTA)
- Seek Parkland acquisitions through the Subdivision By-law
- Negotiate for trails through Development Agreements
- Land Trades
- Seek community recreation benefits through future infrastructure improvements

Next Steps

Step 1: Prepare Village Core Models

Step 2: Public Selection of 1-2 Preferred Models

Step 3: Prepare Proposed Policies, Regulations and Guidelines

Step 4: Present Proposal to Public

Step 5: Review Public Comments and Revise

Step 6: Post the Proposed Changes online

Step 7: Review Public Comments and Revise

Step 8: Present Proposal to HWAB and MDVCCC

Step 9: Present Proposed Policies to Regional Council

Step 10: Regional Council Public Hearing

For more information:

http://www.halifax.ca/visionhrm/FallRiver

or

Call Maureen Ryan,

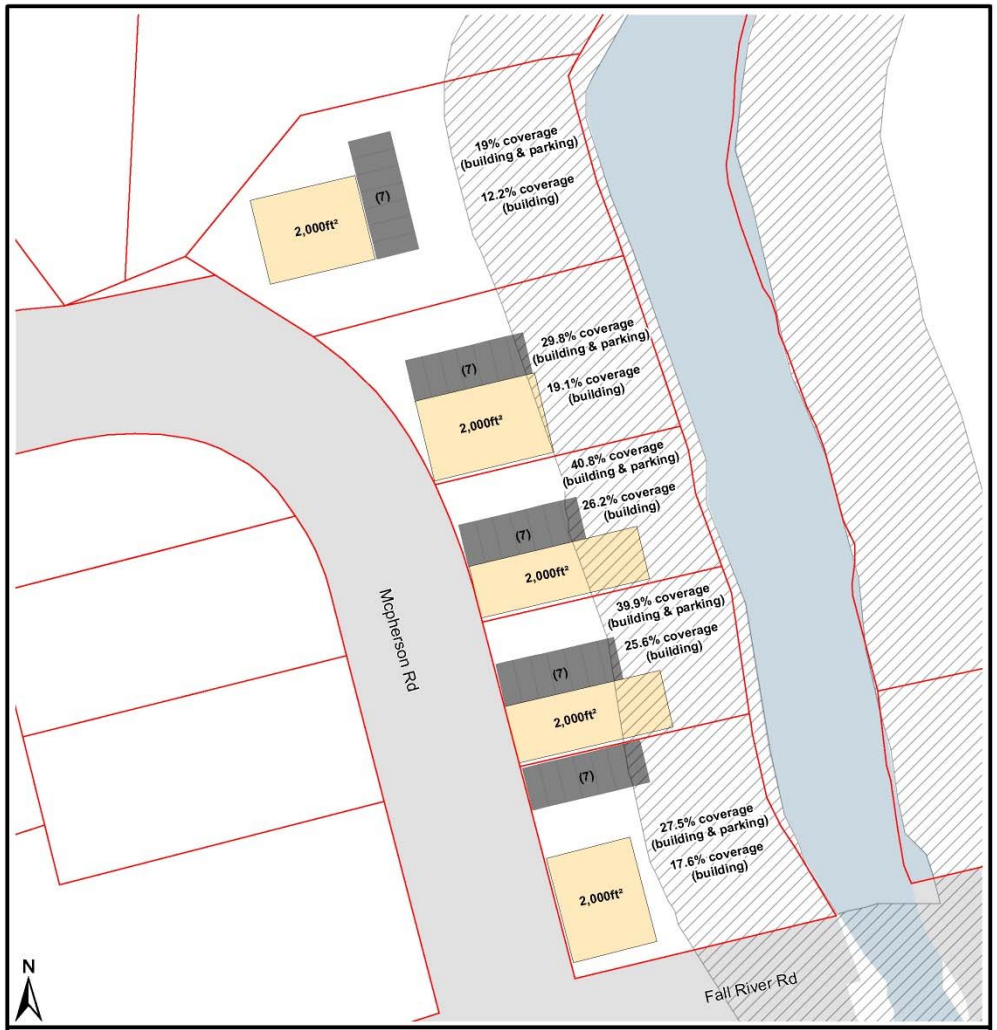
HRM Senior Planner

490-4799

Thank-you

Table 3 – 2007 Baseline Conditions and Predicted Impacts on Water Quality Parameters

Mean Annual Parameters	2007 Water Quality Samples			Predicted Impacts: River-lakes Village Centre Designation Scenario			Predicted Impacts: Outside River-lakes Village Centre Designation Scenario		
	Lake Thomas	Lake Fletcher	Grand Lake	Lake Thomas	Lake Fletcher	Grand Lake	Lake Thomas	Lake Fletcher	Grand Lake
Phosphorus	9.2 µg/L	9.3 µg/L	4.6 µg/L	18.0 µg/L	20.2 µg/L	10.2 µg/L	14.7 µg/L	19.3 µg/L	11.2 µg/L
Total Suspended Solids (TSS)	0.88 mg/L	0.49 mg/L	0.16 mg/L	0.97 mg/L	0.50 mg/L	0.16 mg/L	0.88 mg/L	0.65 mg/L	0.18 mg/L
Bacteria (E.coli)	86 CFU/ 100mL	105.5 CFU/ 100mL	13.7 CFU/ 100mL	86.2 CFU/ 100mL	105.6 CFU/ 100mL	13.7 CFU/ 100mL	86 CFU/100 mL	129.7 CFU/100 mL	86 CFU/ 100mL



Map 5 - Building Mass and Parking Requirements

Fall River Community Visioning

HALIFAX
REGIONAL MUNICIPALITY
REGIONAL AND COMMUNITY PLANNING SERVICES

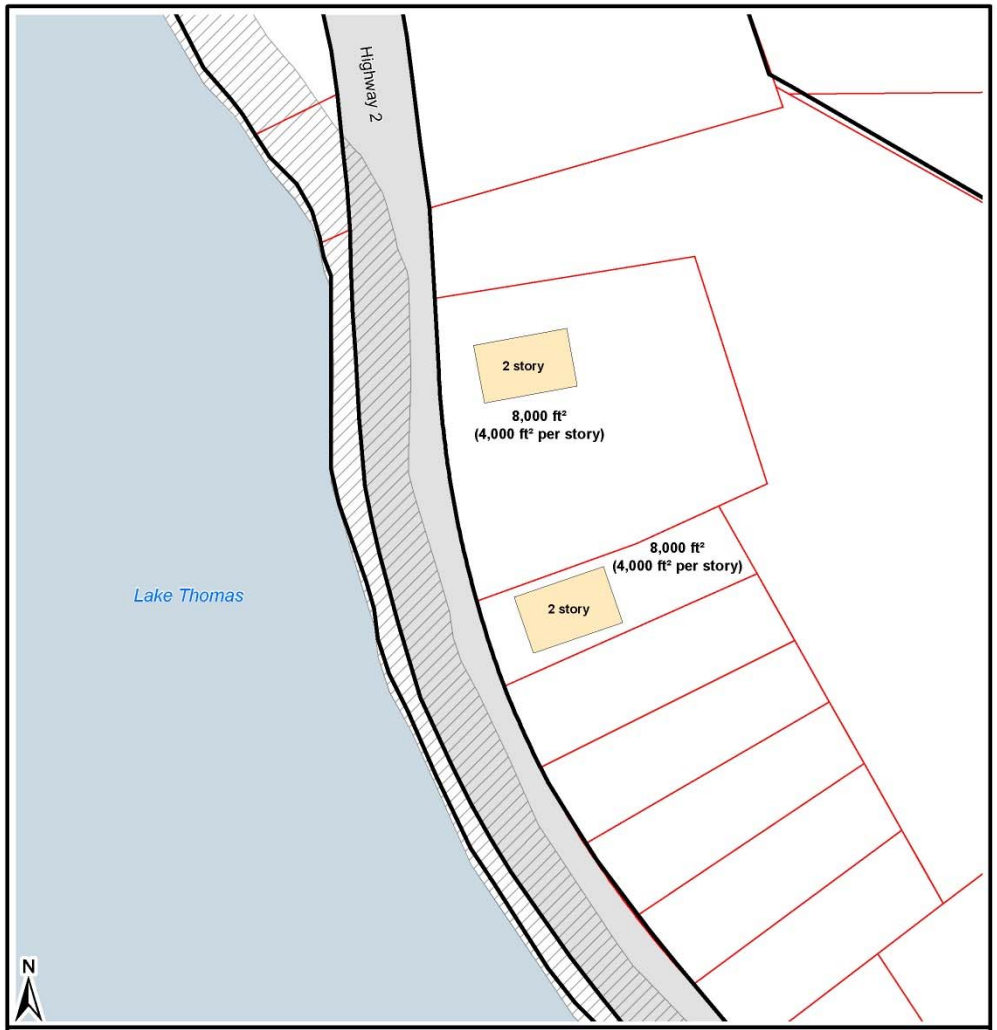
- Hydrology
- Property Boundary
- Riparian Buffer (60 feet)
- Road Right-of-way
- Building (illustrative purposes only)
- Parking Space (illustrative purposes only)

0 10 20 30 40 50 100 Feet

HRM does not guarantee the accuracy of any representation on this plan.

2 March 2010

file: T:\work\planning\Scott\Community Visioning\Fall River\Maps\Building and Parking coverage\Map 5.mxd (SML)



Village Main Street - Maximum Building Envelope (Commercial)

Fall River Community Visioning

HALIFAX
REGIONAL MUNICIPALITY
REGIONAL AND COMMUNITY PLANNING SERVICES

- Property Boundary
- Riparian Buffer (60 feet)
- Road Right-of-way
- Lake
- Building (illustrative purposes only)
- Village Main Street (proposed zoning)

0 25 50 100 Feet

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March 23, 2011

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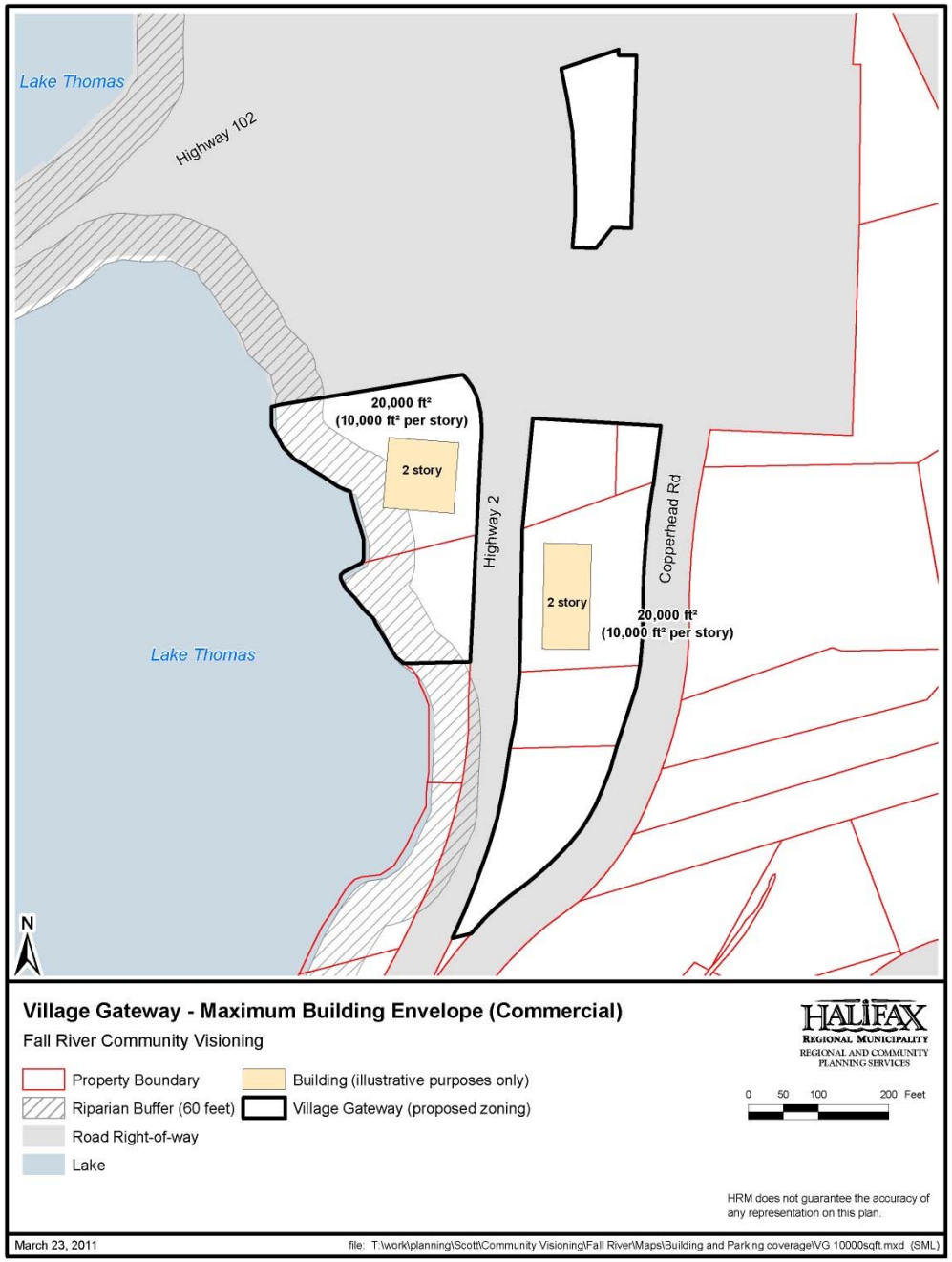
Lake Thomas
Highway 102
20,000 ft²
(10,000 ft² per story)
2 story
Highway 2
Copperhead Rd
2 story
20,000 ft²
(10,000 ft² per story)
Lake Thomas
N
Village Gateway - Maximum Building Envelope (Commercial)
Fall River Community Visioning
Property Boundary
Riparian Buffer (60 feet)
Road Right-of-way
Lake
Building (illustrative purposes only)
Village Gateway (proposed zoning)
HALIFAX
REGIONAL MUNICIPALITY
REGIONAL AND COMMUNITY PLANNING SERVICES
0 50 100 200 Feet
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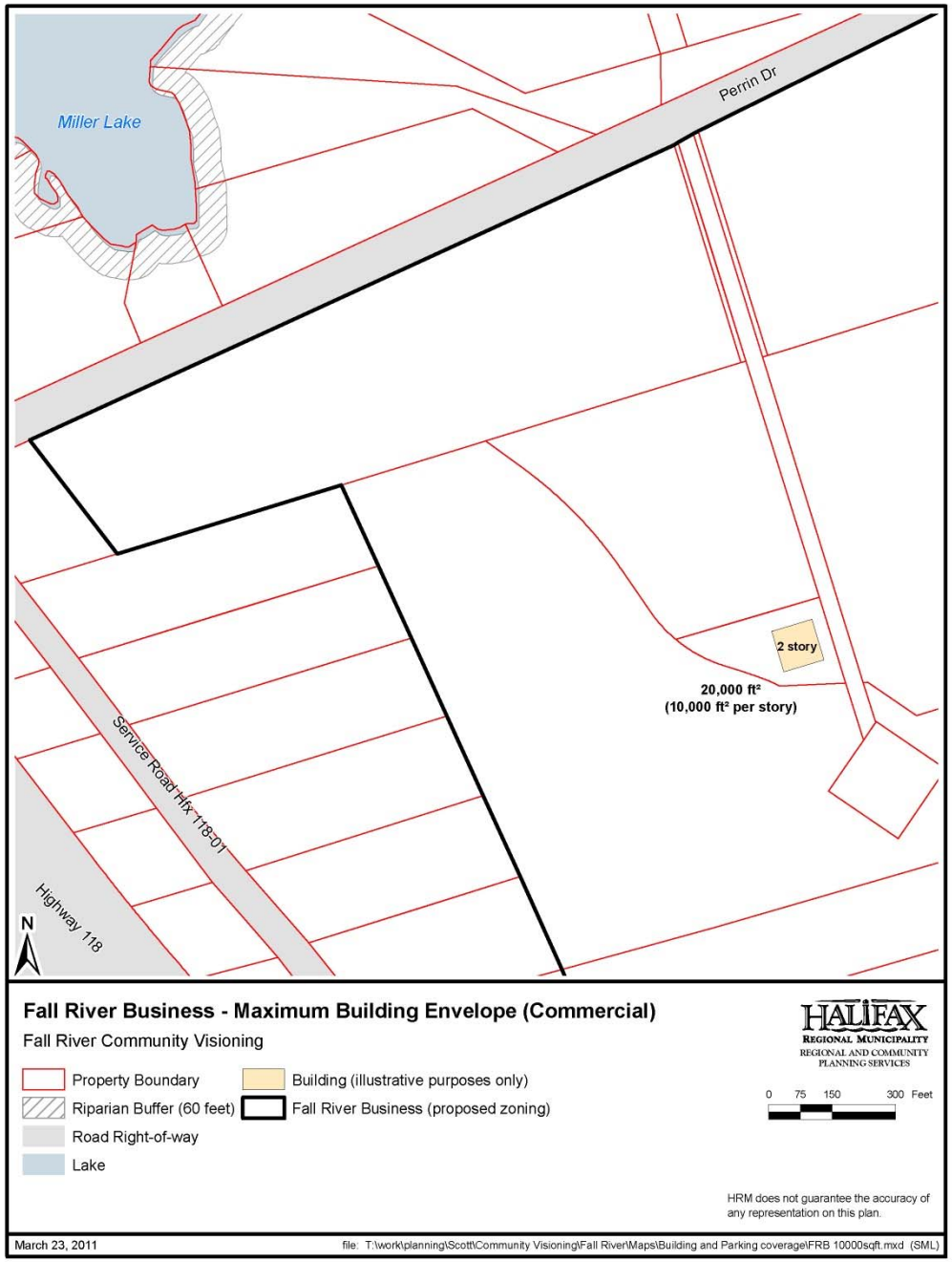
Miller Lake
Perrin Dr
2 story
20,000 ft²
(10,000 ft² per story)
Service Road HFX 118-01
Highway 118
N
Fall River Business - Maximum Building Envelope (Commercial)
Fall River Community Visioning
Property Boundary
Riparian Buffer (60 feet)
Road Right-of-way
Lake
Building (illustrative purposes only)
Fall River Business (proposed zoning)
HALIFAX
REGIONAL MUNICIPALITY
REGIONAL AND COMMUNITY PLANNING SERVICES
0 75 150 300 Feet
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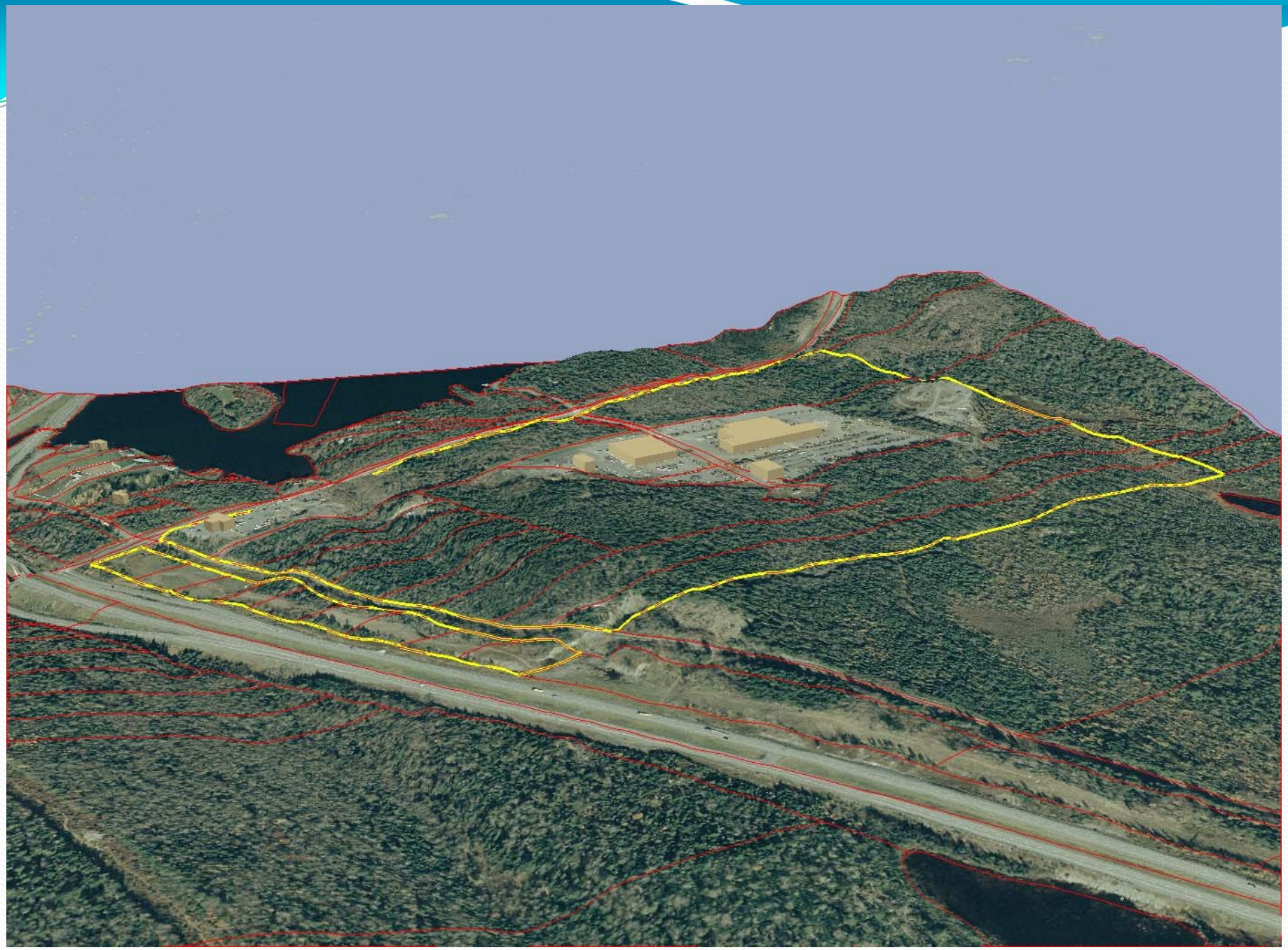
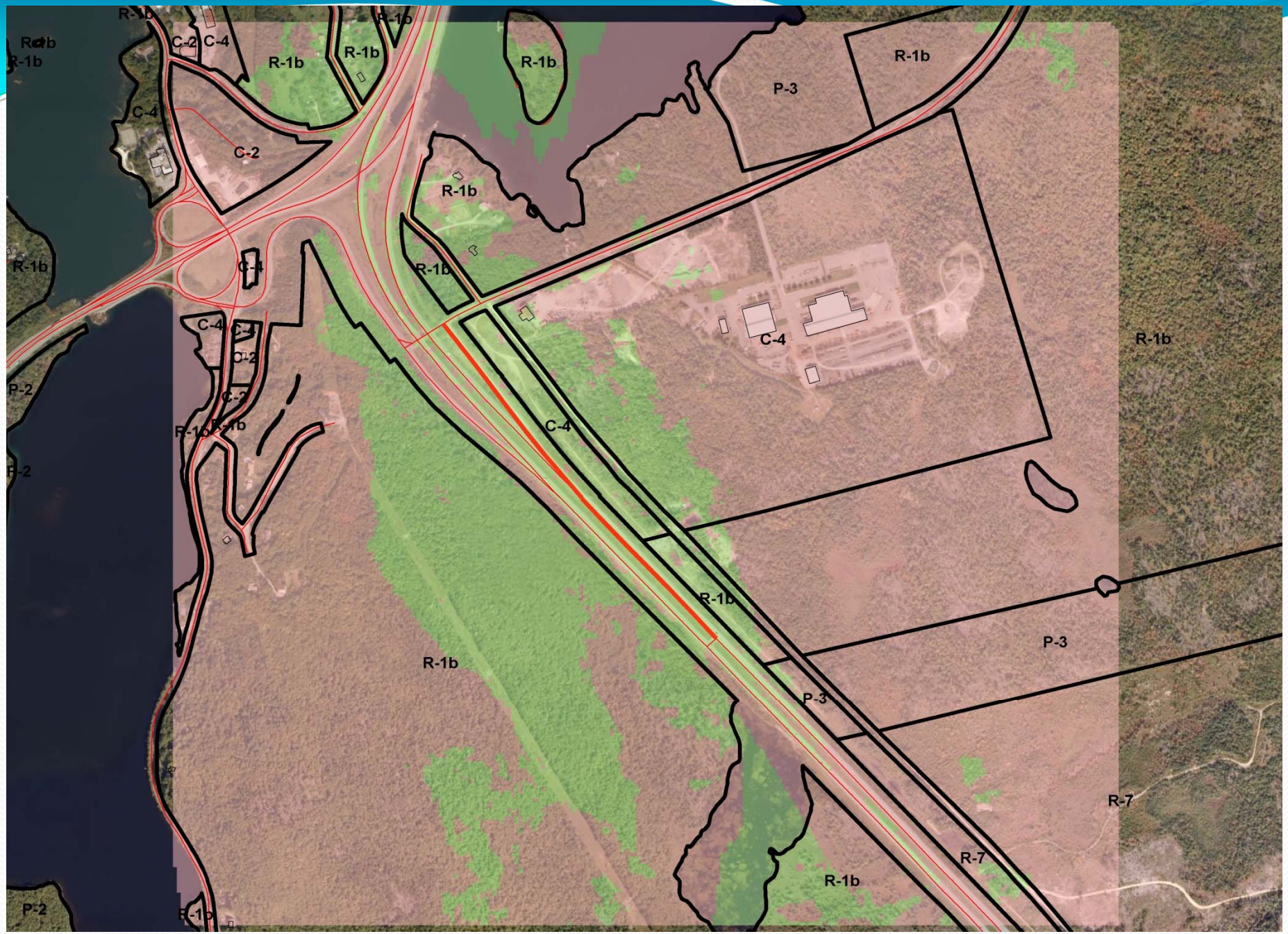
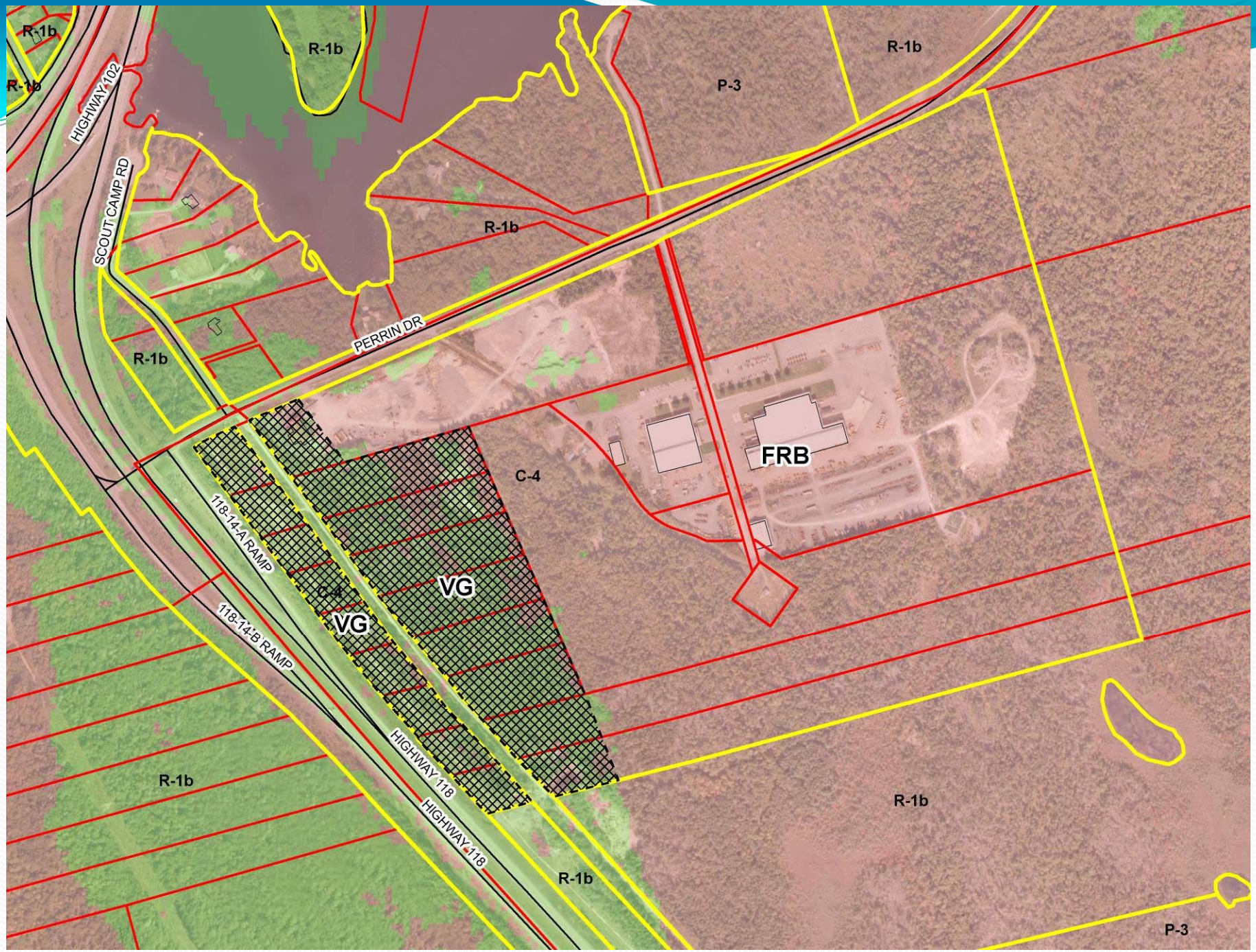
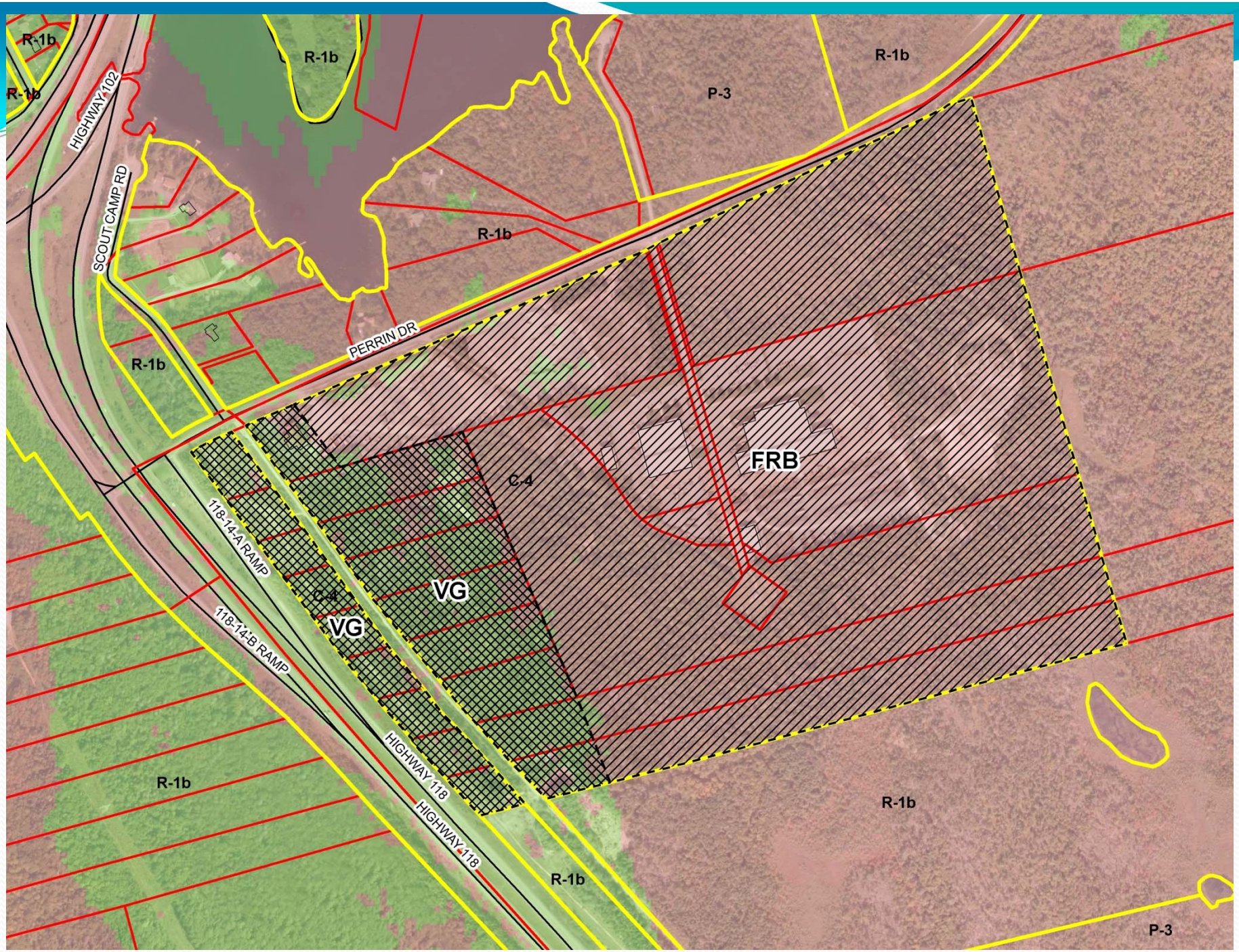



R-1b
C-2
C-4
R-1b
R-1b
R-1b
R-1b
P-3
R-1b
C-4
C-2
R-1b
R-1b
R-1b
C-4
C-4
C-2
C-2
P-2
R-1b
R-1b
C-4
C-4
R-1b
R-1b
P-3
R-1b
P-3
R-7
R-7
R-1b
P-2
R-1b

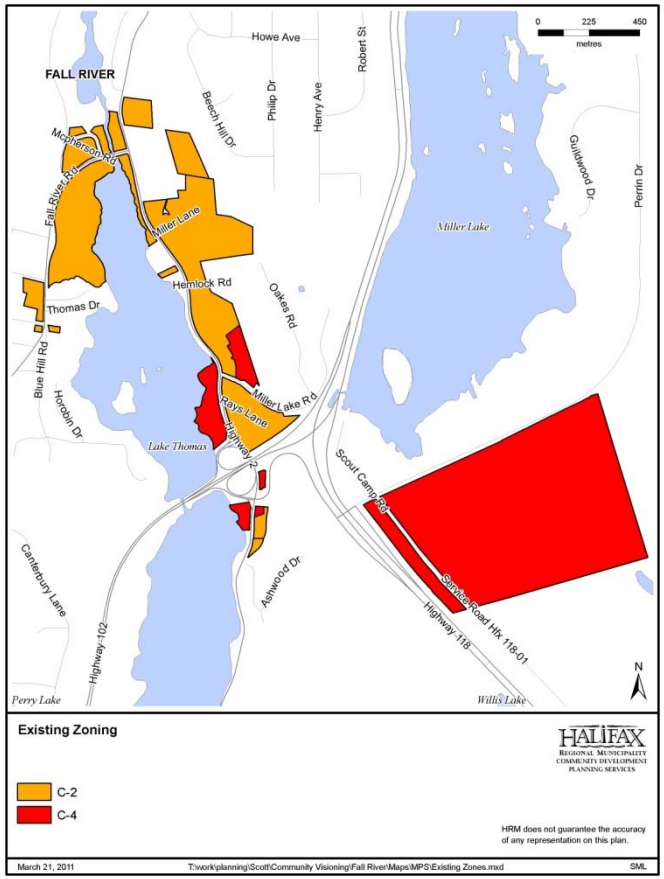

R-1b
R-1b
R-1b
R-1b
P-3
R-1b
HIGHWAY 102
SCOUT CAMP RD
R-1b
PERRIN DR
R-1b
FRB
C-4
118-14-A RAMP
C-4
VG
VG
118-14-B RAMP
HIGHWAY 118
HIGHWAY 118
R-1b
R-1b
R-1b
P-3


R-1b
R-1b
R-1b
R-1b
P-3
R-1b
HIGHWAY 102
SCOUT CAMP RD
R-1b
PERRIN DR
R-1b
FRB
C-4
118-14-A RAMP
VG
C-4
VG
118-14-B RAMP
HIGHWAY 118
HIGHWAY 118
R-1b
R-1b
R-1b
P-3

Existing Zones

C-2 (General Business) Zone

C-4 (Highway Commercial) Zone



Proposed Architectural Regulations

Architecture Sections

- Facades
- Windows
- Roof Lines
- Cladding and Detailing
- Awnings and Canopies
- Accessory Structures

Applications

- Applies to
  - New buildings
  - Additions to front or side of buildings

Proposed Signage

Signage

- Ground signs
- Facial Signs
- Projecting signs

Proposed Lighting

Lighting

- Designed to direct light to driveways, parking areas, building entrances
- Designed to direct light away from adjacent properties
- Full Cut Off Fixtures Required

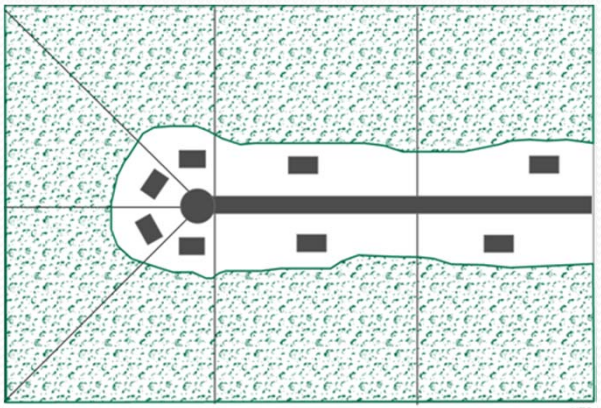
Proposed Landscaping

Landscaping

- landscape strip along all property lines exclusive of driveways
- landscaped areas include grassed or natural ground cover (pavers, stone, mulch)
- Existing trees and shrubs maybe used where possible

Current Densities Allowed

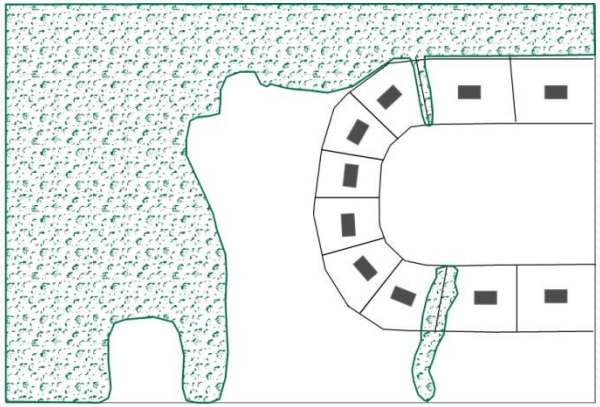
- Hybrid – Conservation Design Model
  - 1 unit per 2.5 acres
  - 20 % of each lot developed
  - Permits single and two unit dwellings



Hybrid Open Space

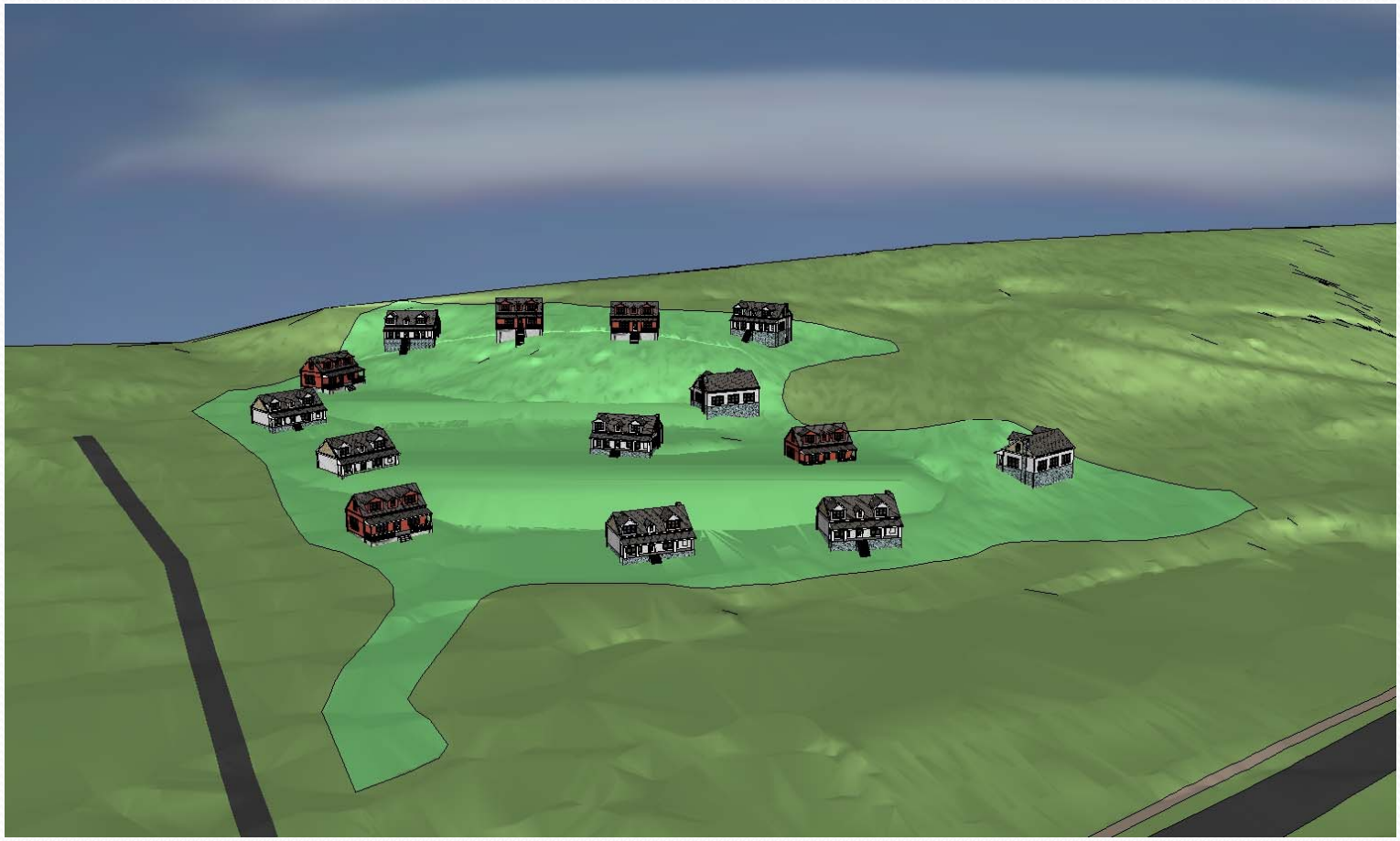
Current Densities Allowed

- Classic – Conservation Design Development
  - 1 unit per acre (more density allowed to provide incentive for the retention of large areas of open space)
  - 60% of site must be Open Space
  - Permits single and two unit dwellings



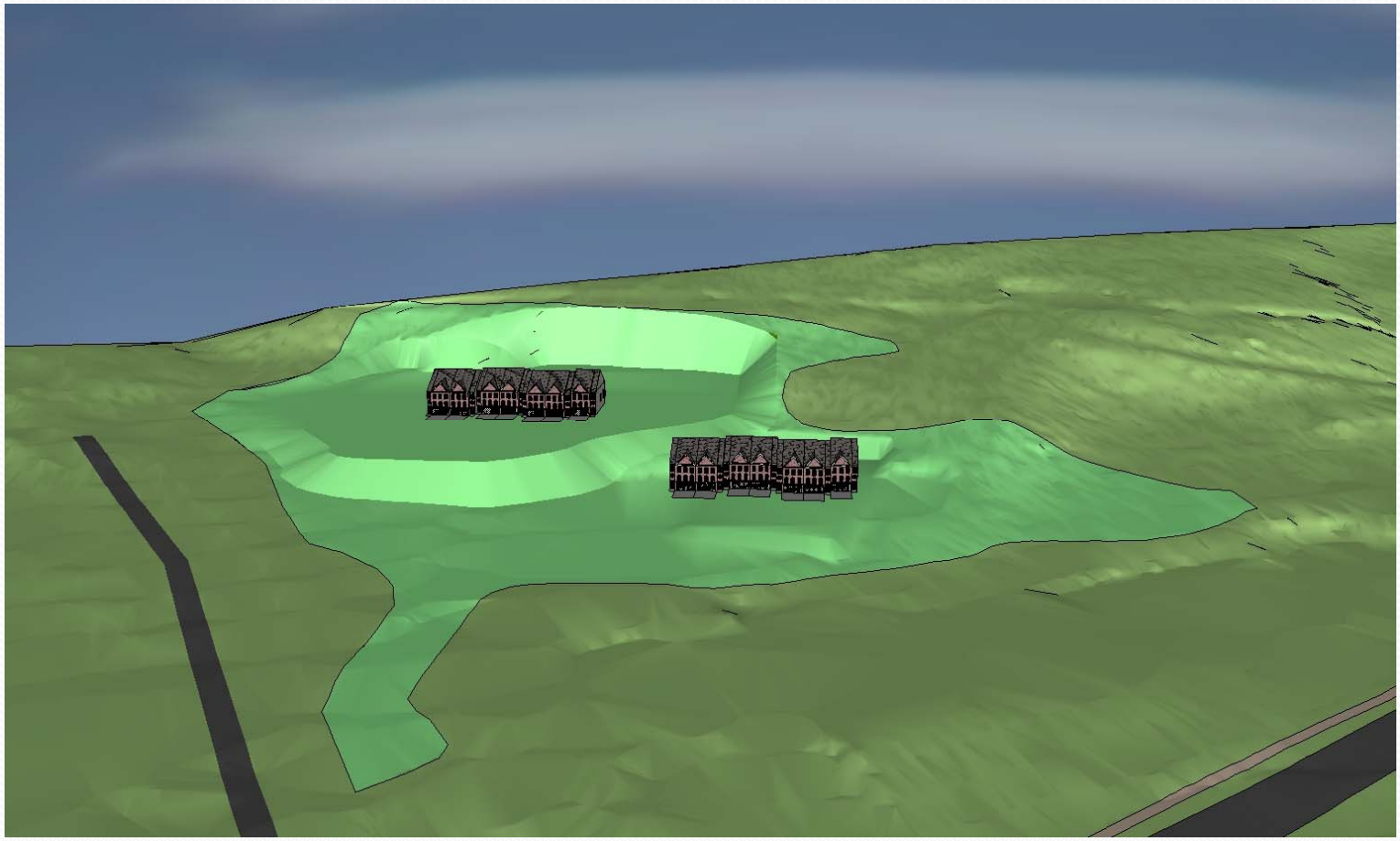
Classic Open Space

1 unit/acre density – Single Unit Dwelling



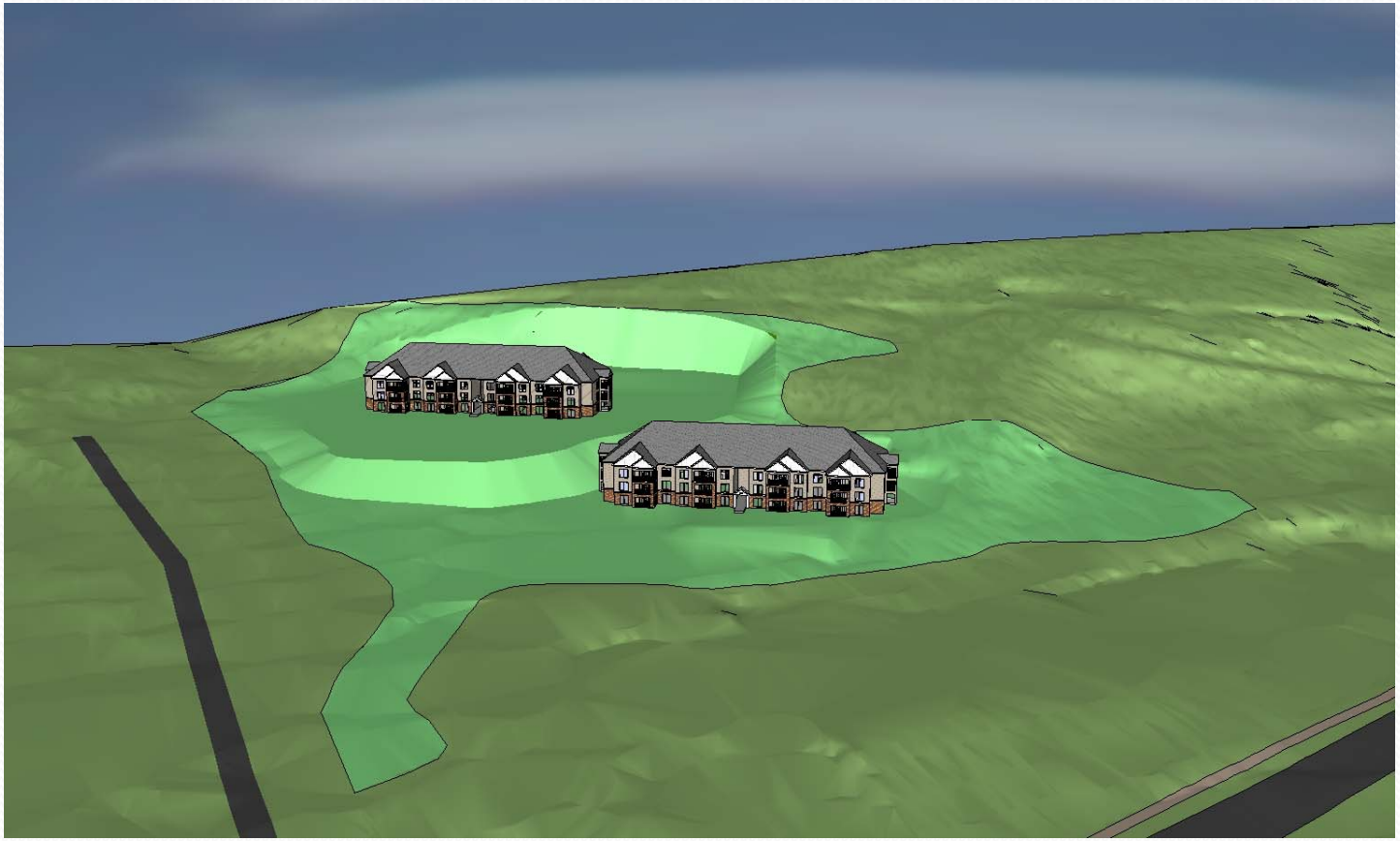
Total Acres	Total Units	Unit/acre
14	14	1

1 unit/acre density – Townhouses



Total Acres	Total Units	Unit/acre
14	14	1

3-4 units/acre density – Lowrise Multi



Total Acres	Total Units	Units/acre
14	48 - 60	3-4

Lake Carry Capacity Modeling

- Five Lakes Modeled – Charles, William, Thomas, Lake Fletcher and Grand
- Parameters Measured – Phosphorus, Total Suspended Solids, and Bacteria
- Baseline Sampling – June 2007 and August 2007

Trophic Status

- Oligotrophic – young lake – 10 ug/l – pristine conditions
- Mesotrophic – aging lake – 20 ug/l – nuisance effects – boats and water treatment devices
- Eutrophic – aged lake - algae blooms, toxins

Existing Phosphorous Conditions – Existing Development

- All lakes currently oligotrophic
- Lake Charles, William and Fletcher are near the boundary for turnover to mesotrophic

Predicted Phosphorous Conditions – Existing Development

- Based on existing development within 1000 feet of lakes predicted that:
  - Lake William and Thomas will become mid range mesotrophic
  - Lake Fletcher will become upper range mesotrophic
  - Lake Charles and Grand Lake will become upper range oligotrophic

Phosphorus Effects - Lake Thomas

- Village Centre - Medium Density Scenario

  would move the lake from the mid- to upper- mesotrophic range

- Village Centre - Low Density Scenario

  annual phosphorus would increase only slightly to hover in the mid-mesotrophic range

- Outside Village Centre

  Lake Thomas is unaffected by this scenario

Phosphorus Effects - Lake Fletcher

- <u>All scenarios</u> - Model predictions for all of the scenarios considered place the lake in the upper mesotrophic range

Phosphorus Effects - Grand Lake

- Village Centre - Low Density Scenario result is a slight increase – lake would maintain its oligotrophic status
- Outside Village Centre would bringing the lake into the low mesotrophic range

Implications of Trophic Levels

- Algal Populations (if too large)
  - Taste and odour problems
  - Toxins causing gastro-intestinal problems
- Large Algal Populations
  - Clog water intakes
  - Nuisance around docks
  - Safety hazard
  - Impact fish and fish habitat

Microbial Effects

- Village Centre Scenarios are predicted to have negligible impacts
- Outside Village Centre Scenario
  - If decentralized wastewater management systems used – significant reduction
  - *E. coli* levels within Lake Fl*et*cher, at certain times, would be well above the mean level. Therefore, it is highly probable that levels exceed the CCME recreational water quality guideline of 200 CFU 100 mL^{-1} at certain times

TSS Effects

- Village Centre - Medium Density Scenario 10% increase in TSS not significant
- Outside Village Centre
  - 30% increase in Lake Fletcher
  - will not increase to levels expected to cause water quality impairment
  - may cause damage to benthic aquatic habitat