

Natural Systems Planning Primer

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Land Use and Natural Systems Unit
Planning and Growth Management
November 2015

Today's Topics

- Welcome
- Policy Framework
- Development Review
- Ottawa's Forestry & Tree Bylaws
- BREAK
- Interactive Case Study
- WRAP-UP

Mission

The Natural Systems Unit serves the city through the development and implementation of policies and guidelines to sustain the natural environment for current and future generations

What is a liveable city?



THE NATURE EFFECT

9 OUT OF 10
CANADIANS
say that when
they felt
connected to
nature they
felt happier

5 OUT OF 10
CANADIANS
travel to
experience
nature

70% OF
CANADIANS
spent time in
nature within
the previous
12 months.

**1 million VISITS TO OTTAWA EACH
YEAR FOR OUTDOOR
RECREATION**

\$40.4 billion
SPENT BY CANADIANS ENGAGING
IN NATURE-RELATED ACTIVITIES

Nature based tourism creates jobs in

**TRANSPORTATION
ACCOMMODATIONS
ATTRACTIONS**

**RETAIL
GUIDING**

Value Proposition

Why should a family choose to come to Ottawa instead of Toronto, Montreal or Calgary?

— Mayor's State of the City Address, January 2015

POLICY FRAMEWORK

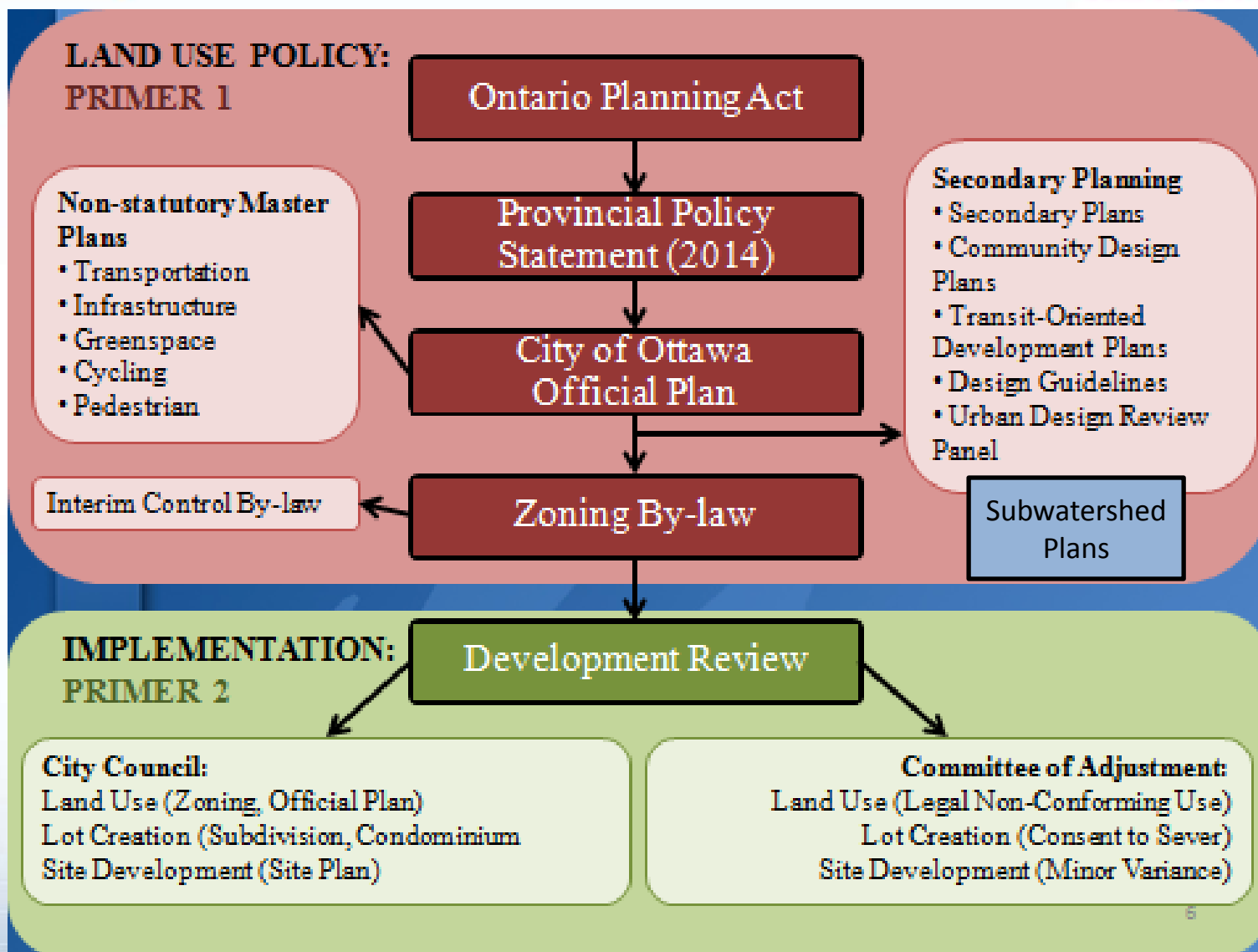
Legislative Menu

Legislation

- Planning Act – PPS
- Environmental Assessment Act – Municipal Class EA
- Municipal Act
- Drainage Act
- Ontario Water Resources Act
- Fisheries Act
- Species at Risk Act
- Clean Water Act
- Environmental Protection Act
- Conservation Authorities Act
- Ontario Building Code Act

Municipal Function

- Official Plan
- Development Review
- Subwatershed Studies
- Environmental Management Plans
- By-laws
- Municipal Drains
- Source Water Protection
- Certificates of Approval
- Records of Site Condition
- Generic Regulations
- Building Code Permitting and Enforcement



Planning Act

- Provides the Legislative Framework
 - How the planning system will work
 - Who the decision makers are
 - How disputes are resolved
 - How public can provide input
- Establishes municipal role in planning
 - Official Plan & zoning by-law
 - Development review

Provincial Policy Statement

Establishes provincial land use planning interests, and how those interests are to be protected while providing for appropriate development

- Strong, healthy communities
- Wise use and management of resources
- Public health and safety
- Municipal planning policies “shall be consistent with” the PPS

Provincial Policy Statement

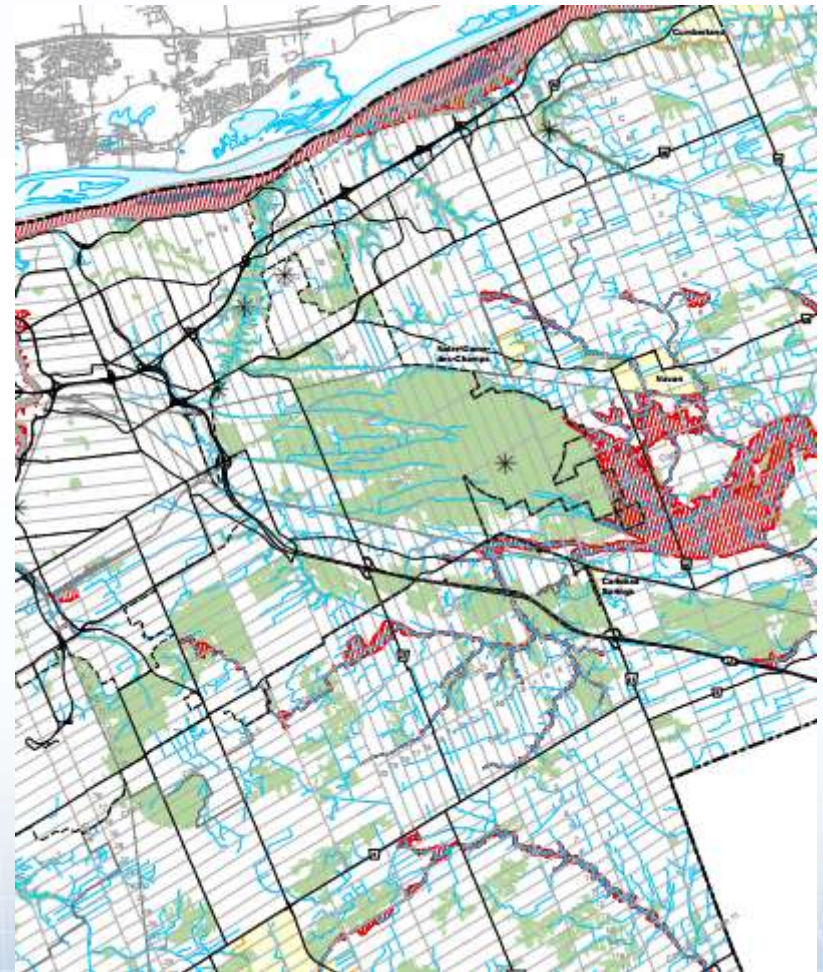
Defines & protects *natural heritage system*

- No development or site alteration in:
 - significant wetlands
 - habitat for fish or endangered / threatened species unless authorised under relevant legislation
- No negative impacts to any other significant natural heritage features, or adjacent to any of the above

Natural Heritage System

Official Plan

- NHS defined in s. 2.4.2
- NHS Overlay (Schedule L), parts of the system that can be mapped
- Some areas protected through designation (Schedules A & B, s. 3.2)
- S. 4.7 directs development review



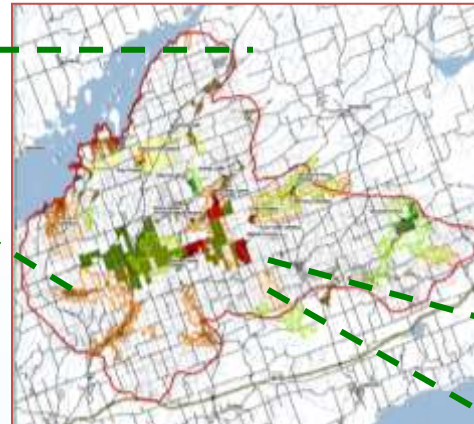
Ecoregion

Natural Area

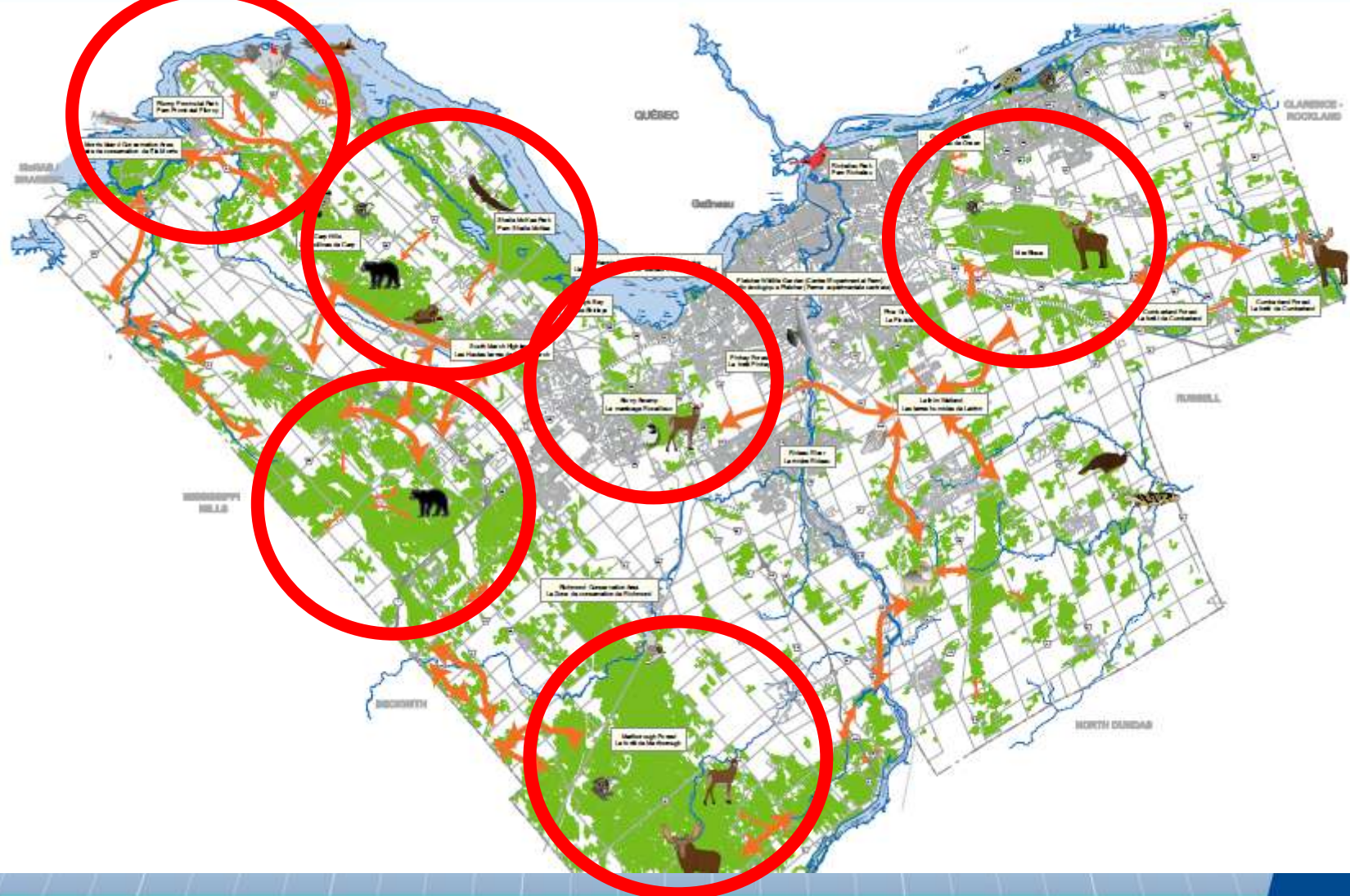
Property

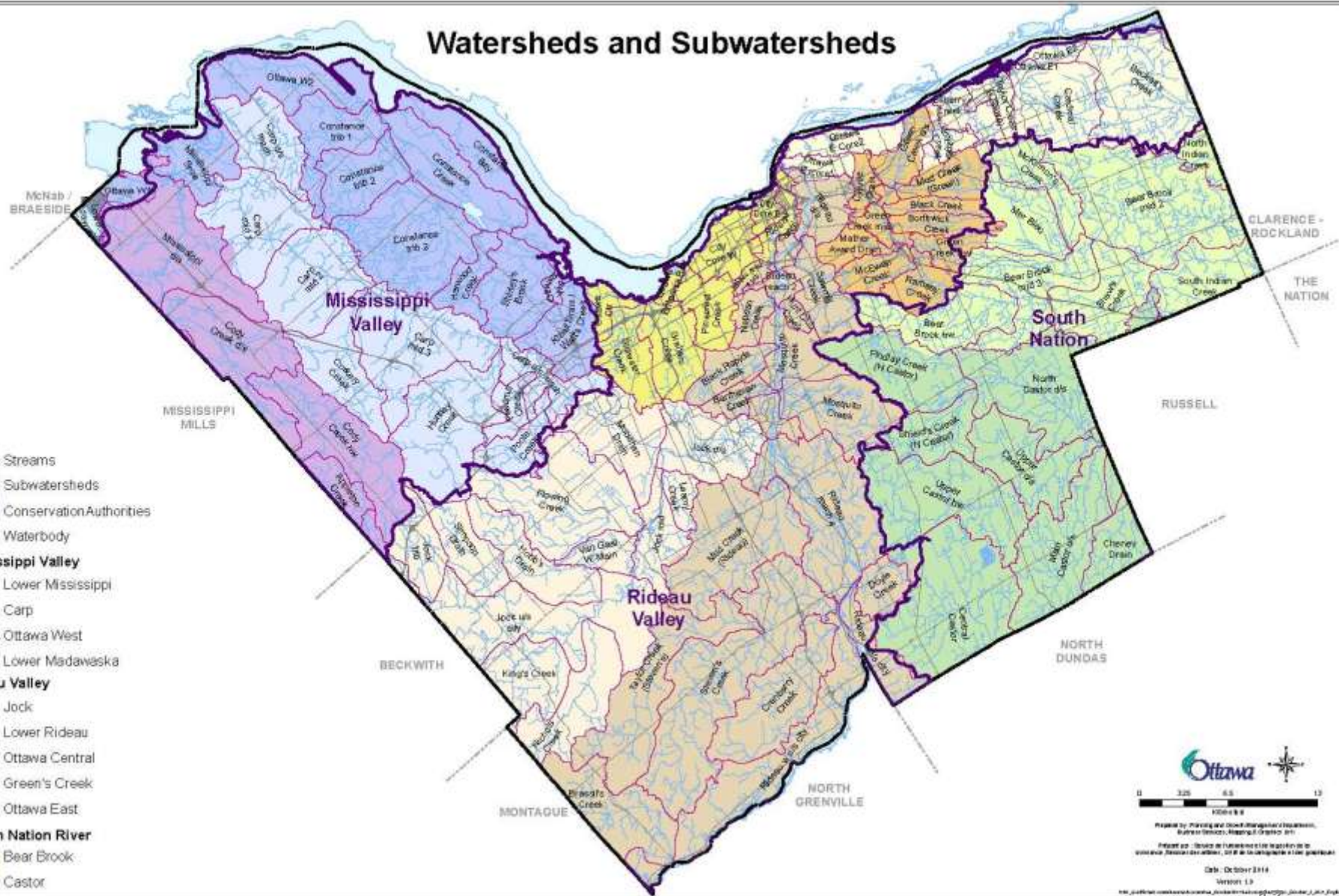
Scales of Effective Conservation Planning

Geographic Scale

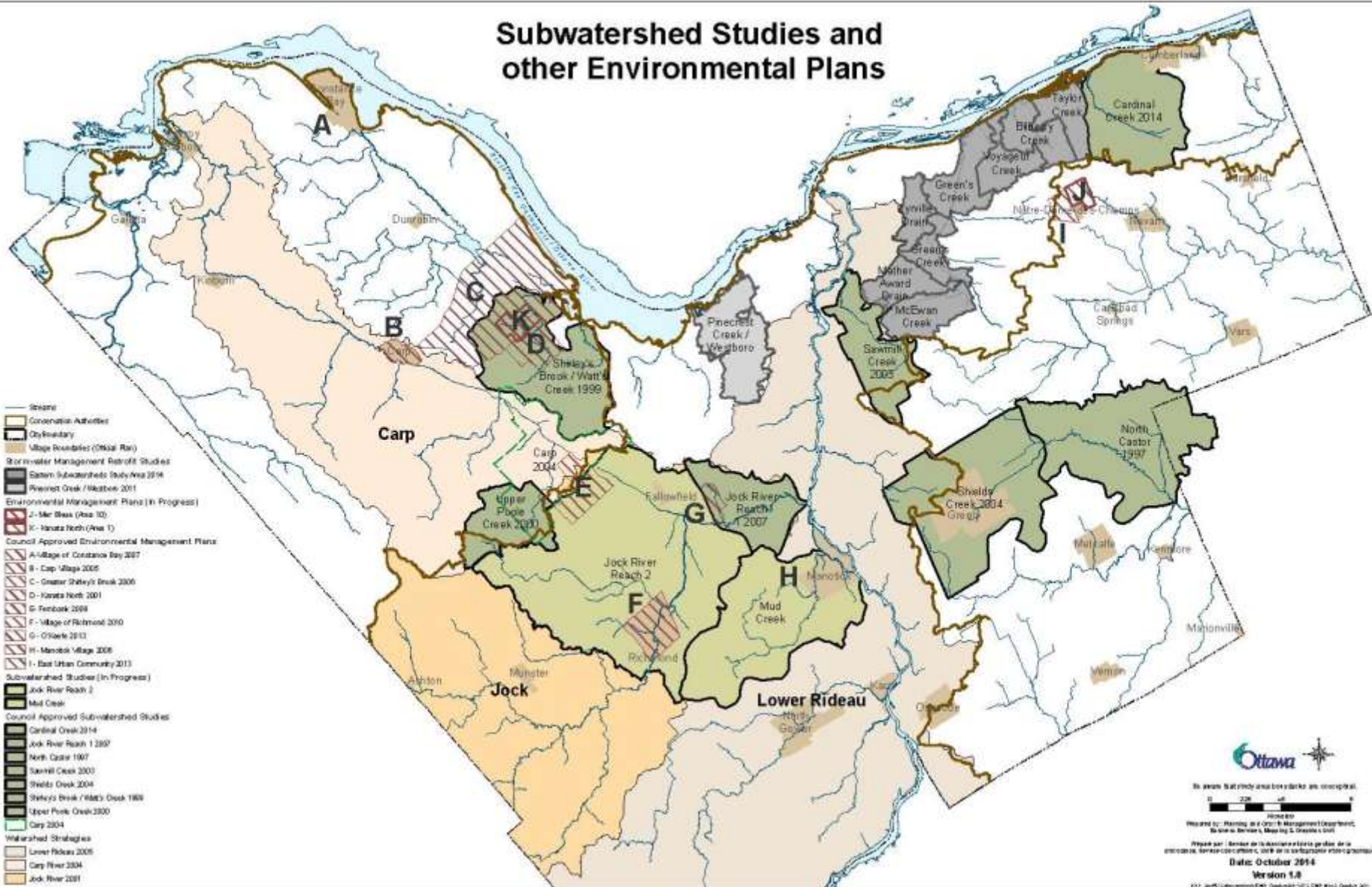


Centres of Biodiversity





Subwatershed Studies and other Environmental Plans



Be aware that this map is for informational purposes only and does not constitute a guarantee of accuracy.

Prepared by: Planning and Growth Management Department, City of Ottawa, 1000 Avenue de la Capitale, Ottawa, Ontario K1P 1A1

Revised by: Planning and Growth Management Department, City of Ottawa, 1000 Avenue de la Capitale, Ottawa, Ontario K1P 1A1

Date: October 2014

Version 1.0

Conservation Authorities

- Flood plain/ Hazard Management
- Watershed Reporting
- Managing Natural Resources
- Water Quality & Quantity Monitoring
- Educational Programs
- Planning and Regulations
- Forest Management



SOUTH NATION
CONSERVATION
DE LA NATION SUD



RIDEAU VALLEY
CONSERVATION AUTHORITY



Species at Risk

- Identified under provincial or federal legislation (in many cases, both)
- Over 60 SAR may occur in our area (some are quite common!)
- Endangered / threatened species habitat protected through legislation
- Habitat for species of special concern = significant wildlife habitat



By-laws

Examples

- Zoning
- Tree Bylaws
- Idling Control
- Sewer Use



Building on Ottawa's Accomplishments

- Ottawa River Action Plan
- Since 1960's the City has acquired over 10,000 hectares of natural areas
- Stewardship Programs
- Air Quality and Climate Change Management Plan
- Stormwater Management Retrofit plans for older urban areas
- Water Quality Monitoring
- Wildlife Strategy and Wildlife Protocol

Development Review

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Development Review Services Branch
November 2015

Today's Topics

- PGM and Development Review Services
- Development Review Process
- Environmental Planning
- Where to find more information – Ottawa.ca

Planning and Growth Management

THE DEPARTMENT CARRIES OUT ITS
MISSION THROUGH ITS FIVE BRANCHES



**Transportation
Planning**



**Development
Review**



**Policy
Development
and Urban
Design**



**Building
Code
Services**



**Business
Services**

DEVELOPMENT HOTSPOTS

488

DEVELOPMENT
APPLICATIONS RECEIVED

195

Site Plan
Control

83

Zoning By-law
Amendment

30

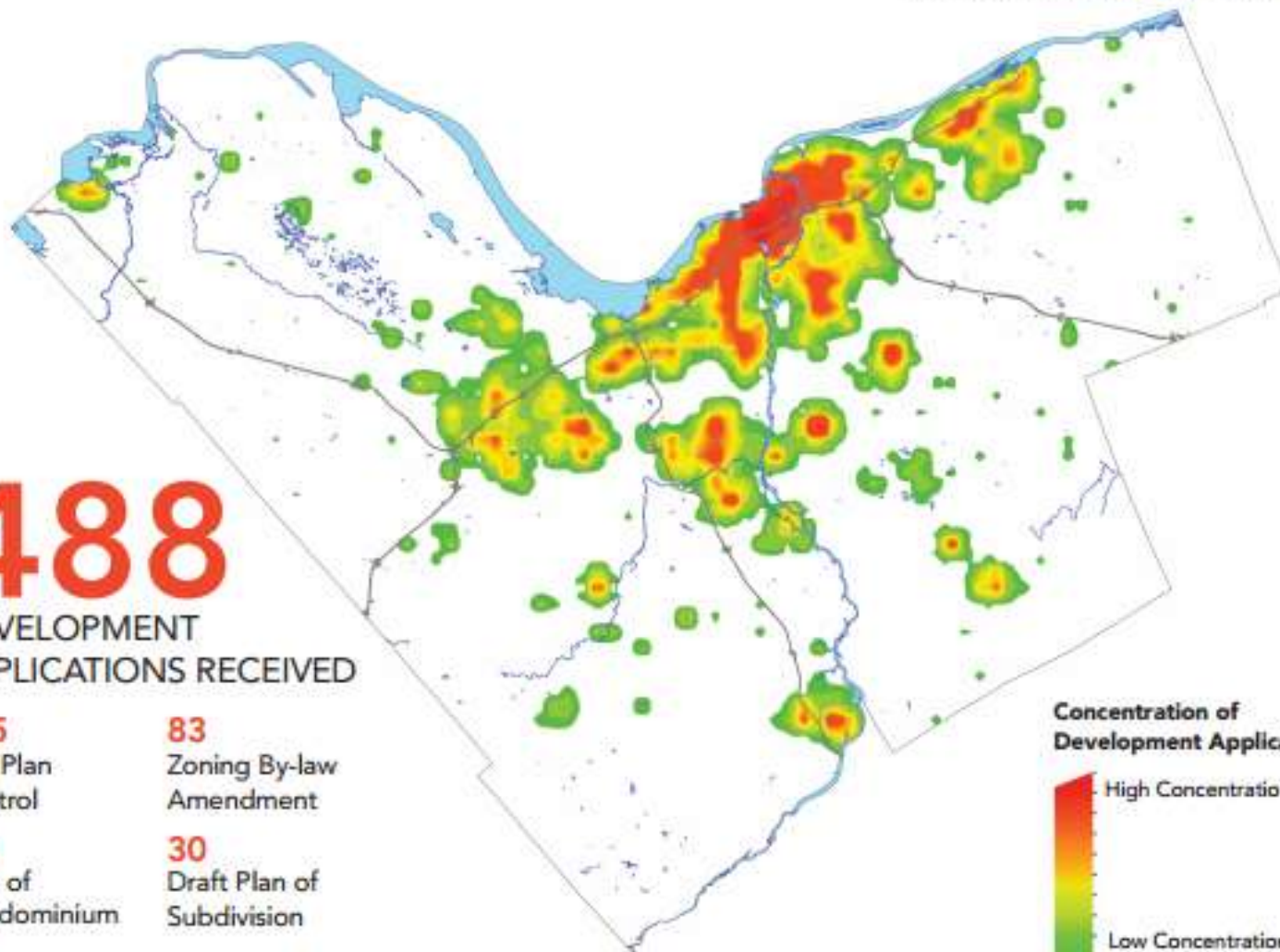
Plan of
Condominium

30

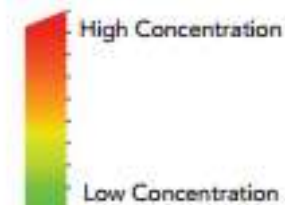
Draft Plan of
Subdivision

9

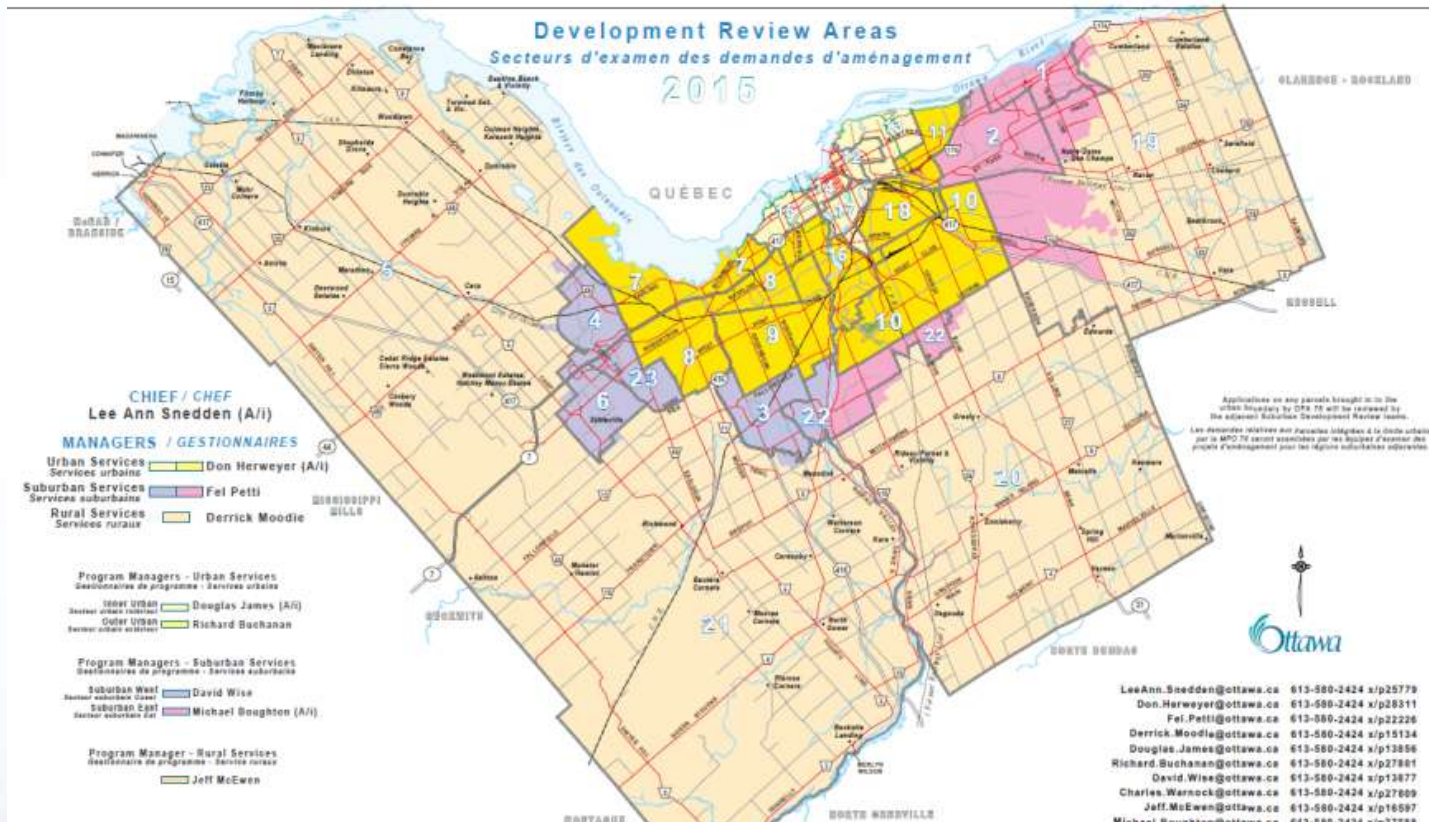
Official Plan Amendment



Concentration of
Development Applications



Development Review Services



- Geographically based: urban (2), suburban (2), rural
- Land Use Planners, Engineers, Transportation, Parks Planners, Environmental Planners and Heritage

Development Review Process

1. Pre-Application Consultation
2. Application Submission
3. Application Deemed Complete / Reviewed for Adequacy
4. Community "Heads Up"
5. Circulation to Technical Agencies, Community Organizations and Ward Councillor
6. Posting of On-Site Signs
7. Community Information and Comment Session
8. Issue Resolution - Staff Memorandum or Committee Report Preparation
9. Notice of Decision by Staff (Applications Under Delegated Authority)
10. Notice of Public Meeting
11. Notice of Decision by Committee or Council
12. Post Application

Pre-Consultation

- Meeting with applicant
- Identify environmental features
- Content of Environmental Impact Statement

Application Deemed Complete

- All required reports provided
- Reports complete
- Ready for circulation



Circulation and Issue Resolution

- Circulated to community and agencies
- Internal Departments
- Issue Resolution – iterative process



Post Approval

- Draft Approval of Subdivision
- Appeals to OMB
- Construction



Environmental Review



Supporting Studies



Environmental Impact Statement

- Required for NHS, PSW, NEA, RNF, UNF, ANSI and adjacent lands
- EIS to demonstrate no impact on the ecological function of above (OP Section 4.7.8)



- no negative impact, defined as degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified due to single, multiple or successive development or site alteration activities.

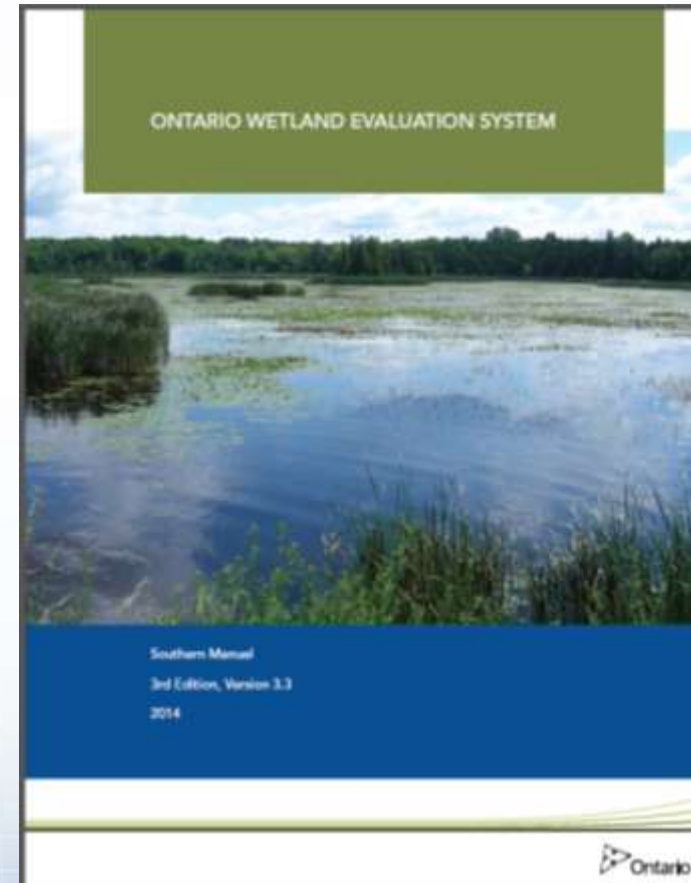
Types of EIS

- Scoped
 - Severances
 - Minor
- UNF Adjacent
- Full or Detailed
 - Subdivision
 - Site Plans



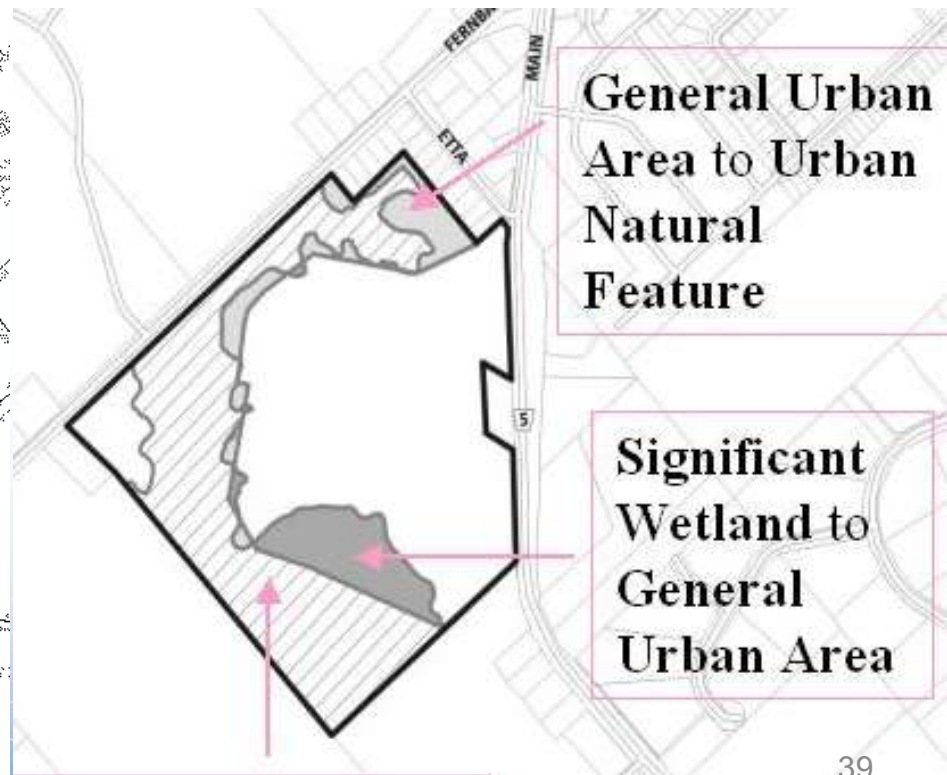
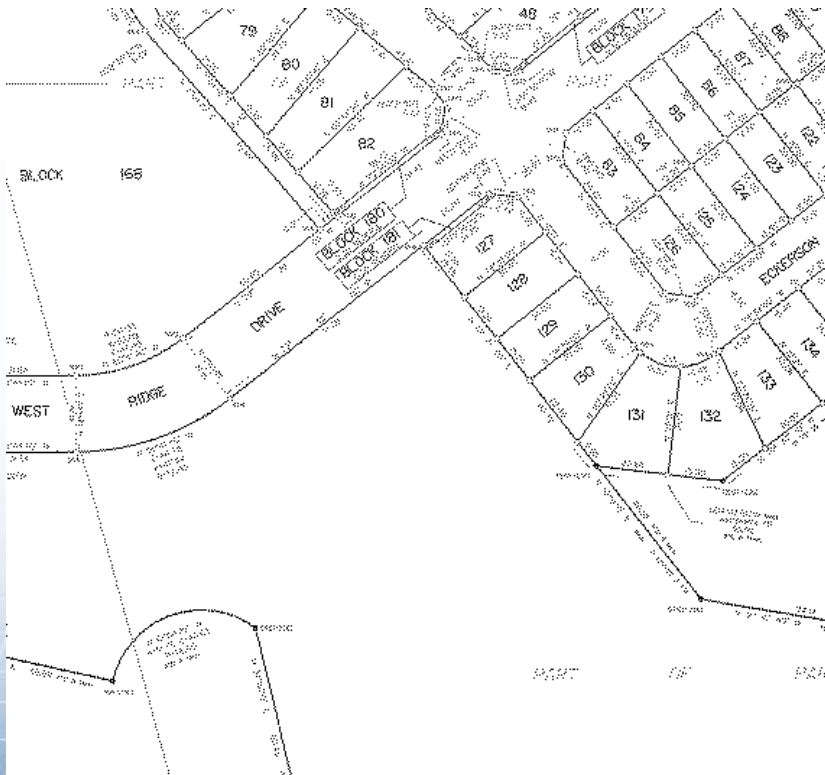
Provincially Significant Wetlands

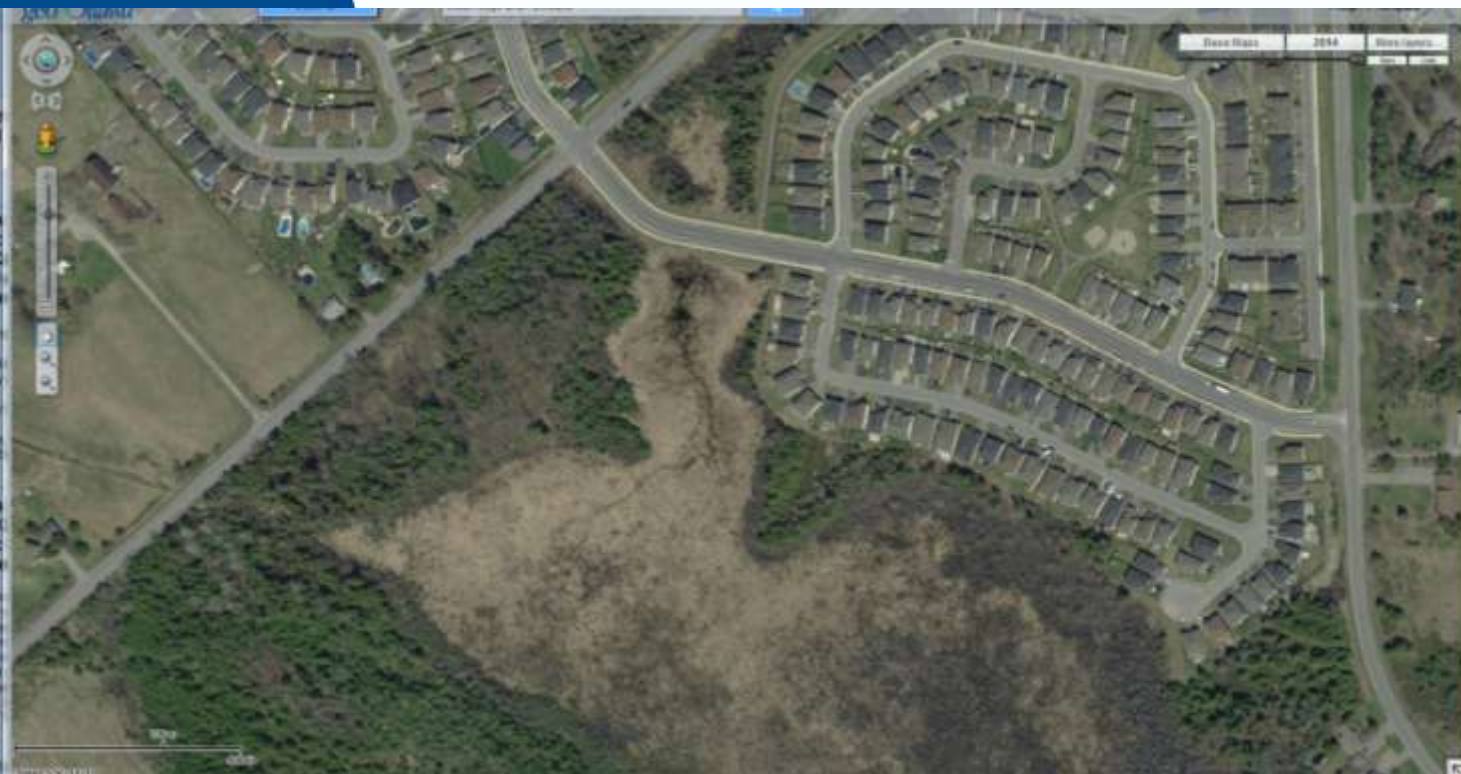
- Evaluated by Consultants
- Approved by MNRF
- Protected by CA and City



Example – Southwest Stittsville

- OPA – re-designated land
- Zoning and Subdivision – created lots, roads, greenspace





Areas of Natural and Scientific Interest

- 20 Life Science ANSIs in Ottawa
- Carp Hills ANSI abuts Village boundary
- Limit is identified and protected through EIS and development outside of the feature

Carp Hills





Species At Risk

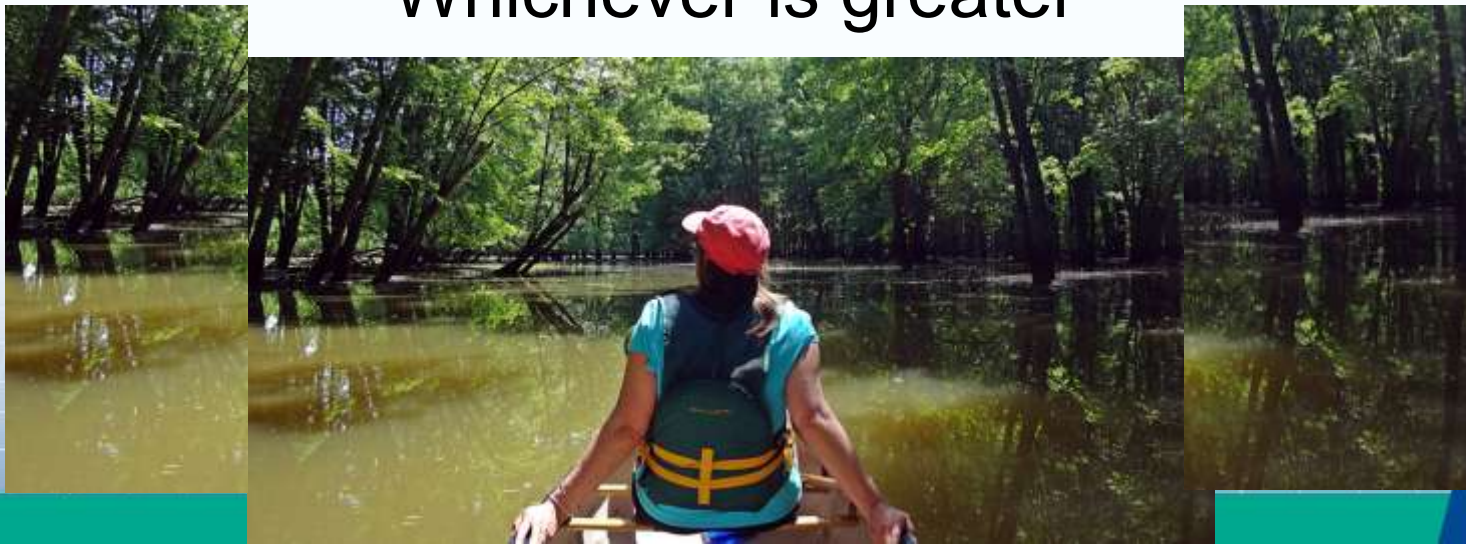
- EIS identifies potential habitat and surveys
- Habitat must be addressed prior to draft approval
- MNRF lead
- Avoidance and Compensation



Watercourse Setbacks

- Adjacent to rivers, lakes, streams
- Corridors protected through a setback:
 - 15 m top of bank
 - 30 m from normal high water mark
 - Flood plain (OP Section 4.8.1 and CA)
 - Geotechnical hazard

Whichever is greater



Groundwater Impact Statement

- OP policies for development review s. 4.7
- Subwatershed studies map recharge, discharge areas
- Different for Rural vs Urban



Stormwater Management

- OP policy: SWM plan support subdivision, site plan
- Set treatment objectives
 - quantity of water released controlled
 - quality managed by reducing suspended solids
- Discussion fish compensation
- Locations for ponds

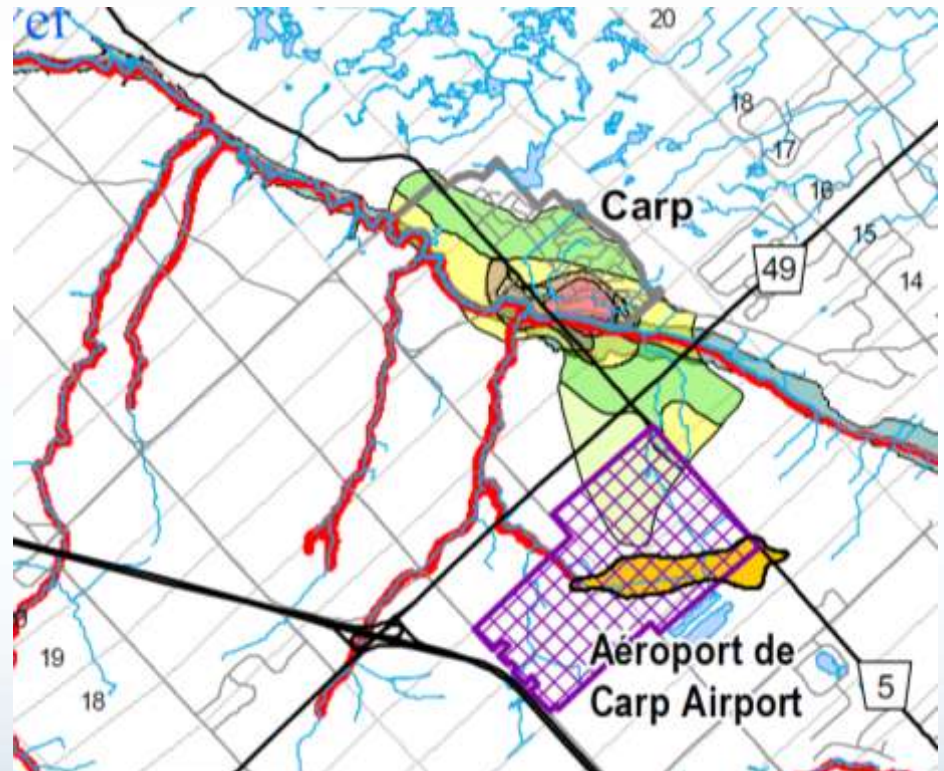


Other Environmental Planning

- Wellhead Protection (OP 4.8.2)
- Unstable Soils or Bedrock (OP 4.8.3)
- Contaminated Sites (OP 4.8.1)
- Mine Hazards and Abandoned Pits and Quarries (OP 4.8.5)
- Constraints Due to Airports/Aircraft (OP 4.8.6)
- Environmental Noise Control (OP 4.8.7)
- Personal Security (OP 4.8.8)
- Energy Conservation Through Design (OP 4.9)
- Greenspace Requirements (OP 4.10)

Wellhead Protection Study

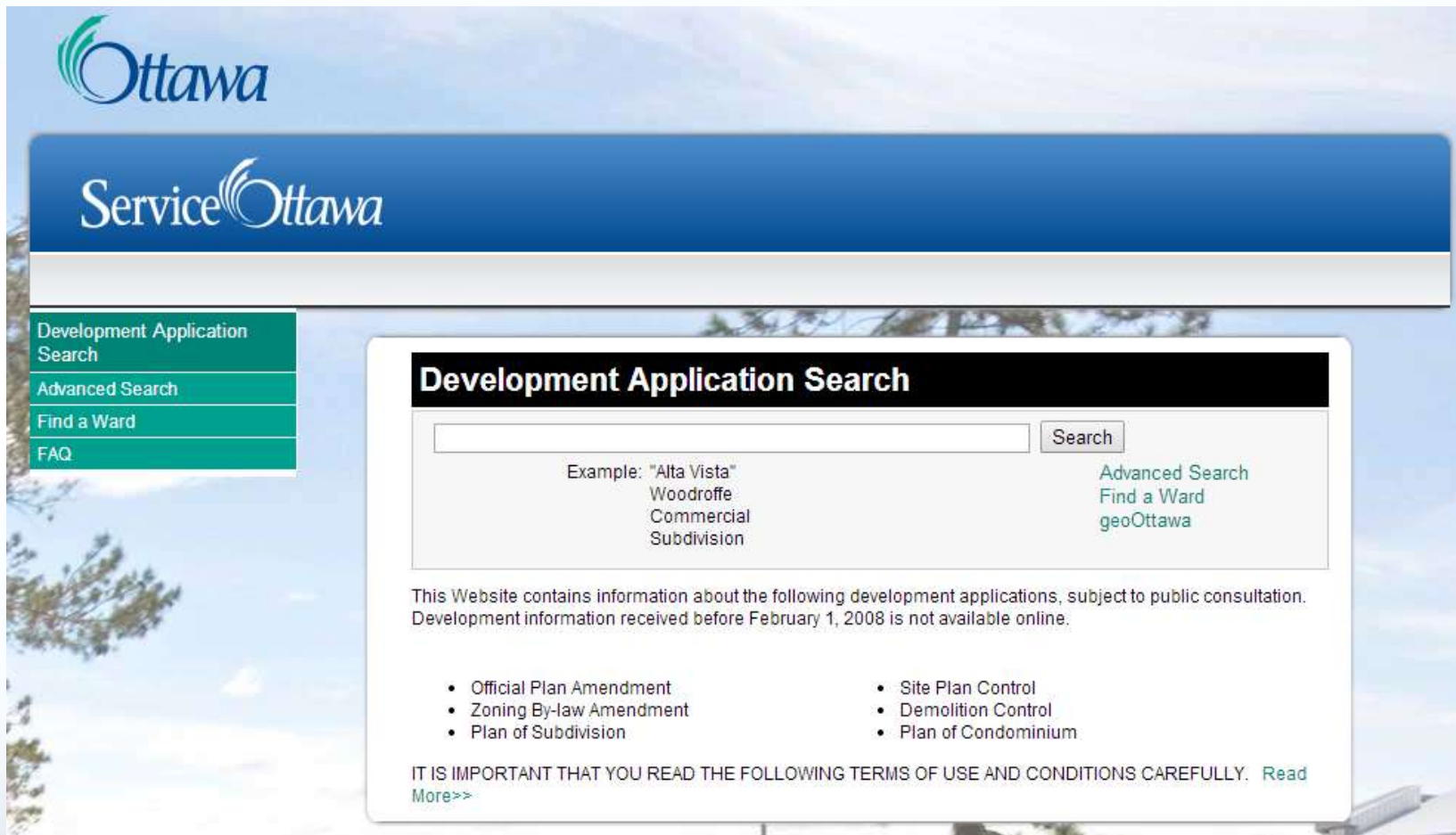
- Wellhead protection area designed on Schedule K
- OP Section 4.8



Visit us:
Ottawa.ca/planning

ottawa.ca
3-1-1    
TTY 613-580-2401





The screenshot shows the Ottawa Service Ottawa website. At the top left is the Ottawa logo. Below it is a blue banner with the 'Service Ottawa' logo. On the left side, there is a green sidebar menu with the following links: 'Development Application Search', 'Advanced Search', 'Find a Ward', and 'FAQ'. The main content area has a black header with the text 'Development Application Search'. Below this header is a search form with a text input field and a 'Search' button. To the right of the input field, there is a list of search criteria: 'Example: "Alta Vista"', 'Woodroffe', 'Commercial', and 'Subdivision'. To the right of the search form, there are three links: 'Advanced Search', 'Find a Ward', and 'geoOttawa'. Below the search form, there is a paragraph of text: 'This Website contains information about the following development applications, subject to public consultation. Development information received before February 1, 2008 is not available online.' Below this paragraph is a list of development applications: 'Official Plan Amendment', 'Zoning By-law Amendment', 'Plan of Subdivision', 'Site Plan Control', 'Demolition Control', and 'Plan of Condominium'. At the bottom of the main content area, there is a paragraph of text: 'IT IS IMPORTANT THAT YOU READ THE FOLLOWING TERMS OF USE AND CONDITIONS CAREFULLY.' followed by a 'Read More>>' link.

ottawa.ca/devapps

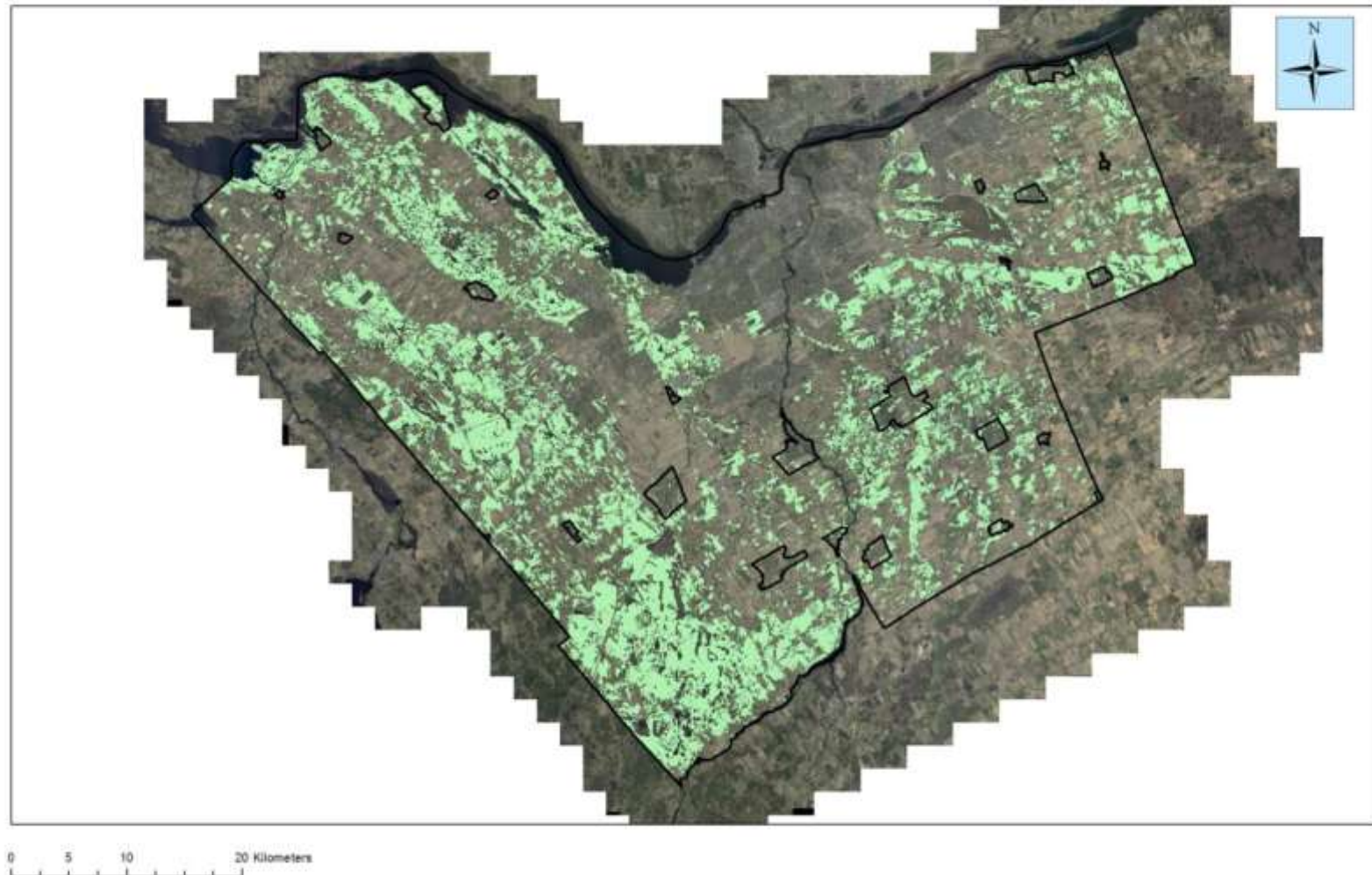
Ottawa's Forests

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Land Use and Natural Systems Unit
Planning and Growth Management
November 2015

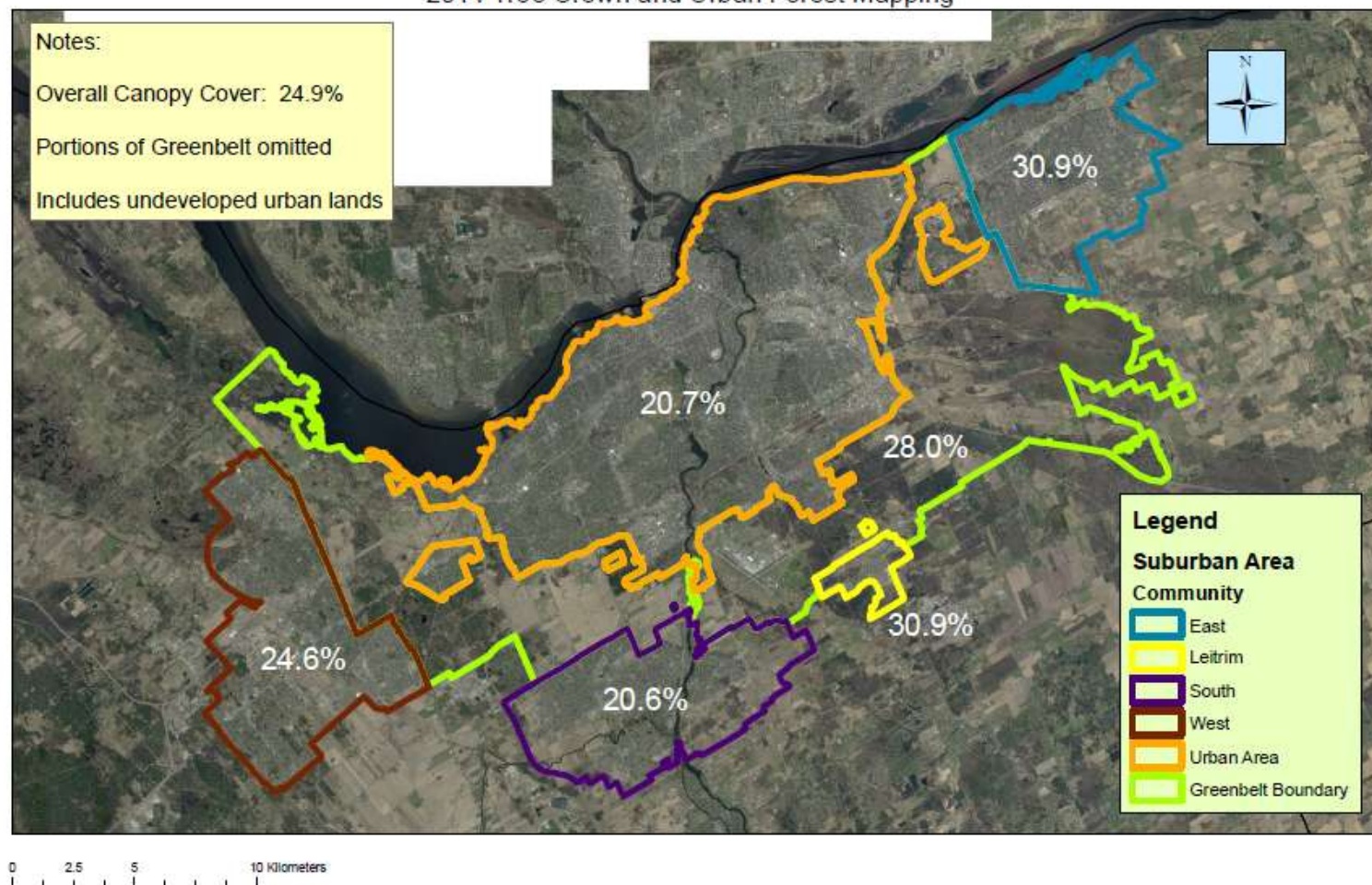
Ottawa's Forests

Forest Cover in the City of Ottawa 2010



Ottawa's Forests

Canopy Cover in Urban and Suburban Ottawa
2014 Tree Crown and Urban Forest Mapping



Ottawa's Forests

- Ottawa: 2796 km² total area
- Ottawa: 780 km² treed
- Very diverse – species distribution, age class, structure
- Human influences –past, present and future



Ottawa's Forests

City-managed Forests

- 300,000 plus street trees
- 10,000 ha of Community Forests
- 900 parks with trees

Privately-managed Forests

- Farm woodlots
- Privately-owned trees
- Commercial forests, maple syrup operations



Should we manage our urban and rural forests?
If so, why? Why not?

Values

Economic

- Higher property values
- Income
- Tourism

Environmental

- Wildlife habitat
- Water benefits
- Carbon storage
- Soil protection

Social

- Recreation
- Health and happiness
- Sense of place

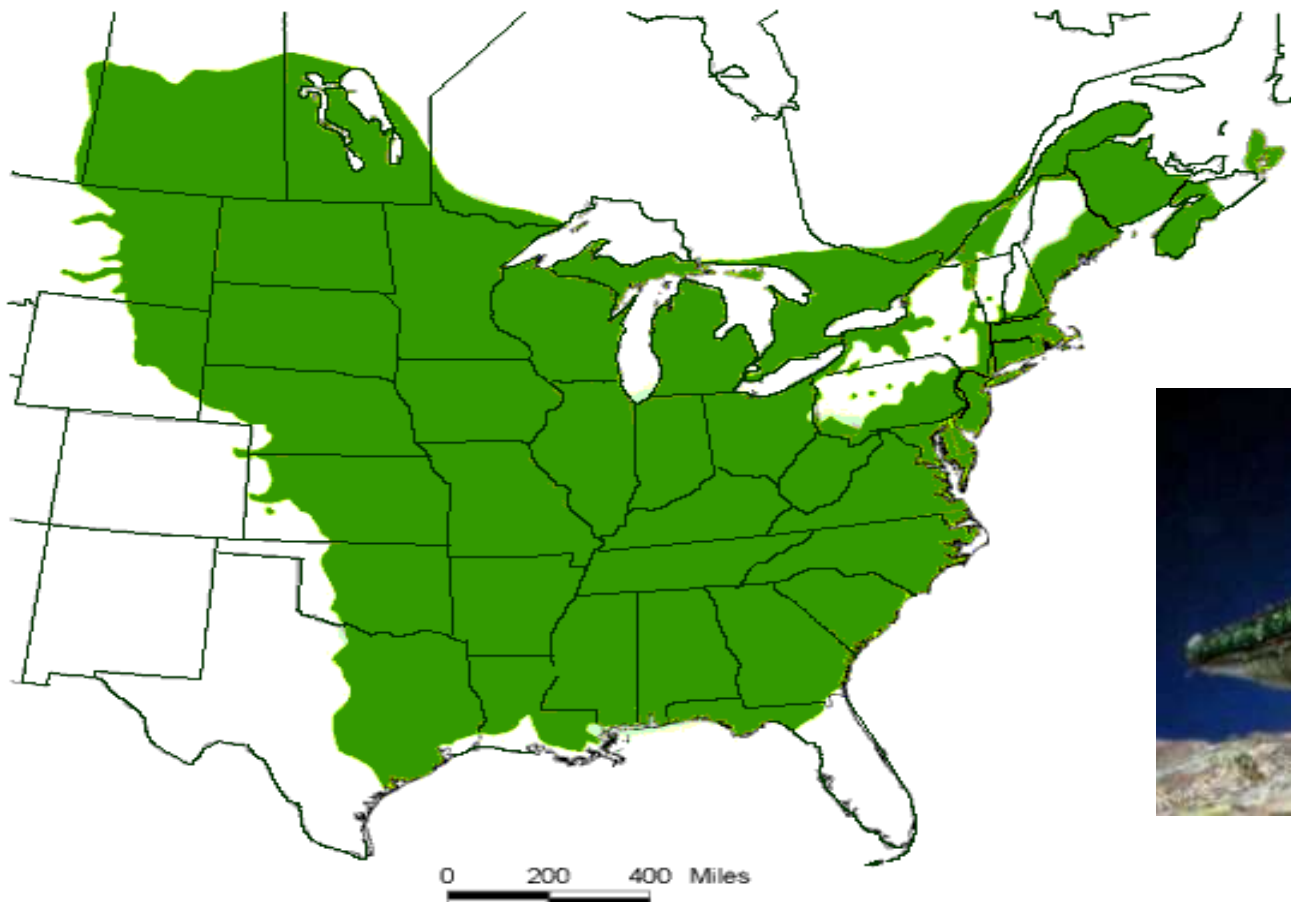
Agents of Change

- Ottawa is a settled landscape
- Trees and forests have a life cycle
 - Management geared at controlling change
- Many factors influence forest change



Invasive Species

Native Range of Green Ash



Before EAB: 25% ash

Invasive Species



UGA0949054

Invasive Species



Human Influences



Human Influences

An aerial photograph of a rural landscape. A prominent, straight, light-colored road or path runs diagonally from the bottom left towards the center. The landscape is divided into various agricultural fields of different shades of gray. A large, dense, dark rectangular area, likely a forest or wooded field, is situated in the lower center. Several long, thin, dark lines, possibly hedgerows or tree belts, crisscross the fields, indicating human land management. The overall scene illustrates the impact of human activities on the natural environment.

Human Influences

An aerial photograph of a suburban neighborhood. A large, dark, wooded area is in the lower center. A multi-lane road curves around it. To the left, there's a commercial building with a green roof. The surrounding area is filled with residential houses and streets. The text 'Human Influences' is overlaid in yellow at the top.

Weather Events



Weather Events





Cultural practices can amplify damage caused by even minor weather events

Weather Events



Policy

Ottawa's official plan – foundation for all tree-related policies

2.4 Maintaining Environmental Integrity

2.4.2 Natural Features and Functions

2.4.5 Greenspaces

3.2 Natural Environment

4.7 Environmental Protection

4.7.2 Protection of Vegetation Cover

4.7.8 Environmental Impact Statement

City Departments

Planning and
Growth
Management



Natural Systems

- 2 Planning Foresters
- City Hall
- Development applications
- Tree / Forest Policy

Public Works



Forestry Services

- 5 Foresters
- Constellation
- City-owned trees
- Distinctive Tree

Tree By-laws in Ottawa

Urban Tree Conservation By-law (2009)

- Private trees
- PGM & Forestry Services
- Urban area only

Municipal Trees and Natural Areas By-law (2006)

- Public trees
- Forestry Services
- Urban & rural areas

Tree By-laws in Ottawa

Rural area tree by-laws:

1. Municipal Trees and Natural Areas By-law

Municipal Trees and Natural Areas By-law

- All city-owned trees are protected
- Can't injure or destroy a city-owned tree without permission
- Forestry Services provides permission
- Compensation sought for all trees removed



Municipal Trees and Natural Areas By-law

Permission granted...

- City construction project
- Development site and no options for tree retention

Permission denied...

- Resident doesn't like tree
- Trees are blocking views
- Construction not approved by the City
- Healthy
- No justifiable reason

Urban Tree Conservation Bylaw

Properties <1Ha & condo
properties >1Ha

Distinctive Tree Permit

Managed by Forestry Services
Privately-owned trees

Properties >1Ha or planning
application files

Tree Cutting Permit

Managed by PGM
Privately-owned trees

Distinctive Tree Permits



Issued for:

- Unhealthy tree
- Unsafe/hazardous
- Causing foundation damage
- Construction

Not issued for:

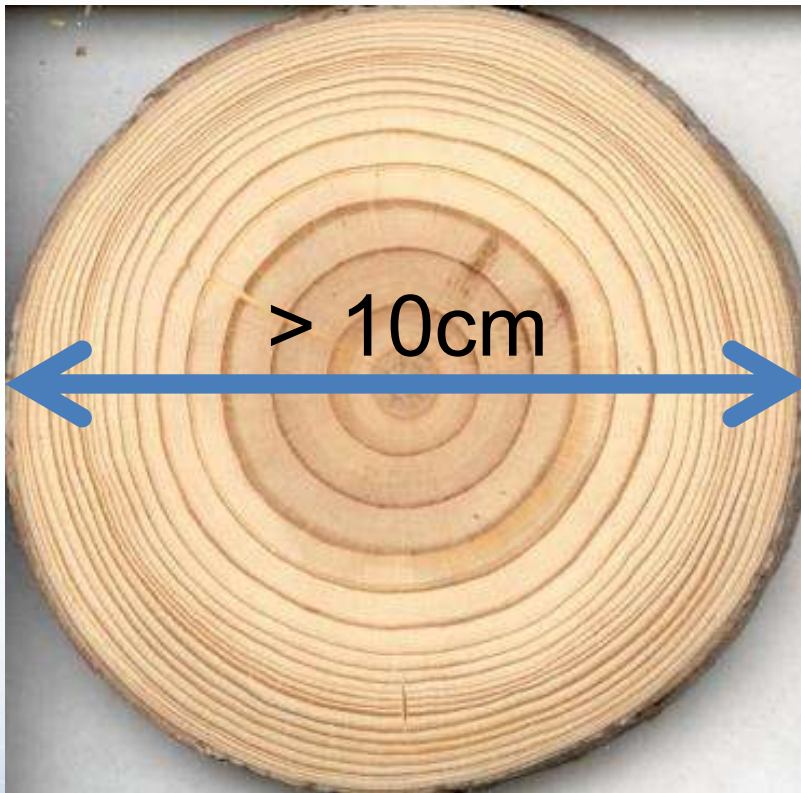
- Unhealthy, but alternatives to removal
- Owner does not like tree
- Improve view

Distinctive Tree Permits

Process



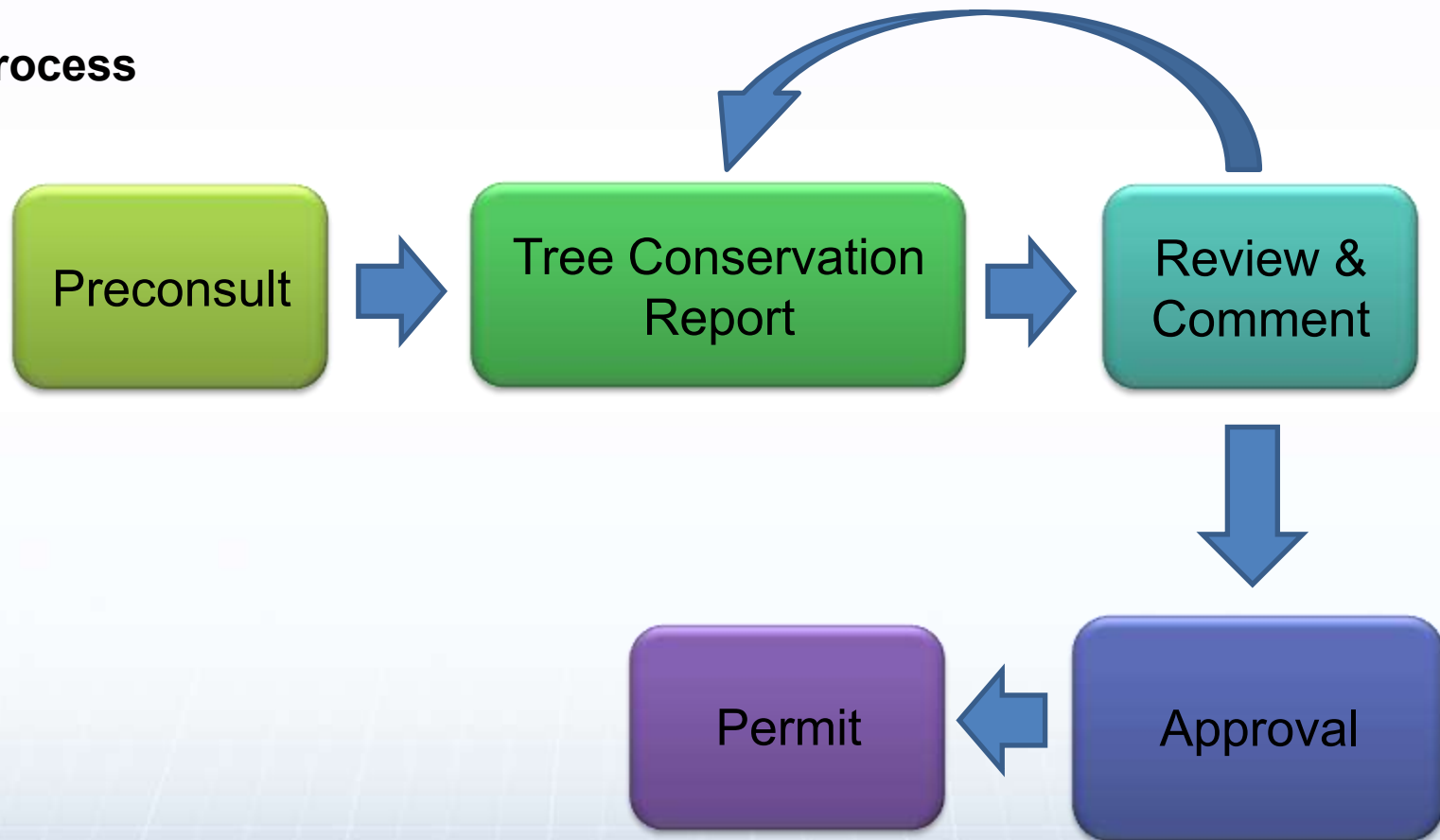
PGM issued Tree Cutting Permit



- Properties > 1ha
- **Planning application files - site plan, plan of subdivision**
- Any tree >10cm diameter

PGM issued Tree Cutting Permit

Process



PGM issued Tree Cutting Permit



Tree Conservation Reports

1. Stand-alone report
2. TCR / Landscape Plan combination
3. TCR / Environmental Impact Statement combination



PGM issued Tree Cutting Permit

Tree Conservation Reports

Components:

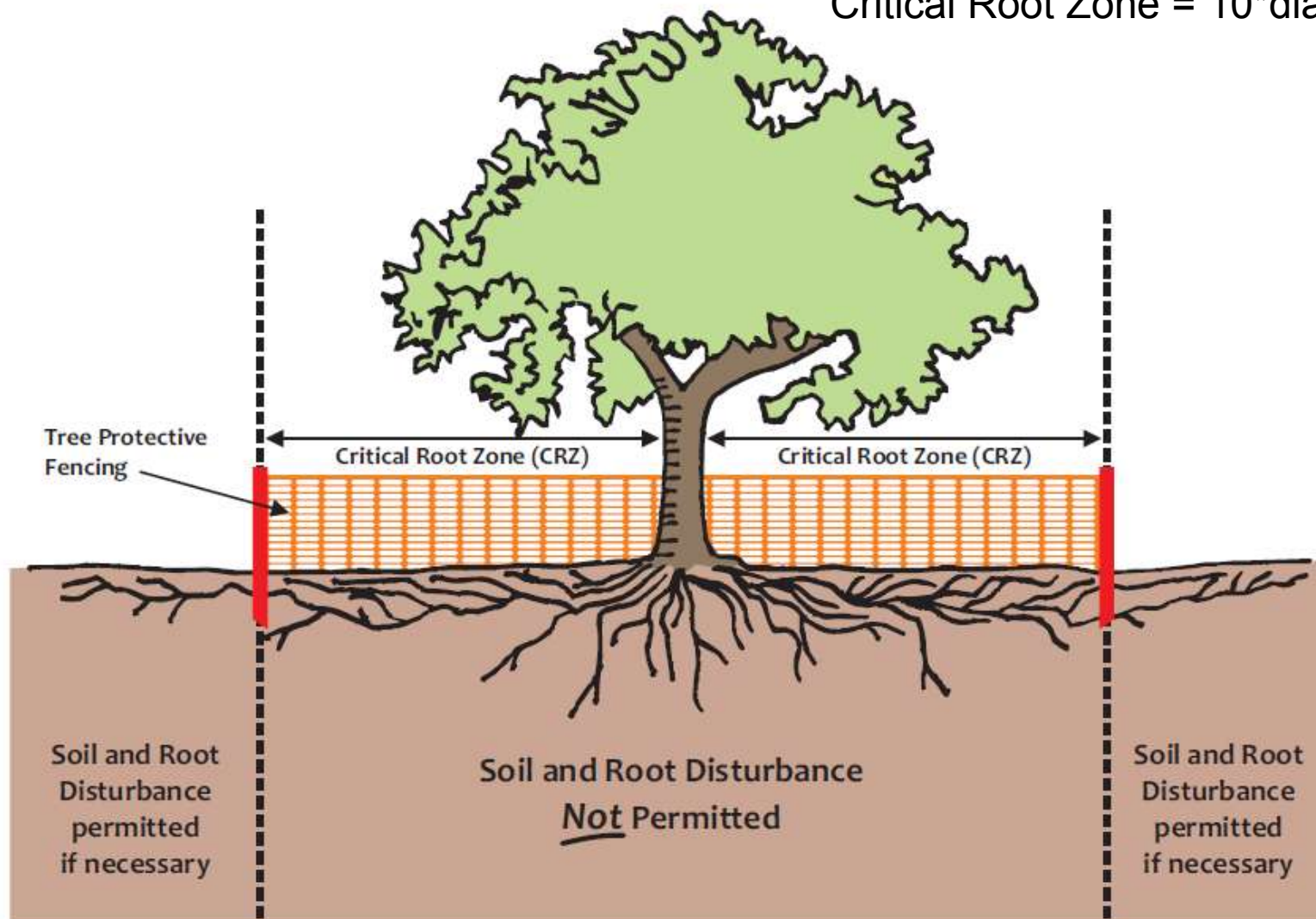
- Maps
- Tree information
 - Species
 - Diameters
 - Health Status
 - Plans –
remove/retain
- Tree protection information



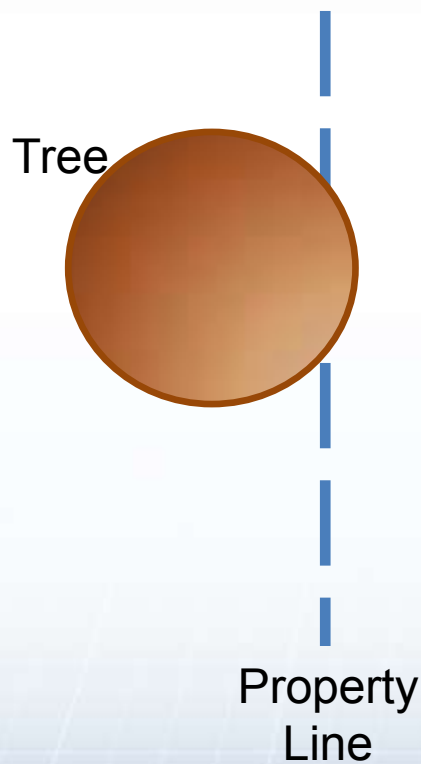
(Schedule A of the Urban Tree Conservation Bylaw)

Tree Protection

Critical Root Zone = 10*diameter



Boundary Trees



Trees with trunks that cross a property line are co-owned by both property owners

- Not just ground level
- Even if the tree was not originally planted on the property line

Coming soon....

Urban Forest Management Plan

- Vision for our future urban forest
- Consultative development process

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Additional Information:

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Ottawa.ca



Cardinal Creek Case Study

Land Use and Natural Systems Unit
Planning and Growth Management
November 2015

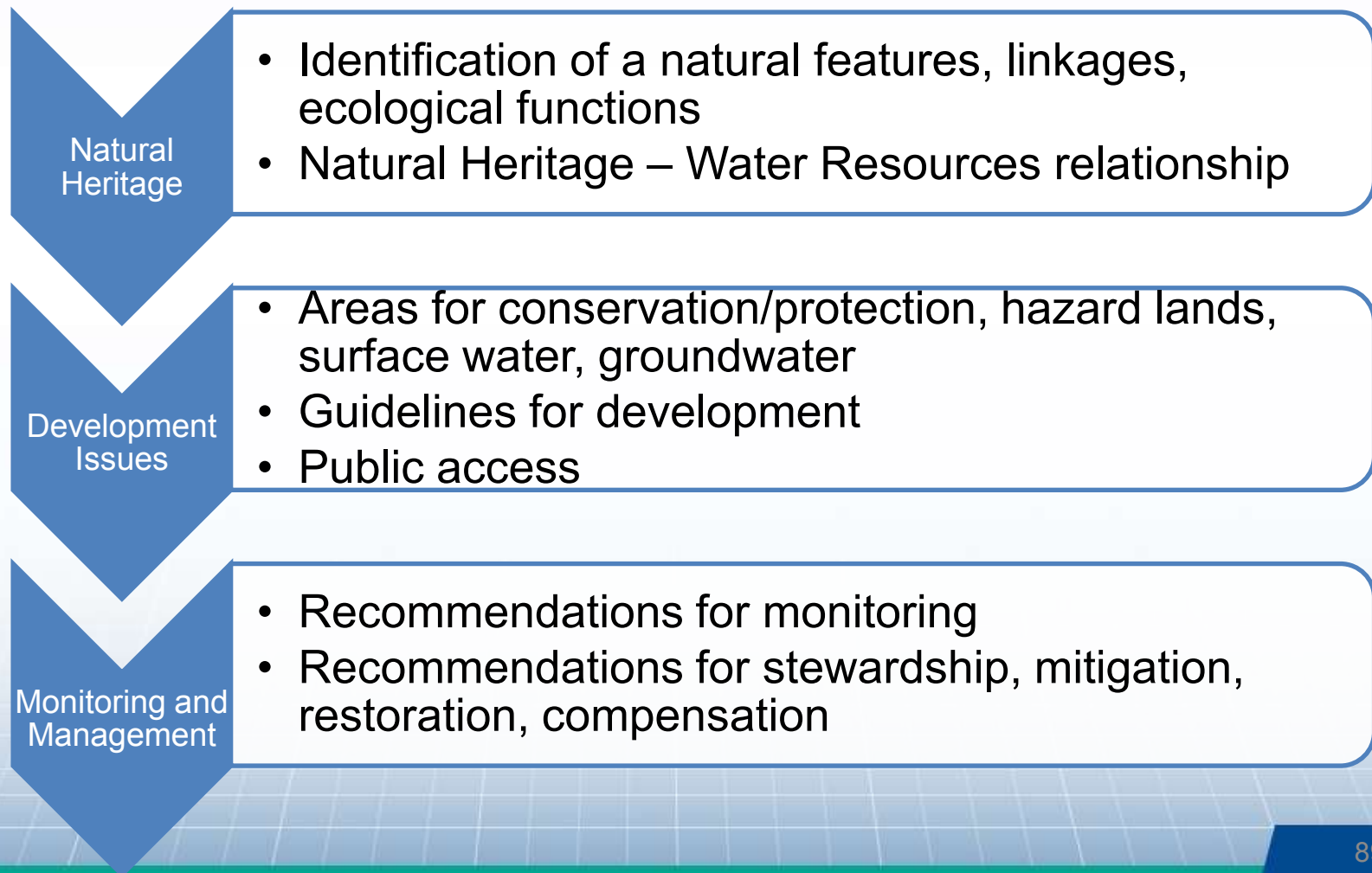
Cardinal Creek Subwatershed Study

Initiated to address:

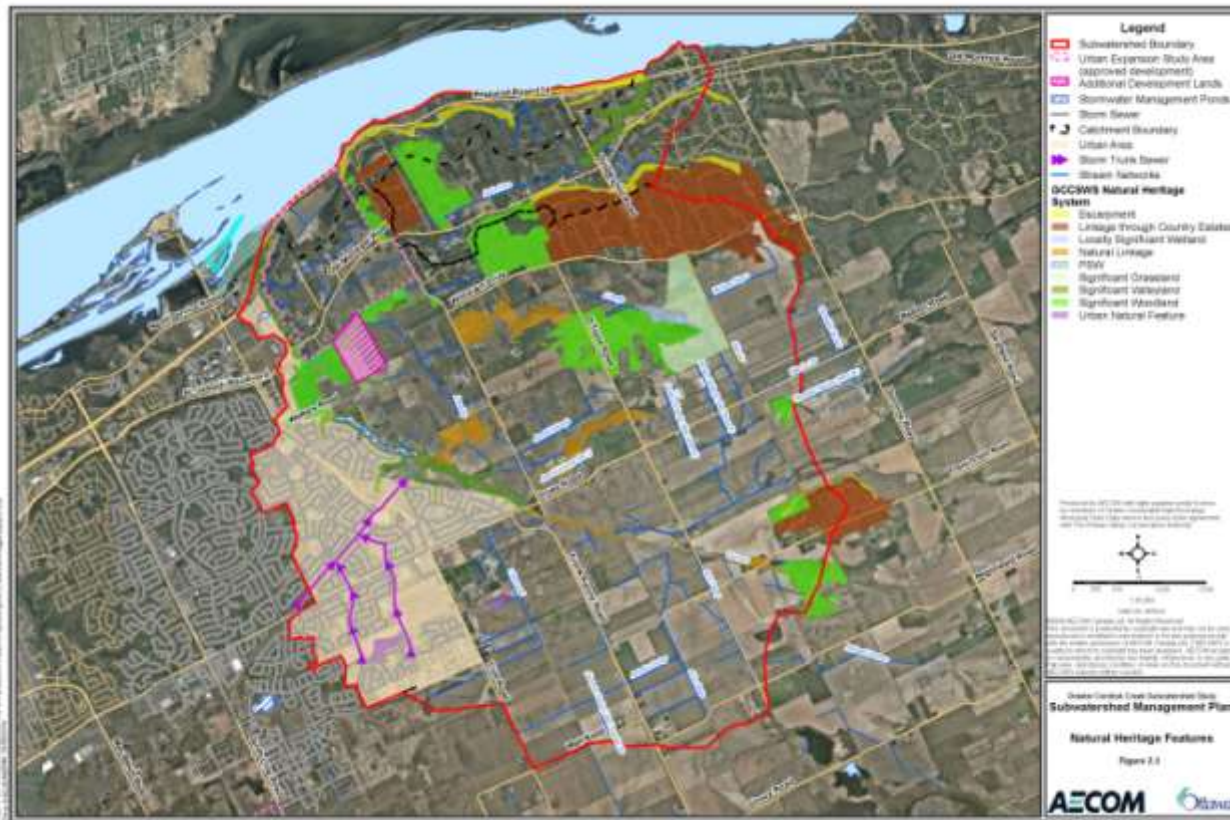
- Changing land uses
- Water quality Cardinal Creek
- Erosion & slope stability



What does the study include?



Natural Heritage System



Identifies a system of significant natural features that must be evaluated and considered in any development scenarios

Groundwater Protection



Most groundwater recharge occurs in natural areas.

Karst

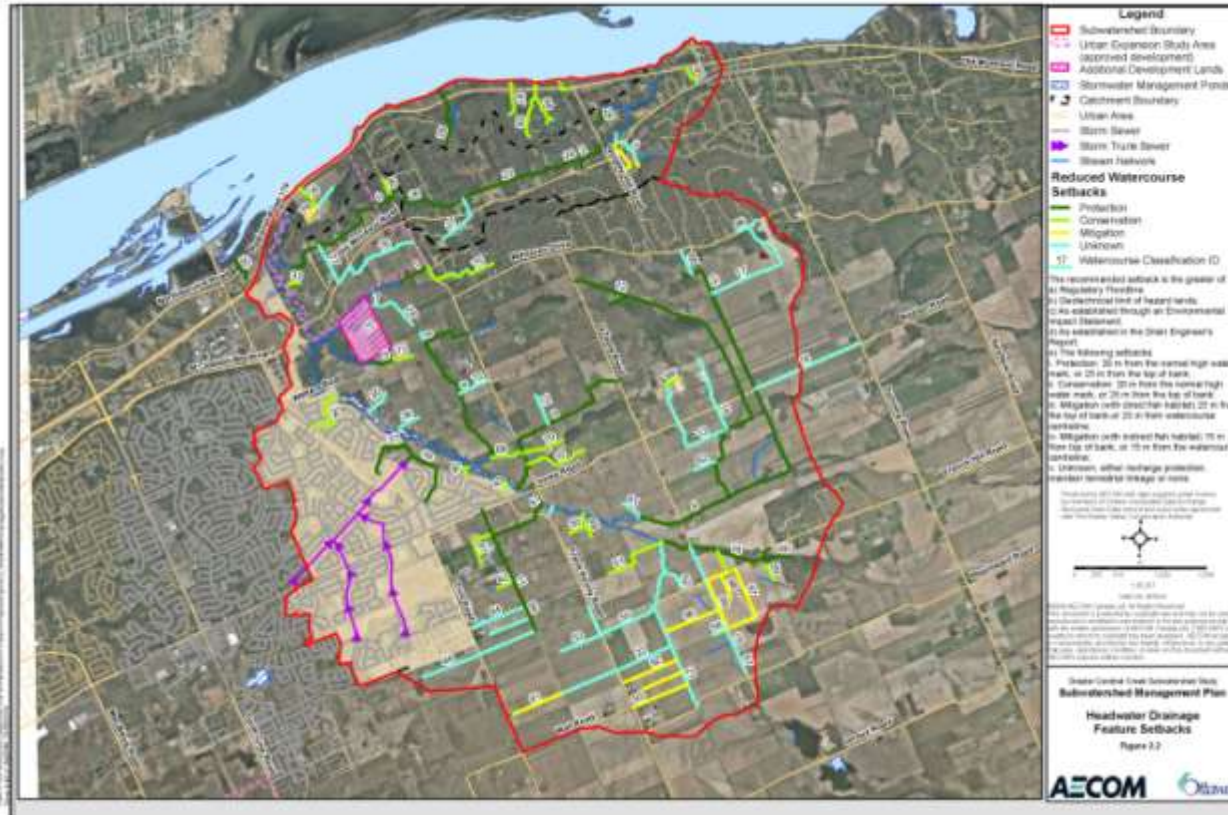
- ANSI
- Hazard
- Groundwater infiltration and recharge feature



om inside the main entrance north of Watters road.

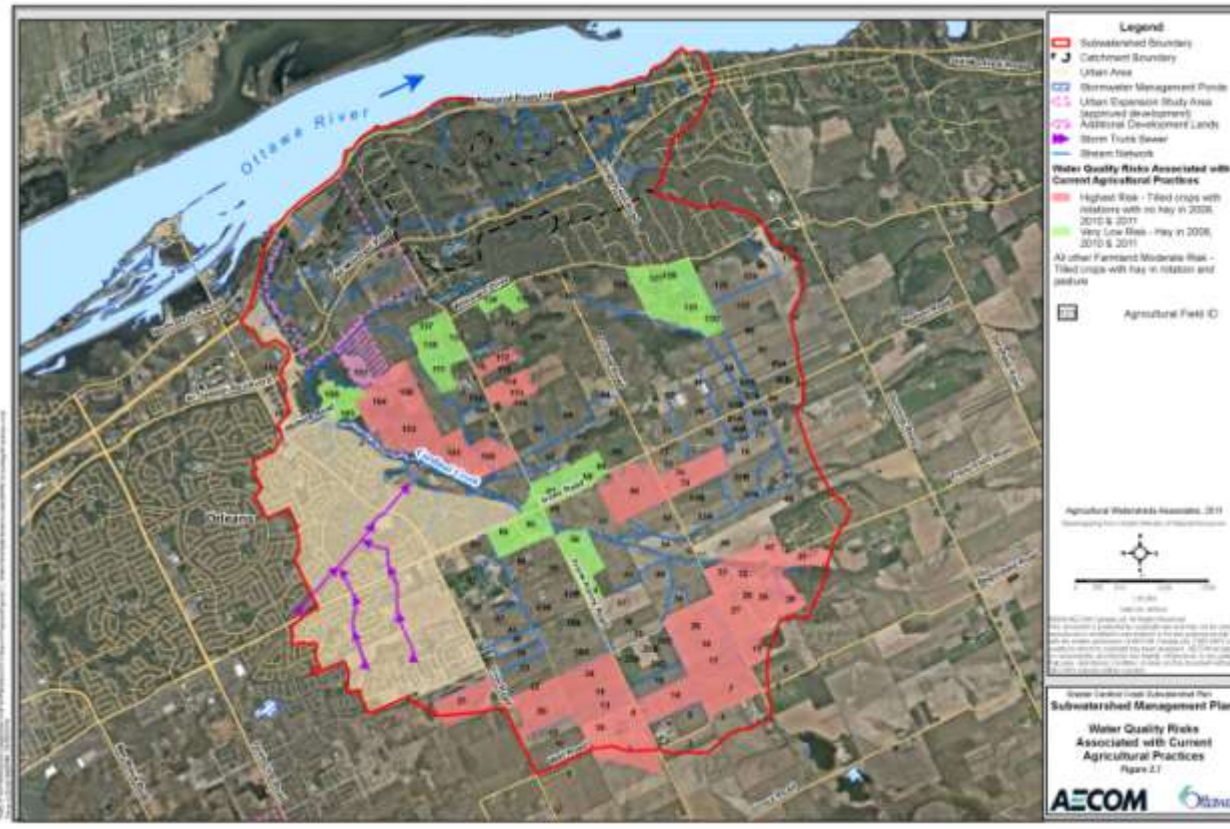
y B.McLartyHalfkenny

Watercourse Setbacks



Study recommends setbacks for protection of watercourses. They can be refined through site investigation as part of development review process.

Agricultural Risks to Water Quality



Some agricultural activities have a higher risk of affecting water quality.

Best Management Practices are important.

Restoration and Enhancement

- Slope stabilization
- Riparian plantings and restoration on Cardinal Creek Valley
- Promotion of agricultural best management practices
- Continued maintenance of municipal drains



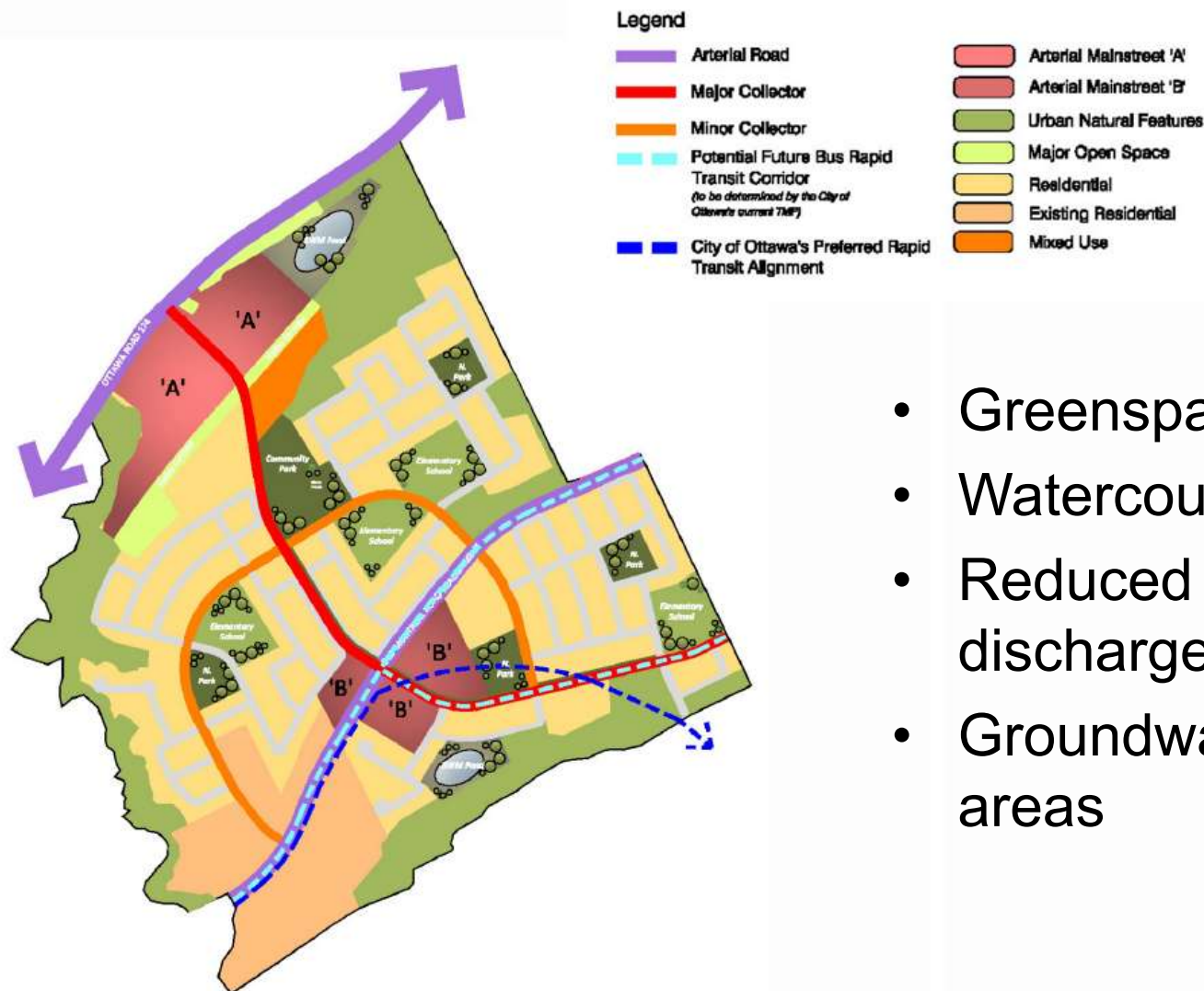
Be the Natural Systems Planner!

- There is an urban expansion area within the subwatershed
- Use the maps provided to identify the environmental constraints
- Draw the constraints on the Study Area Map



What did you decide?

Community Plan



- Greenspaces
- Watercourse setbacks
- Reduced stormwater discharge
- Groundwater recharge areas