



# Ottawa's Great Forest: The South March Highlands

**South March Highlands – Carp River Conservation Inc.**

*[All photos in this presentation were taken in or of the South March Highlands]*

# National Capital's 3 Major Eco-Corridors



# A Wild Island Inside Ottawa

10,000 Years Old

3x Larger Than Stanley Park



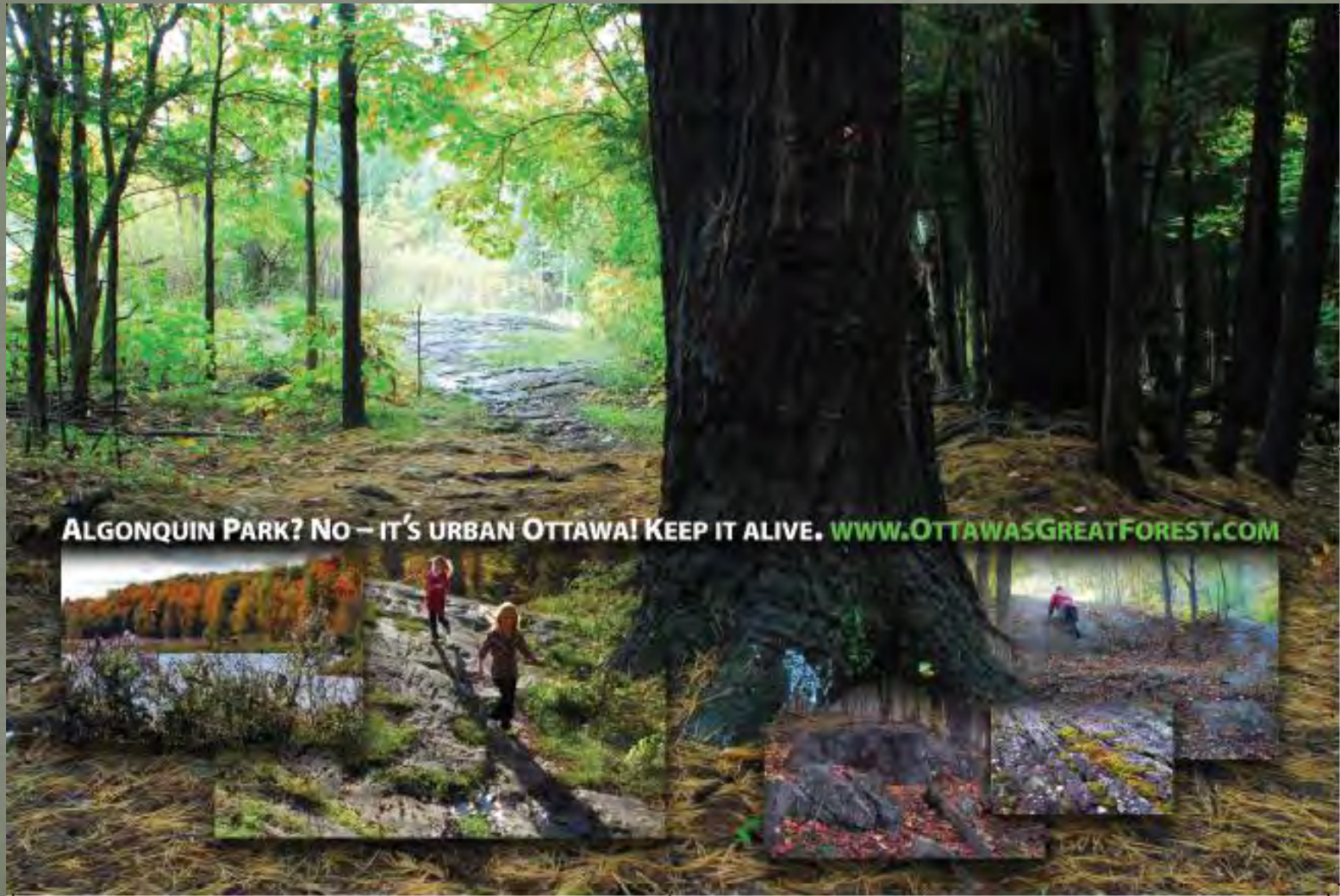
Old Growth Trees  
> 100 Years Old

30 Eco-Types  
Of Vegetation

10 Distinct  
Habitats

Visible Canadian  
Shield

# Critical Habitat For Anishinabe Culture



# Rich GeoHeritage



Nepean Sandstone Pavement Barren

Shield Rock Is 1 Billion Years Old



Visible Fossils

**LEGEND**

- TERRY FOX DRIVE SITE
- ROADWAY
- RIVER OR STREAM
- WATERBODY
- FLOODPLAIN COMPENSATION AREA

**SURFICIAL GEOLOGY**

- 1a TILL, PLAIN WITH LOCAL RELIEF < 10 m
- 1b TILL, DRUM-LINED
- 2a TILL, HUMMOCKY TO ROLLING WITH LOCAL RELIEF 10 TO 15 m
- 2b ICE CONTACT STRATIFIED DRIFT: GRAVEL & SAND
- 3 OFFSHORE MARINE DEPOSITS: CLAY, SILTY CLAY & SILT (GULLIES & RAVINES)
- 3\_g OFFSHORE MARINE DEPOSITS: CLAY, SILTY CLAY & SILT (GULLIES & RAVINES)
- 3\_b OFFSHORE MARINE DEPOSITS: CLAY & SILT UNDERLYING EROSIONAL TERRACES (GULLIES & RAVINES)
- 3\_c OFFSHORE MARINE DEPOSITS: CLAY & SILT UNDERLYING EROSIONAL TERRACES (GULLIES & RAVINES)
- 4 DELTAIC AND ESTUARY DEPOSITS: MEDIUM TO FINE GRAINED SAND (GULLIES & RAVINES)
- 4\_g DELTAIC AND ESTUARY DEPOSITS: MEDIUM TO FINE GRAINED SAND (GULLIES & RAVINES)
- 5a NEARSHORE SEDIMENTS: GRAVEL, SAND & BOULDERS
- 5b NEARSHORE SEDIMENTS: FINE TO MEDIUM GRAINED SAND
- 6a ALLUVIAL DEPOSITS: SILTY SAND, SILT, SAND & CLAY (GULLIES & RAVINES)
- 6b ALLUVIAL DEPOSITS: SILTY SAND, SILT, SAND & CLAY (GULLIES & RAVINES)
- 7a ALLUVIAL DEPOSITS: MEDIUM GRAINED STRATIFIED SAND WITH SOME SILT
- 7b ALLUVIAL DEPOSITS: MEDIUM GRAINED STRATIFIED SAND WITH SOME SILT (GULLIES & RAVINES)
- 8 ORGANIC DEPOSITS: MUCK & PEAT
- 9 DUNE
- 10 DUNE (GULLIES & RAVINES)
- 11 LANDSLIDE AREA
- 12 LANDSLIDE AREA (GULLIES & RAVINES)
- 13 BEDROCK: INTRUSIVE & METAMORPHIC
- 14 BEDROCK: LIMESTONE, DOLOMITE, SANDSTONE & LOCAL SHALE
- 15 BEDROCK: LIMESTONE, DOLOMITE, SANDSTONE & LOCAL SHALE (GULLIES & RAVINES)
- 16 WATER

Scale: 0 50 100 METRES

TERRY FOX DRIVE PERMIT TO TAKE WATER

SURFICIAL GEOLOGY

# Only Location In Ottawa with Exposed Canadian Shield



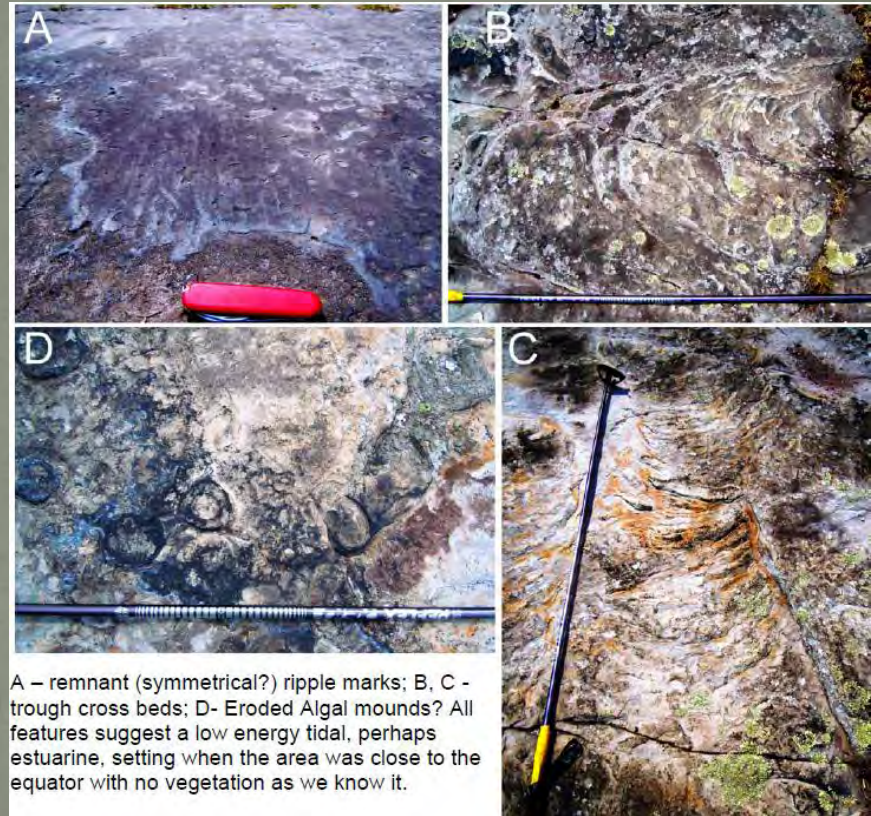
# Distinctive and Unique GeoMorphology



# Glaciation & Ancient Sea on Display



In area B, glacial chatter marks (above); striations (top right) and crescent gouges are evident. Only chatter marks and crescent gouges provide ice movement direction. The striated surface retains a remnant mm-thick glacial pavement of semi-fused quartz grains.



A – remnant (symmetrical?) ripple marks; B, C - trough cross beds; D- Eroded Algal mounds? All features suggest a low energy tidal, perhaps estuarine, setting when the area was close to the equator with no vegetation as we know it.



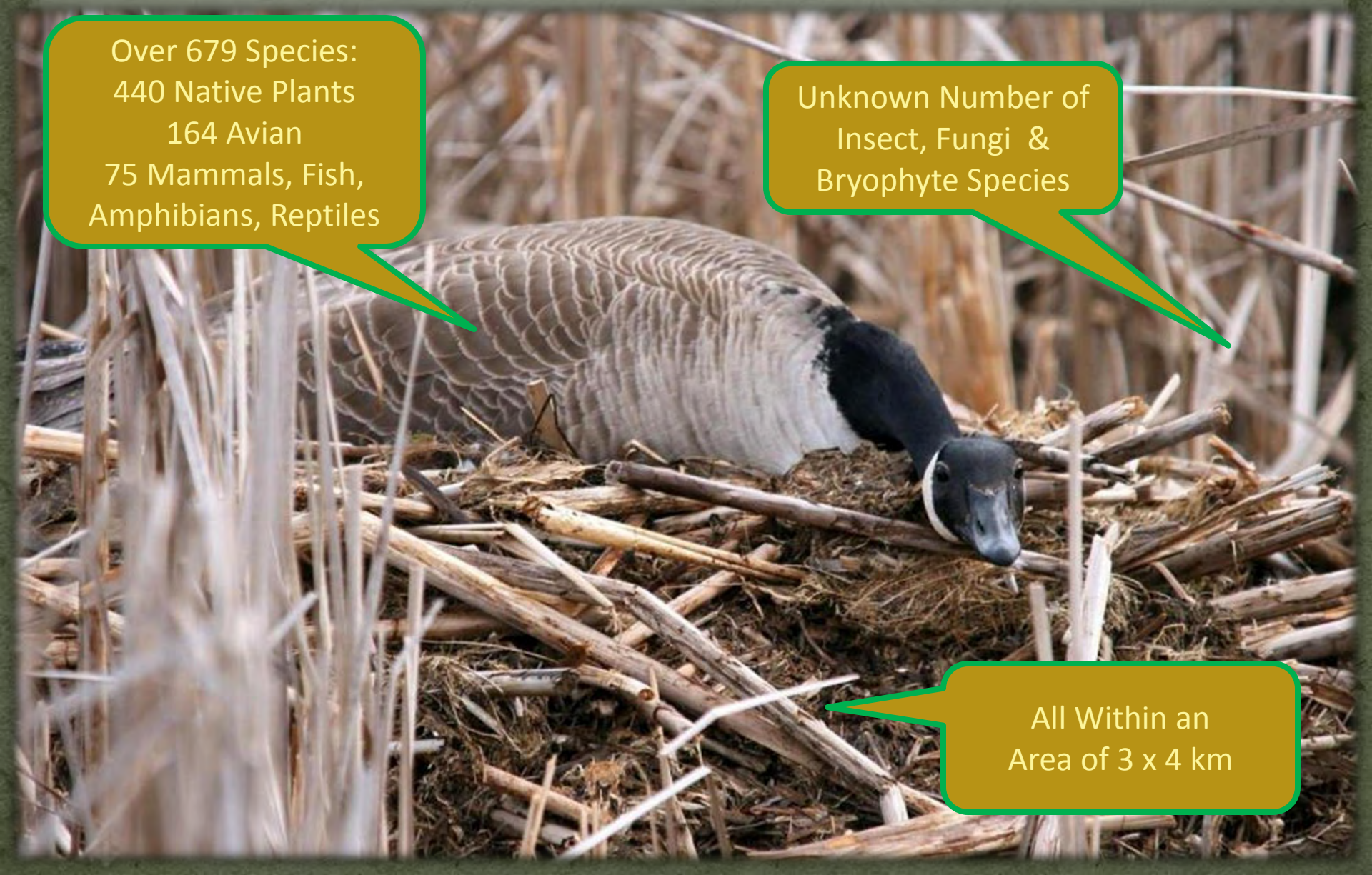
# *Natural Heritage: Densest Bio-Diversity In Ottawa*

[Brunton, 2008]

Over 679 Species:  
440 Native Plants  
164 Avian  
75 Mammals, Fish,  
Amphibians, Reptiles

Unknown Number of  
Insect, Fungi &  
Bryophyte Species

All Within an  
Area of 3 x 4 km



# + Provincially Significant Wetland Complex

114 Hectares  
Rated ANSI

164 Avian Species  
Observed

1 Endangered  
4 Threatened  
5 Special Concern  
30 Regionally Rare  
Avian Species



# Provincially Significant Life Science Area

895 Hectares  
Rated ANSI

Highest Floristic  
Diversity of Any  
Natural Area in  
Ottawa

5.08 = Highest  
Coefficient of  
Conservation in  
Ottawa

440 Species  
Native Vascular Plants

26 Species  
Traditionally Used for  
Native Medicine

2 Endangered  
6 Provincially Rare  
64 Regionally Rare  
50 Uncommon  
Native Vascular Plants



# Old Growth Commonly Found



# No Comprehensive Biological Survey



Largest Deer  
Wintering Yard  
In Ottawa

# 20 Known Species At Risk

## Endangered or Threatened

- American Ginseng
- Butternut
- Loggerhead Shrike
- Bobolink
- Whip-poor-will
- Golden Winged Warbler
- Olive Sided Flycatcher
- Western Chorus Frog
- Blanding's Turtle
- Eastern Musk Turtle
- Chimney Sweep

## Special Concern

- Bridle Shiner
- Short Eared Owl
- Black Tern
- Common Nighthawk
- Snapping Turtle
- Eastern Milksnake
- Monarch Butterfly
- Bald Eagle
- Red Headed Woodpecker



# 11 Species Already Extirpated From SMH

- Cathcart's Woodsia
- Oregon Woodsia
- Spiny Coon-tail
- Adder's-tongue Fern
- Back's Sedge
- Large Duckweed
- Long-spurred Violet
- Showy Orchis
- Southern Arrow-wood
- Strawberry-blight
- Virginia Spring Beauty

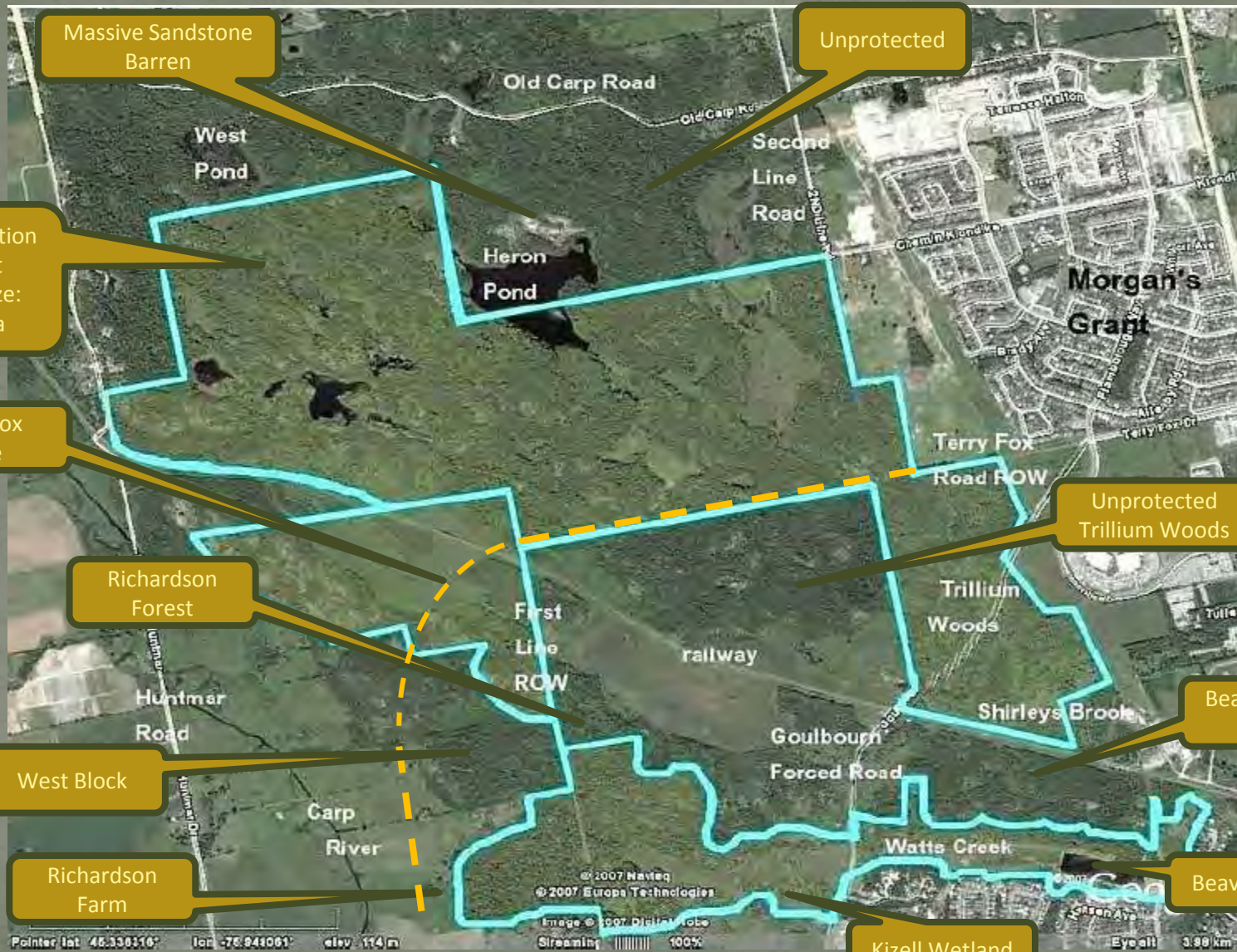


# 18 Candidate SAR Also Found in SMH

- Evening Grosbeak
  - Eastern Wood Peewee
  - Wood Thrush
  - Bank Swallow
  - American Bullfrog
  - American Kestrel
  - Belted-Kingfisher
  - Eastern Red-Backed Salamander
  - Field Sparrow
  - Blue-Spotted Salamander
  - American Toad
  - Bluntnose Minnow
  - Boreal Chickadee
  - Killdeer
  - Midland Painted Turtle
  - Northern Two-Lined Salamander
  - Green Frog
  - Wood Frog
- 
- A photograph of a Midland Painted Turtle swimming in a pond. The turtle is the central focus, with its head and front legs visible above the water. Its shell is dark with distinct light-colored patterns. The water is a clear, light blue, and the background shows a blurred shoreline with some vegetation.



# South March Highlands



Massive Sandstone Barren

Unprotected

Conservation Forest  
Total Size:  
455 ha

Terry Fox Drive

Richardson Forest

Unprotected Trillium Woods

West Block

Beaver Pond Forest

Richardson Farm

Beaver Pond

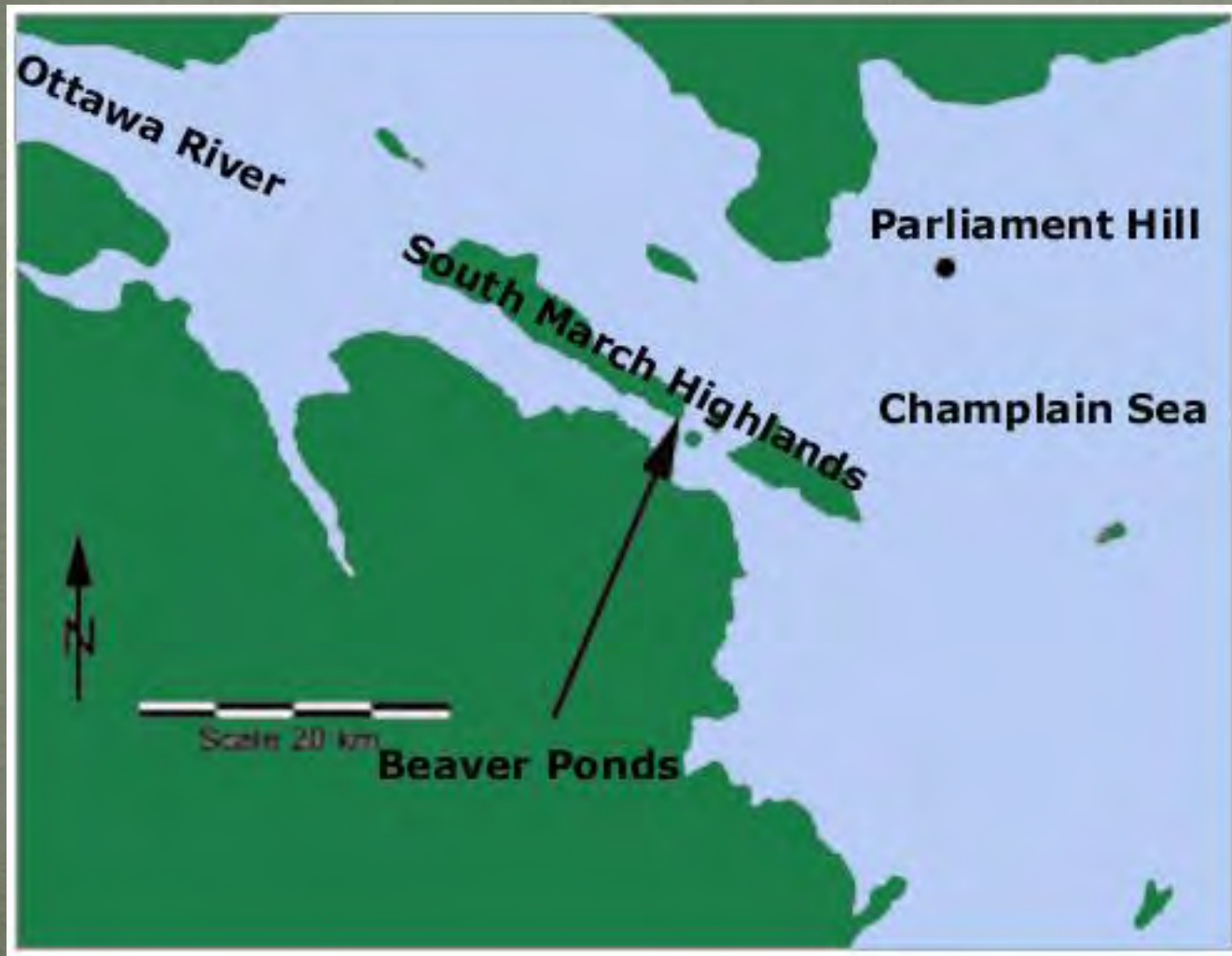
Kizell Wetland

Pointer lat 45.330110° lon -76.944001° elev 114m

© 2007 Navteq  
© 2007 Europa Technologies  
Image © 2007 DigitalGlobe  
Streaming 100%

Eye alt 3.98 km

# Prehistory of Ottawa

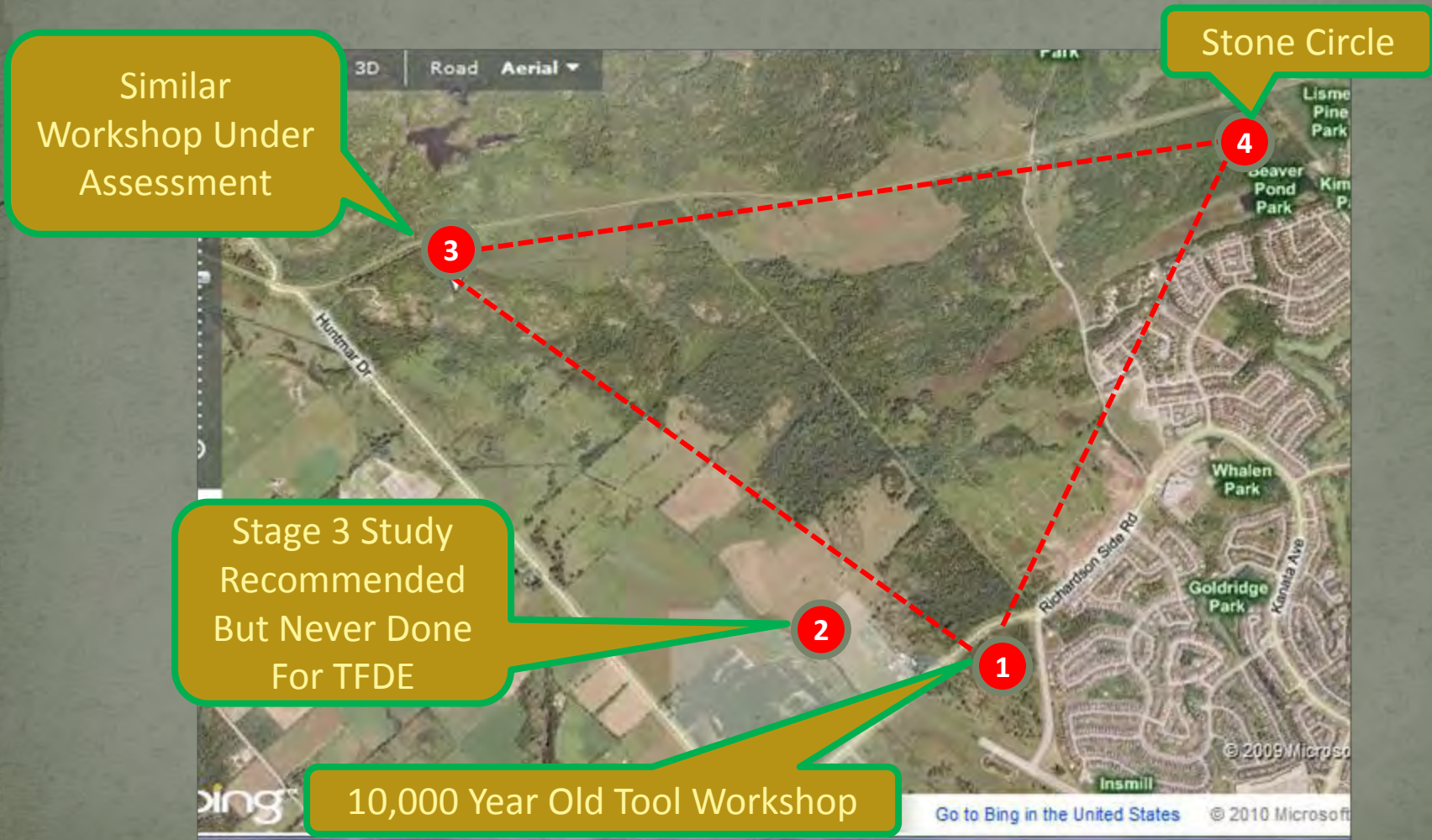


Dr. Robert McGhee:

... the rocky upland areas  
... should be considered  
to be of high potential for  
occupation by early  
postglacial sea mammal  
hunters  
along subsequent  
shorelines as local sea  
levels dropped from  
about 120 m above  
current sea level at  
around 11,000  
radiocarbon years ago, to  
90 meters above sea level  
at some time around  
9,000 years ago.

# Cultural Heritage

## Known Archaeological Sites In SMH



# 500 Generation Old – Chopping Tool



Bi-Face indicates Paleo-Archaic Indian

Elevation at location (1) indicates  
approximate age as 10,000 BCE



# 500 Generation Old – Chiselled Core



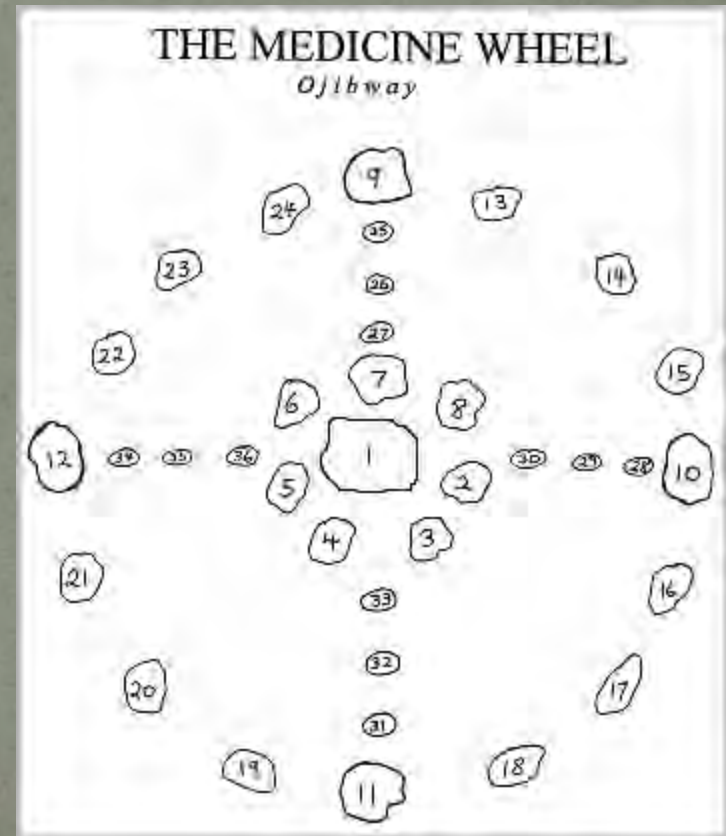
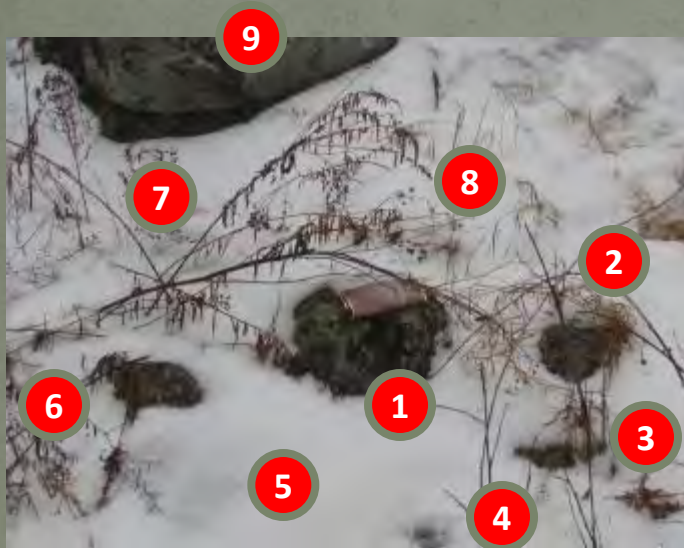
Quartz indicates Paleo-Archaic Indian

Similar site at location (3) to location (1)

Elevation indicates  
approximate age as 10,000 BCE



# Unassessed Stone Circle



- Found at Location (4)
- The site is disturbed however the 4 major stones at the Cardinal Points are found (#9, 10, 11, 12) as are the stones for the central circle
- Kitchi Makwa from the Inter-Tribal Medicine Council declares that this is a genuine site that could be rebuilt

# Euro-Canadian Sites Too



**McMurtry's Tannery  
(Circa 1860)**

## **Also:**

- **Several 19<sup>th</sup> Century homestead sites dating back to 1820 (as old as Pinhey's Point)**
- **Richardson Stone House dating back to approx. 1860 (as old as the Log Farm)**
- **A Feldspar Mine dating approximately to 1919-1921 (unique in Ottawa)**

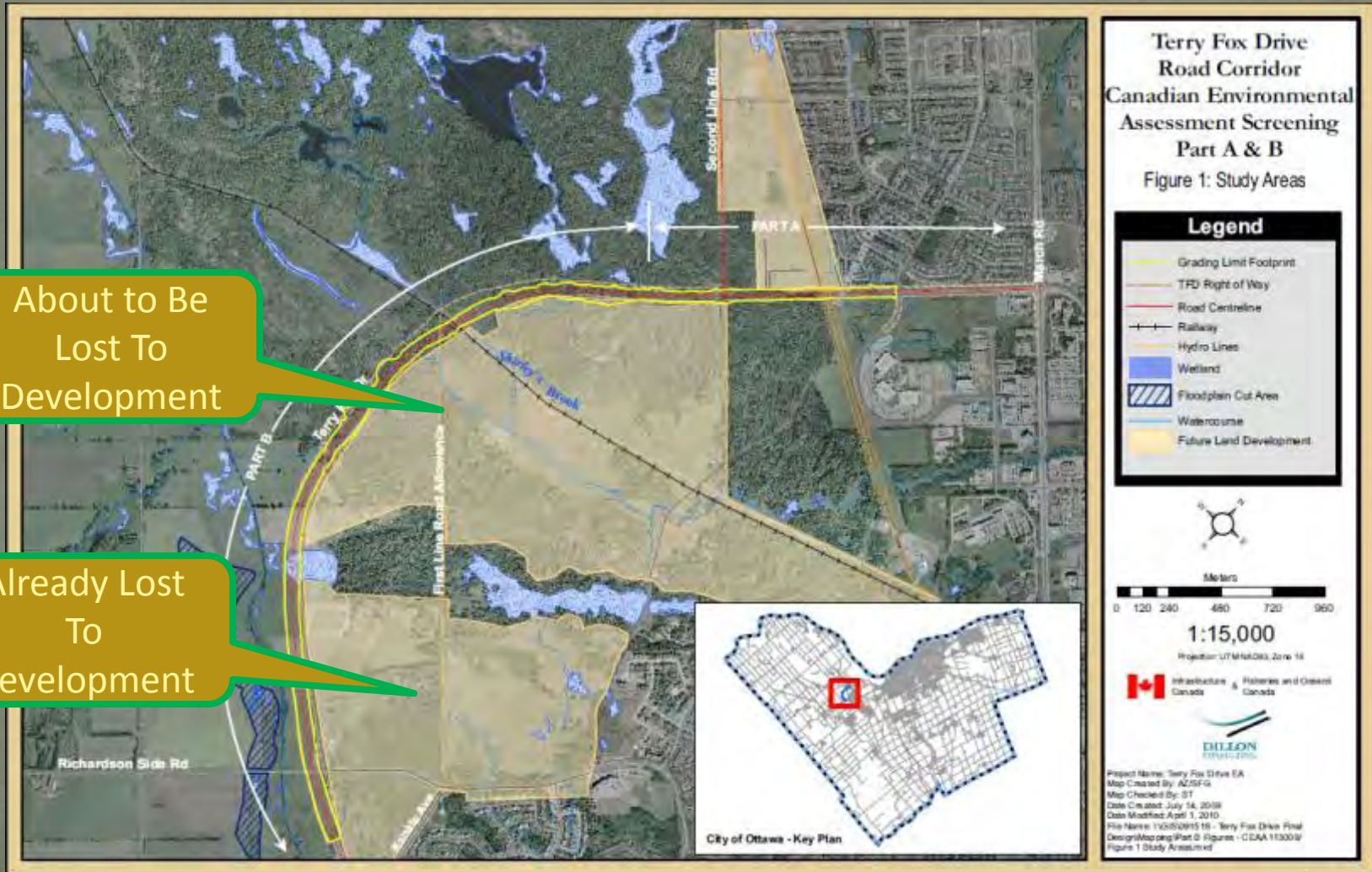
# Ontario Archaeological Society

- The Ottawa Chapter, Ontario Archaeological Society (OAS) sympathizes with Dr. Abell's cry of frustration over the inadequacy of existing protection for archaeological and architectural sites in Ottawa and the province of Ontario
- Heritage organizations and the community as a whole are coming to realize that they and future generations are losing irreplaceable features through uncontrolled commercial expansion.
- *The motion adopted in September by the City of Ottawa Arts, Heritage and Cultural Committee obviously needs some teeth as well as good intentions*

Glenna Roberts, Ottawa Chapter, OAS



# Development Threatens ½ The SMH



# Alternative Vision of Eco-Corridors Revitalizing The Emerald Necklace



# Will You Help Save This Forest?

5 Algonquin First Nations

5,273 people via Web  
6,500 people in First Nations  
1025 people via Twitter  
183 people via E-Mail

All Major Ecological  
Groups in Ottawa

David Suzuki Foundation,  
Sierra Club of Canada

All of the Community  
Associations in Ottawa

