



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



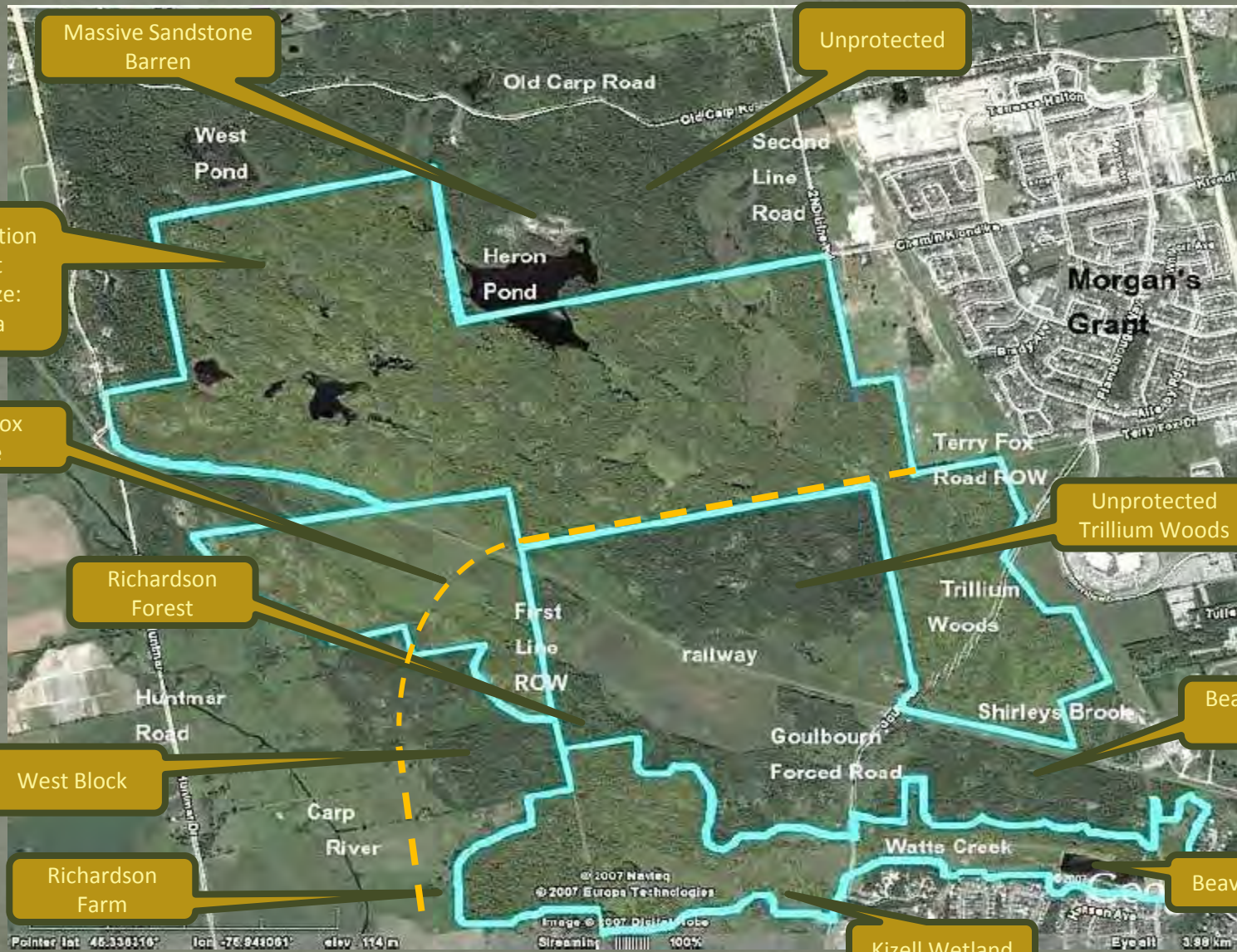
Old Growth Trees
> 100 Years Old

30 Eco-Types
Of Vegetation

10 Distinct
Habitats

Visible Canadian
Shield

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 Digital Globe
Streaming 100%

Eye alt 3.98 km

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

NOTE:
 1. Figure is to be used in conjunction with the geological survey of Canada, open file 65256, 2007
 2. Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 18

PROJECT: TERRY FOX DRIVE PERMIT TO TAKE WATER

TITLE: SURFICIAL GEOLOGY

Only Location In Ottawa with Exposed Canadian Shield



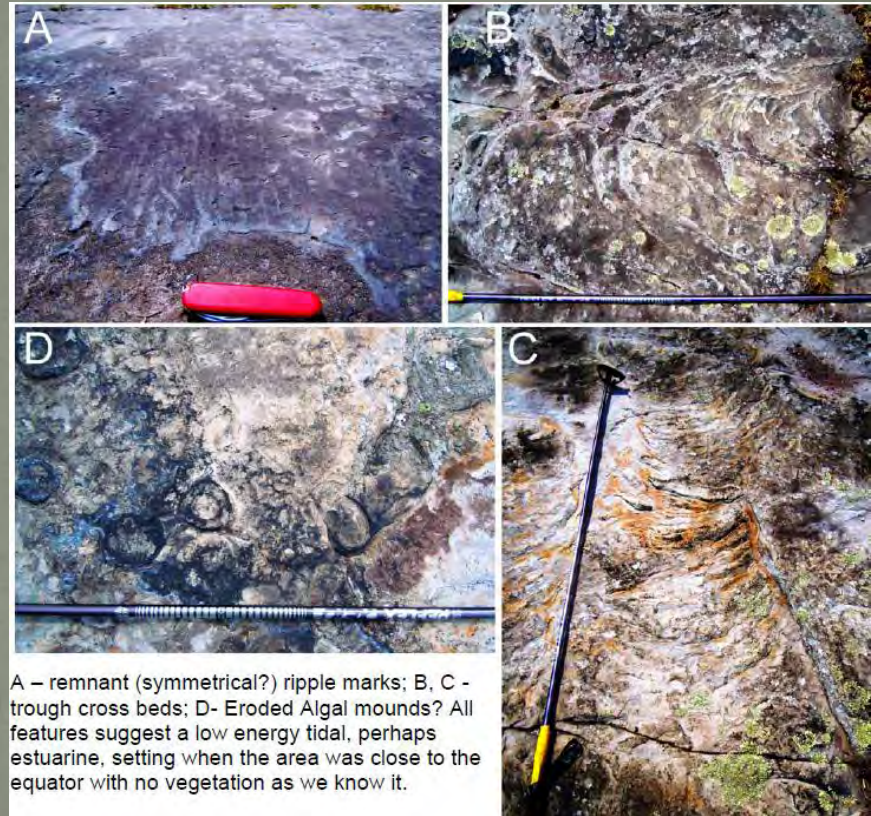
Distinctive and Unique GeoMorphology



Glaciation & Ancient Sea on Display

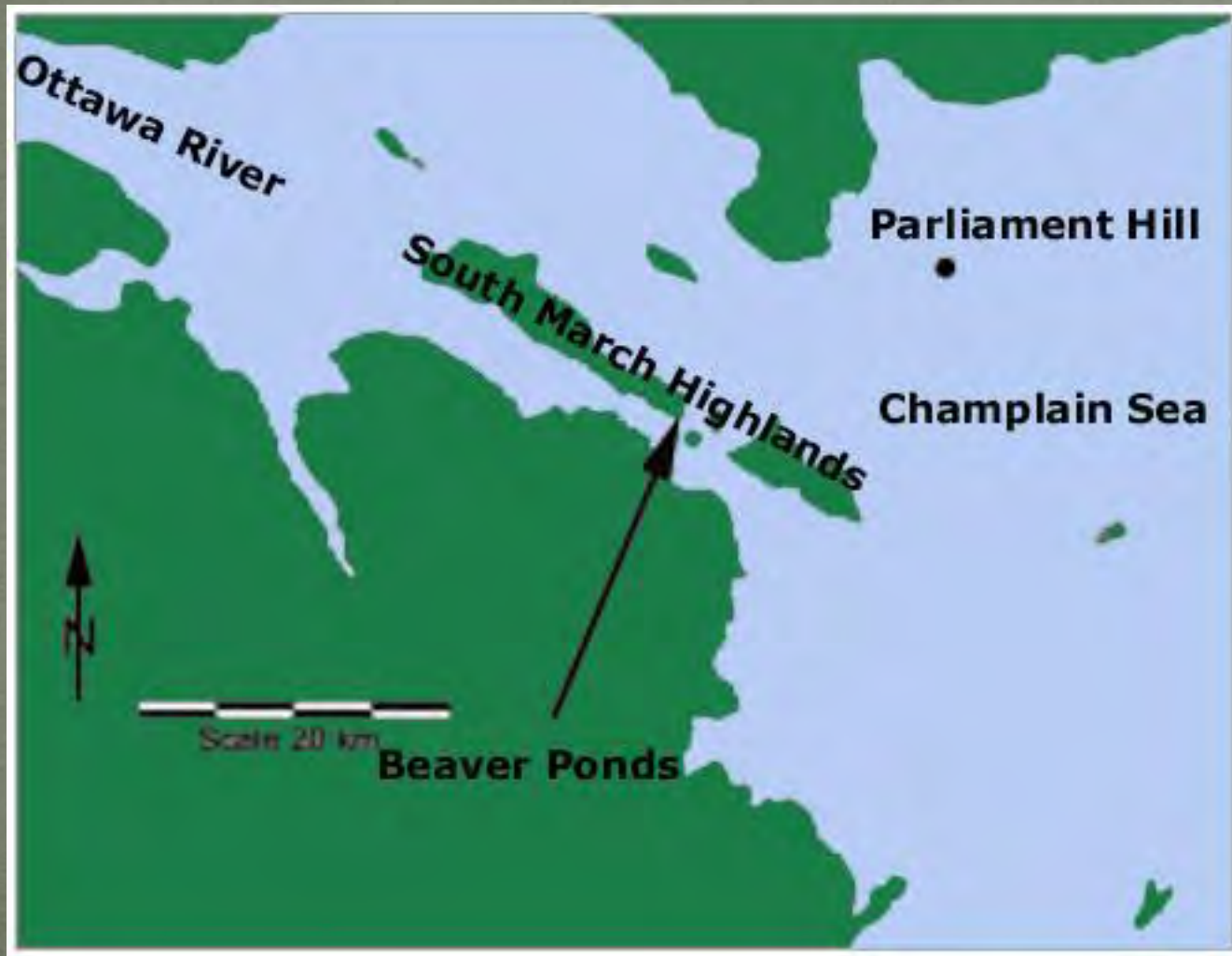


In area B, glacial chatter marks (above); striations (top right) and crescent gouges are evident. Only chatter marks and crescent gouges provide ice movement direction. The striated surface retains a remnant mm-thick glacial pavement of semi-fused quartz grains.



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.

Prehistory of Ottawa

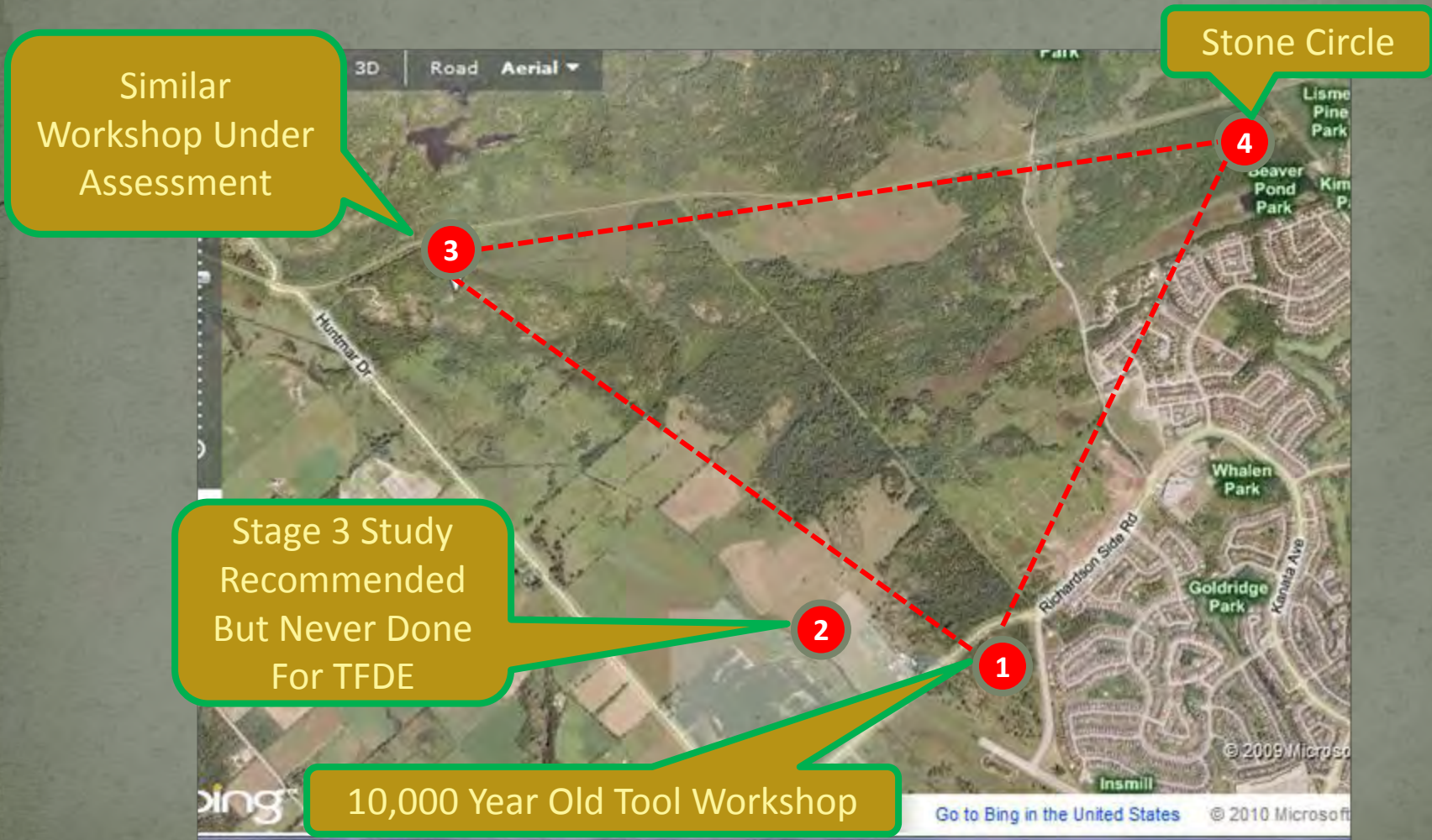


Dr. Robert McGhee:

... 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



Euro-Canadian Sites Too



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

Also:

- **Several 19th 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 [the] 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

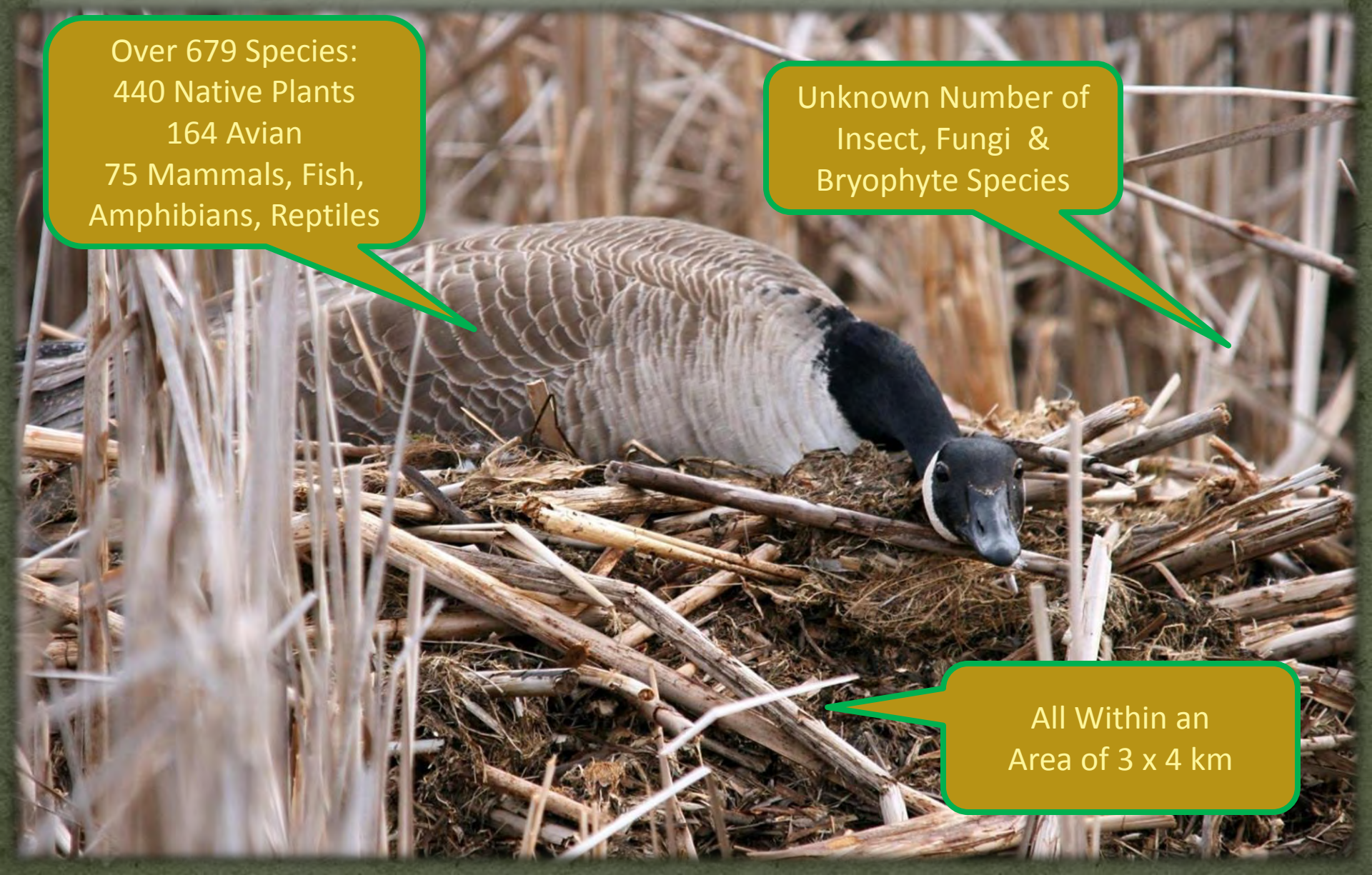
Natural Heritage: Densest Bio-Diversity In Ottawa

[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 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



Ponds, Meadows & Forests



“Trillium Woods, which is like a chunk of the Gatineau in the urban landscape of Ottawa, with rich plant and animal life found nowhere else in the urban part of the City”

Ottawa Urban Natural Areas Environmental Evaluation
[Muncaster & Brunton, 2008]

Old Growth Commonly Found



No Comprehensive Biological Survey



Largest Deer
Wintering Yard
In Ottawa

+ Provincially Significant Wetland Complex

114 Hectares
Rated ANSI

164 Avian Species
Observed

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



136 Bird Species Nest in the SMH



Undocumented Number of Vernal Pools

Over 26 identified species of
Herpetofauna

3 Threatened Species
2 Special Concern

Insect of Special Concern
(Monarch Butterfly)



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

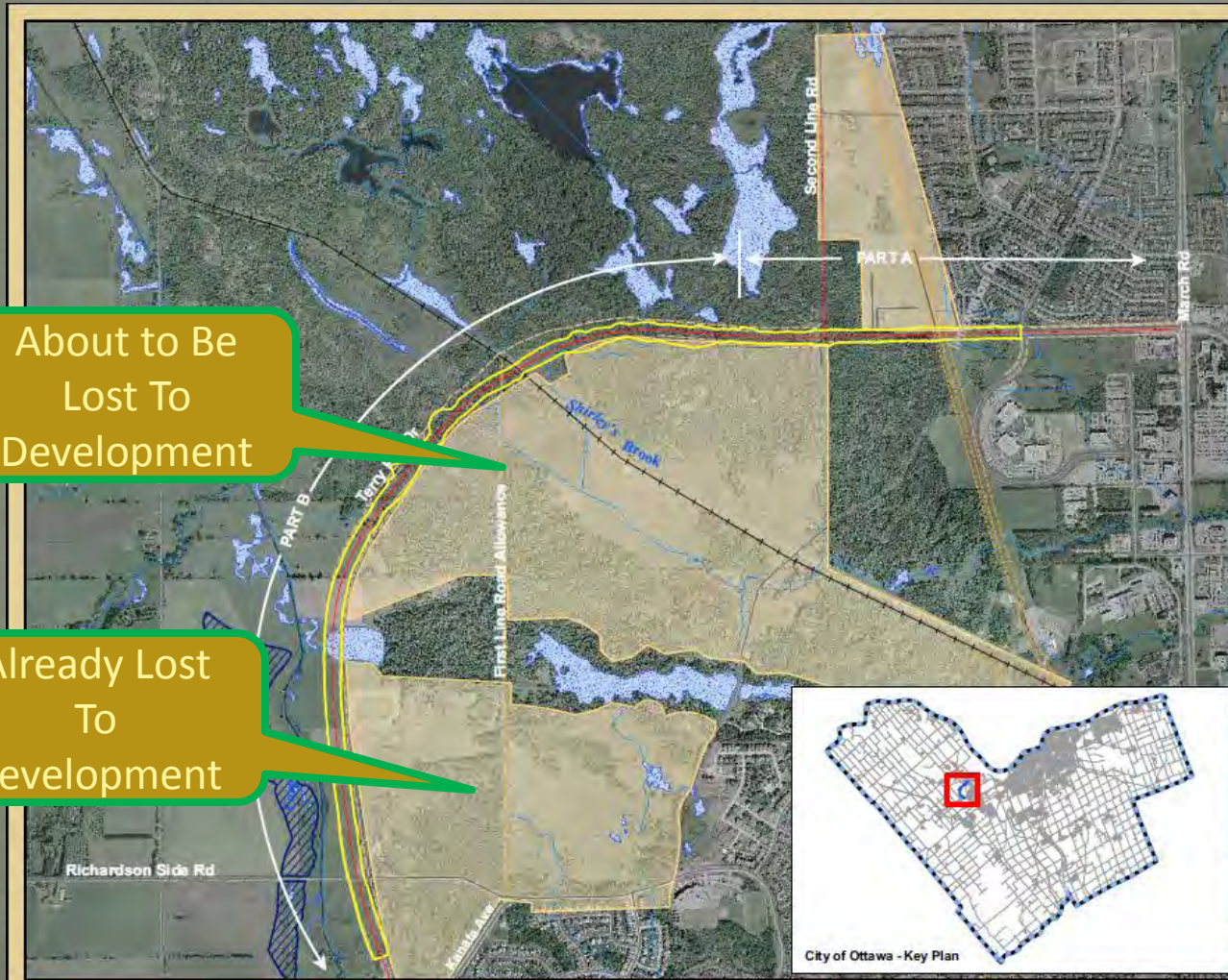
- Cathcart's Woodsia
- Oregon Woodsia
- Spiny Coon-tail
- Adder's-tongue Fern
- Back's Sedge
- Large Duckweed
- Long-spurred Violet
- Showy Orchis
- Southern Arrow-wood
- Strawberry-blight
- Virginia Spring Beauty



18 Candidate SAR Also Found in SMH

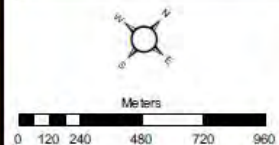
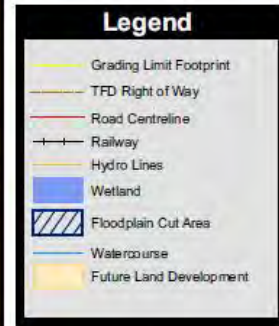
- Evening Grosbeak
 - Eastern Wood Peewee
 - Wood Thrush
 - Bank Swallow
 - American Bullfrog
 - American Kestrel
 - Belted-Kingfisher
 - Eastern Red-Backed Salamander
 - Field Sparrow
 - Blue-Spotted Salamander
 - American Toad
 - Bluntnose Minnow
 - Boreal Chickadee
 - Killdeer
 - Midland Painted Turtle
 - 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 spots and patterns. The water is a clear, light blue color, and the background shows some ripples and reflections on the surface.

Development Threatens ½ The SMH



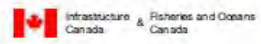
Terry Fox Drive Road Corridor Canadian Environmental Assessment Screening Part A & B

Figure 1: Study Areas



1:15,000

Projection: UTMNAD83_Zone 18



Project Name: Terry Fox Drive EA
 Map Created By: AZS/G
 Map Checked By: ST
 Date Created: July 14, 2009
 Date Modified: April 1, 2010
 File Name: HGIS091518 - Terry Fox Drive Final Design/Mapping/Part B Figures - CEAA 113009/ Figure 1 Study Areas.mxd



Alternative Vision of Eco-Corridors Revitalizing The Emerald Necklace



11 Eco-Corridors
Linking
7 Ecological
Reservoirs

Opposition to Development

- Coalition To Protect South March (5000+ people)
- David Suzuki Foundation
- Sierra Club of Canada
- Greenbelt Coalition
- Canadian Parks & Wilderness
- Federation of Community Associations
- Green Party of Canada
- Ottawa Riverkeeper
- Ecology Ottawa
- Ottawa Valley Field Naturalists
- Ottawa Carleton Wildlife Centre
- Greenspace Alliance
- and many others



Will You Help Save This Forest?

5 Algonquin First Nations

6,750 people via Web
6,500 people in First Nations
1,186 people via Twitter
Total = 14,436

All Major Ecological
Groups in Ottawa

David Suzuki Foundation,
Sierra Club of Canada

All of the Community
Associations in Ottawa

