Indigenous Mapping Workshop

July 2015

Waterloo, Ontario

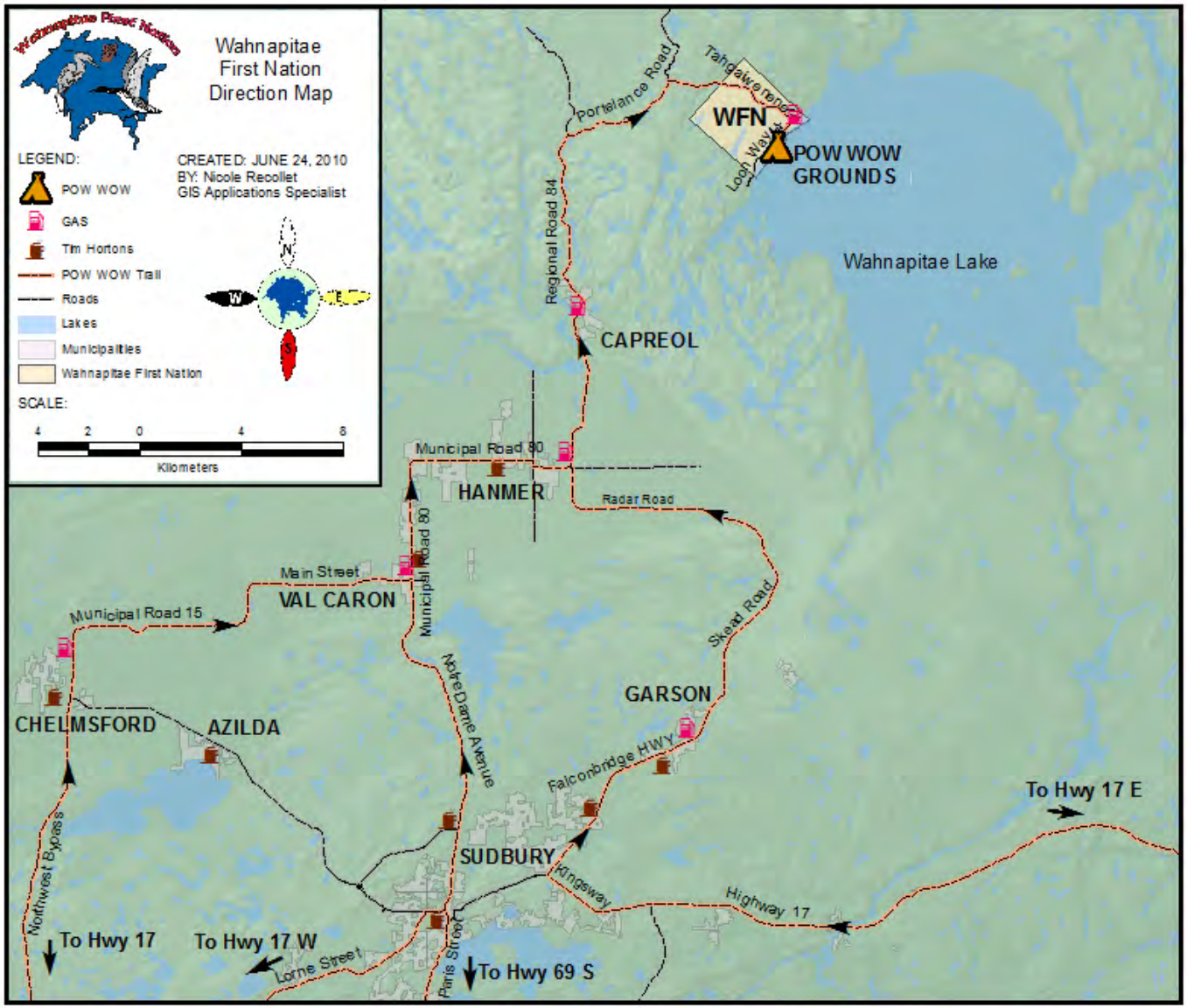
Wahnapitae First Nation

Using GIS to Inform First Nation Decision Making

Nicole Recollet - Geospatial Analyst

Stefanie Recollet - Resource Development Analyst

Who are We?

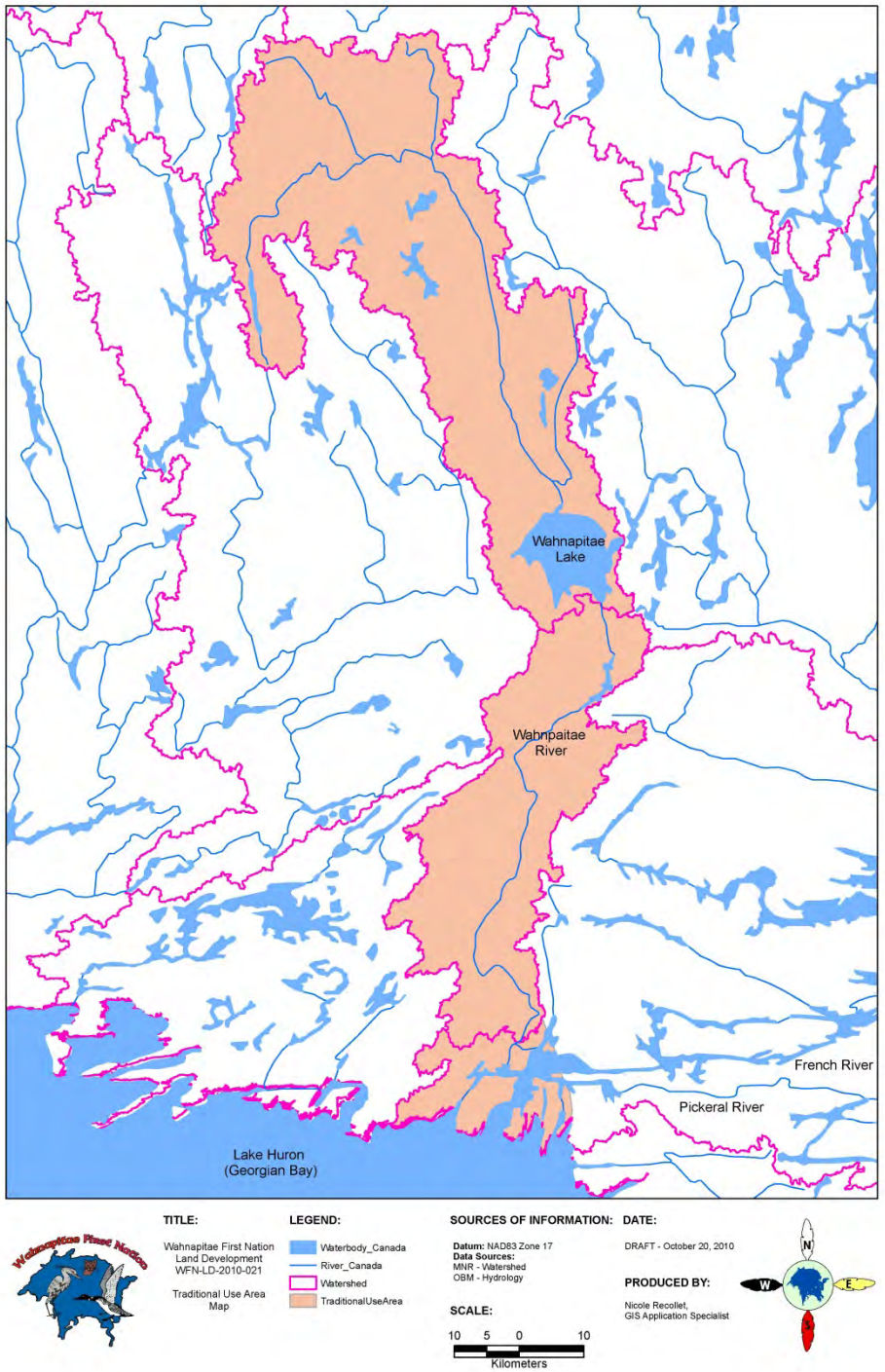


Wahnapitae First Nation
Wahnapitae First Nation Direction Map
LEGEND:
POW WOW
GAS
Tim Hortons
POW WOW Trail
Roads
Lakes
Municipalities
Wahnapitae First Nation
CREATED: JUNE 24, 2010
BY: Nicole Recollet
GIS Applications Specialist
SCALE:
4 2 0 4 8
Kilometers
N
W
E
S
Portelance Road
Tahgaiwenene
WFN
Loon Way
POW WOW GROUNDS
Wahnapitae Lake
Regional Road 84
CAPREOL
Municipal Road 80
HANMER
Radar Road
Main Street
VAL CARON
Municipal Road 15
Skead Road
GARSON
CHELMSFORD
AZILDA
Notre Dame Avenue
Falconbridge HWY
To Hwy 17 E
SUDBURY
Kingsway
Highway 17
Northwest Bypass
To Hwy 17
To Hwy 17 W
Lorne Street
Paris Street
To Hwy 69 S

Territory

Stewardship Area-

Wahnapitae Watershed



Procedural Manual:

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Standardized Map Layout

TITLE:
Wahnapitae First Nation
Land Development
WFN-LD-2010-002

Community Map

SCALE:
USE Double Accelerating Scale Bar 2.
One in Meters
One in Feet
OR
One in Kilometers

LEGEND:
- Road
- Flood_Zone
- Waterbody
- Community Lots
- WahnapitaeFN

SOURCES OF INFORMATION:
Datum: NAD83 Zone 17
Data Sources:
Natural Resource Canada Data - (Hydrology, Road and Land Parcel)
Greater Sudbury - 2003 Aerial

DATE:
June 1, 2010

PRODUCED BY:
Nicole Recollet,
GIS Application Specialist

What GIS are we using?

SOFTWARE:

- ArcMap 10.1 (single user)
  - Spatial Analyst
  - 3D Analyst
- ArcMap 10.1(single user)

HARDWARE:

- Laptop
- Plotter (HP Design T770)

DATA:

- WFN Baseline Data.
- LIO
- NRCAN
- Partners

TUS User Guide

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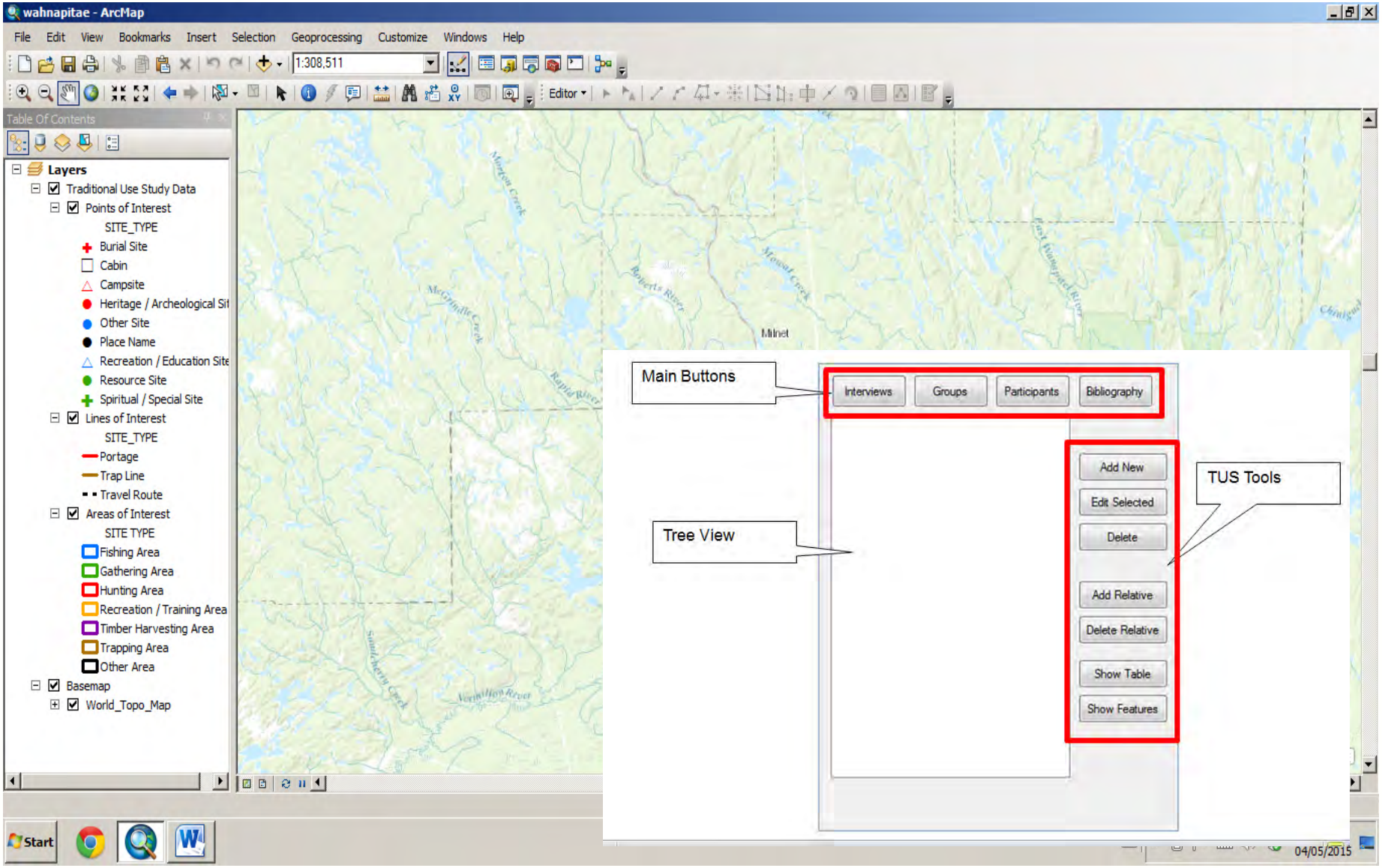
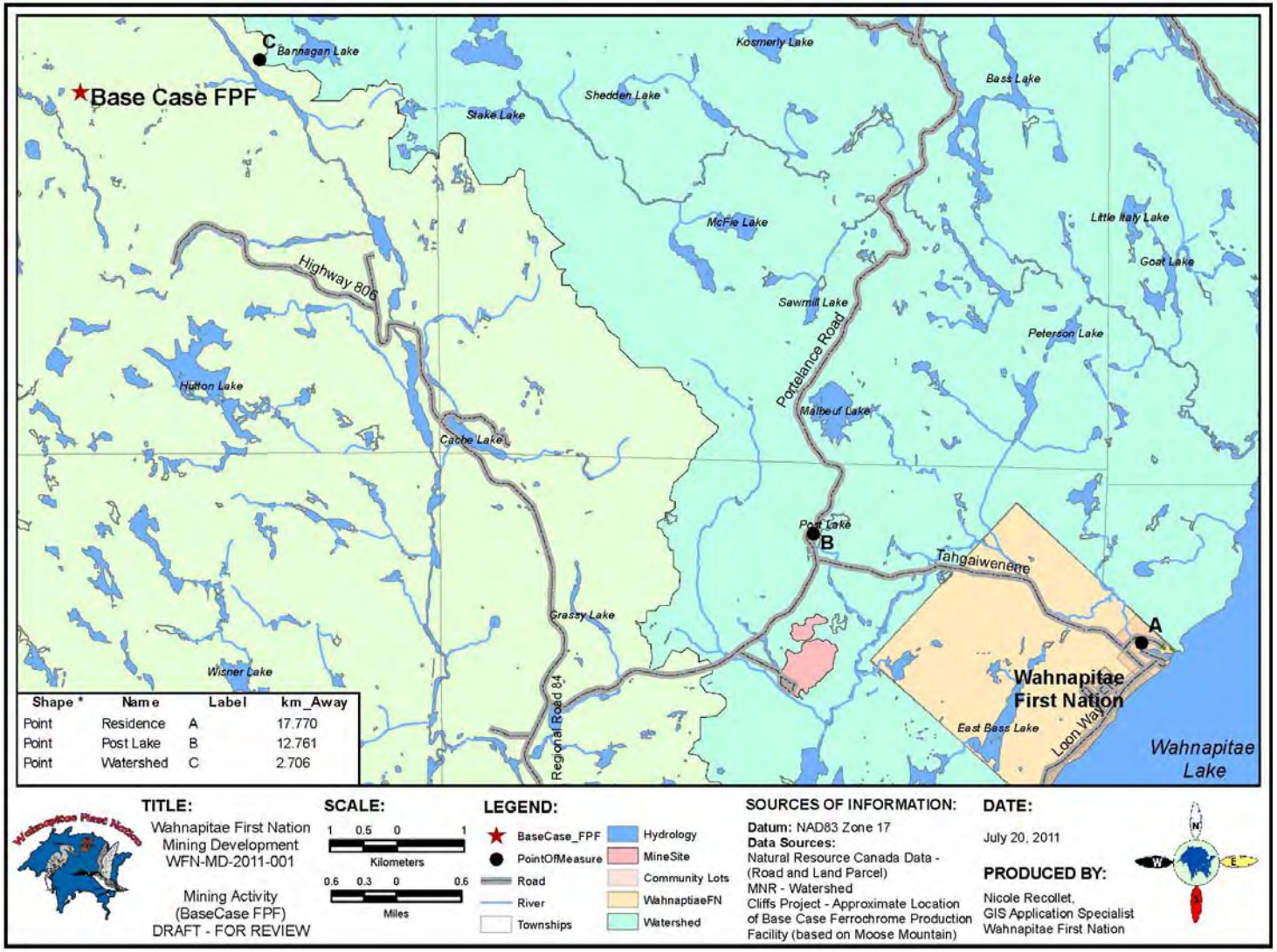
TUS Database



TUS Tools

Add New	Add new records to the interviews, participants, groups and bibliography tables
Edit Selected	Update the currently selected interview, participant, group and bibliography in the tree view
Delete	Delete the currently selected interview, participant, group and bibliography in the tree view
Add Relative	Adds a record to the Relative table for the selected participant
Delete Relative	Removes a record to the Relative table for the selected participant
Show Table	Opens the table associated with the selected interview, participant, group and bibliography in the tree view Use the table window to access attachments
Show Features	Opens the Point, Line, and Polygon tables associated with the selected interview, participant, group and bibliography in the tree view

Environmental Assessment: TEK



Forest Management Plan (FMP)

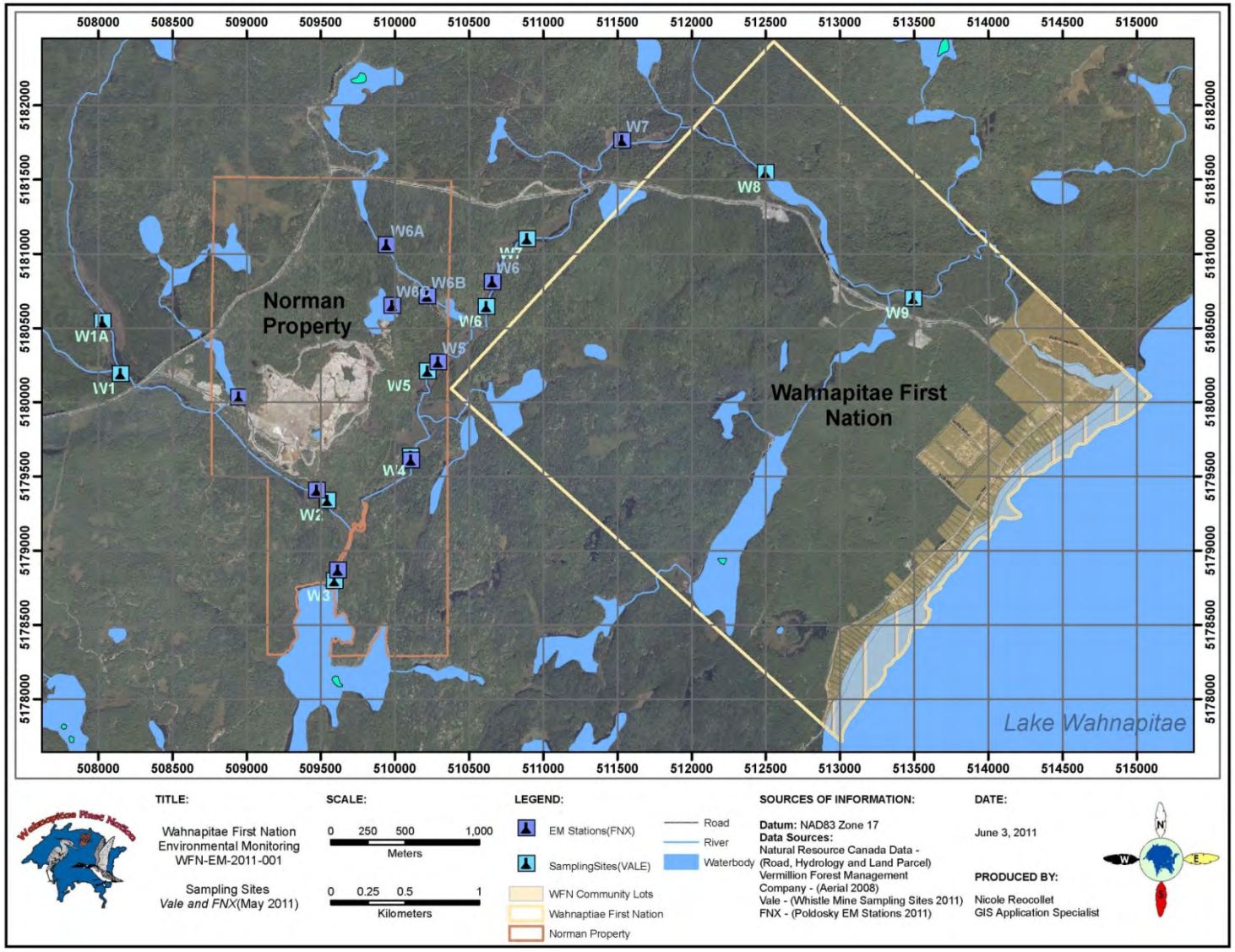
Native Values Monitoring – FMP

Updated Native Values Report to the MNR so that it can be integrated into the Forest Management Planning process.

Reviewed identified forestry protection prescriptions for our native values.

Completed helicopter fly over and drop in to identify potential impacts to our native values.

Environmental Monitoring

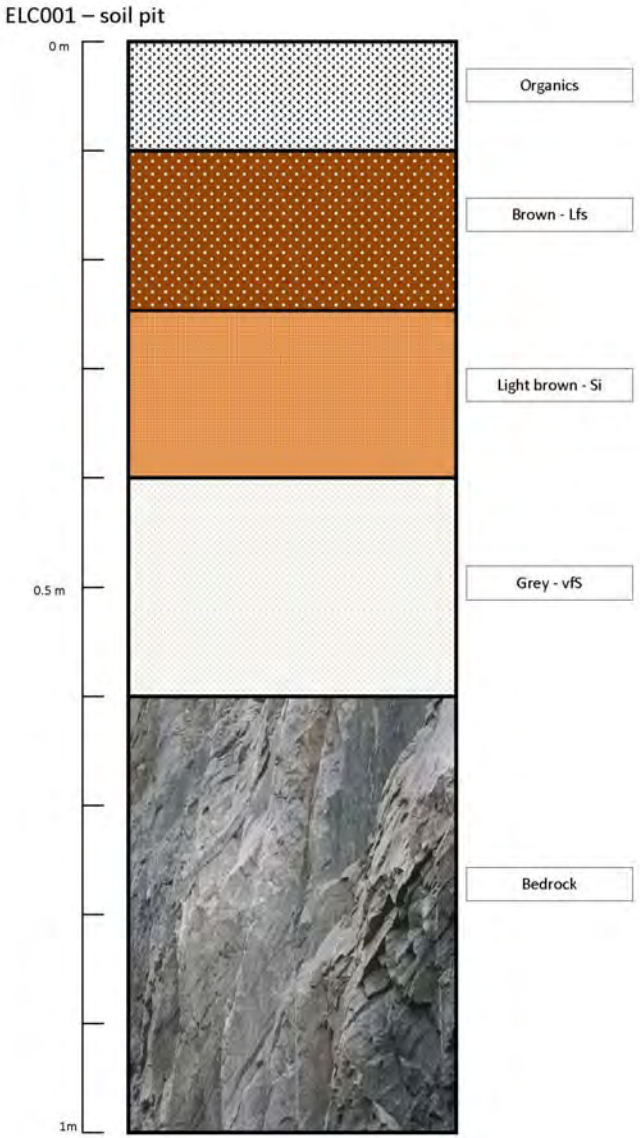


Baseline Data Collection

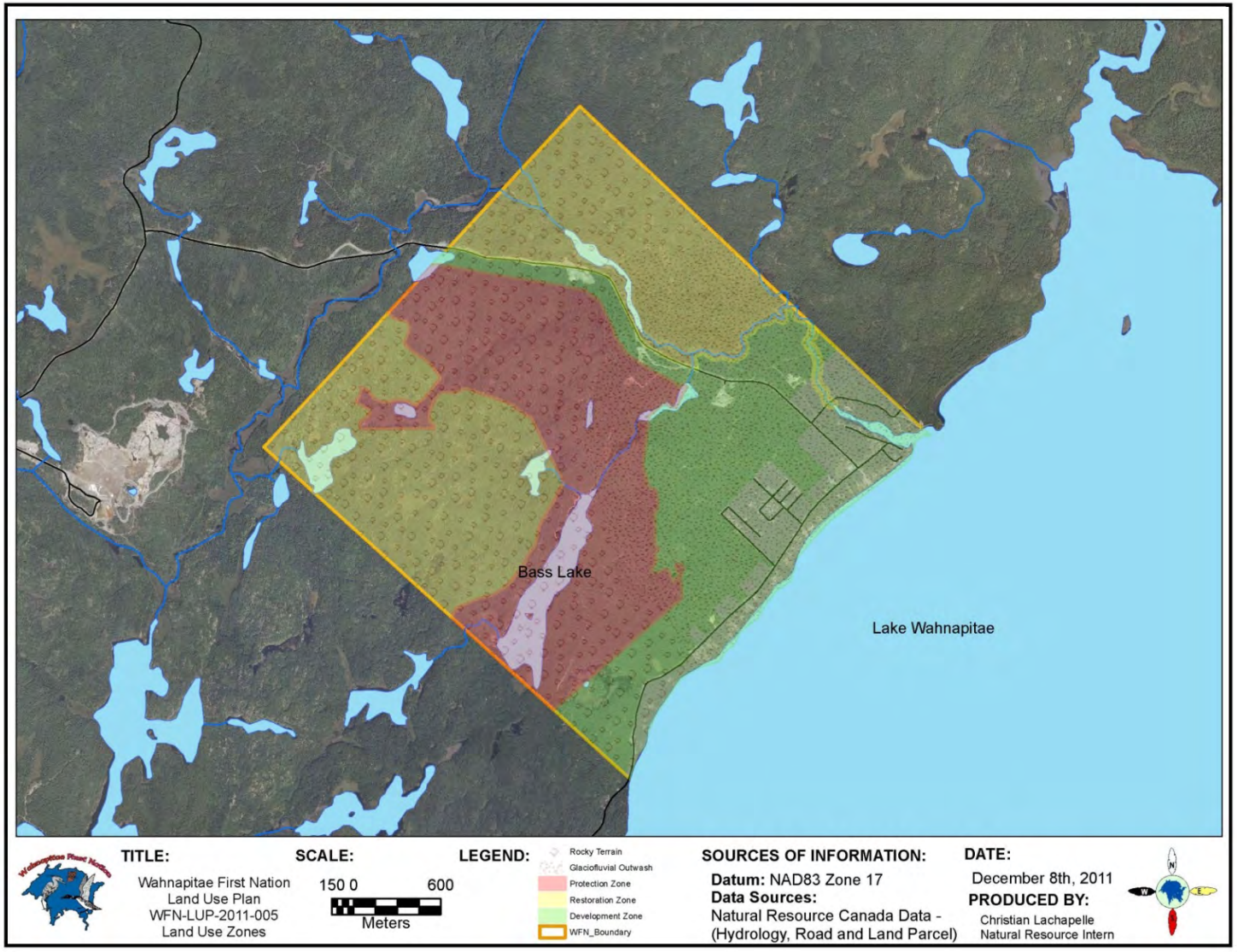
Eco Site Land Classification

Photo Monitoring

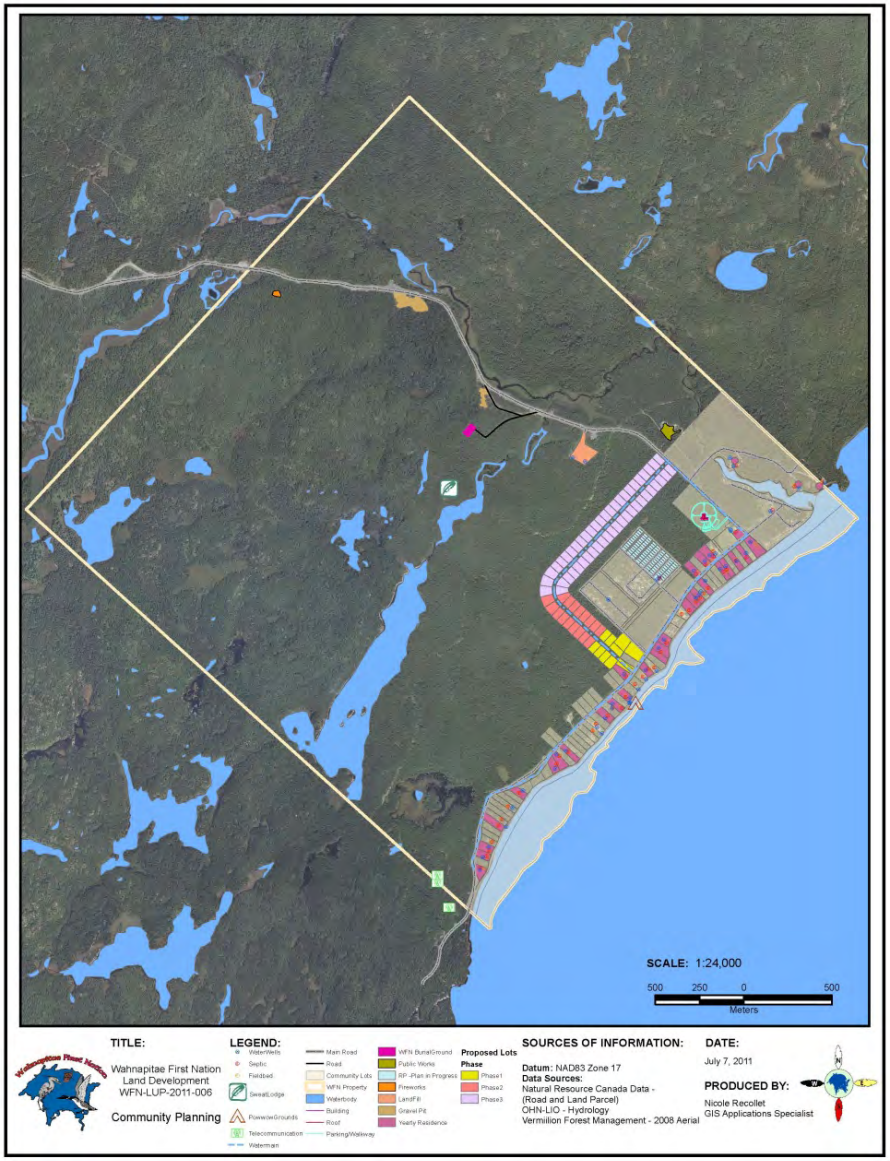
Soil Profile



Land Use Planning

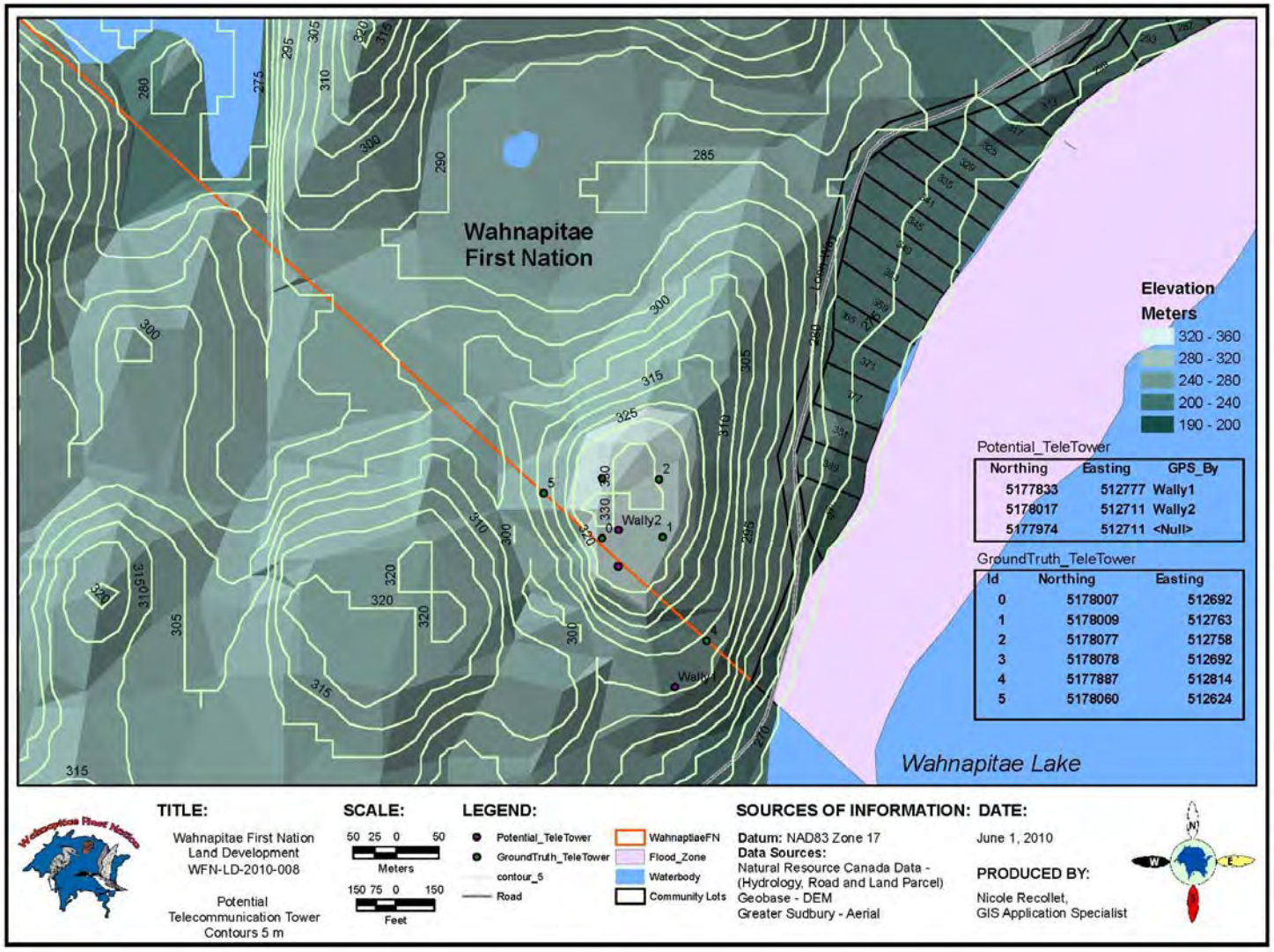


Land Use Planning



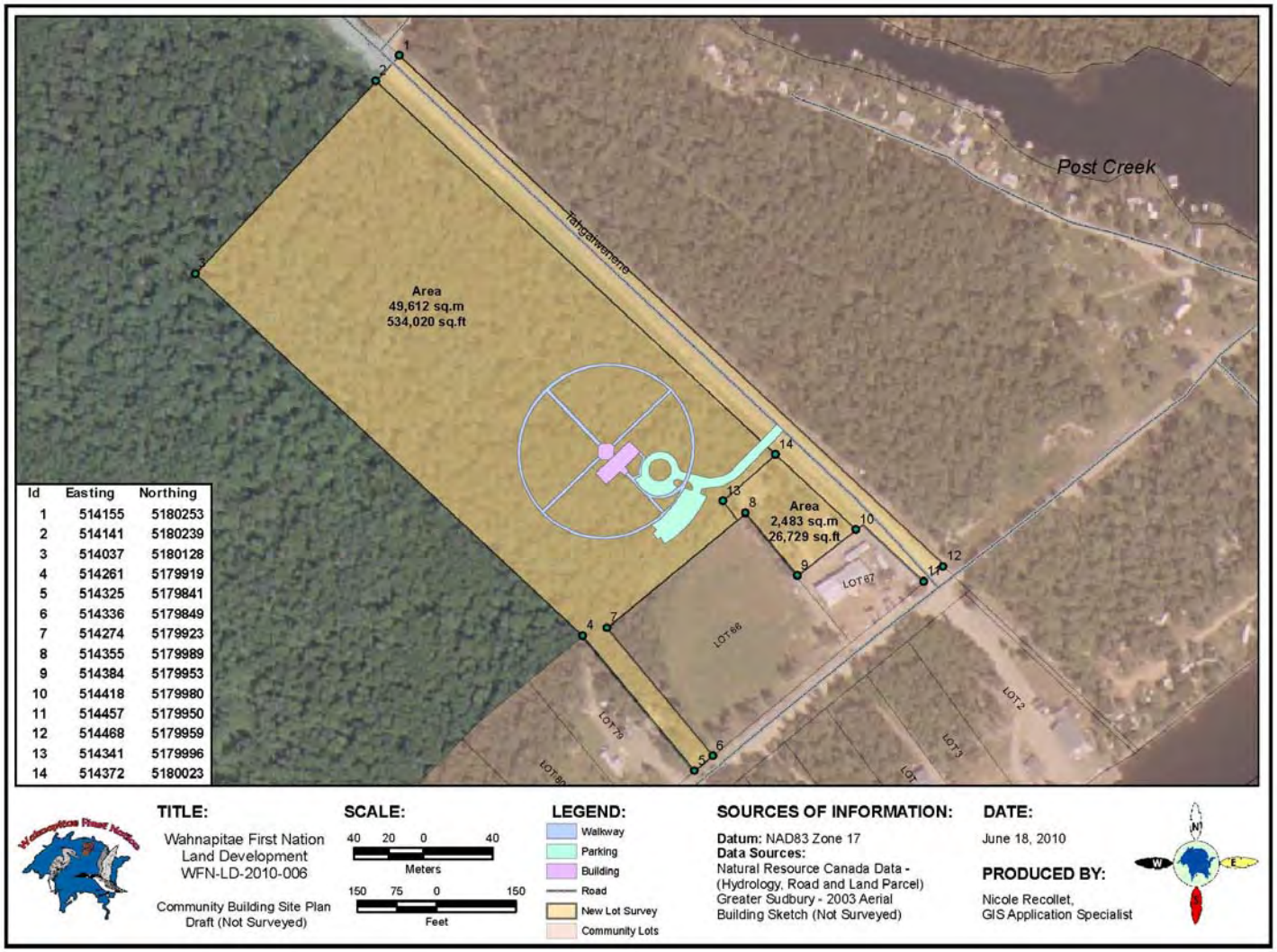
Youth Engagement

Infrastructure



Line of Sight

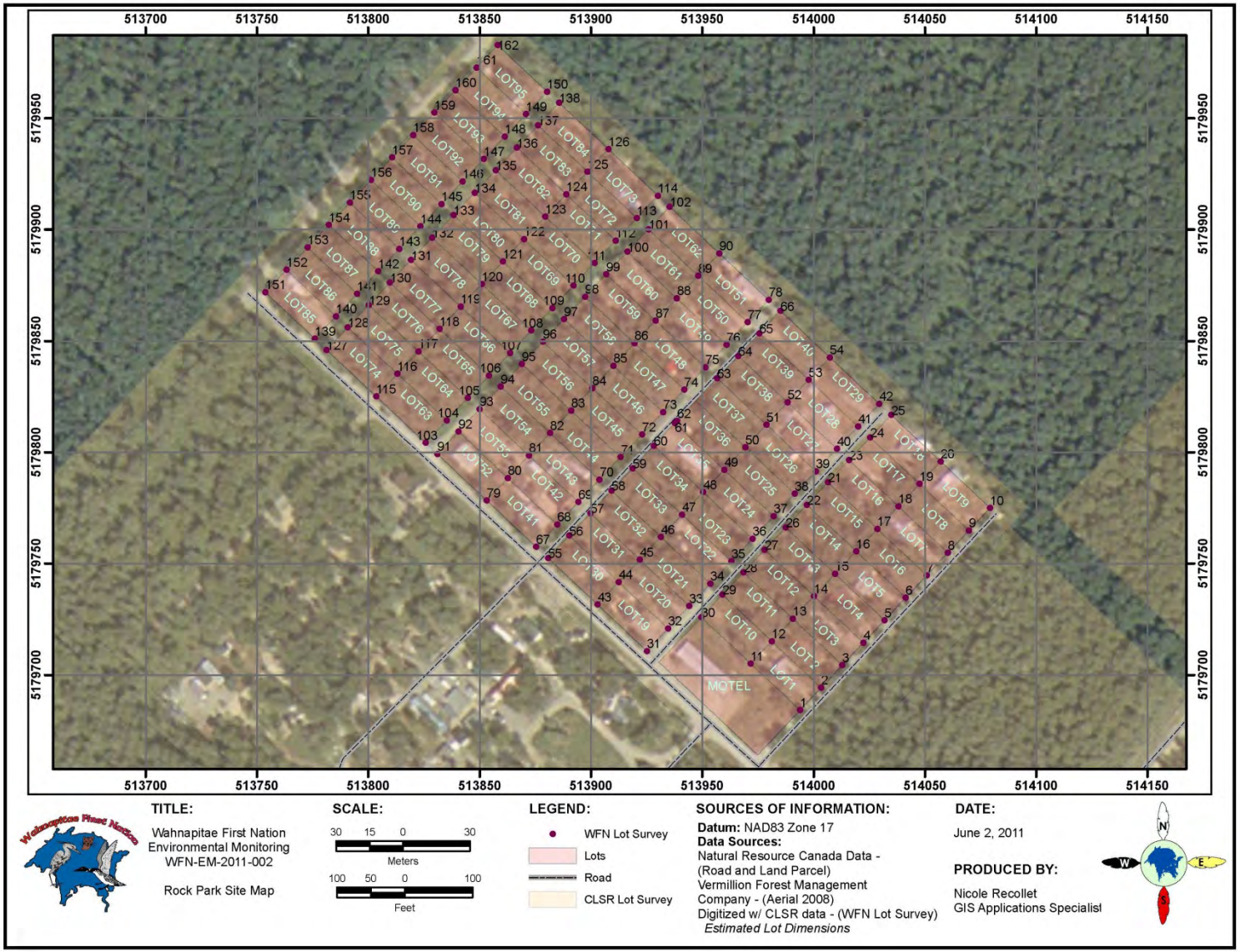
Centre of Excellence



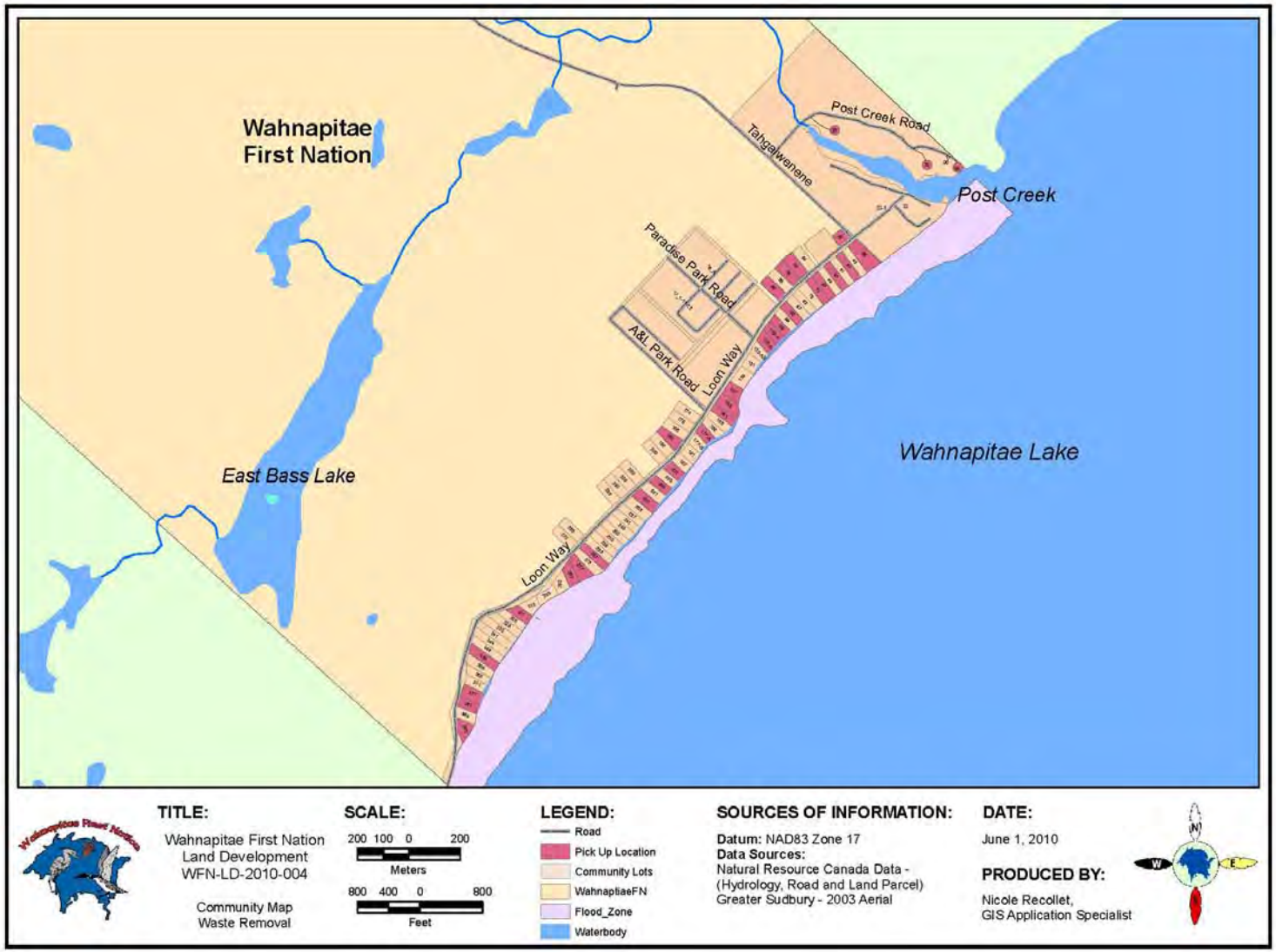
Housing

OBJECT	Northing	Easting
1	5178804	513293
2	5178735	513367
3	5178833	513320
4	5178764	513394
5	5178862	513348
6	5178793	513421
7	5178982	513466
8	5178906	513534
9	5179008	513496
10	5178933	513564
11	5179035	513526
12	5178960	513593
13	5179062	513556
14	5178987	513623
15	5179089	513586
16	5179013	513653
17	5179142	513645
18	5179067	513713
19	5179169	513675
20	5179093	513742
21	5179195	513705
22	5179120	513772
23	5179215	513722
24	5179159	513806
25	5179249	513746
26	5179192	513829
27	5179282	513768
28	5179225	513852
29	5179315	513791
30	5179258	513874

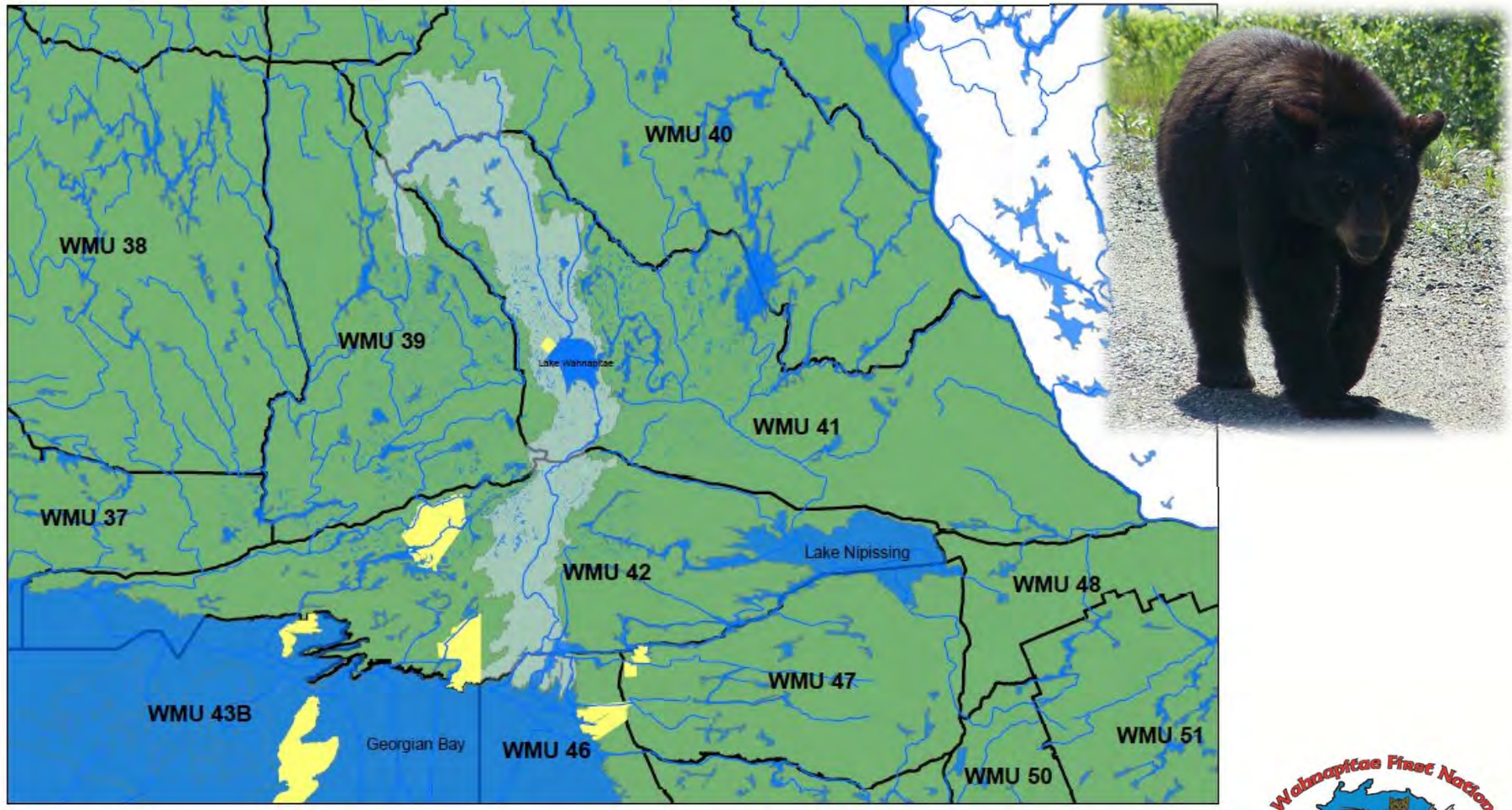
Campground Management



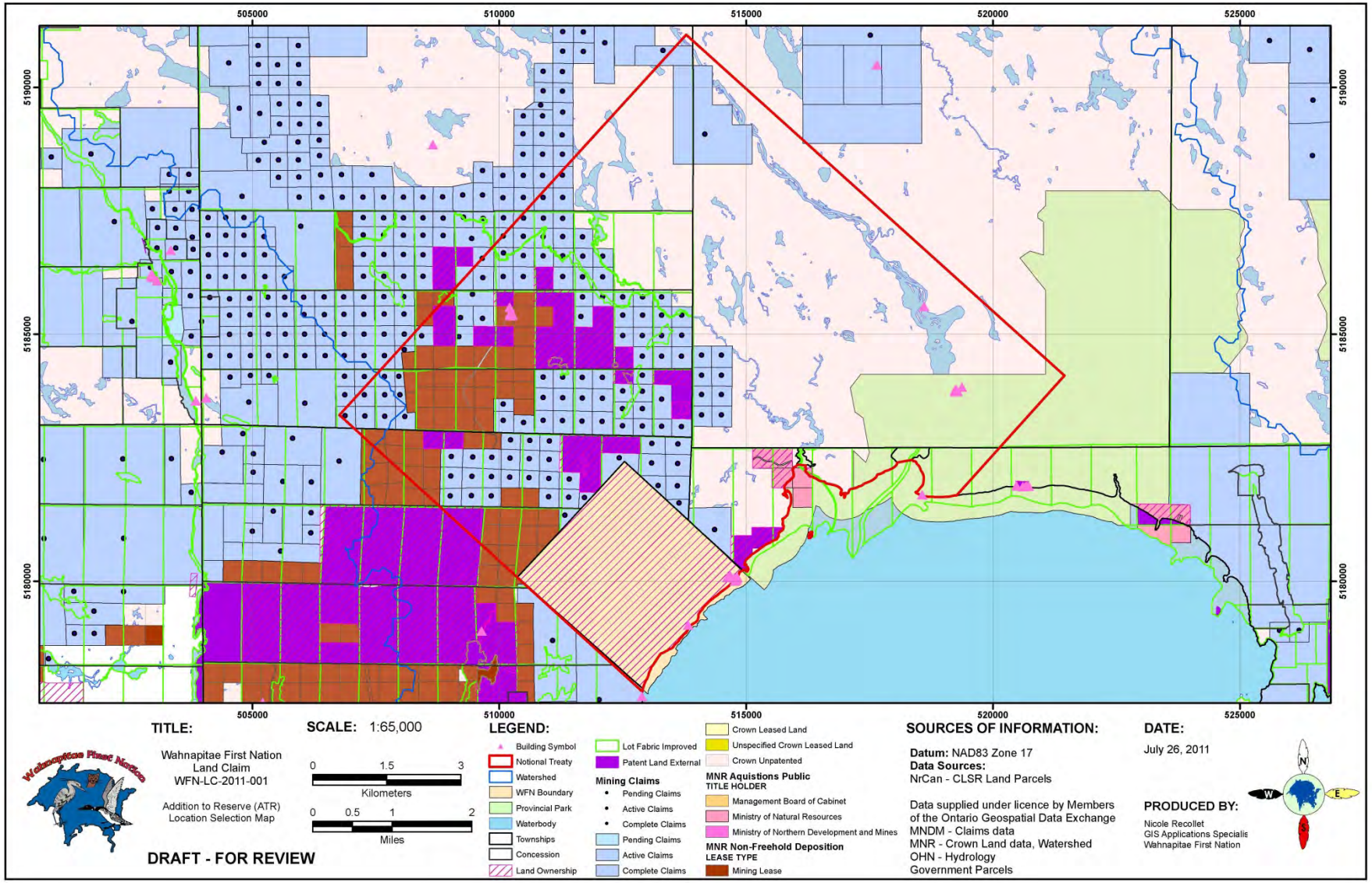
Waste Diversion



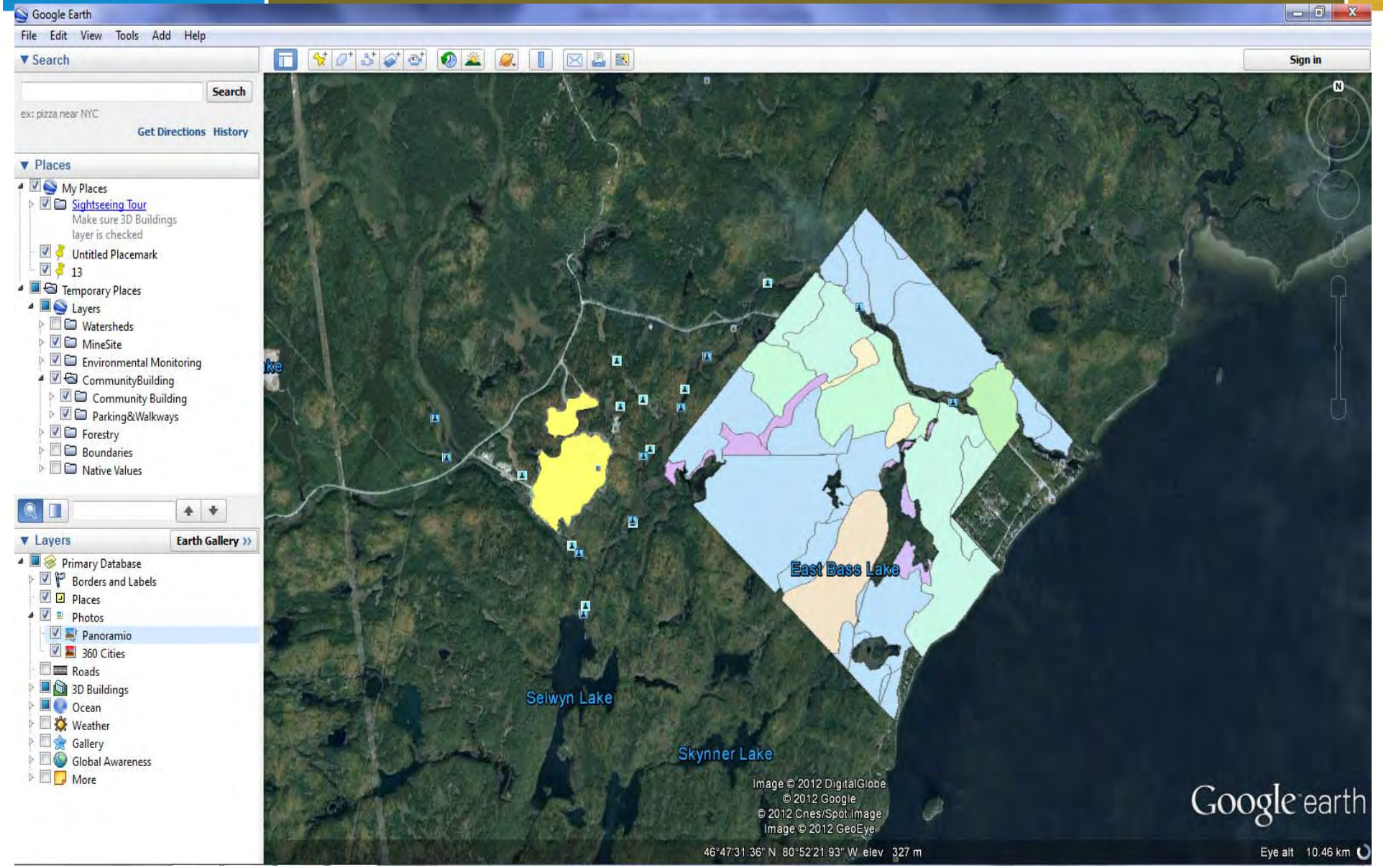
Biodiversity (web-based)



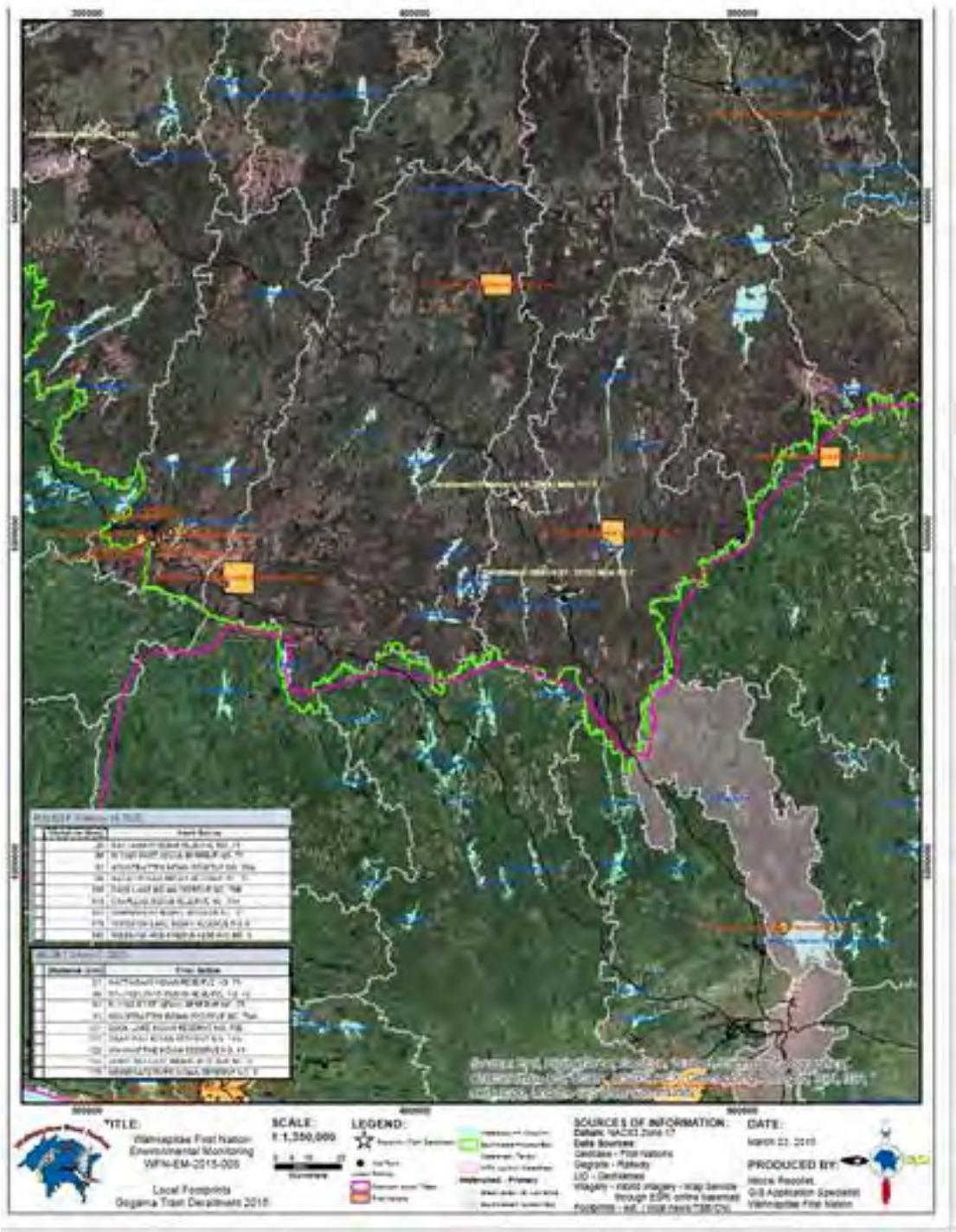
Land Claim Analysis



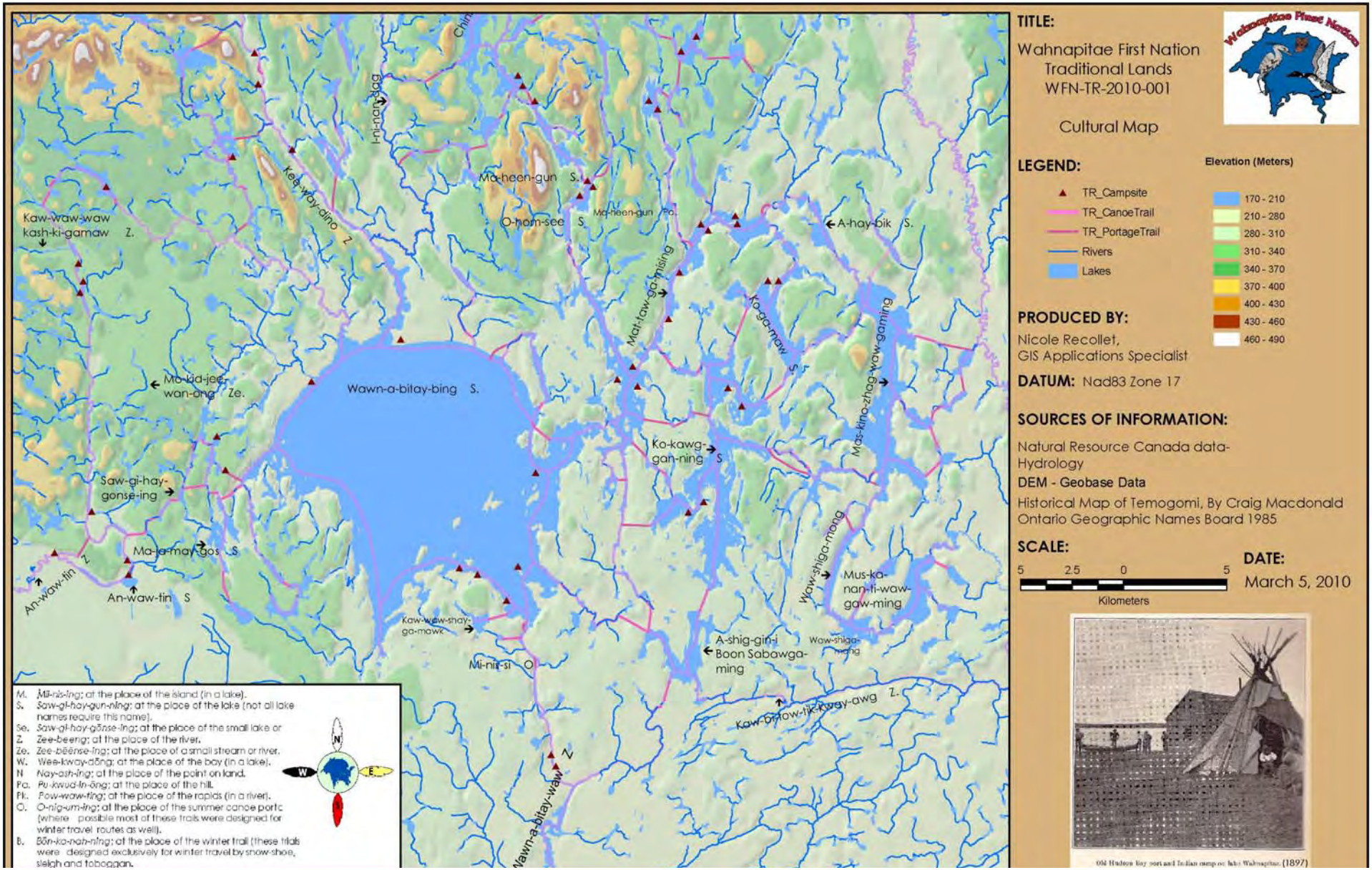
Google Earth Platform: KMZ



Train Derailments



Historic Campsites and Canoe Routes:



TITLE:

Wahnapitae First Nation
Traditional Lands
WFN-TR-2010-001

Cultural Map

LEGEND:

- TR_Campsite
- TR_CanoeTrail
- TR_PortageTrail
- Rivers
- Lakes

Elevation (Meters)

- 170 - 210
- 210 - 280
- 280 - 310
- 310 - 340
- 340 - 370
- 370 - 400
- 400 - 430
- 430 - 460
- 460 - 490

PRODUCED BY:

Nicole Recollet,
GIS Applications Specialist

DATUM: Nad83 Zone 17

SOURCES OF INFORMATION:

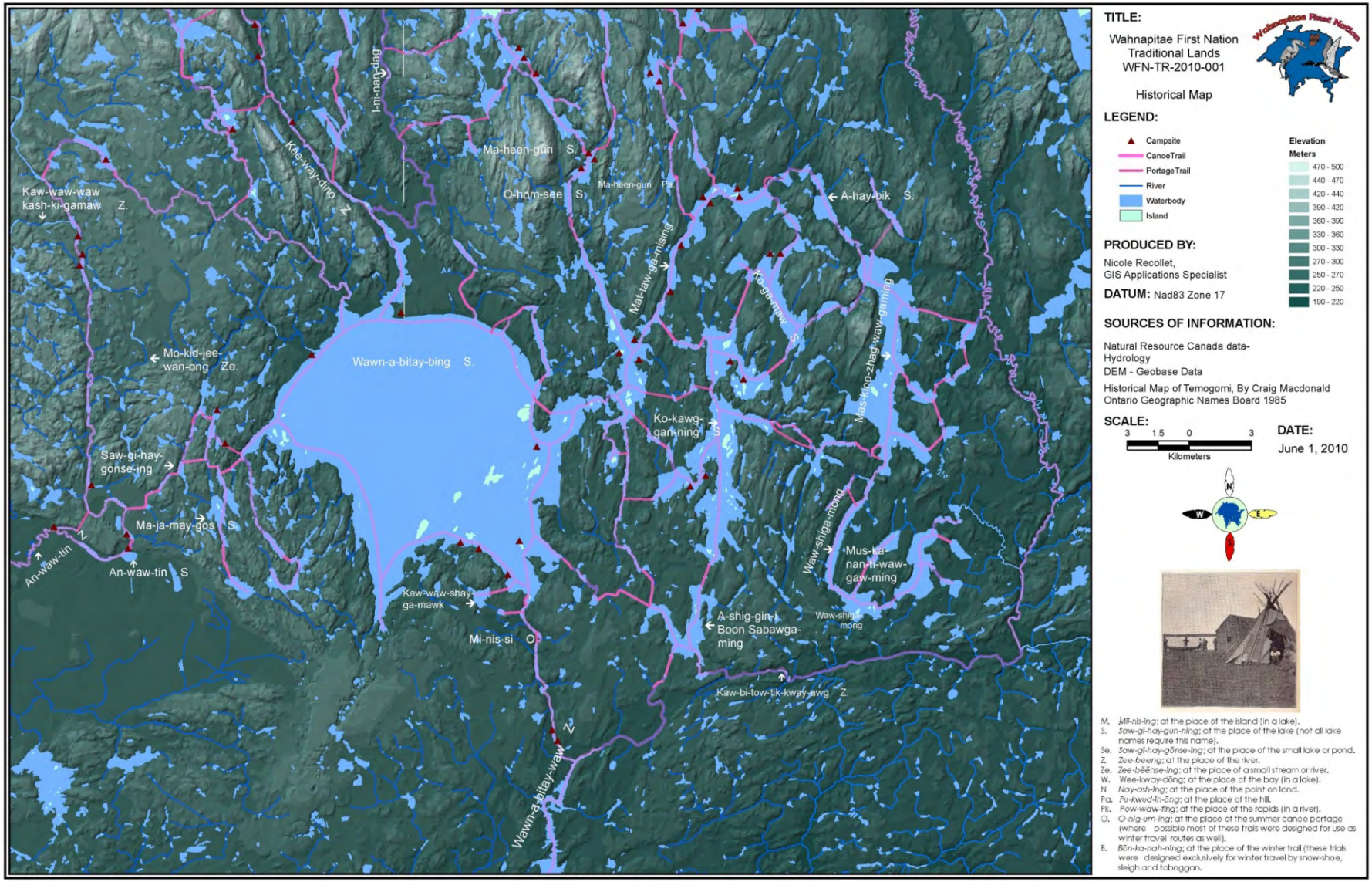
Natural Resource Canada data-
Hydrology
DEM - Geobase Data
Historical Map of Temogomi, By Craig Macdonald
Ontario Geographic Names Board 1985

SCALE:

5 2.5 0 5
Kilometers

DATE:
March 5, 2010

Historic Campsites and Canoe Routes:



TITLE:

Wahnapitae First Nation
Traditional Lands
WFN-TR-2010-001

Historical Map

LEGEND:

- Campsite
- CanoeTrail
- PortageTrail
- River
- Waterbody
- Island

Elevation Meters: 470 - 500; 440 - 470; 420 - 440; 390 - 420; 360 - 390; 330 - 360; 300 - 330; 270 - 300; 250 - 270; 220 - 250; 190 - 220

PRODUCED BY:

Nicole Recollet,
GIS Applications Specialist

DATUM: Nad83 Zone 17

SOURCES OF INFORMATION:

Natural Resource Canada data-
Hydrology
DEM - Geobase Data

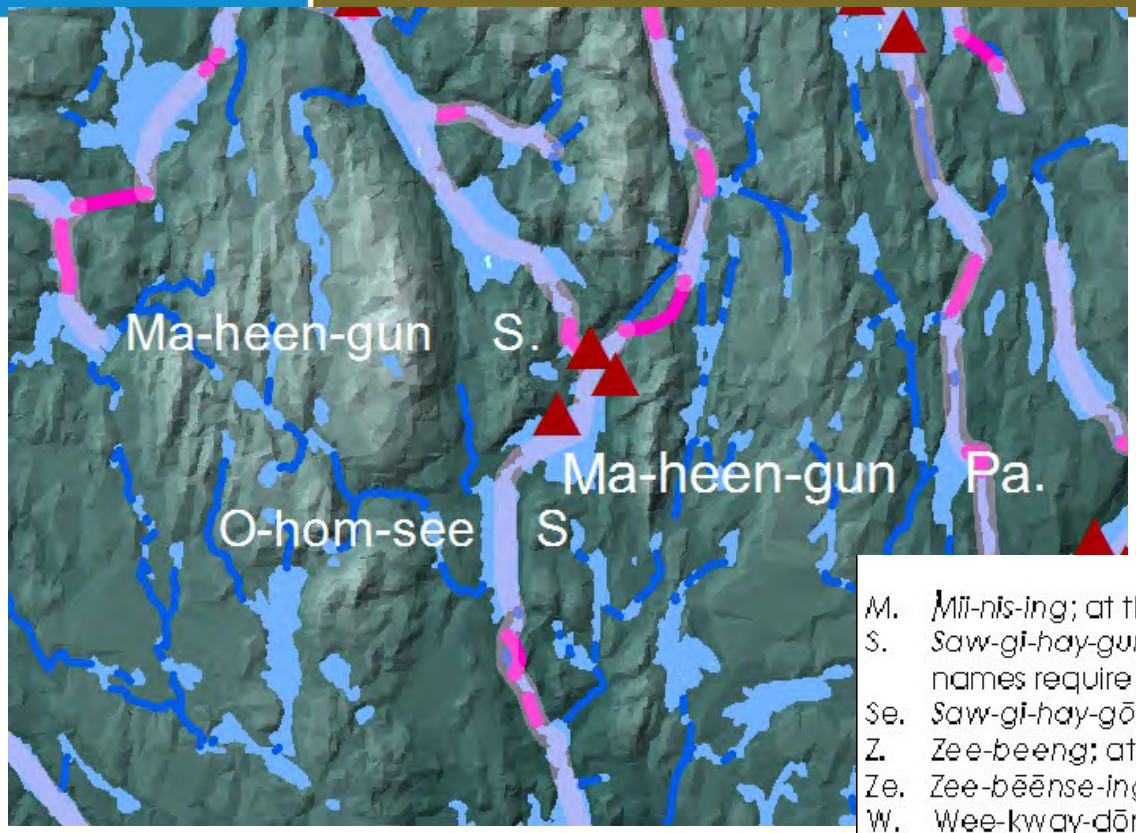
Historical Map of Temogomi, By Craig Macdonald
Ontario Geographic Names Board 1985

SCALE: 3 1.5 0 3 Kilometers

DATE: June 1, 2010

M. *Mī-nis-ing*; at the place of the island (in a lake).
S. *Saw-gi-hay-gun-ning*; at the place of the lake (not all lake names require this name).
Se. *Saw-gi-hay-gōnse-ing*; at the place of the small lake or pond.
Z. *Zee-beeng*; at the place of the river.
Ze. *Zee-bēēnse-ing*; at the place of a small stream or river.
W. *Wee-kway-dōng*; at the place of the bay (in a lake).
N *Nay-ash-ing*; at the place of the point on land.
Pa. *Pe-kwed-in-ōng*; at the place of the hill.
Pk. *Pow-waw-ting*; at the place of the rapids (in a river).
O. *O-nig-um-ing*; at the place of the summer canoe portage (where possible most of these trails were designed for use as winter travel routes as well).
B. *Bōn-ka-nah-ning*; at the place of the winter trail (these trials were designed exclusively for winter travel by snow-shoe, sleigh and toboggan.

Historic Campsites and Canoe Routes



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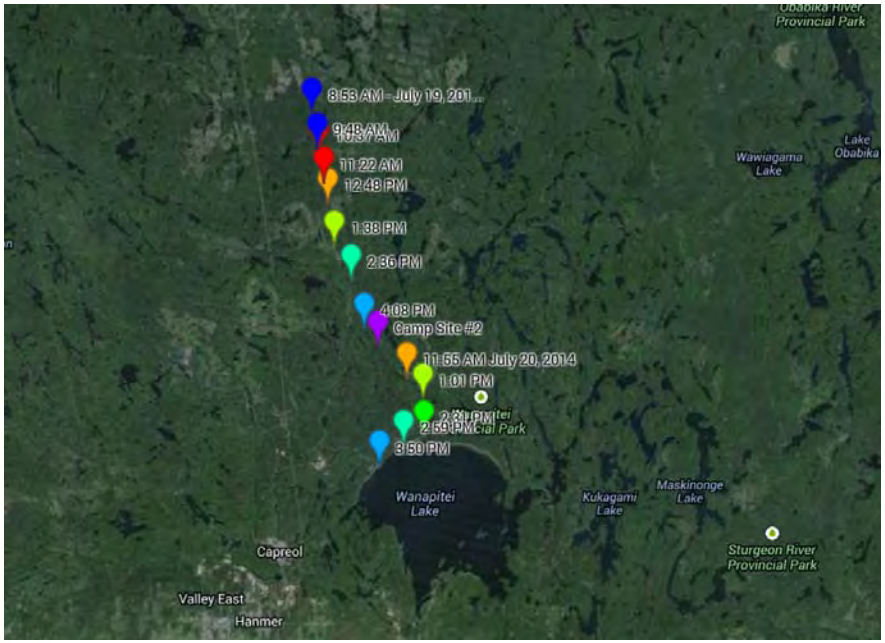
Youth Canoe Journeys

- WFN Youth canoe trips
- 2013 & 2014
- To exercise our Use & Occupancy of the land



Taghaiwinini Technical & Environmental Services Group

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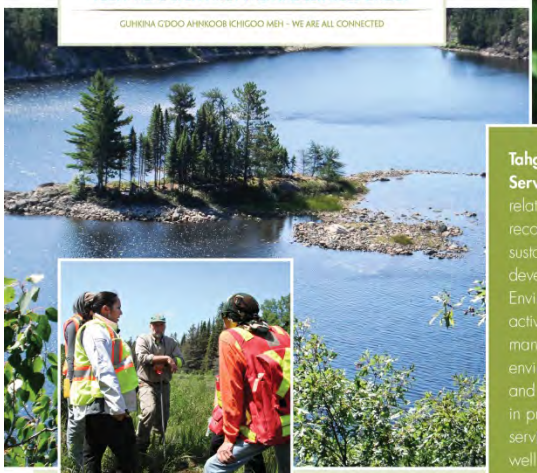
TECHNICAL & ENVIRONMENTAL SERVICES GROUP
GUHKINA G'DOO AHNKOOB ICHIGOO MEH – WE ARE ALL CONNECTED



Tahgaiwinini Technical and Environmental Services Group appreciates our unique relationship with the land and water and recognizes the importance of environmental sustainability, land use and community development. Tahgaiwinini Technical and Environmental Services Group promotes active participation in natural resource management and strives to enhance informed environmental solutions. Tahgaiwinini Technical and Environmental Services Group specializes in providing a wide variety of environmental services for a diverse group of clientele. We are well experienced in working with First Nation communities, government and industry.

GEOSPATIAL APPLICATIONS

More and more, geospatial analysis is becoming an integral part of environmental management. Geospatial technology is proven to enhance informed decision making. Tahgaiwinini Technical and Environmental Services Group is committed to furthering the development of integrated geospatial solutions for all clients. Geospatial analysis can enhance: Community Development, Land Use Planning, Historical Use and Occupancy Studies, Traditional Ecological Knowledge Management, Public Participation Mapping and a whole slew of infinite applications.

Types of GIS Applications:

- Customized map document production utilizing cartographic principles and geographic tools.
- Geospatial data management strategies and methods.
- Geospatial analysis for resource management and planning processes including but not limited to: area/volume estimates, land-use analysis, timber supply calculations, viewshed analysis, biodiversity analysis cumulative effects analysis, environmental assessments screenings and watershed assessments.
- Innovative geospatial data integration utilizing web mapping platforms and adobe portable document formats (KMZ, PDF).
- Digitizing and scanning hardcopy and historical maps.
- Geo-referencing and Digital Elevation Models (DEM).
- Aerial photography interpretation and time lapse projects.
- Remote Sensing – classification study.
- Data Layer Compilation and Resource Search.
- Large scale map printing and plotting.

www.wahnapitaefirstnation.com
Tahgaiwini Technical and Environmental Services Group is a division of Wahnapitae First Nation.

ENVIRONMENTAL MANAGEMENT INITIATIVES

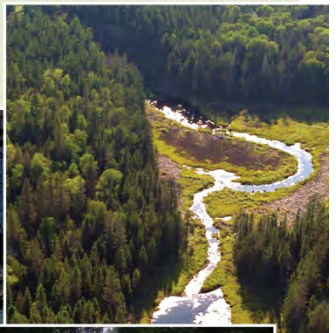
- Exploration Support related to prospecting, staking, line cutting and drill site access and rehabilitation
- Environmental monitoring programs (surface water grab samples, groundwater well sampling, manual flow measurements, water quality metre, Levellogger downloads, profiling water channels, photos) using common sampling procedures.
- Baseline data collection using top of the line Ground Positioning Systems (GPS) technology with sub-metre accuracy.
- Employ provincial Ecological Land Classification techniques related to soil profiles and substrates, soil moisture regimes, soil texture, vegetation and tree cover, record incidentals.
- Wetland evaluations.
- Environmental photo monitoring programs.
- Woodlot Assessment and Management Planning.
- Treemarking asssessment and analysis.

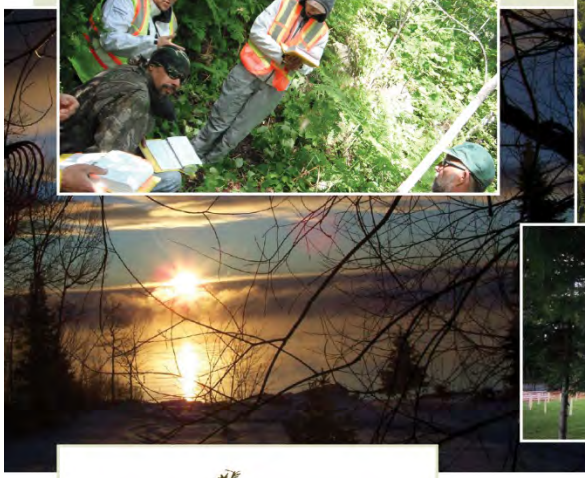
First Nation Awareness Programs

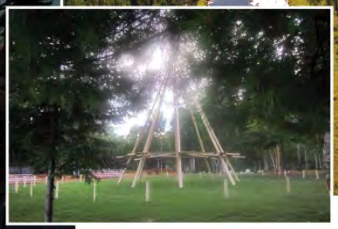
- Customized First Nation awareness training for industry/governments and other organizations.

PROFESSIONAL TEAM

Tahgaiwinini Technical and Environmental Services Group is a professional group that has specialized and accredited knowledge in First Nation land management regimes, environmental assessment practices, forestry and wildlife management systems, applied geospatial management. Individuals on our team have professional designations and have been certified by the Canadian Environmental Certification Approvals Board.







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TECHNICAL & ENVIRONMENTAL SERVICES GROUP
GUHKINA G'DOO AHNKOOB ICHIGOO MEH – WE ARE ALL CONNECTED

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www.wahnapitaefirstnation.com
Tahgaiwini Technical and Environmental Services Group is a division of Wahnapitae First Nation.