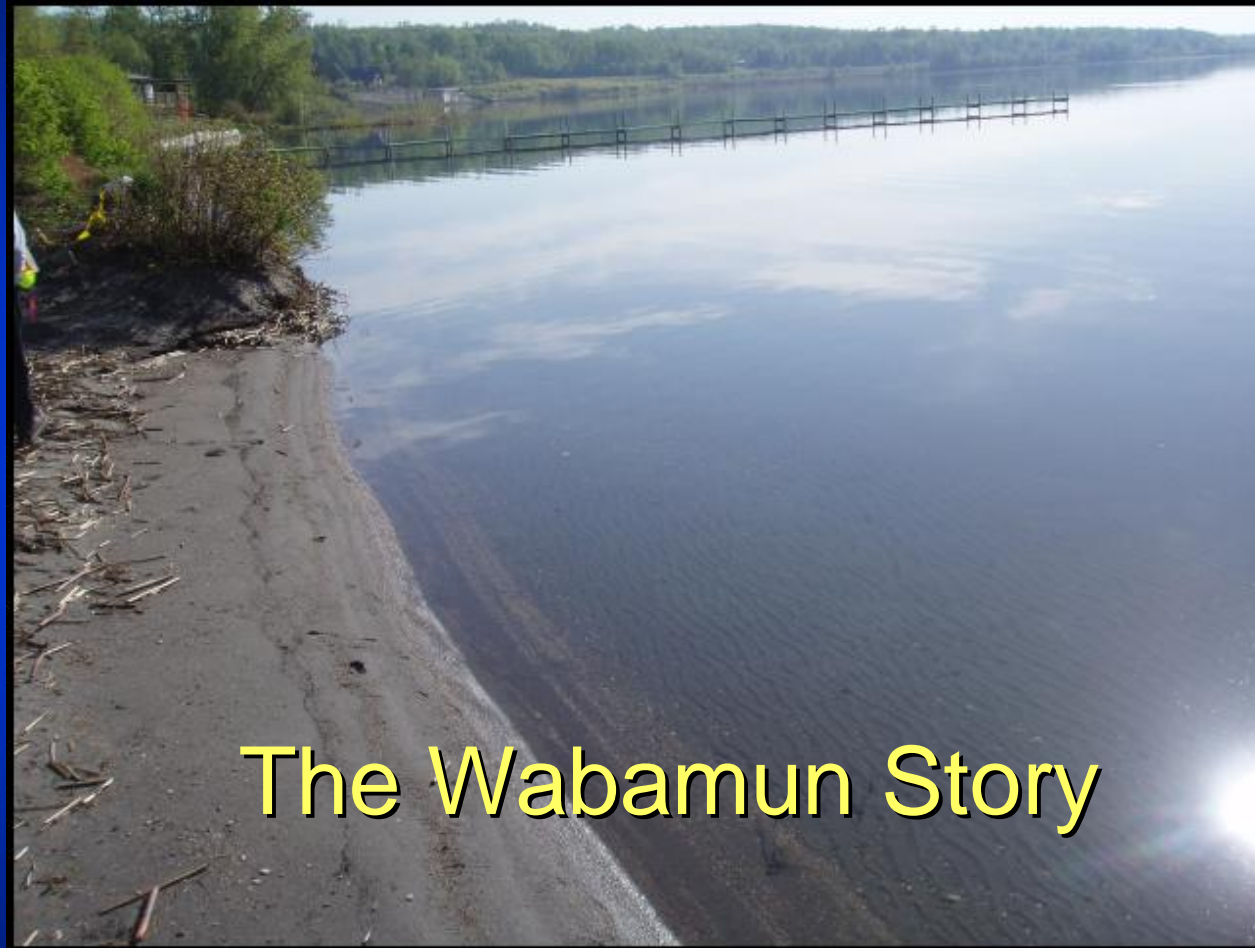


Emergency Response Management



Wabamun Derailment

- The Spill
- The Lake
- Containment
- Spill Behaviour
- Lake Operations
- Spill Management

The Spill


0520 MDT August 3, 2005



30351 03 derailed at mile 49.4,
Edson Subdivision

140 car train derailed 43 cars

- 25 bunker C (11 leaked)
- 1 pole treating oil
- 1 toluene

- 
- An aerial photograph showing a large body of water on the left, a dense forest in the center, and a residential area on the right. A long train of freight cars is visible, running parallel to the shoreline and through the forest. In the foreground, there are several buildings, including a large one with a green roof, and a red crane. A small boat is docked at a pier in the water.
- oats
 - pulp
 - canola
 - wallboard

August 3, 2005

Spill Volumes

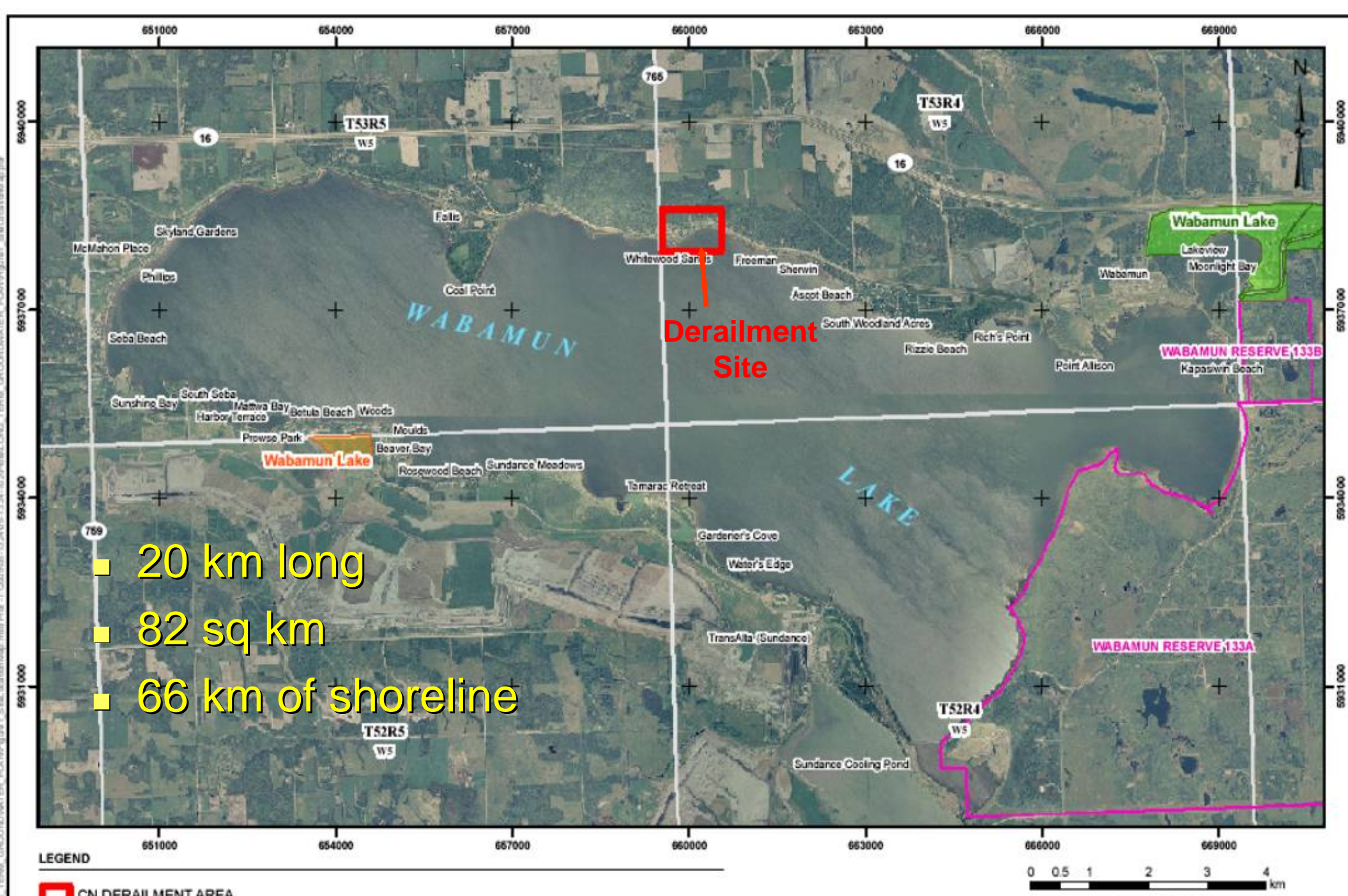
Total 800,500 L



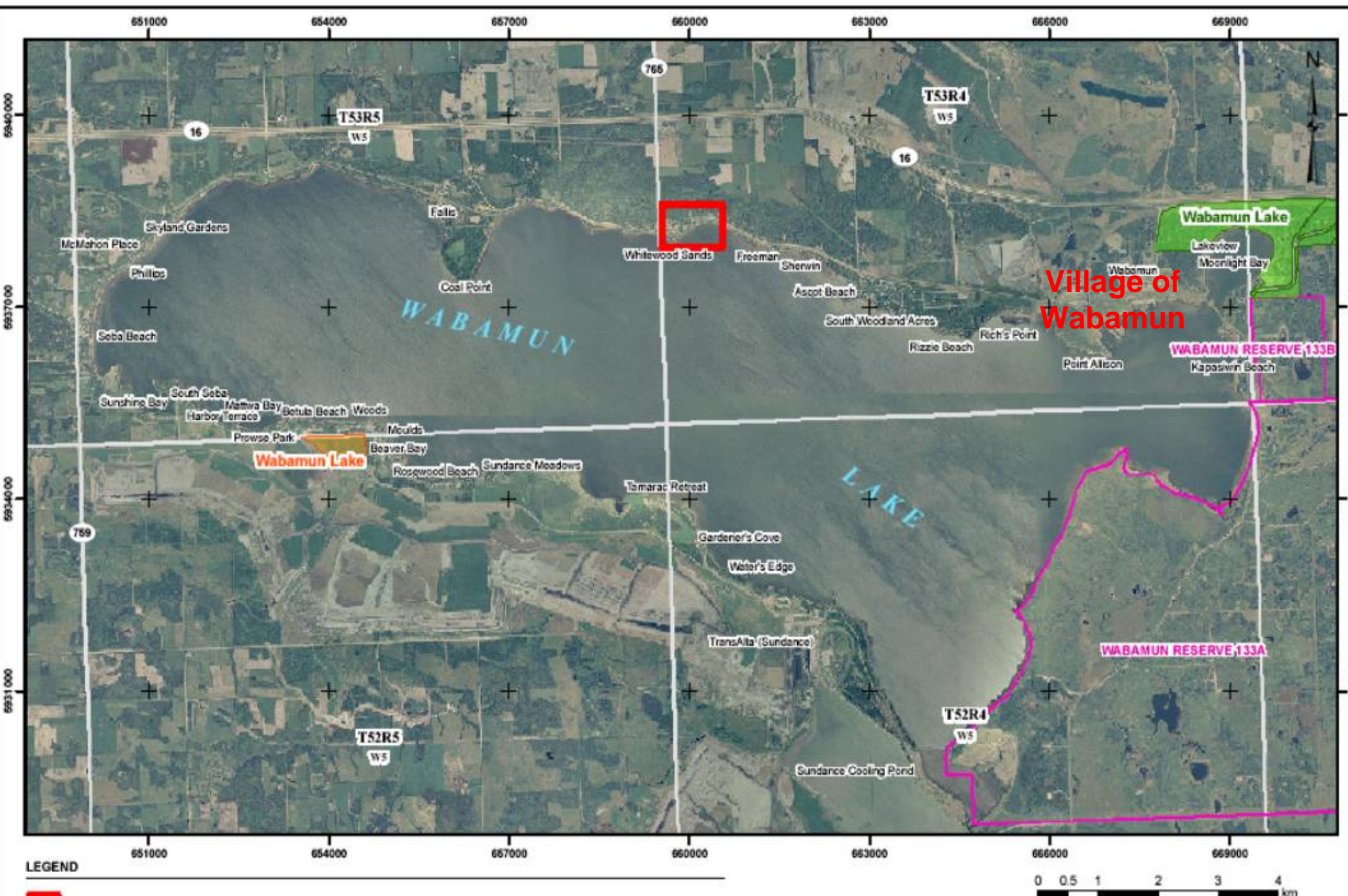
August 3, 2005



The Lake



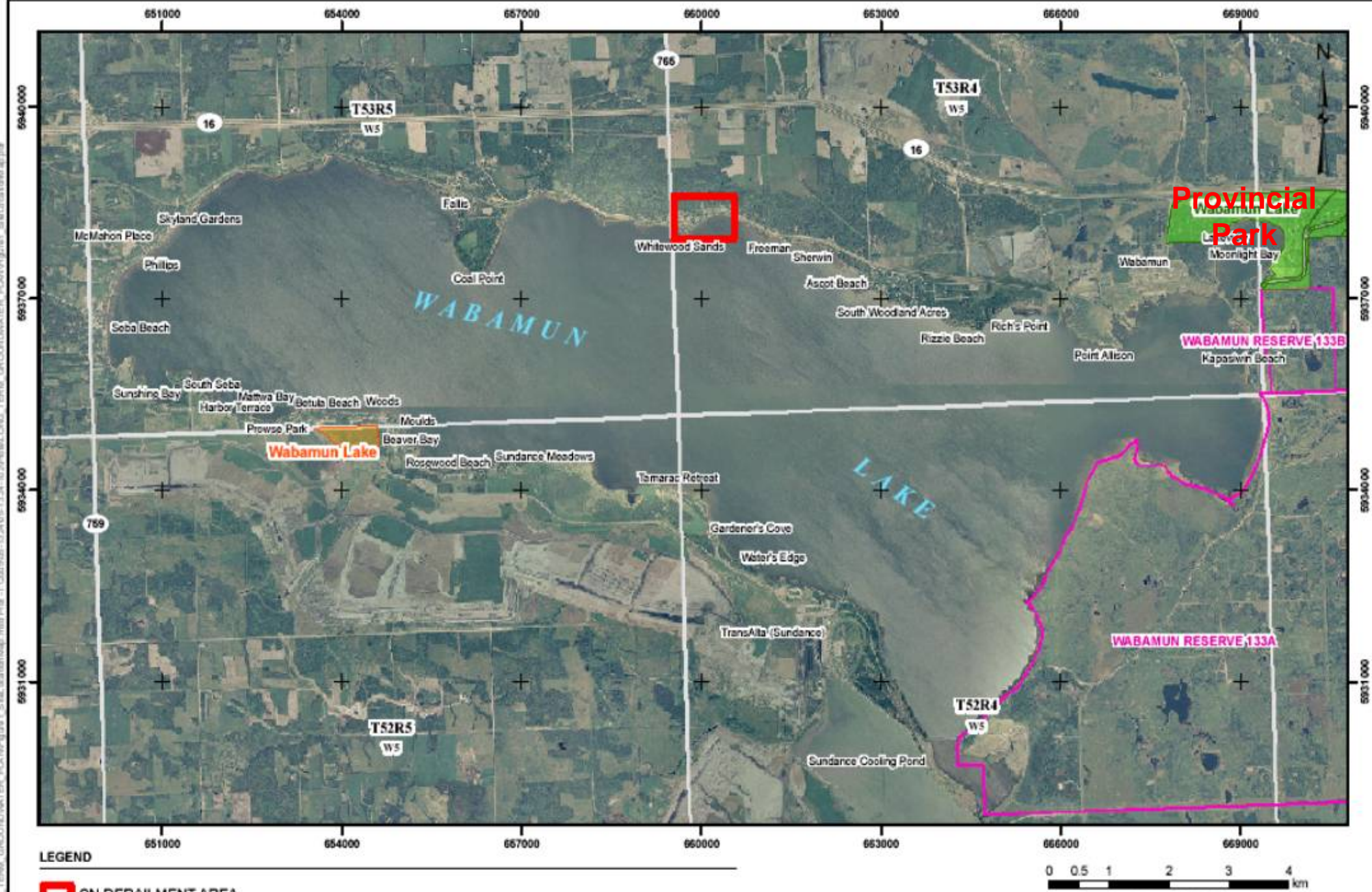
- 20 km long
- 82 sq km
- 66 km of shoreline

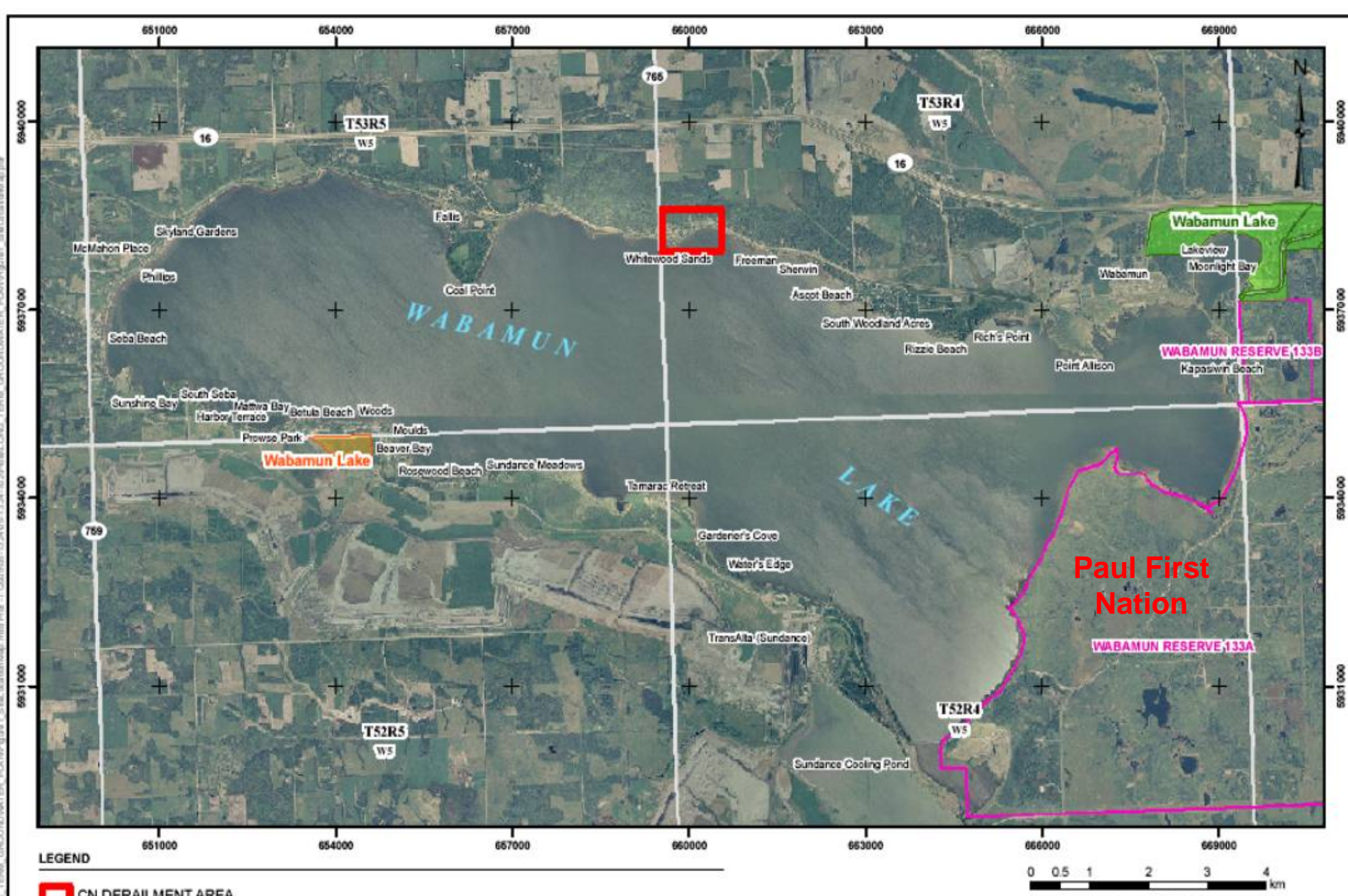


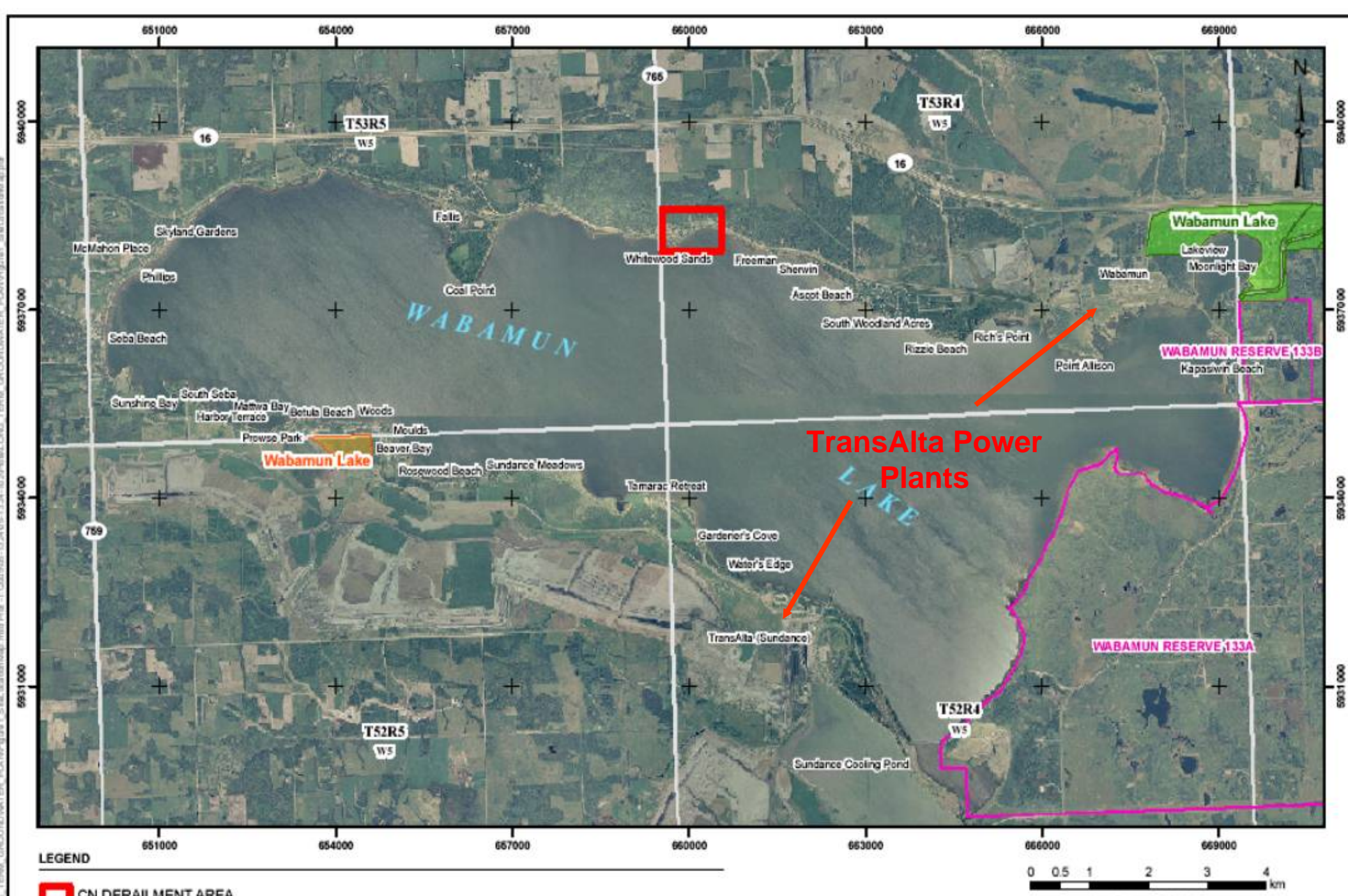
LEGEND

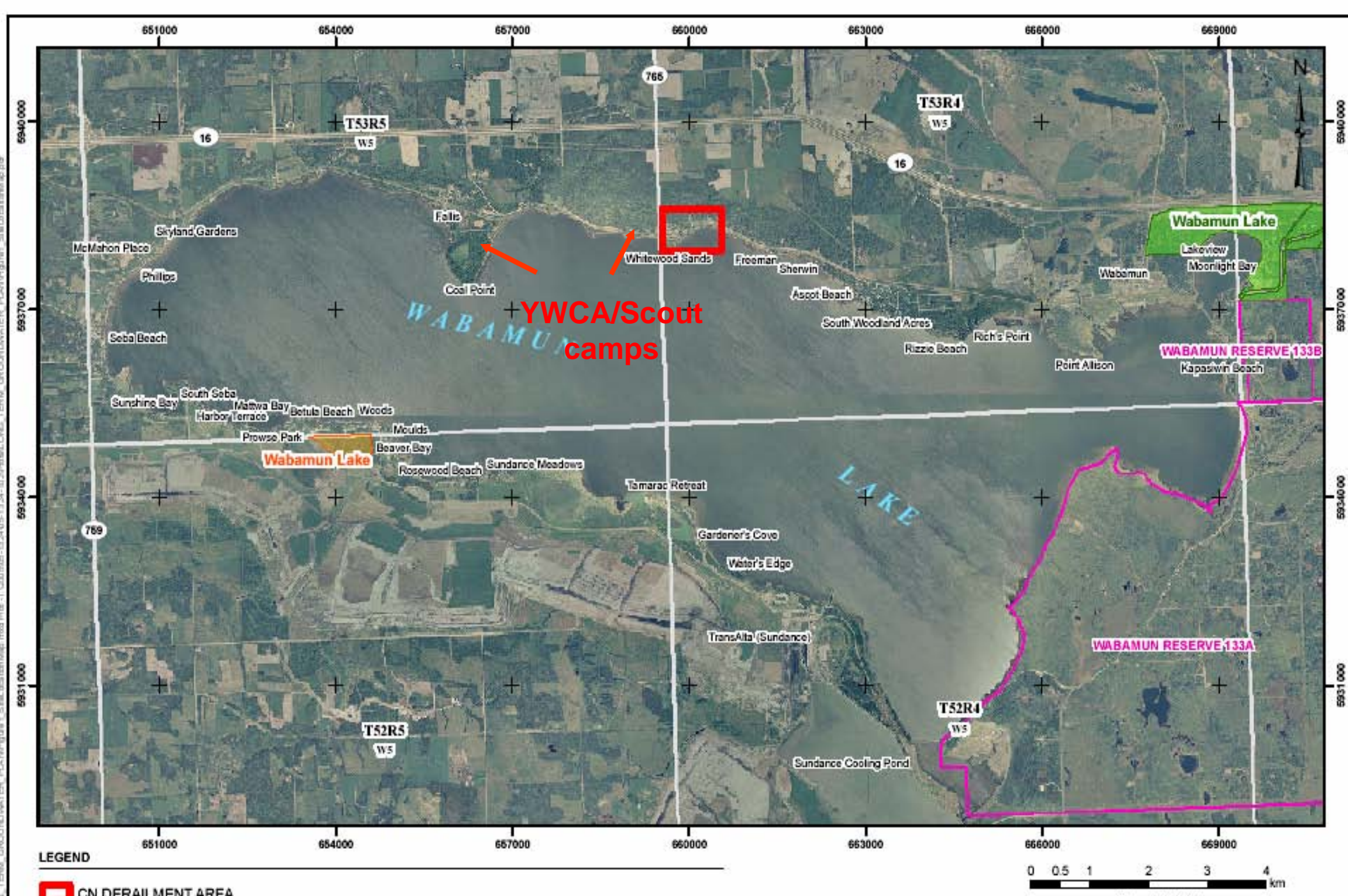
 CN DERAILMENT AREA

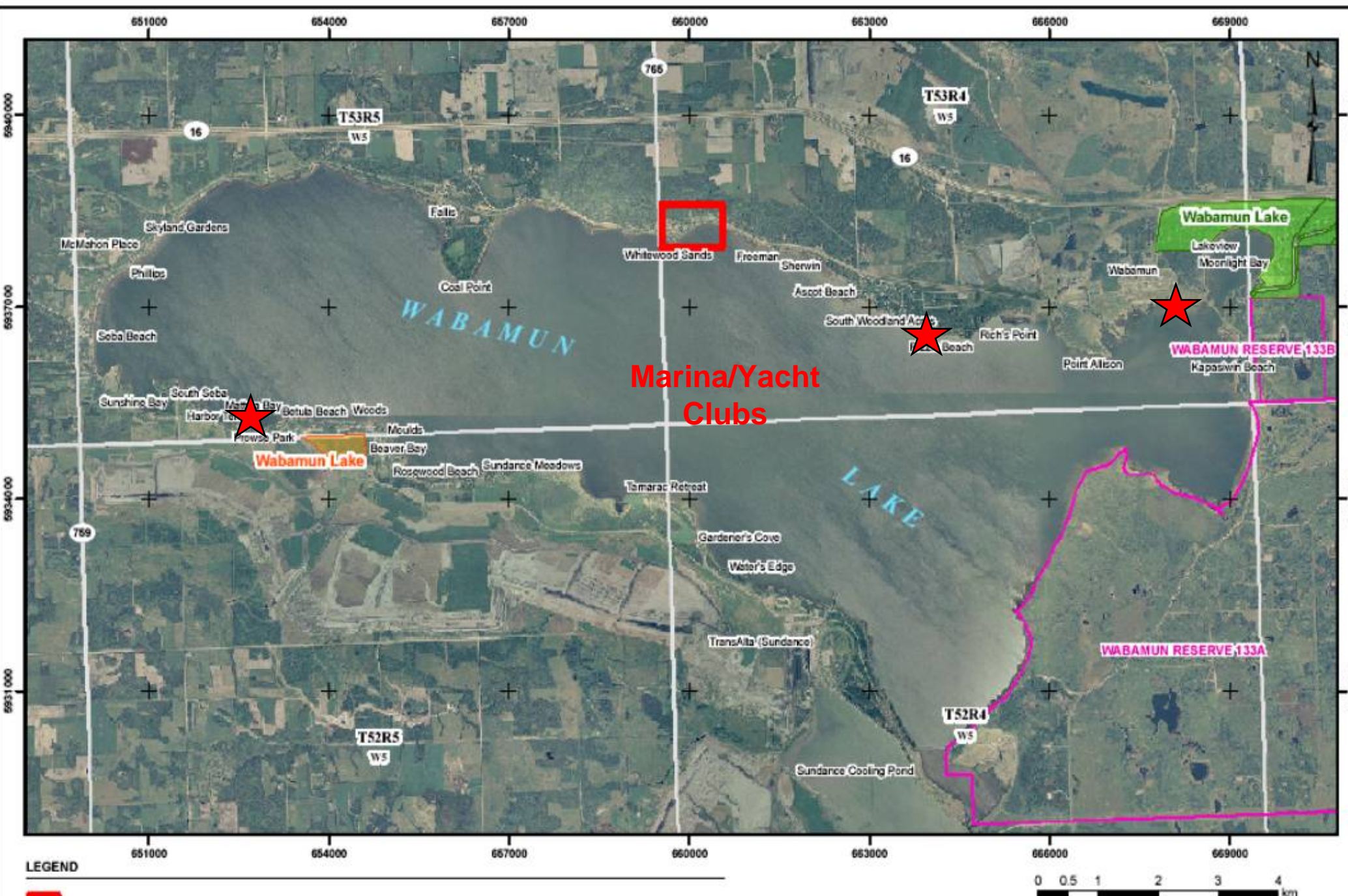
0 0.5 1 2 3 4 km



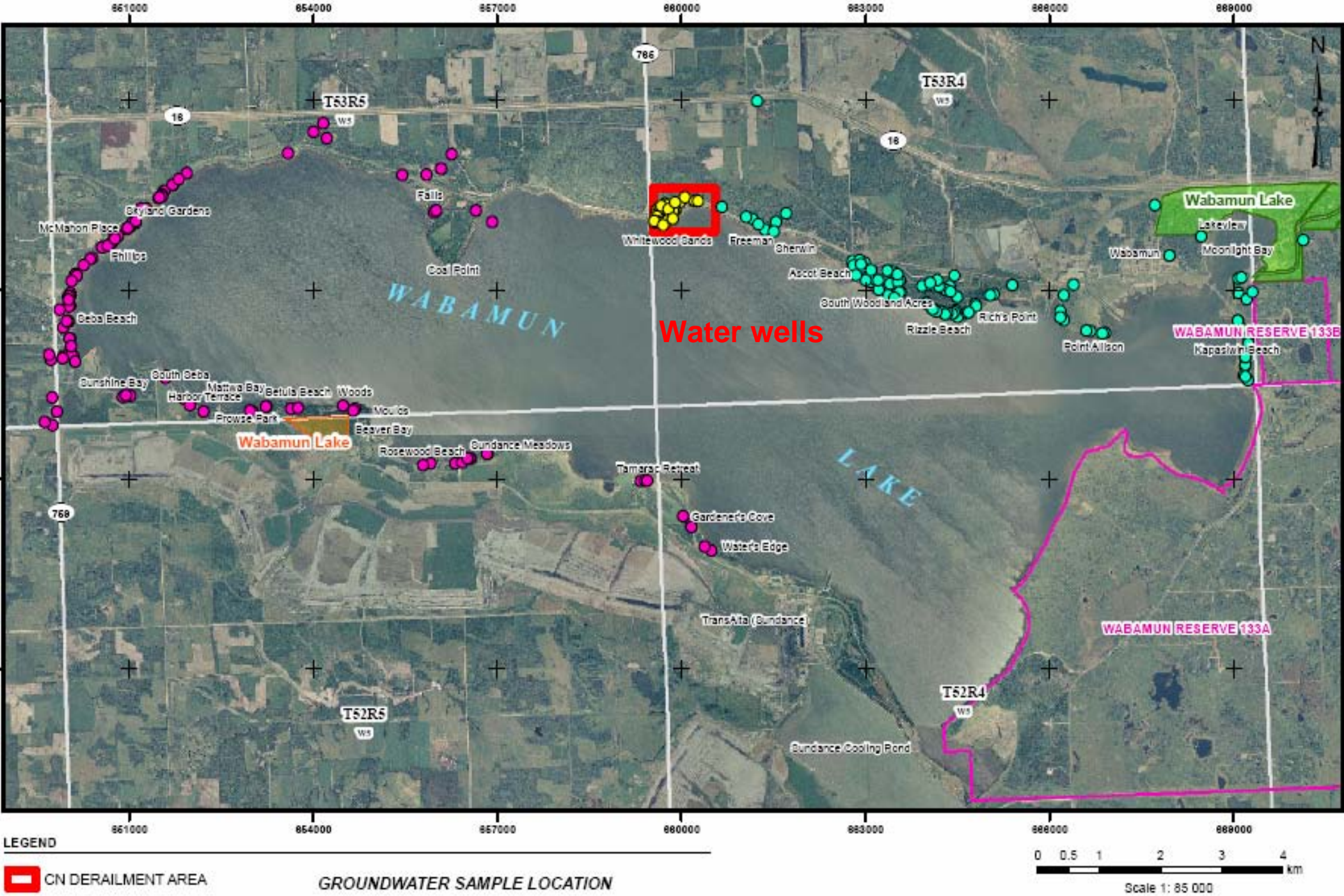








Marina/Yacht
Clubs



Containment and Recovery

August 3, 2005



August 3, 2005





16 vacuum trucks
+ mini-vacs

August 4, 2005

August 3, 2005





Total Bunker C recovered: 563,000 L

- 320,000 L liquid product

- 231,000 L removed in contaminated soil

- 12,000 L recovered in sludge

Remaining volume – 149,000 L

1.24 million litres transloaded



Spill Behaviour

August 3, 2005





August 3, 2005

August 4, 2005





August 4, 2005





Lake Operations

August 3

6 boats, 30 responders on the lake

4500' absorbent boom

1000' containment boom









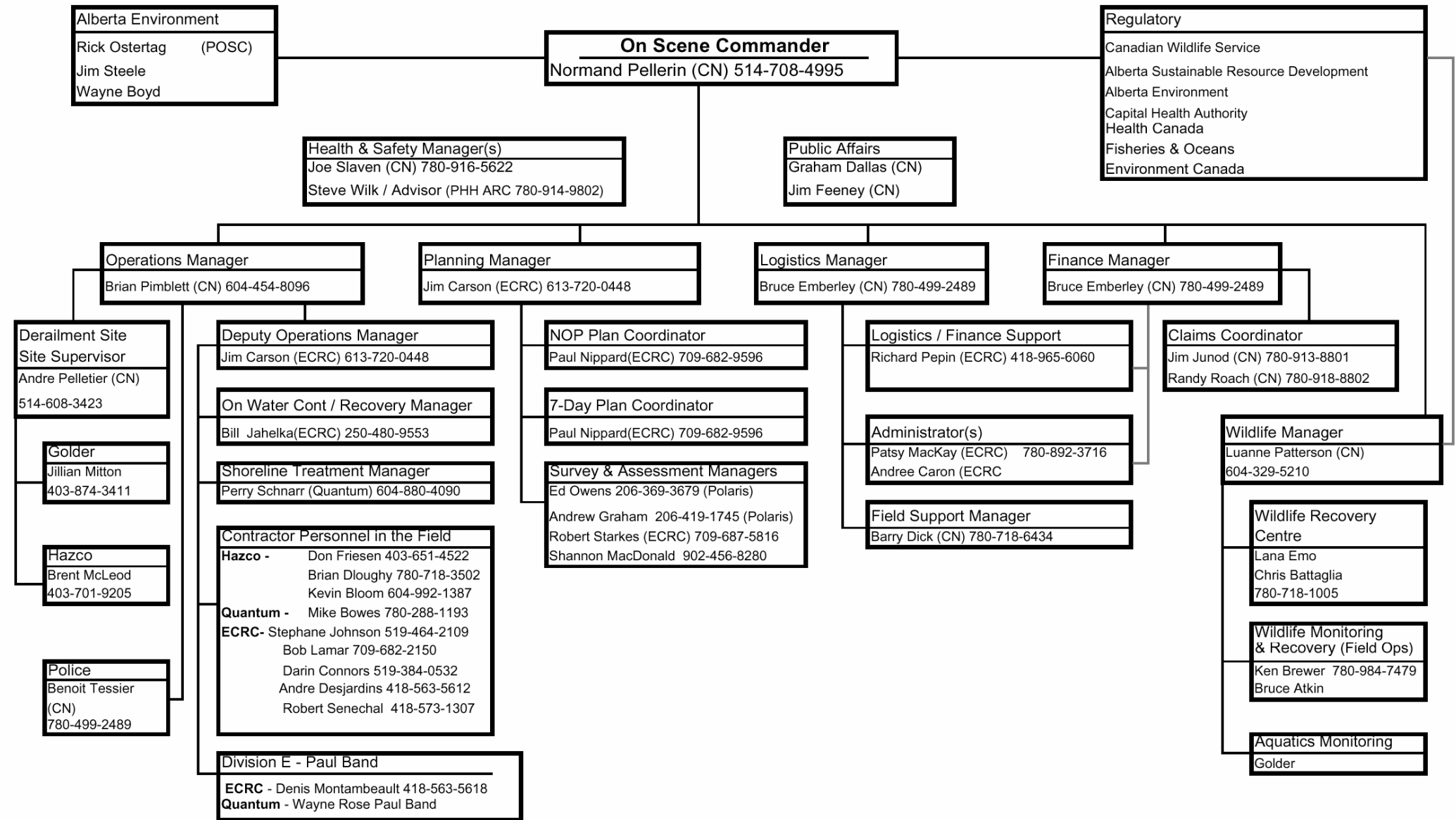
Two- boat corralling
August 6



Spill Management

Incident Command System

CN MANAGEMENT STAFFING CHART





Eastern Canada Response
Corporation (ECRC)

Environment Canada

Eastern Canada
Response Corporation

Responsible Party
(CN)

Alberta
Environment

Alberta Environment and
Alberta Sustainable
Resource Development

Golder

PUBLIC
LIBRARY

53 AVENUE

52 STREET





Hazco

Quantum

S.W.A.T.

Burrard Clean

Eveready

Newalta

Big Eagle Industrial

Focus Wildlife

Golder Associates

Envirotest (ALS)

Paul First Nation

Pentastar

Belfor Restoration

Morgan

EZ Air

Delta Helicopters

Paragon Soils

Big Eagle

Nichols Environmental

Shield Environmental

Western Canadian Spill Services

Polaris Applied Science

Wildlife Rehab Society of Edmonton



General Operating Plan (GOP)

REF NO: 55

CN GENERAL PLAN No: 1 (Revision 1)

Incident: Wabamun

Operational Period Covered By The Plan:

Start August 25, 2005

Finish May 21, 2006

Issued By: J.B. Carson

Date/Time Issued: September 5, 2005 / 18:00 hrs

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1. Objectives and Priorities	2
2. Response Operations Strategy	3
3. General Plan Overview Bar Chart	4, 5, 6
4. Maps	
- Division Map(s)	7
5. Other Information / Requirements	8, 9

General Operating Plan (GOP)

OPERATIONS OVERVIEW CHART FALL 2005 / WINTER 2006 – GENERAL PLAN NO: 1 (Rev. 1)

Incident: Wabamun	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Date	25 Aug	1 Sep	8 Sep	15 Sep	22 Sep	29 Sep	6 Oct	13 Oct	20 Oct	27 Oct	3 Nov
Monthly Avg. Daily Temp. (Stony Plains)	15.7	10.7	10.7	10.7	10.7	10.7	5.3	5.3	5.3	5.3	-4.4
Avg Monthly Wind Direction/ Speed	NW 11km/h	S 13km/h	S 13km/h	S 13km/h	S 13km/h	S 13km/h	S13 Km/h	S13 Km/h	S13 Km/h	S13 Km/h	S12 km/h
General Activities										L	
INITIAL SCAT SURVEYS		Completed								A	
INSPECTION AND SIGN OFF SCAT										K	
SENSITIVITY ID (GOVERNMENT)	Completed									E	
SENSITIVITY PRIORITIZATION (GOVERNMENT)	Completed										
TREATMENT STRATEGY ID (GOVERNMENT)	Completed									F	
Response Activities										R	
SPOT GROSS OIL RECOVERY AT SHORE										E	
SOLID BOOM REMOVAL AND CLEANING										E	
SORBENT BOOM REMOVAL										Z	
PASSIVE SORBENT COLLECTION										E	
REED HARVESTING										S	
SHORELINE TREATMENT											
Div A	3 x 10	5 x 10	3 x 10							O	
Div B	2 x 10	4 x 10	3 x 10	3 x 10						V	
Div C	3 x 10	2 x 10	2 x 10							E	
Div D				1 x 10						R	
Div E	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10		
Div F	2 x 10		1 x 10	2 x 10	4 x 10						
Div G		1 x 10	2 x 10	2 x 10	4 x 10	4 x 10					
Div H				3 x 10	3 x 10						
Div J	2 x 10	1 x 10	1 x 10								
SUBMERGED OIL RECOVERY											

General Operating Plan (GOP)

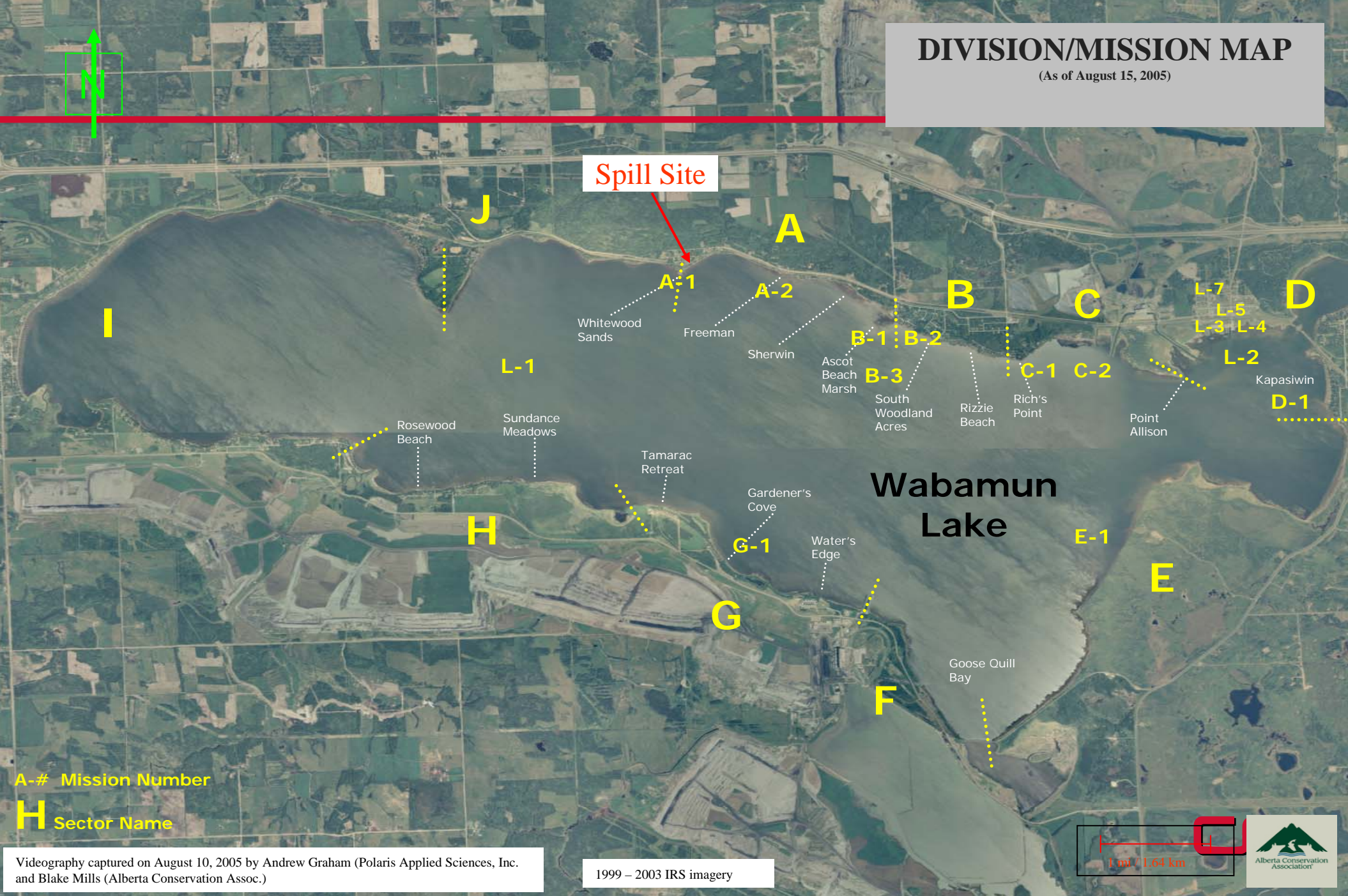
OPERATIONS OVERVIEW CHART FALL 2005/WINTER 2006 – GENERAL PLAN NO: 1 (Rev. 1)

Incident: Wabamun	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Date	25 Aug	1 Sep	8 Sep	15 Sep	22 Sep	29 Sep	6 Oct	13 Oct	20 Oct	27 Oct	3 Nov
FAST ACTION RESPONSE TEAM / SPOT CLEANING				1 x 10	1 x 10	2 x 10	5 x 10	3 x 10	1 X 10	L	
Support Activities										A	
AERIAL SURVEILANCE										K	
SENSITIVITY PROTECTION										E	
VACUUM REMOVAL											
RECOVERED MATERIAL DISPOSAL										F	
DECONTAMINATION – Response Equipment										R	
DECONTAMINATION – Boat Lifts/ Docks										E	
DEMOBILIZATION										E	
										Z	
RESOURCES										E	
Vessels/Reed Harvesters	17/4	18/5	18/5	18/5	18/5	15/5	15/5	13/5	13/5	S	
Boom Deployed &/or staged (ft)	72,000	72,000	72,000	72,000	72,000	72,000	72,000				
Workforce										O	
SHORELINE TREATMENT	165	165	165	165	165	80	70	42	15	V	
ON WATER OPERATIONS	45	50	50	50	50	38	36	32	32	E	
FIRST NATIONS (Sector E)	100	100	100	100	100	100	100	100	100	R	
ALL SPILL MANAGEMENT TEAM	16+CN	13+CN	14+CN	13+CN	13+CN	13+CN	12+CN	12+CN	10+CN	5+CN	4+CN
(i.e. Waste Mgt, Health & Safety, Stores) SUPPORT	62	66	66	66	66	52	52	48	48	24	24
TOTAL	388	394	395	395	395	281	270	234	205	29	28
Skimmers Staged	2	2	2	2	2	2	2				
Vac Trucks/Mini Vacs	3/2	3/2	2/2	1/2	1/2	1/2	1/1	1/1	1/1		
Helicopter	2	2	2	2	1	1	1	1	1		
										Page 5 / 9	

DIVISION/MISSION MAP

(As of August 15, 2005)

Spill Site



Wabamun Lake

A-# Mission Number

H Sector Name

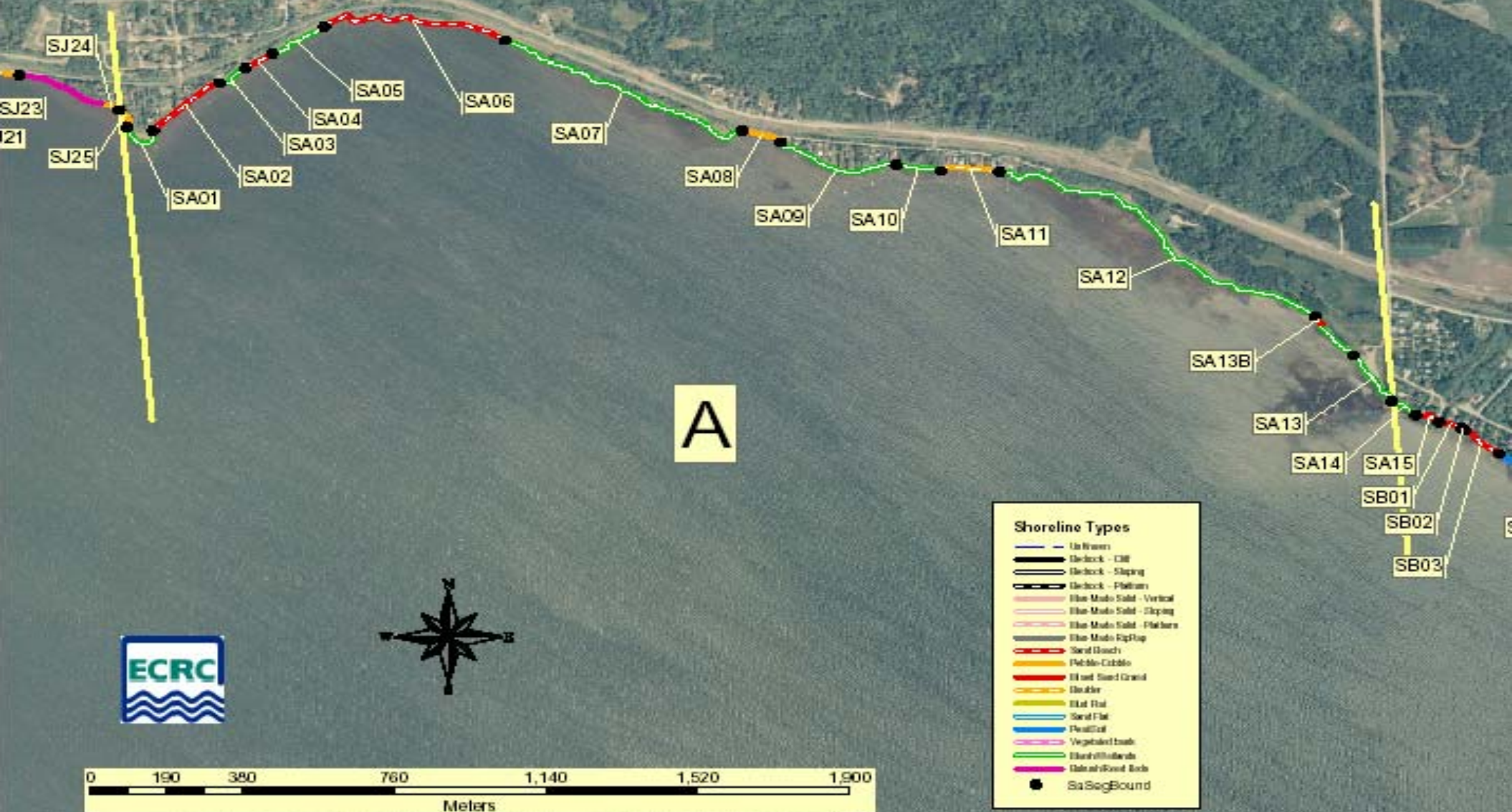
Videography captured on August 10, 2005 by Andrew Graham (Polaris Applied Sciences, Inc. and Blake Mills (Alberta Conservation Assoc.))

1999 – 2003 IRS imagery

1.64 / 1.64 km



Lake Wabamun Incident Division A Shoreline Segments



Next-Day operating plan (NOP)

REF NO: 139

CN NOP PLAN No: 67

Incident: Wabamun

Operational Period Covered By The Plan:

Start 18 OCT 2005 / 0600

Finish: 19 OCT 2005 / 0600

(Date / Time)

(Date / Time)

Issued By: Jim Carson

Date/Time Issued: 17 OCT 2005 / 1700

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1. Spill Source Information / Objectives and Priorities	2
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6. Sector Summary / Status	8
7. Support Assignment Summary	9-10
8. Resource Summary Sheet (Excluding Division E)	11
9. Resource Summary Sheet (Division E)	12
10. Weather Forecast / Marine Conditions	13

NOP issued
at end of
every day

-Progress

-Workplan

-Resources

-Weather



Status Report

RESPONSE OPERATIONS

REF NO: 142

CN STATUS REPORT No: 69

As At (Date/Time): 18 October 2005 / 1800

Incident: Wabamun

Date/Time Issued: 19 October 2005 / 0800

Tel:

Fax:

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	Revised*	No Change	Page No
1. CN Objectives and Priorities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2
2. CN Management Staffing Chart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3
3. Progress / Problems / Issues	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4 – 5
4. Progress Chart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6
5. Field Mission Summary / Status (Sectors A – J)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7
6. Resource Summary Sheet (Excluding Division E)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8
7. Resource Summary Sheet (Division E)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9

*Revisions on sheets from previous report are identified by an "X" in the last column at the end of the line.

Issued each morning.

- Compares progress to plan
- Detailed Status



Status Report

Progress as at end of day September 21, 2005

STATUS REPORT # 43

Division	A	B	C	D	E	F	G	H	J	Sub Total	I	TOT
Shoreline Length (km)	3.53	2.059	4.31	5.26	10.68	4	4.3	5.63	4.43	44.199	17.47	61.6
Gross Oil Removal												
% Completed	100%	100%	100%	100%	100%	100%	100%	100%	100%		n/a	
Shoreline Treatment												
% Completed	95%	95%	95%	100%	26%	40%	45%	10%	100%		n/a	

Note: 95% in shoreline treatment recognizes: 1. Final end point criteria approved by government agency.

2. Some re-oiling could occur. 3. Additional special treatment methods may be required.

Gross oil removal completed as remaining work considered shoreline treatment

REED BED HARVESTING (HARVESTERS)

Reed Bed Location	East of Willow	Willow Point	Blueberry Point North	Blueberry Cove	Quill Bay	Sundance Outlet East	Waters Edge	Gardeners Cove South	Tamarac	Lagoon	Sundance Meadows East
% Completed *	0%	0%	90%	75%	0%	0%	75%	80%	100%	90%	0%

* Percent completed may change due to increases in harvest areas identified by Alberta Environment.

SHORELINE SEGMENT SIGN-OFF STATUS

Division	A	B	C	D	E	F	G	H	I	J	Total
Segments Requiring Treatment / Total Number of Segments Identified	15/16	19/19	19/21	4/20	23/25	7/11	10/10	1/15	0/37	11/18	109/192
Segments Requiring No Treatment	1	0	2	16	2	4	0	14	37	7	83
Progress on Segments Requiring Treatment											
<u>Treatment</u>											
No Completed	15/15	19/19	19/19	4/4	0/23	1/7	2/10	0/1	n/a	11/11	71/109
% Completed	100%	100%	100%	100%	0%	14%	20%	0%	n/a	100%	65.1%
<u>Inspection</u>											
No Completed	0/15	0/19	0/19	0/4	0/23	0/7	0/10	0/1	n/a	0/11	0/109
% Completed	0%	0%	0%	0%	0%	0%	0%	0%	n/a	0%	0%

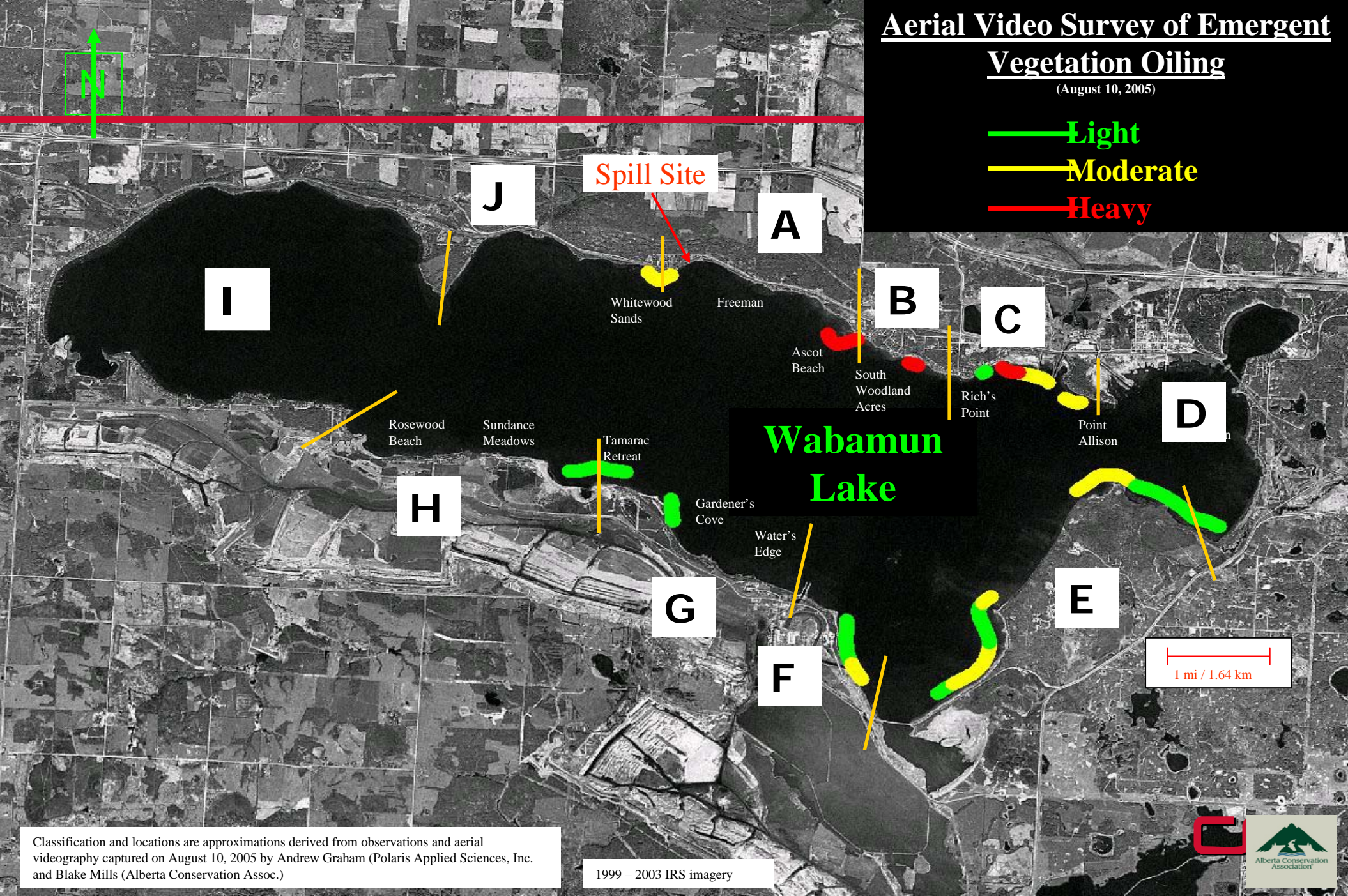
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Aerial Video Survey of Emergent Vegetation Oiling

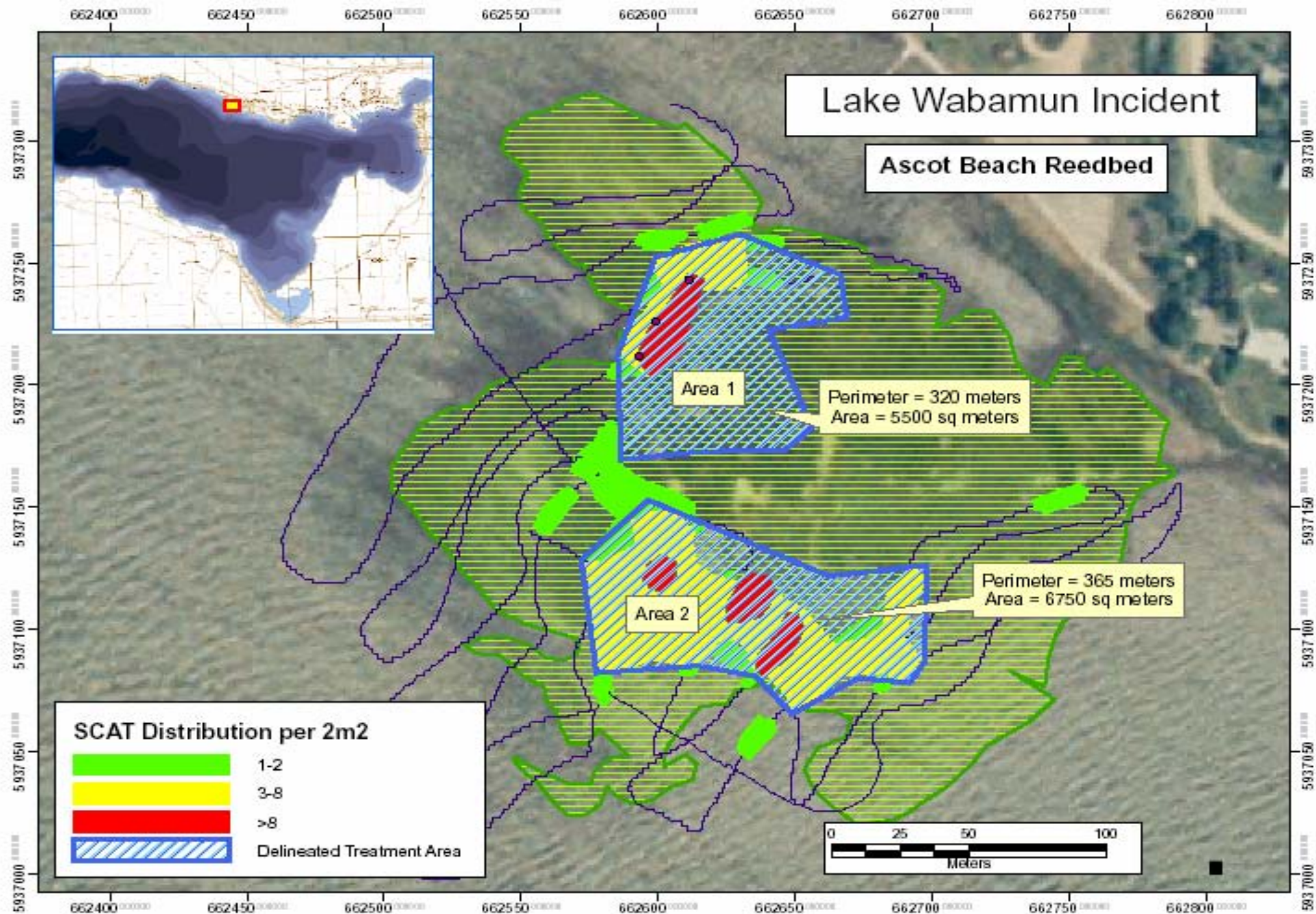
(August 10, 2005)

— Light
— Moderate
— Heavy



Classification and locations are approximations derived from observations and aerial videography captured on August 10, 2005 by Andrew Graham (Polaris Applied Sciences, Inc. and Blake Mills (Alberta Conservation Assoc.))

1999 – 2003 IRS imagery



Shoreline Cleanup

















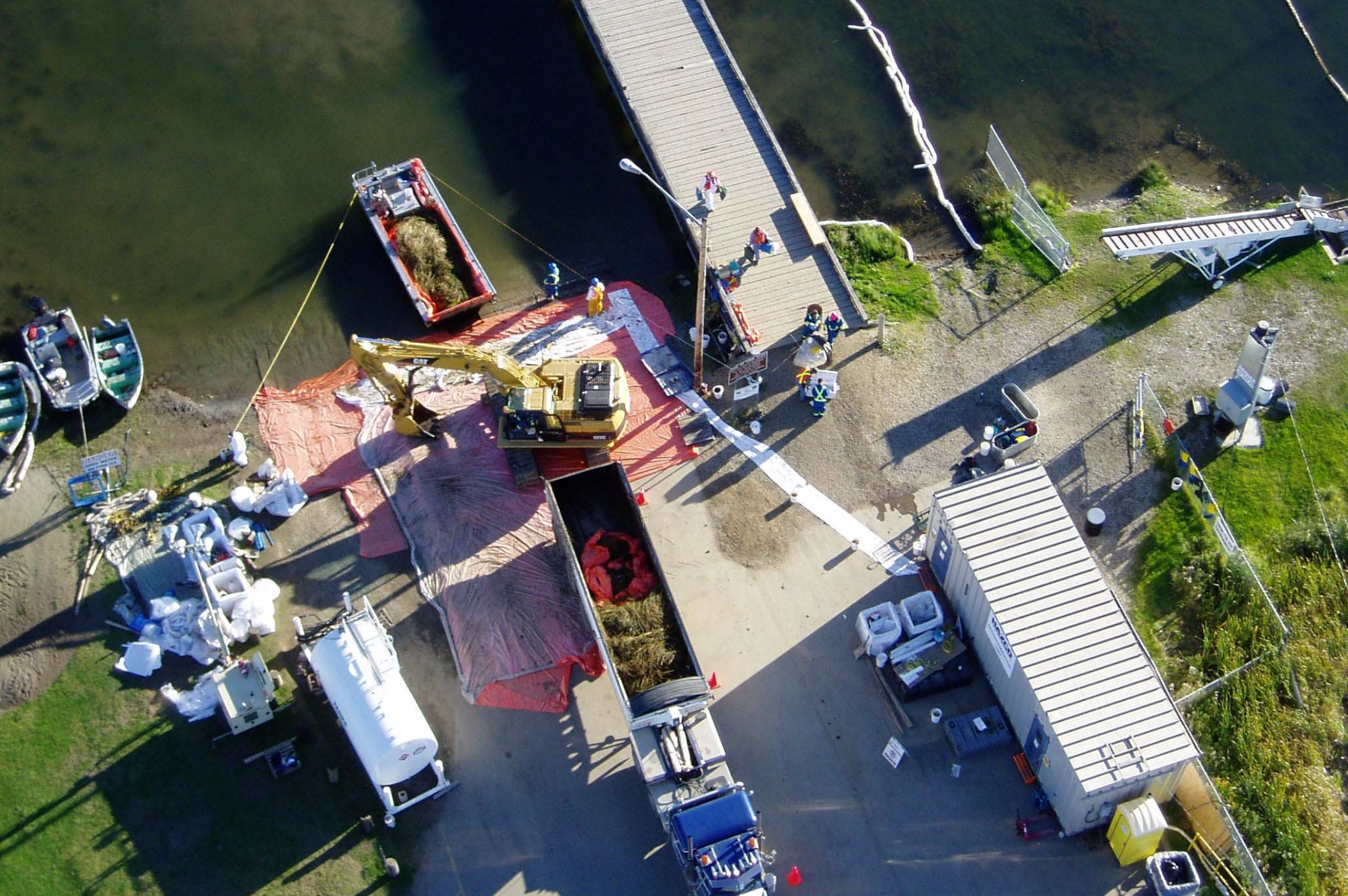














2005 Response Resources

- 72,000 feet of containment boom deployed by August 10 – maintained until October
- 529,000 feet of absorbent boom deployed and disposed of
- Up to 25 boats deployed on the lake
- 16 vacuum trucks + 5 mini-vacuums
- Staff levels peaked Sept 30 at 477 employees
- 2 helicopters
- Approximately 300,000 man-hours in 2005
- Up to 135 First Nations workers
- Over 5,000 cubic-meter sacks of used absorbent
- 2,500 tonnes of sludge





Demobilization

Boat Cleaning and boom decon



Wildlife Recovery Centre



2006 Work





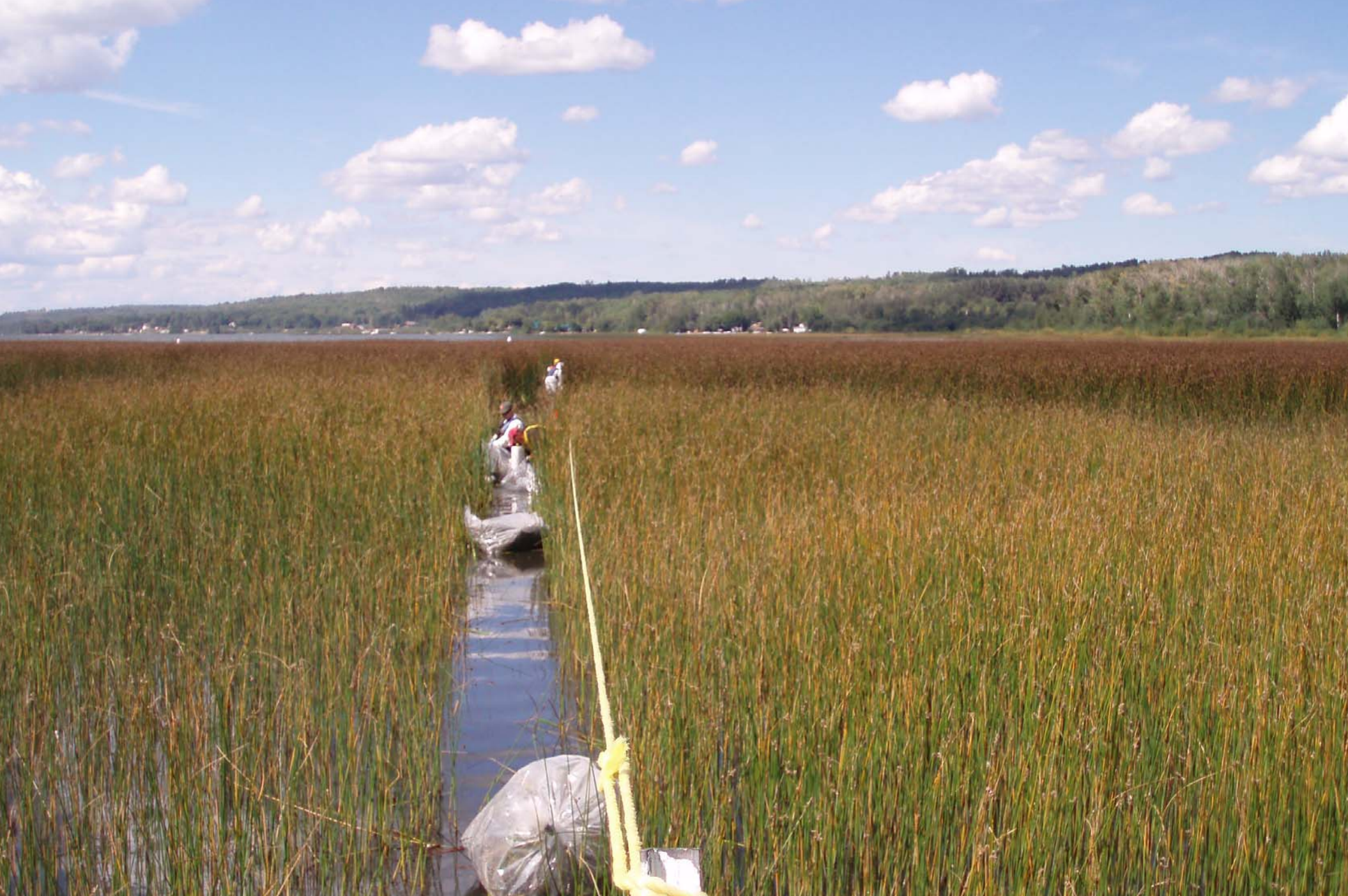




Vacuuming / Flushing











- **Rail Safety in the Community**

- **Aboriginal Program**

- **Community Investment Program**

- **CN Police**

- **Obie for Kids**

Community

Wabamun, AB

Updates and other information on CN's cleanup and restoration activities resulting from the August 3 derailment and spill near Wabamun, AB

- [CN Wabamun Information Bulletins](#)
- [Lake Wabamun Residents Loss of Use/Enjoyment Offer \(May 2006\)](#)
- [May 28, 2006 meeting - Fact Sheets and Displays](#)
- [Oil Location and Recovery](#)
- [Letter from E. Hunter Harrison, CEO \(September 3, 2005\)](#)
- [Letter from E. Hunter Harrison, CEO \(August 13, 2005\)](#)
- [Regulatory Submissions](#)
- [Reports](#)
- [Background Information](#)
- [News releases](#)
- [Photos](#)
- [Wabamun Resident Forms](#)
- [SCAT Evaluations - click here to access map](#)

If you have questions on the map, or any of the

State of the Railroad: 10 / 05 / 2006

QUICK LINKS

- [Wabamun Updates](#)
- [Media Updates](#)
- [News Releases](#)
- [Media Image Centre](#)
- [Financial Information](#)
- [Directors and Officers](#)
- [Corporate Governance](#)
- [Our History](#)
- [Shortline Partners](#)
- [CN's Logo Comes Alive](#)
- [Download CN Logo](#)
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Edmonton Journal
August 6, 2005

MAYES
Edmonton
Journal

