

# SANDY LAKE WILDFIRE PREPAREDNESS GUIDE



Prepared for:

*Alberta* Environment and Sustainable  
Resource Development



July, 2012

The intent of this document is to provide an Incident Management Team with an overview of the planning area, fire behaviour potential, values-at-risk, and fire operations that can be utilized in the event that a wildfire threatens wildland/urban interface values at risk.

## SECTION A: LOCAL AREA DESCRIPTION

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### A1. PLANNING AREA (MAP 1)

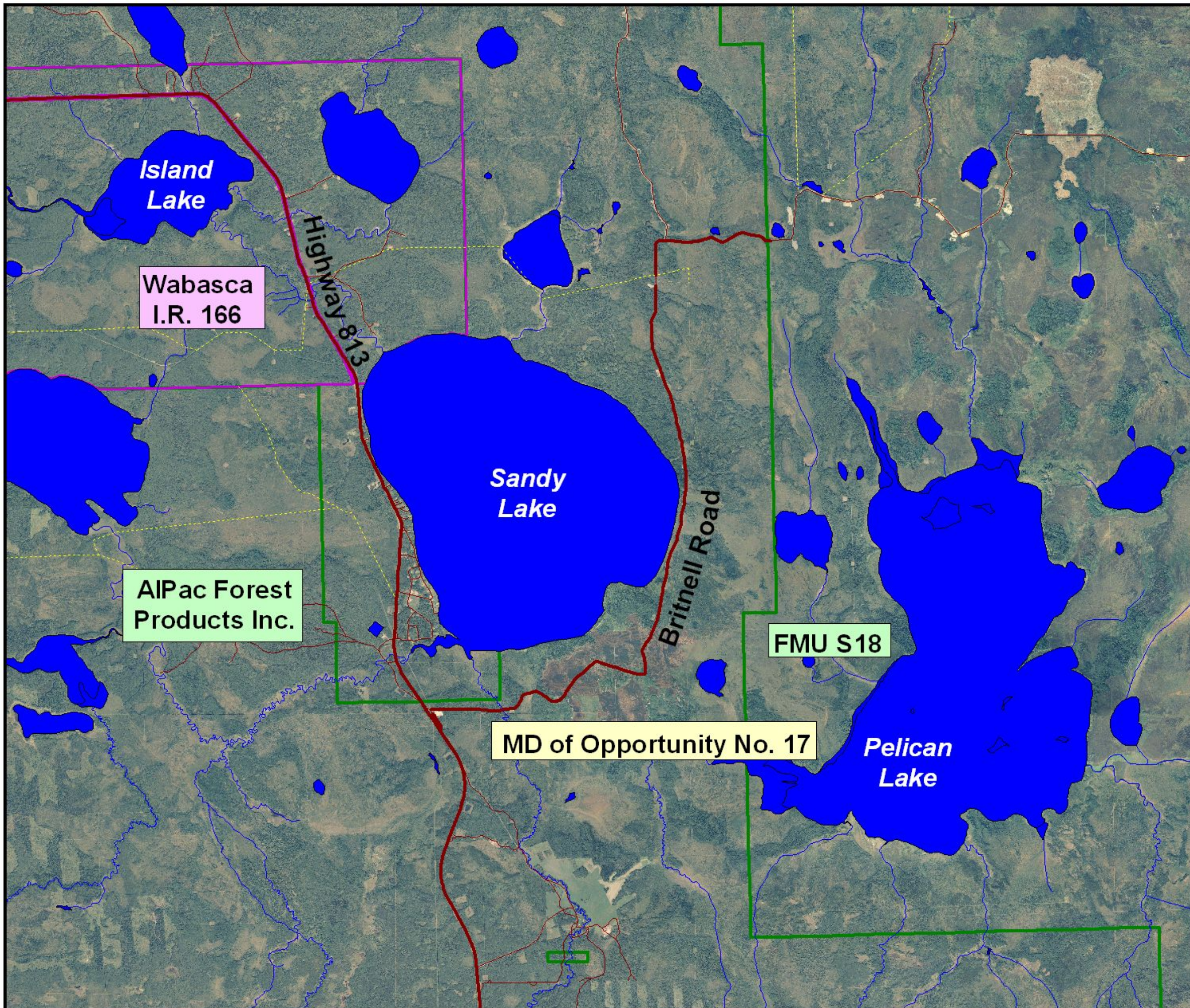
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FEATURE	JURISDICTIONAL AUTHORITY
SRD Forest Area	Lesser Slave Area
Municipality(s)	Municipal District of Opportunity
First Nation	Bigstone Cree Nation
Forest Management Agreement Area(s)	ALPAC
Forest Management Unit	Forest Management Unit S18

# Map 1 - Planning Area Sandy Lake Wildfire Preparedness Guide

## Legend

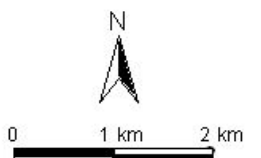
-  Municipal District or County
-  Main Road
-  Road
-  Pipeline
-  Powerline
-  Water Body
-  Indian Reserve
-  FMA or FMU Boundary



Map Produced by:



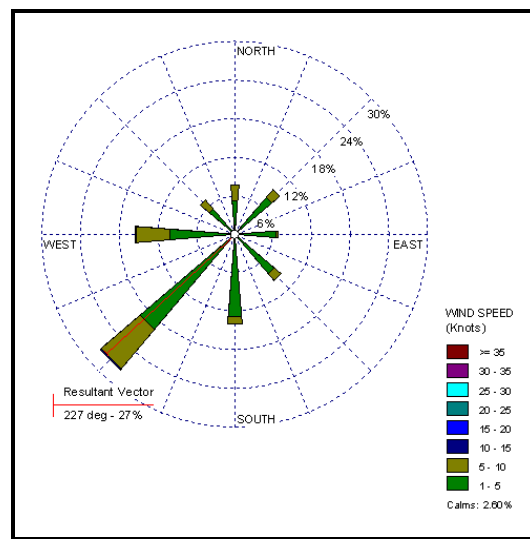
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## A1. FIRE BEHAVIOUR POTENTIAL DESCRIPTION (MAP 2)

FACTOR	DESCRIPTION
Fuels Influence	Approximately 45% of the fuels in the planning zone are C2 and 45% are D1, with the remaining 10% of the area being mixed wood, grass areas and cleared non fuel areas.
Weather Influence	Wildfire spread will be dictated by the wind direction. Although the windrose data shows the predominant wind from the southwest quadrant, there will be considerable periods with winds from each of the other quadrants.
Topographic Influence	The landscape is dominated by Sandy Lake, Island Lake and Pelican Lakes. The area is flat with generally a south facing aspect.
Anticipated Fire Spread	<p>Topography is generally flat and will have no significant effect on fire behavior.</p> <p>Island, Sandy and Pelican Lakes provide an effective barrier against fire spread. Other barriers include Highway 813 which bisects the area, gravel roadways and multiple small lakes.</p> <p>Based on the predominant wind direction from the southwest quadrant, the paved Highway 813 will provide a barrier for the Hamlet of Sandy Lake and the Bigstone Cree Housing area.</p> <p>C2 fuels in the immediate vicinity and within the communities may pose a significant threat. Within the planning area the C2 fuels regions are separated by D1 fuel types.</p> <p>Deciduous and cured grass fuels in the immediate vicinity of the communities may pose a threat during the spring and fall, particularly during extreme wind events.</p>

### Doucette S3 Windrose



The windrose indicates the distribution of wind direction and speed. The bars length indicates the portion of the time the wind is from a certain direction.

# Map 2 - Fire Behavior Potential Sandy Lake Wildfire Preparedness Guide

## Legend

- Value at Risk
- ▭ Municipal District or County
- Main Road
- Road
- Pipeline
- ..... Powerline
- Water Body
- ▭ Indian Reserve
- ▭ FMA or FMU Boundary

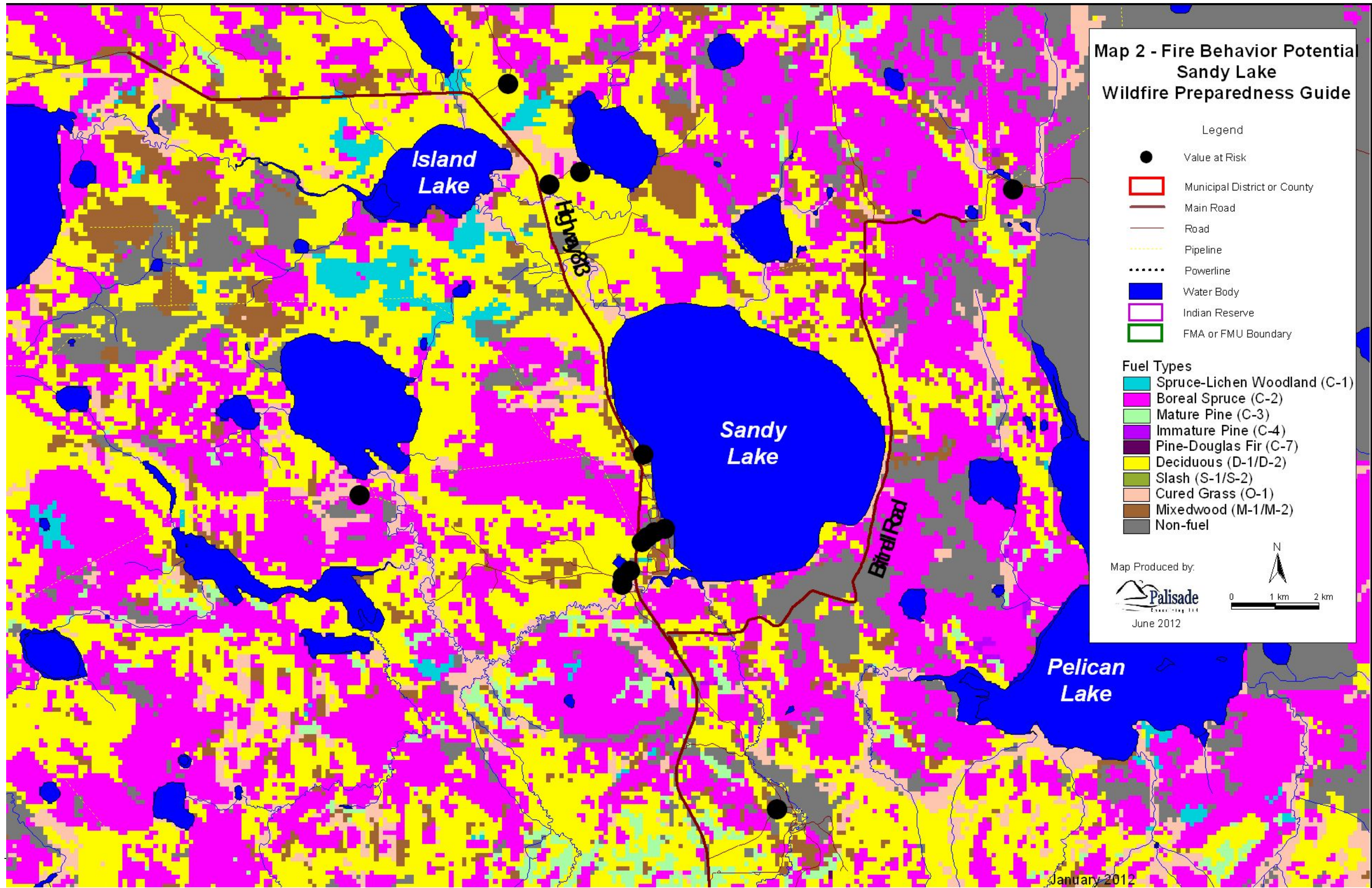
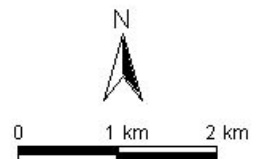
## Fuel Types

- Spruce-Lichen Woodland (C-1)
- Boreal Spruce (C-2)
- Mature Pine (C-3)
- Immature Pine (C-4)
- Pine-Douglas Fir (C-7)
- Deciduous (D-1/D-2)
- Slash (S-1/S-2)
- Cured Grass (O-1)
- Mixedwood (M-1/M-2)
- Non-fuel

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## SECTION B: VALUES AT RISK (MAP 3 and 3a)

B1- Standard Values-at-Risk				
MAP#	Value Name/ATS	Value Type	Lat/Long	No. of Structures - Roof Material
1	Legacy Oil and Gas 11-1-80-23-W4M	Oil and Gas Field Office and Plant	N 55° 54.396' W 113° 28.251'	8-Non Combustible
2	Legacy Oil and Gas 6-31-79-22-W4M	Oil and Gas	N 55° 53.295' W 113° 26.732'	1-Non Combustible 4-Petroleum Tanks
3	CNRL 4-31-79-21-W4M	Oil and Gas Sandy Lake Field Office and Compressor	N 55° 52.960' W 113° 17.319'	10-Non Combustible 4-Petroleum Tanks
5	Husky Peerless Compressor Station 13-3-79-23-W4M	Oil and Gas Compressor	N 55° 49.398' W 113° 31.670'	8-Non Combustible 1-Petroleum Tank
9	Northern School Division- Pelican Mountain School SW 5-79-22-W4M	Other School	N 55° 48.808' W 113° 25.440'	1-Non Combustible
14	Taron Ranch SE 17-78-22-W4M	Country Residential Subdivision	N 55° 45.438' W 113° 22.771'	5-Non Combustible Multiple Outbuildings

B2- Critical Values-at-Risk				
MAP#	Value Name/ATS	Value Type	Lat/Long	No. of Structures - Roof Material
7	Hamlet of Sandy Lake Water Treatment Plant SW 5-79-22-W4M	Water Treatment and Reservoir	N 55° 48.902' W 113° 25.056'	1-Non Combustible

8	Hamlet of Sandy Lake Fire Station SW 5-79-22-W4M	Other Fire Station	N 55° 48.868' W 113° 25.298'	1-Non Combustible
11	Supernet SE 6-79-22-W4M	Communications Tower	N 55° 48.328' W 113° 25.995'	1-Non Combustible
12	Western Telecom Site W0749 SE 6-79-22-W4M	Communications Tower	N 55° 48.228' W 113° 26.013'	1-Non Combustible

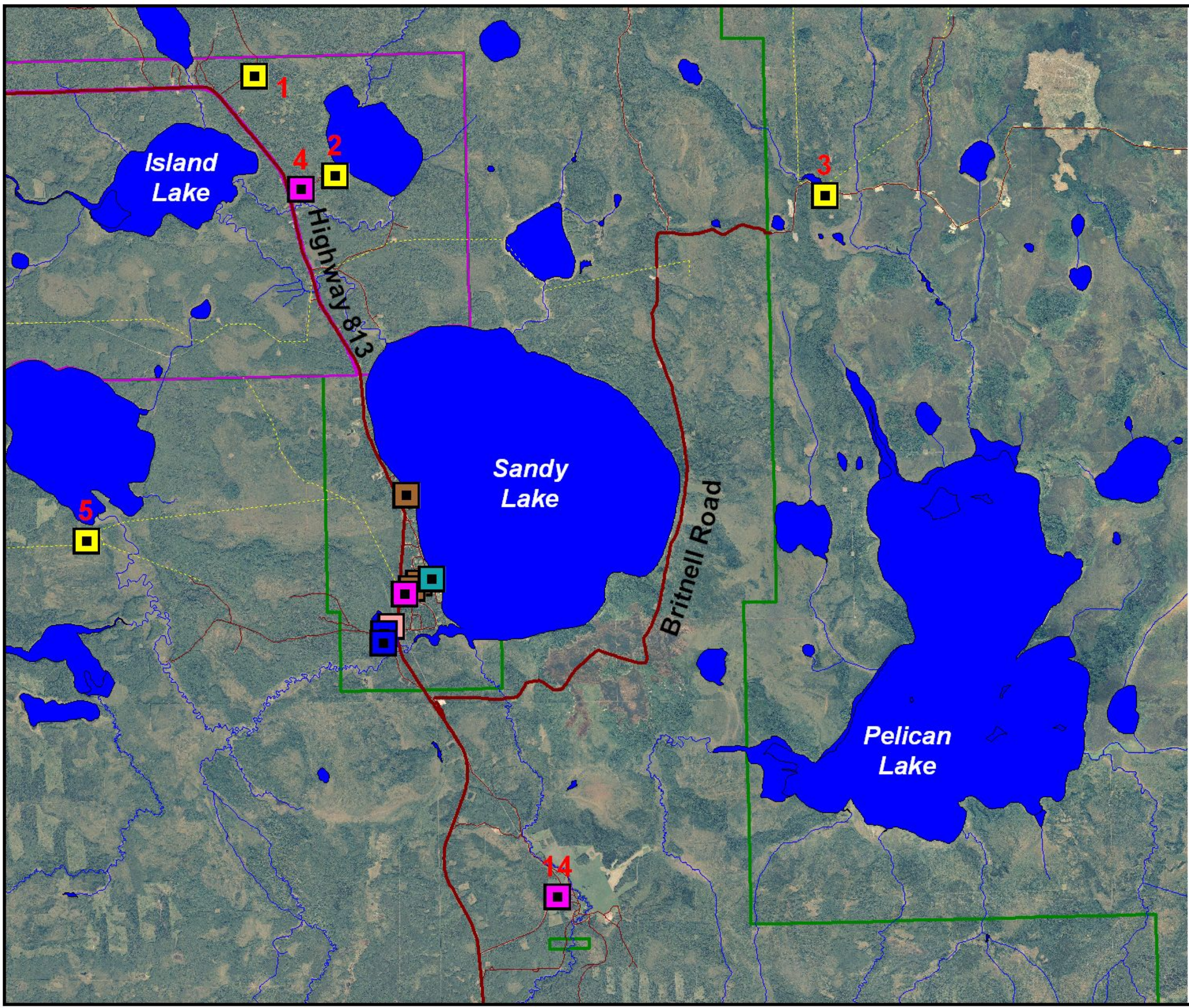
B3- Hazardous Values-at-Risk				
MAP#	Value Name/ATS	Value Type	Lat/Long	No. of Structures - Roof Material
10	M.D. of Opportunity Transfer Site NE 17-81-25-W4M	Haz Mat Waste Transfer Site	N 55° 48.398' W 113° 25.847'	None- Unknown waste products


B4- Special Values-at-Risk				
MAP#	Value Name/ATS	Value Type	Lat/Long	No. of Structures - Roof Material
4	Bigstone Cree Housing Area SE 6-79-22-W4M NE 19-79-22-W4M	Country Residential Subdivision	N 55° 53.153' W 113° 27.398'	50 Residential Dwellings - Primarily Asphalt shingle roofing material. Propane Tanks located throughout the Hamlet.
6	Sandy Lake Cemetery SE 7-79-22-W4M	Other Cemetery	N 55° 49.816' W 113° 25.495'	None- Cultural Significance
13	Hamlet of Sandy Lake SE 6-79-22-W4M	Country Residential Subdivision	N 55° 48.751' W 113° 25.576'	42 Residential Dwellings - Primarily asphalt roofing materials. Propane Tanks located throughout the Hamlet. Only hydrants are at Fire Station and School

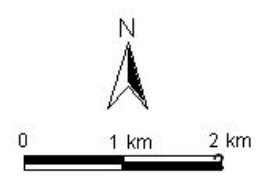
### Map 3 - Values at Risk Sandy Lake Wildfire Preparedness Guide

- Values at Risk
- Country Residential Sub
  - Communications Tower
  - Hazardous Material
  - Oil & Gas Facility
  - Other
  - Water Treatment

- Municipal District or County
- Main Road
- Road
- Pipeline
- Powerline
- Water Body
- Indian Reserve
- FMA or FMU Boundary

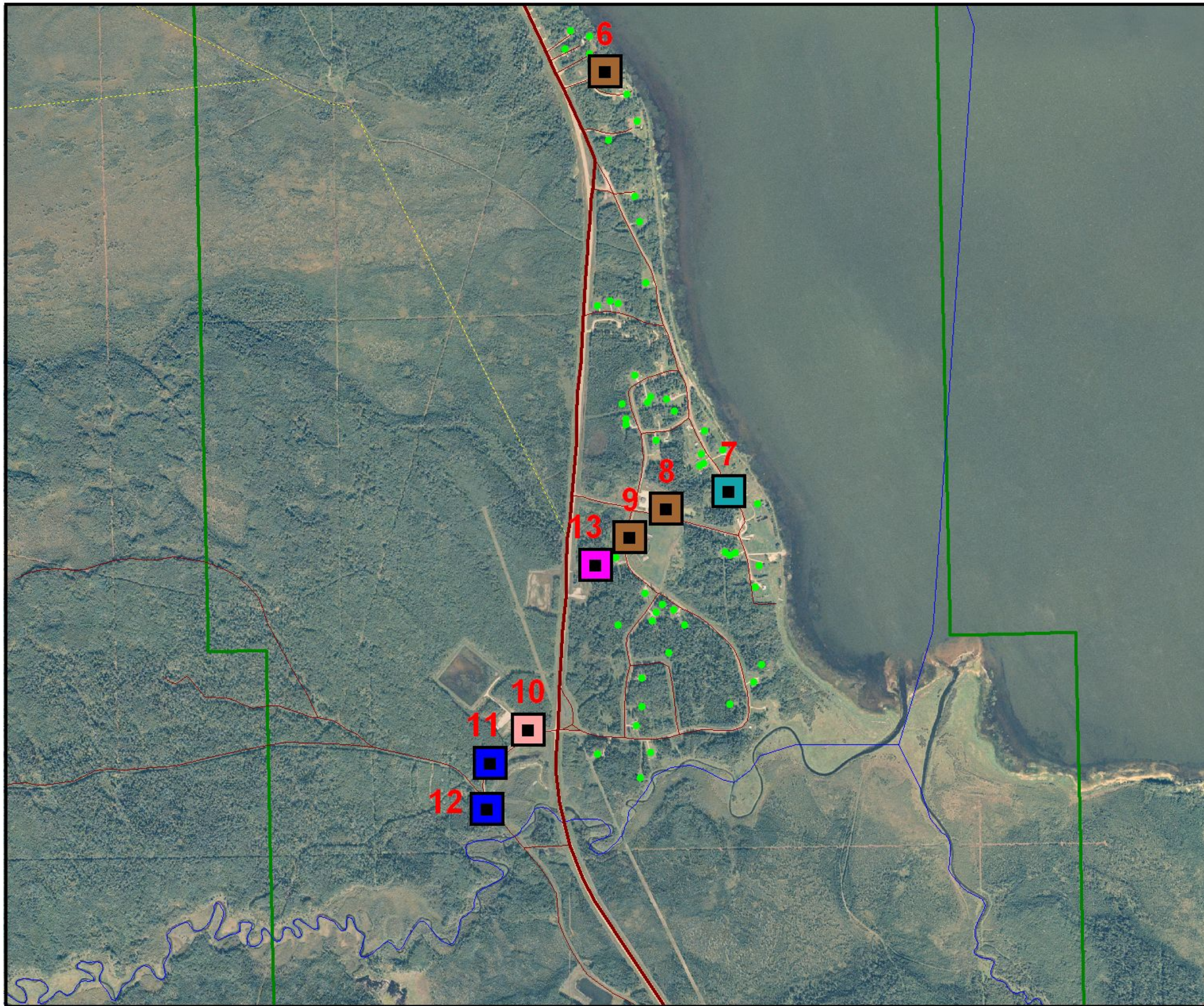


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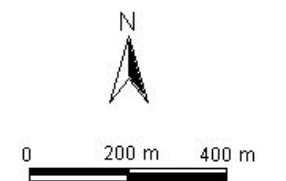
# Map 3a - Values at Risk Sandy Lake Wildfire Preparedness Guide



Legend

- Residence
- Values at Risk
- Country Residential Sub
- Communications Tower
- Hazardous Material
- Oil & Gas Facility
- Other
- Water Treatment
- Municipal District or County
- Main Road
- Road
- Pipeline
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Map Produced by:  
  
 June 2012



## SECTION C: FIRE OPERATIONS (MAP 4 AND 4A)

C1- FUNCTIONAL ROLES	
JURISDICTION	AGENCY RESPONSIBLE
Evacuation	Municipal District of Opportunity
Wildfire	Alberta Sustainable Resource Development
Structure/Non Structure Fire	Sandy Lake Fire Department

C2- MUTUAL-AID COMMUNICATIONS	
Type	Frequency
COMMAND	Provincial Mutual Aid Channel- 156.855 Wide Band
TACTICAL	To be assigned at time of incident.

C3- MINIMUM AUTO ORDER LIST			
ZONE/MAP #	APPARATUS	HEAVY EQUIPMENT	OTHER EQUIPMENT/MANPOWER
All	2-Type I Engines 2- Type V Engines 2- Type T2 Tenders	1- D5/6-Cat Group with Excavator	Structure Protection Unit 2- Structure Protection Crews (HAC) Class A Foam Aerial Ignition Equipment Trailer and Ignition Specialist Wildland Urban Interface Group Supervisor

C4- STRUCTURE PROTECTION STRATEGIES AND TACTICS			
ZONE/MAP #	STRATEGIES	TACTICS	COMMENTS
All	Direct Attack Options	High priority on fire suppression activities to prevent fire from impacting VAR.	Consider utilizing municipal fire Department to action fires in immediate vicinity of VAR. Sandy Lake has overhead powerlines and residences are served by individual propane tanks. Road access is restricted. Extreme caution is required in all firefighting operations.
All	Indirect Attack Options	Reinforce existing roads and right of ways with dozer guard to mineral soil. Further reinforce with sprinkler lines or retardant lines.	Consider use of reinforced right of ways as a base for backfire operations. This will include Highway 813 and the Britnell Road.
All	Conduct structure triage of VAR	Utilize triage to determine structure and site preparation tactics.	Consider the VAR's at the greatest risk first.
All	Structure Protection	Utilize Class A foam and sprinklers to protect VAR's.	Consider the VAR's at threat from flame impingement and those threatened by air borne embers. Keep suppression forces mobile. Residences within Sandy Lake have forest fuels within all zones.

VAR- Value at Risk- including residential dwellings

C5- FIRE SUPPRESSION WATER SUPPLY				
MAP #	FACILITY NAME/ATS	TYPE	LOCATION	PRESSURE/FLOW
1	Sandy Lake SW 5-79-22-W4M	Lake	N 55° 48.770' W 113° 24.876'	Unlimited Draught for tender and engine operations
2	Hamlet of Sandy Lake Water Treatment Plant SW 5-79-22-W4M	Truck Fill Station	N 55° 48.902' W 113° 25.056'	Reservoir- 250,000 gallons Pressure- 60 psi Flow-25 gpm
3	Sandy Lake NW 5-79-22-W4M	Lake	N 55° 49.147' W 113° 25.163'	Unlimited Draught for tender operations
4	Sandy Lake SE 18-79-22-W4M	Lake	N 55° 50.559' W 113° 26.137'	Unlimited Draught for tender operations
5	Unknown Lake NW 31-79-22-W4M	Lake	N 55° 53.433' W 113° 26.614'	Unlimited Draught for tender operations

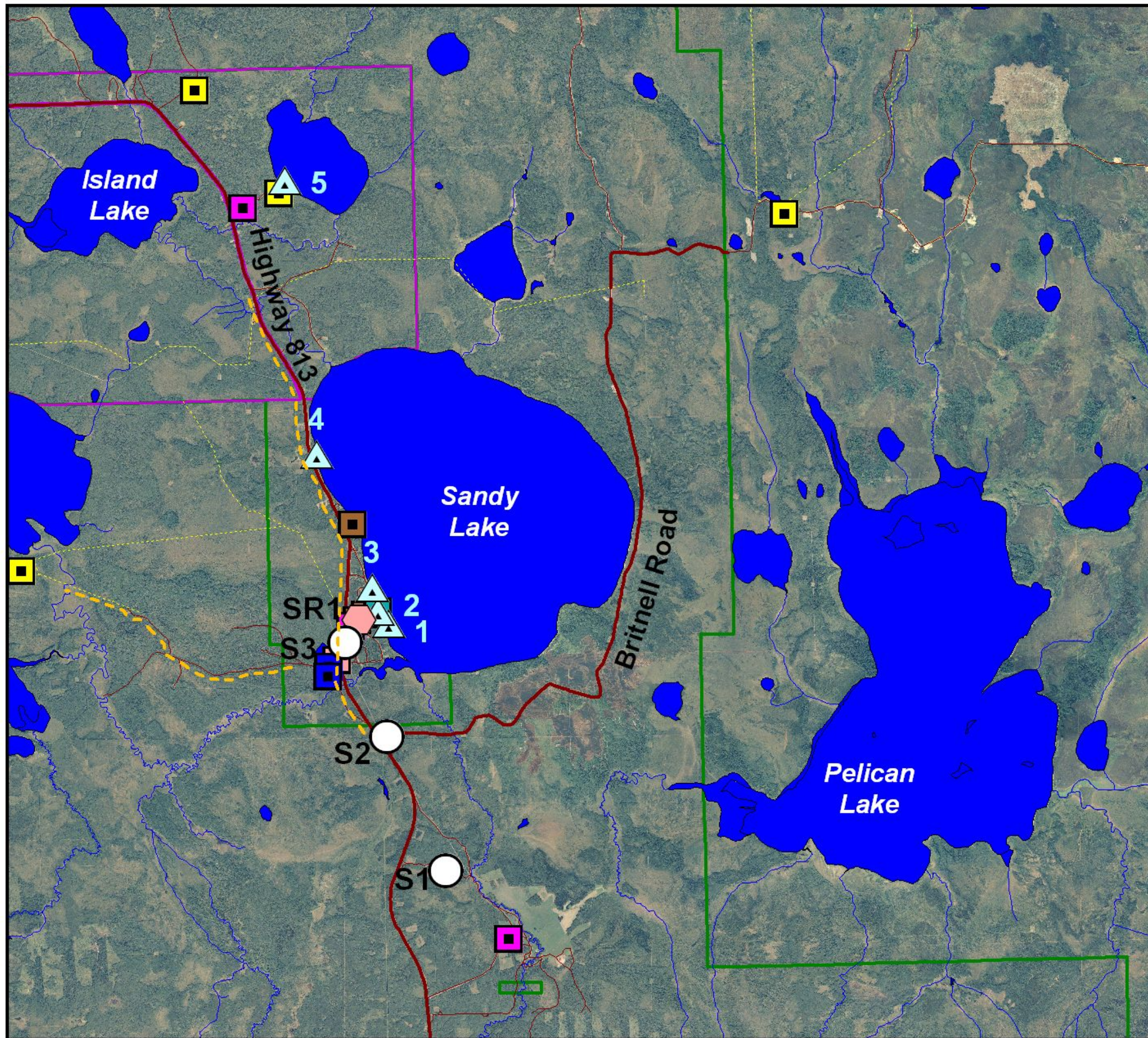
C6- STAGING AREAS			
MAP #	NAME	LOCATION LAT-LONG/ATS	DESCRIPTION
1	Sandy Lake Fuel Cache Staging	N 55° 46.171'	200 m x 200 m with fuel cache
		W 113° 23.905'	
		SE 19-78-22-W4M	
2	Britnell Road Staging	N 55° 47.590'	300 m x 200 m with good access on north and west sides.
		W 113° 24.940'	
		SW 26-74-6-W5M	
3	Sandy Lake Staging	N 55° 48.578'	50 m x 500 m clearing in vicinity of MD of Opportunity Maintenance shop.
		W 113° 25.677'	
		SE 6-79-22-W4M	

C7- EVACUATION					
ZONE MAP#	VALUE NAME/LOCATION	# PEOPLE	EST. EVAC TIME-(MINS)	SAFE REFUGE AREA	SPECIAL EVACUATION CONCERNS
4	Bigstone Cree Housing Area	50-200	300	Pelican Mountain School Yard	Unaccompanied minors. Occupants may require transportation.
	SE 6-79-22-W4M NE 19-79-22-W4M				
13	Hamlet of Sandy Lake	10-100	360	Pelican Mountain School Yard	Unaccompanied minors. Occupants may require transportation.
	SE 6-79-22-W4M				

C8- SAFE REFUGE AREAS			
MAP #	NAME	LOCATION LAT-LONG/ATS	DESCRIPTION
SR	Pelican Mountain School Yard	N 55° 48.820'	School Yard with excellent access to community members.
		W 113° 25.408'	
		SW 5-79-22-W4M	

C9- RESOURCES			
AGENCY #	ENGINES	TENDERS	COMMENTS
Sandy Lake Fire Department	1-Type I	1-S3	1- Rescue
Wabasca Fire Department	2-Type 1	1-S3	1-Rescue
Bigstone Cree Nation Fire Department	2-Type 1		
ASRD			1-Structure Protection Unit (Slave Lake)

# Map 4 - Fire Operations Map Sandy Lake Wildfire Preparedness Guide



**Legend**

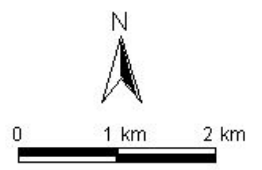
- Staging Area
- Safe Refuge Area
- Containment Line
- Water Source

Values at Risk

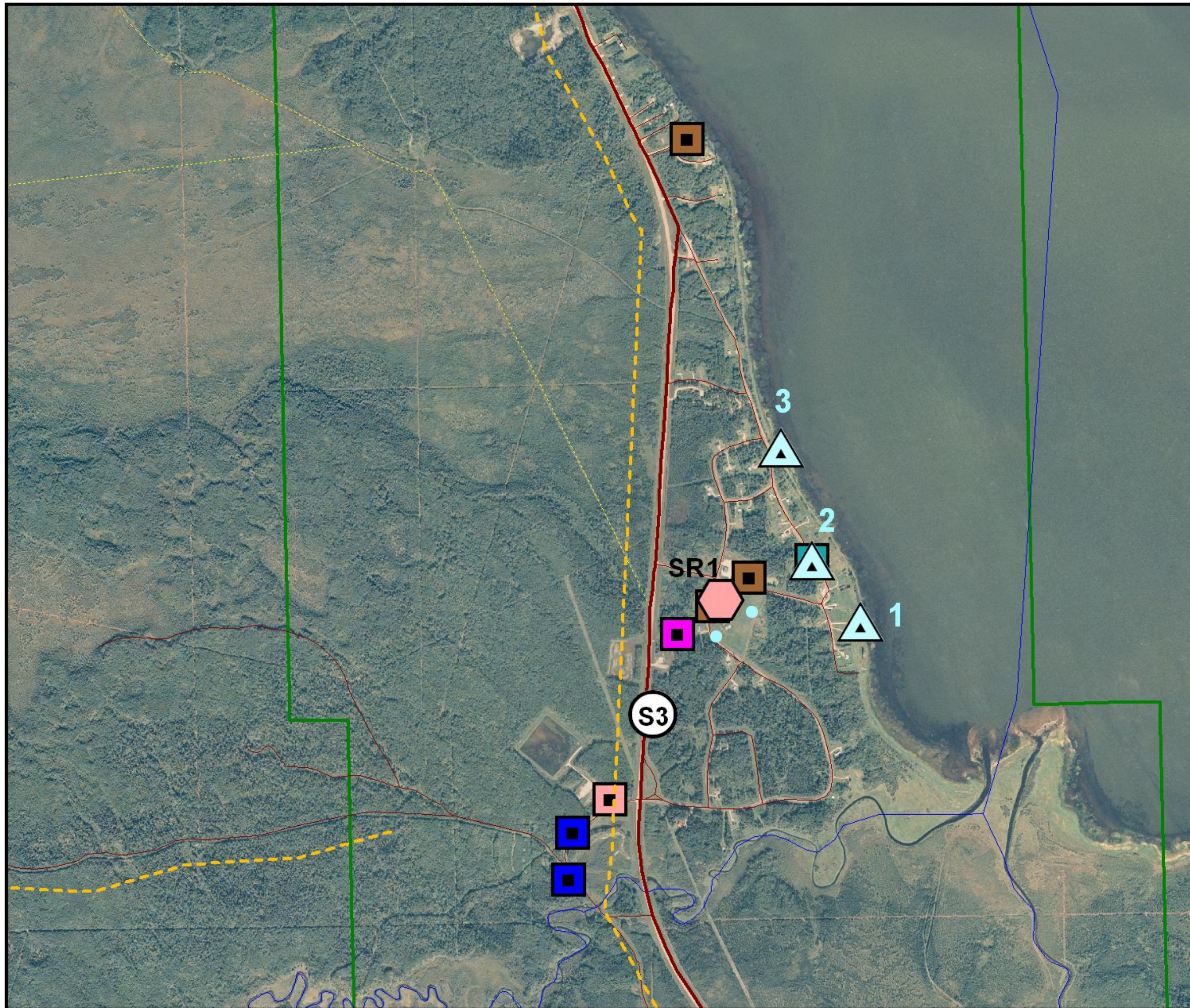
- Country Residential Sub
- Communications Tower
- Hazardous Material
- Oil & Gas Facility
- Other
- Water Treatment

- Municipal District or County
- Planning Area
- Main Road
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# Map 4a - Fire Operations Sandy Lake Wildfire Preparedness Guide



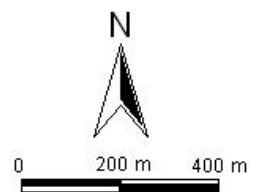
Legend

- Containment Line
- Hydrant
- Water Source
- Staging Area
- Safe Refuge Area
- Country Residential Sub
- Commercial Facility
- Hazardous Material
- Oil & Gas Facility
- Other
- Power Generation Facility
- Recreation Facility
- Water Treatment
- Millsite
- Indian Reserve
- Municipal District or County
- Main Road
- Road
- Water Body
- River or Stream
- Pipeline
- Powerline
- FMA or FMU Boundary

Map Produced by:



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## C10. EMERGENCY CONTACT LIST

EMERGENCY MANAGEMENT-				
POSITION	NAME	WORK	CELL	HOME
Chief Administrative Officer (Director of Emergency Management) Municipal District of Opportunity-	Dennis Egyedy	780.891.3778	780.891.8482	780.891.0356
Deputy Director of Emergency Management- Municipal District of Opportunity	Martin Holst	780.891.3778	780.891.8157	780.891.2335
Emergency Operations Center	MD Office-Wabasca	780.891.3778		
Director of Emergency Services-Bigstone Cree First Nation	Donald Gladue	780.891.9156	780.891.3855	
Emergency Services-Bigstone Cree First Nation	Trevor Bigstone	780.891.9156	780.773.0965	

FIRE/RESCUE 9-1-1				
POSITION	NAME	WORK	CELL	HOME
Fire Chief-Sandy Lake	Richard Wiebe		780.273.0969	780.891.2086
Dispatch Center	Keytech	780.349.3933		
Fire Chief-Bigstone Cree Nation	Vern Gladue		780.891.0884	
Deputy Fire Chief- Bigstone Cree Nation	Albert Gladue		780.891.3855	
Fire Station-Bigstone Cree Nation		780.891.3897		

R.C.M.P. 9-1-1		
POSITION	ADMINISTRATION	COMPLAINT
Officer I/C Detachment	780.891.3768	780.891.3765



SRD - WILDFIRE OPERATIONS				
POSITION	NAME	WORK	CELL/PAGER	FAX
FORESTRY MANAGER	Iain Johnston	780.849.7058	780.805.0390	780.849.6826
WILDFIRE OPERATIONS OFFICER	Kevin Parkinson	780.849.7426	780.805.0312	780.849.6826
WILDFIRE PREVENTION OFFICER	Terry Jessiman	780.849.7142	780.849.7177	780.849.6826
PFFC DUTY OFFICER	TBA	780.415.6460	780.913.2344	780.422.7230
AREA DUTY OFFICER	TBA	780.849.7429	780.849.1247	780.849.6826
AREA DISPATCH		780.849.7428		780.849.6826

OTHERS		
ORGANIZATION	24 HOUR CONTACT NUMBER	LOCAL CONTACT NUMBER
ALPAC	780.525.8200	
ATCO	1.800.668.5506	
CNRL	1.888.878.3700	
Husky Oil and Gas	1.877.262.2111	
Legacy Oil and Gas	1.877.445.2647	
Pelican Mountain School		780.891.2442
Supernet	1.866.638.4151	
Taron Ranch		780.891.2277
Western Telecom		780.789.2375