



APPENDIX K-2

2011 SPECIES AT RISK BASELINE



**RAINY RIVER GOLD PROJECT
2011 SPECIES AT RISK REPORT**

**AMEC Environment & Infrastructure
a division of AMEC Americas Limited
160 Traders Blvd., Suite 110
Mississauga, Ontario
L4Z 3K7**

**February 2012
TC111504**



February 9, 2012
TC111504

Mr. Kyle Stanfield, P.Eng
Vice President, Environment & Sustainability
Rainy River Resources Ltd.
111 Victoria Avenue East
Thunder Bay, ON
P7C 1B7

Dear Mr. Stanfield,

AMEC Environment & Infrastructure is pleased to submit the attached 2011 Species at Risk Report (Rev.1) for the Rainy River Gold Project.

The 2011 Species at Risk Report adds to the 2010 Baseline Study conducted by Klohn Crippen Berger, fills in gaps in survey locations and provides a higher degree of confidence in the final list of Species at Risk within the Local Study Area.

We greatly appreciate the opportunity to provide support for your Rainy River Gold Project. Should you have any questions regarding the study, please do not hesitate to contact us.

Yours Sincerely,

AMEC Environment & Infrastructure,
a division of AMEC Americas Limited

A handwritten signature in black ink, appearing to read "Sheila Daniel". The signature is fluid and cursive, written over a light blue horizontal line.

Sheila Daniel, M.Sc. P.Geo.
Senior Associate Geoscientist
Head, Environmental Management

AMEC Environment & Infrastructure,
a division of AMEC Americas Limited
160 Traders Blvd. East, Suite 110
Mississauga, Ontario, Canada L4Z 3K7
Tel (905) 568-2929
Fax (905) 568-1686

www.amec.com

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1.0 INTRODUCTION

AMEC Environment & Infrastructure, a division of AMEC Americas Limited (AMEC), was retained by Rainy River Resources Ltd. to conduct baseline avian and amphibian surveys and Species at Risk (SAR) surveys at the Rainy River Gold Project site near Emo in northwest Ontario (Figures 1 and 2). A baseline wildlife survey was conducted for the area surrounding the exploration site by Klohn Crippen Berger in 2010 (Klohn Crippen Berger, 2011). This study was designed to augment the 2010 Klohn Crippen Berger study in support of continued exploration as well as mine development planning.

This SAR report provides the results of the surveys conducted in May and June, 2011. Survey results for wildlife species not at risk are presented in AMEC's 2011 Terrestrial Wildlife Baseline Report (AMEC, 2011).

2.0 STUDY OBJECTIVES

The primary objectives of the 2011 SAR surveys were to add a second year of surveys to the 2010 Baseline Study conducted by Klohn Crippen Berger (Klohn Crippen Berger, 2011), and to fill in gaps in survey locations within the Local Study Area (LSA). A second year of SAR surveys was deemed appropriate in order to provide a higher degree of confidence in the final list of SAR species present within the LSA and their respective distribution and abundance.

3.0 METHODOLOGY

In their 2010 Baseline Report, Klohn Crippen Berger (2011) described the LSA as a circle with a 5 km diameter, centered on the Advanced Exploration Project Facility. For the purpose of this study, the LSA refers to lands bounded by Highway 71 to the east, and Dearlock to the west. This encompasses all of the 2011 monitoring stations that AMEC sampled for this report (Figure 3).

From an initial records review of the area, the 2010 Baseline Study Report, and discussions with both the Ministry of Natural Resources (MNR) in Fort Frances, and Rainy River Resources Ltd., it was determined that the following avian Species at Risk (SAR) inhabit or could potentially inhabit the LSA: Whip-poor-will (*Caprimulgus vociferus*), Common Nighthawk (*Chordeiles minor*), Bobolink (*Dolichonyx oryzivorus*), Short-eared Owl (*Asio flammeus*), American White Pelican (*Pelecanus erythrorhynchos*), Bald Eagle (*Haliaeetus leucocephalus*), Short-eared Owl (*Asio flammeus*), Red-headed Woodpecker (*Melanerpes erythrocephalus*), Red-shouldered Hawk (*Buteo lineatus*), Olive-sided Flycatcher (*Contopus borealis*), Golden-winged Warbler (*Vermivora chrysoptera*), Canada Warbler (*Wilsonia canadensis*), Chimney Swift (*Chaetura pelagica*), and Rusty Blackbird (*Euphagus carolinus*).

The following SAR surveys were conducted on May 25, 26, 27, and on June 15, 16, and 17, and were designed to sample for the presence of SAR species thought to be located in the area.

Surveys were conducted in accordance with the protocol described in the Atlas of the Breeding Birds of Ontario (Cadman et al., 2007), the Marsh Monitoring Program (Bird Studies Canada, 2009a), and the Northern Ontario Nocturnal Owl Protocol described in Takats et al. (2001).

3.1 Breeding Bird Surveys for Species at Risk

Breeding Bird Surveys (BBS) were mostly conducted along roadsides at intervals of at least 800 m. A total of 29 breeding bird stations were surveyed, covering much of the LSA (Figure 3). The locations of the survey stations mirrored those used in the 2010 Baseline Report (Klohn Crippen Berger, 2011) in order to provide inter-year information, as well as some new locations to fill in gaps in coverage. At each station, all birds seen or heard within a 10 minute period were recorded on a datasheet. Surveys were conducted in the morning and began one half hour prior to sunrise (dawn) and ended before 10:00 A.M.

Weather conditions during the breeding bird surveys were sunny to overcast, with winds between 0 (Calm) and 3 (Gentle Breeze) on the Beaufort Scale. Temperatures during the surveys ranged between 5 to 17°C. Surveys were not conducted during periods of rain.

3.2 Nocturnal Bird Surveys for Species at Risk

Whip-poor-wills and Common Nighthawks are crepuscular, becoming active in the evening and sitting or perching motionless during the daylight. Therefore, nocturnal bird surveys, using the Northern Ontario Nocturnal Owl Protocol described in Takats et al. (2001) as a guideline, were conducted in order to survey these two species.

Surveys were conducted on May 24 and 25, and on June 15 and 16, 2011, and began one-half hour after sunset (twilight) and concluded at midnight. Eleven stations were surveyed within the LSA at 1.6 km intervals along roadsides, including count locations situated near suitable Whip-poor-will and Common Nighthawk habitat (Figure 4). The locations of the survey stations mirrored those used in the 2010 Baseline Report (Klohn Crippen Berger, 2011) in order to provide inter-year information, as well as some new locations to fill in gaps in coverage.

3.3 Short-eared Owl Surveys

An extensive roadside Short-eared Owl survey was conducted in June. A route was driven which passed through all suitable Short-eared Owl habitat (grassland, pasture, and meadow-marsh) within the LSA. Ten minute surveys were conducted in all suitable habitat areas where each area was scanned with binoculars by observers familiar with Short-eared Owl habitat and behaviour. Fields were scanned for foraging owls and fence-posts and trees along the edges were scanned for perched owls. This survey began one hour prior to sunset and ended one-half hour after sunset.

4.0 RESULTS

4.1 Overall Avian Community

A total of 113 bird species were observed within or adjacent to the LSA in the early summer of 2011. The most common species are presented in Table 1 and a complete species list is found in Appendix A (raw data are provided in Appendices B and C). Of the 113 bird species, 106 are suspected nesting species within the LSA.

The avian species diversity and population densities found within the LSA reflect the area's mosaic of mixed, deciduous-dominated forest, shrubby wetlands, and open field habitats. The species diversity is also influenced by the LSA's unique location within Ontario, occurring within a transition zone from a temperate to a boreal forest ecozone, and near the edge of Canada's vast prairie region. According to the Ontario Atlas of Breeding Birds (Cadman et al. 2007) the area is located in the Northern Shield Region of Ontario but is known for a unique species composition that is not seen in the eastern or northern parts of the Region.

**TABLE 1
 MOST COMMON BIRD SPECIES TALLIED DURING 2011 BREEDING BIRD POINT COUNTS**

Common Name	Mean #**	Frequency (%)
White-throated Sparrow	1.62	82.76
Common Yellowthroat	1.59	65.52
Nashville Warbler	1.41	68.97
American Robin	1.34	82.76
Ovenbird	1.31	65.52
Song Sparrow	1.10	72.41
Clay-colored Sparrow	1.07	48.28
Savannah Sparrow	1.07	51.72
European Starling	0.97	17.24
Canada Goose	0.90	27.59
Veery	0.86	62.07
Yellow Warbler	0.83	44.83
Common Raven	0.76	44.83
Bobolink	0.72	41.38
Chestnut-sided Warbler	0.66	44.83
Red-winged Blackbird	0.66	34.48
Sandhill Crane	0.66	48.28
Red-eyed Vireo	0.62	41.38
Least Flycatcher	0.59	37.93
Wilson's Snipe	0.59	44.83
American Crow	0.55	27.59
American Goldfinch	0.55	51.72
Cedar Waxwing	0.55	17.24
Swamp Sparrow	0.55	24.14
Alder Flycatcher	0.52	37.93
Blue Jay	0.52	44.83
Rose-breasted Grosbeak	0.52	37.93
Chipping Sparrow	0.48	41.38
American White Pelican	0.45	6.90

Common Name	Mean #**	Frequency (%)
Black-and-white Warbler	0.41	31.03
Ruffed Grouse	0.41	41.38
Brown-headed Cowbird	0.38	31.03
Hermit Thrush	0.38	27.59
Mourning Warbler	0.38	31.03
Northern Flicker	0.38	37.93
Yellow-rumped Warbler	0.38	27.59
Black-billed Magpie	0.34	27.59
Black-capped Chickadee	0.24	17.24
Great Blue Heron	0.24	17.24
House Wren	0.24	17.24
Sedge Wren	0.24	17.24
Golden-winged Warbler	0.21	13.79
Gray Catbird	0.17	17.24
American Kestrel	0.14	10.34
American Redstart	0.14	13.79
Barn Swallow	0.14	10.34
Mallard	0.14	6.90
Red-breasted Nuthatch	0.14	13.79
Wilson's Warbler	0.14	10.34
Eastern Kingbird	0.10	10.34
Great Crested Flycatcher	0.10	10.34
Killdeer	0.10	10.34
LeConte's Sparrow	0.10	10.34
Tree Swallow	0.10	3.45
Woodpecker sp	0.10	10.34
American Bittern	0.07	6.90
Blackburnian Warbler	0.07	6.90
Brewer's Blackbird	0.07	6.90
Connecticut Warbler	0.07	6.90
Eastern Phoebe	0.07	6.90
Golden-crowned Kinglet	0.07	6.90
Gray Jay	0.07	6.90
Magnolia Warbler	0.07	6.90
Philadelphia Vireo	0.07	6.90
Ruby-crowned Kinglet	0.07	3.45
Tennessee Warbler	0.07	6.90
Winter Wren	0.07	6.90
Yellow-bellied Sapsucker	0.07	6.90
Bald Eagle	0.03	3.45
Baltimore Oriole	0.03	3.45
Black-throated Green Warbler	0.03	3.45
Brown Thrasher	0.03	3.45
Common Grackle	0.03	3.45
Eastern Bluebird	0.03	3.45
Eastern Wood-Pewee	0.03	3.45
Northern Harrier	0.03	3.45
Northern Parula	0.03	3.45

Common Name	Mean #**	Frequency (%)
Olive-sided Flycatcher	0.03	3.45
Palm Warbler	0.03	3.45
Ruby-throated Hummingbird	0.03	3.45
Swainson's Thrush	0.03	3.45
Turkey Vulture	0.03	3.45

** the mean number of individuals seen across the 29 survey stations, over the two survey periods

4.2 Avian Species at Risk

Ten provincially and/or federally listed SAR species (including three *Species of Special Concern*, and seven *Threatened* species) were observed in the LSA during the 2011 spring and summer surveys (Table 2 and Figures 4 to 6). These seven species were also recorded within the LSA during the 2008-2010 surveys (Klohn Crippen Berger, 2011).

TABLE 2
SPECIES OF CONSERVATION CONCERN OBSERVED IN THE LOCAL STUDY AREA DURING 2011
SPRING AND SUMMER SURVEYS

Species Common Name	Conservation Status		
	SARO	SARA	PIF
American White Pelican	THR	NAR	Lakes/Wetlands
Bald Eagle	SC	NAR	Wetland
Barn Swallow	THR	NAR	Open Country
Bobolink	THR	THR	Open Country
Common Nighthawk	SC	THR	Open Country
Golden-winged Warbler	SC	THR	Forest
Olive-sided Flycatcher	SC	THR	Forest
Red-headed Woodpecker	SC	SC	Forest
Red-shouldered Hawk	SC	SC	Forest
Whip-poor-will	THR	THR	Forest

SC = *Species of Special Concern*

THR = *Threatened*

NAR = *Not at Risk*.

SARO = *Species at Risk in Ontario* and is the Provincial Status

SARA = *Species at Risk Act* and is the Federal Status;

PIF = *Partners in Flight* Priority Species.

During the 2011 surveys, four of these species (American White Pelican, Bald Eagle, Red-headed Woodpecker, Red-shouldered Hawk) were only observed flying over the LSA and were not recorded using the LSA. One species (Olive-sided Flycatcher) was only seen once in 2011 (and once in 2010; Klohn Crippen Berger in 2011), and another species (Common Nighthawk) was only seen twice in 2011.

Three SAR species (Bobolink, Whip-poor-will, Golden-winged Warbler) were considered to be relatively common and widespread within the LSA (Figures 4 to 6) and will likely require future consideration and discussions with the Ministry of Natural Resources.

4.2.1 Whip-poor-wills and Common Nighthawks

The Whip-poor-will is listed as a *Threatened* species in Ontario (MNR, 2011a) and is protected under Ontario's *Endangered Species Act* (ESA, 2007). It is also listed as *Threatened* federally under Canada's *Species at Risk Act* (Environment Canada, 2011). The Common Nighthawk is listed as a *Species of Special Concern* in Ontario (MNR, 2011a), though it is federally listed as a *Threatened* species (Environment Canada, 2011).

Whip-poor-wills were observed at eight (34.8% of total) nocturnal survey stations. A total of 14 individuals were observed during the spring visit and 12 individuals were observed during the summer visit. Only two Common Nighthawks were observed at two nocturnal survey stations during the spring visit and were observed within habitat that is very similar to the habitat requirements of Whip-poor-wills (Figure 6).

The LSA includes large areas of suitable Whip-poor-will habitat which consists of open forests with exposed bedrock adjacent to open lands such as thicket swamps, meadow marshes, regenerating cutovers, pastures, and hayfields. Whip-poor-wills prefer open woodlands with little understory as they nest on the ground and hunt flying insects from un-obstructed perches (COSEWIC, 2009).

Similar numbers of Whip-poor-wills were recorded during the two 2011 surveys (spring survey: 14 individuals; summer survey: 12 individuals) and the 2010 surveys conducted by Klohn Crippen Berger (13 individuals). The majority of the 2011 Whip-poor-will observations were made at similar locations to observations reported by Klohn Crippen Berger in 2010 (Figure 4).

4.2.2 Bobolinks

The Bobolink is listed as a *Threatened* species both provincially and federally and is thus protected under both the ESA and SARA (Environment Canada, 2011; MNR, 2011a). It is a grassland species which, in Ontario, primarily utilizes agricultural lands such as hay fields.

The breeding bird surveys yielded 18 observations of Bobolinks within the LSA. Bobolinks were observed in 41.2% of the breeding bird point counts and were the 11th most numerous bird species observed during these surveys.

The presence of agricultural lands is extensive within the LSA, consisting primarily of hay fields and pasture lands (row cropping is rare in the area). Bobolinks prefer hay fields over grazed pasture lands as the hay fields' tall grasses and dense thatch provide cover.

4.2.3 Golden-winged Warbler

The Golden-winged Warbler is listed as a *Species of Special Concern* in Ontario (MNR, 2011a) and is federally listed as a *Threatened* species (Environment Canada, 2011). The majority of Ontario Golden-winged Warblers occur in southern Ontario along the Canadian Shield, yet a

small geographically separated population exists in the Rainy River District (Cadman et al., 2007).

Though no Golden-winged Warblers were observed during the 2010 baseline studies (Klohn Crippen Berger, 2011), a total of ten individuals were observed in 2011 (Figure 6). This species was most often observed in disturbed areas such as i) regenerating thicketed areas and ii) edge habitat along deciduous or mixed forests and rocky, open woodlands. None of the 2011 Golden-winged Warbler sightings occurred in Golden-winged Warbler habitat identified by MNR (discussed in Klohn Crippen Berger, 2011).

4.2.4 Olive-sided Flycatcher

The Olive-sided Flycatcher is listed as a *Species of Special Concern* in Ontario (MNR, 2011a) and is listed federally as a *Threatened* species (Environment Canada, 2011). It is a widespread species in northern Ontario and prefers areas of regeneration where it uses snags or taller vegetation as perches to hunt from.

In 2011, one individual Olive-sided Flycatcher was observed within the LSA. This observation is in close proximity to a single observation of this species reported in the 2010 Baseline Report (Klohn Crippen Berger, 2011).

4.2.5 Red-shouldered Hawk

The Red-shouldered Hawk is a provincially and federally listed *Species of Special Concern* (Environment Canada, 2011; MNR, 2011a). It breeds in large, contiguous hardwood forests and does not venture far into the boreal forest. The Red-shouldered Hawk is an uncommon breeder in the Rainy River District and was not reported in the 2010 Baseline Report. In 2011, one Red-shouldered Hawk was observed flying across the study area. There was no indication that this individual was a resident to the area but given the prevalence of mixed-hardwood forest within the LSA and surrounding areas, it is possible.

4.2.6 Bald Eagle

The Bald Eagle is listed as a *Species of Special Concern* in northern Ontario (MNR, 2011a) but carries no federal designation (Environment Canada, 2011). Three Bald Eagles were observed flying over the LSA in 2011. An active nest was found within the LSA in 2010 (Klohn Crippen Berger, 2011) but this nest was not active in 2011. Bald Eagles are known to show strong fidelity to nesting sites and will reuse nest sites year after year. This species is also wide-ranging and on a daily basis will travel great distances from their nests to hunt. Bald Eagles feed primarily on fish and thus usually require large open waterbodies to hunt. A few open waterbodies occur within the LSA, though none are large. Muskrat Lake may represent the best fishing location for Bald Eagles but it is not located within the LSA. Eagles will also take advantage of carrion and are often attracted to dumps, one of which occurs within the study area.

4.2.7 American White Pelican

The status of the American White Pelican was reassessed by the Committee on the Status of Species at Risk in Ontario (COSSARO) in 2009 and its provincial designation was downgraded from *Endangered* to *Threatened* (MNR, 2011a); nonetheless, this species is still protected under Ontario's *Endangered Species Act* (ESA, 2007). This species does not carry a federal designation.

Though small flocks of American White Pelicans were occasionally observed flying across the study area, none were observed using waterbodies within the study area during 2011. However, Klohn Crippen Berger (2011) observed various flocks of 4 to 20 White Pelicans on the Pinewood River and West Creek in 2009 and 2010.

The closest known pelican colony to the LSA exists on Lake of the Woods. In 2004, this colony totalled over 7,400 breeding pairs (Cadman et al. 2007). The birds observed flying over the LSA in 2011 were most likely flying to and from this colony (adult pelicans are known to travel up to 100 km from their nest site to forage; Cadman et al. 2007).

4.2.8 Red-headed Woodpecker

The Red-headed Woodpecker is listed both provincially and federally as a *Species of Special Concern* (Environment Canada, 2011; MNR, 2011a), and a small, restricted population of Red-headed Woodpeckers is known to occur within the western portion of the Rainy River District. In 2011, a single Red-headed Woodpecker was observed flying north across Blackhawk Road, east of Heatwole. There was no indication that this individual was a resident to the area but given the prevalence of mixed-hardwood forest within the LSA and surrounding areas, it is possible.

4.2.9 Barn Swallow

The Barn Swallow is federally listed as a *Threatened* species (Environment Canada, 2011). It is an aerial insectivore that, during breeding season, is observed in almost all open habitat types. Barn Swallows were observed at 10.34% of point count stations (Table 1). Rarely using natural nest sites such as caves and cliffs, Barn Swallows have adapted to building their mud nests on man-made structures such as walls and ledges (Cadman *et al.*, 2007). Though Barn Swallow foraging areas such as wetlands, open water, riparian habitats, and grasslands were abundant in the Study Area, appropriate nesting sites appear to represent the critical component of significant barn swallow habitat. Suitable Barn Swallow nesting structures were observed in, the LSA.

4.3 Area-Sensitive Bird Species

Twenty-six avian species recorded during the 2011 surveys are listed by the MNR as *Area-Sensitive Species* (MNR, 2011b; see Table 3). These species are not currently provided with special protection unless they are also listed as Species at Risk (i.e., Bobolinks and Whip-poor-wills).

TABLE 3
AREA-SENSITIVE SPECIES OBSERVED DURING 2011 FIELD SURVEYS

Common Name	Habitat Preference
American Bittern	Marsh
American Redstart	Forest
Barred Owl	Forest
Black-and-white Warbler	Forest
Blackburnian Warbler	Forest
Black-throated Blue Warbler	Forest
Black-throated Green Warbler	Forest
Bobolink	Grassland/agricultural
Blue-headed Vireo	Forest
Double-crested Cormorant	Lakes
Golden-crowned Kinglet	Forest
Hermit Thrush	Forest
Hairy Woodpecker	Forest
Magnolia Warbler	Forest
Mourning Warbler	Forest
Northern Harrier	Marsh
Northern Parula	Forest
Ovenbird	Forest
Red-breasted Nuthatch	Forest
Red-shouldered Hawk	Forest
Ruffed Grouse	Forest
Veery	Forest
Whip-poor-will	Forest/open country
White-throated Sparrow	Forest
Winter Wren	Forest
Yellow-rumped Warbler	Forest

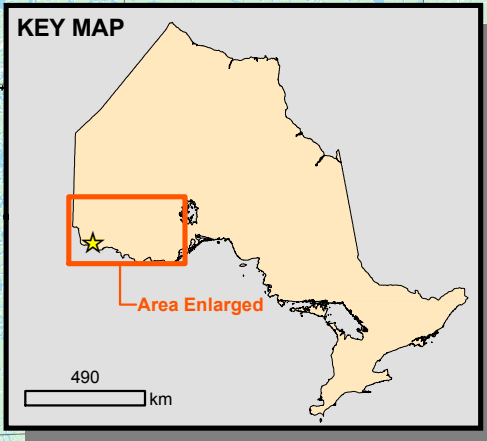
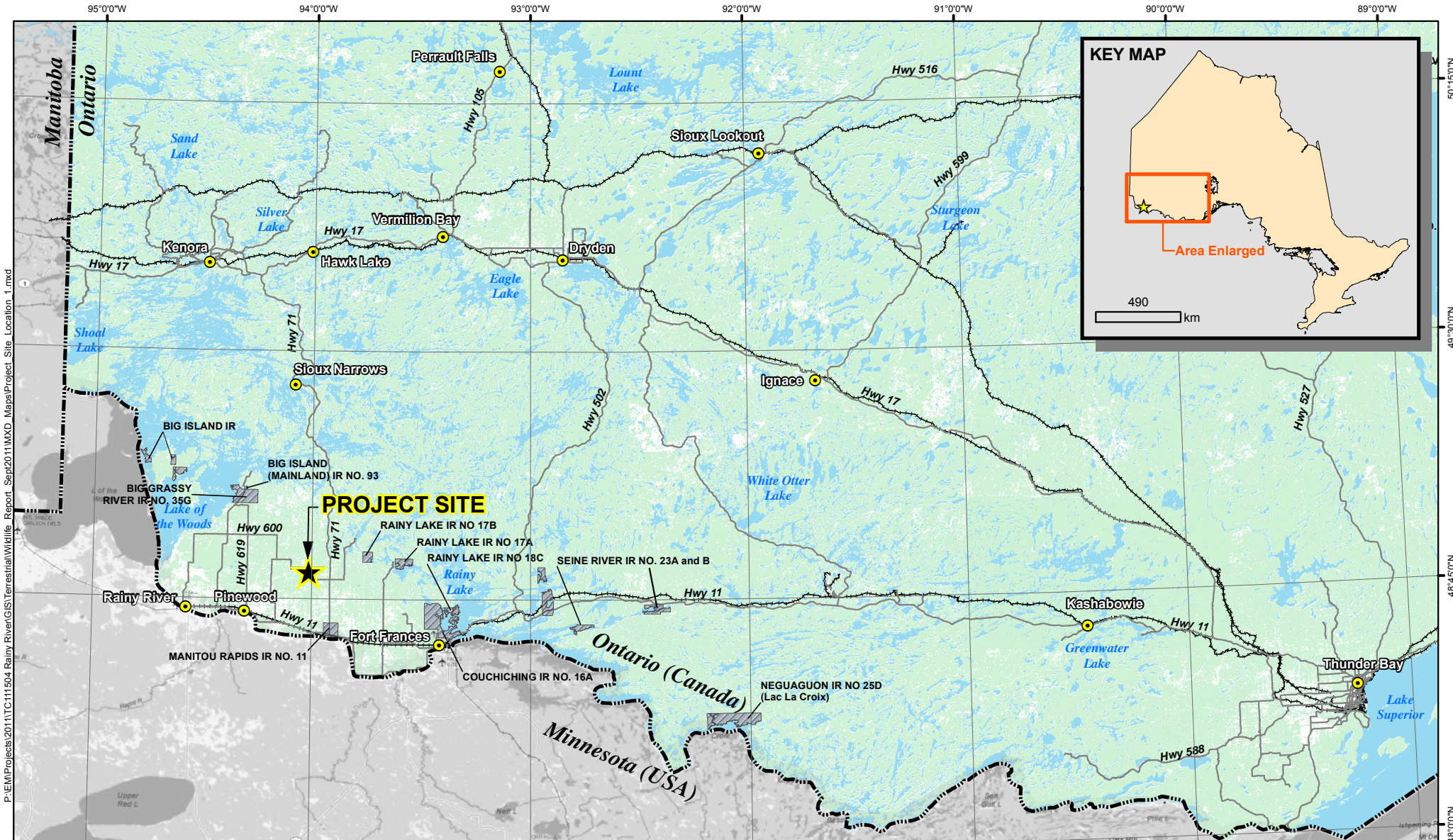
5.0 CONCLUSIONS

From an initial records review of the area, the 2010 Baseline Study Report, and discussions with both the Ministry of Natural Resources (MNR) in Fort Frances, and Rainy River Resources Ltd., it was determined that the following avian Species at Risk (SAR) inhabit or could potentially inhabit the LSA: Whip-poor-will, Common Nighthawk, Bobolink, Short-eared Owl, American White Pelican, Bald Eagle, Red-headed Woodpecker, Red-shouldered Hawk, Olive-sided Flycatchers, Golden-winged Warblers, Canada Warblers, Chimney Swifts, and Rusty Blackbird.

Surveys conducted by AMEC in 2011 confirmed the presence of ten provincially and/or federally listed SAR species, including three *Species of Special Concern*, and seven *Threatened* species (Table 2, Figures 4 to 6). Three of the avian Species at Risk (Bobolink, Whip-poor-will, Golden-winged Warbler; all listed as *Threatened* species) were relatively common and widespread, and were considered to be breeding residents in the LSA.

6.0 REFERENCES

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LEGEND

- Project Site
- Regional Communities
- Provincial / National Border
- First Nation Community (First Nation of the Fort Frances Chiefs Secretariat, Big Is. and Big Grassy First Nation)
- Regional Road / Highway
- Railway

NOTES:
 - Ontario base data extracted from Land Information Ontario (MNR) data warehouse.
 - Base data outside of Ontario extracted from ESRI DeLorme World Basemap



RAINY RIVER GOLD PROJECT

Project Location



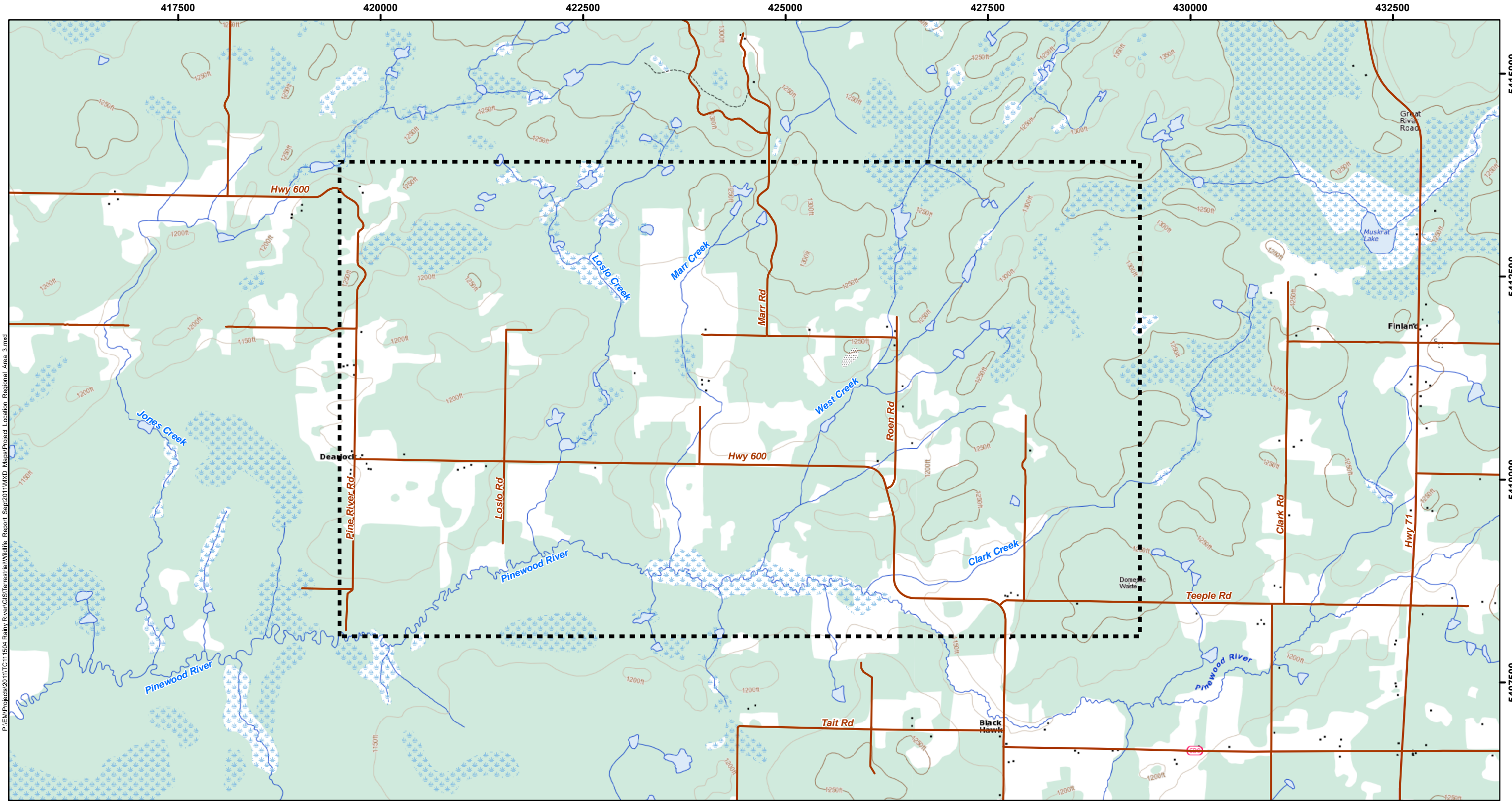
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 Projection: UTM Zone 15N

PROJECT N^o: TC111504


FIGURE: 1

SCALE: 1:1,800,000

DATE: January 2012



P:\EM\Projects\2011\TC111504 Rainy River\GIS\Terrestrial\Wildlife_Report_Sep2011\MXD_Maps\Project_Location_Regional_Area_3.mxd

LEGEND
 General Local Exploration Area

NOTES:
 - Road data extracted from Land Information Ontario, Ontario Road Network, MNR
 - Background topographic map extracted from Toporama, Geogratis, NRCAN 1:50k DRG
 - First Nation Land extracted from GeoBase, NRCAN



RAINY RIVER GOLD PROJECT
Project Site
General Local Exploration Area

Datum: NAD83
 Projection: UTM Zone 15N

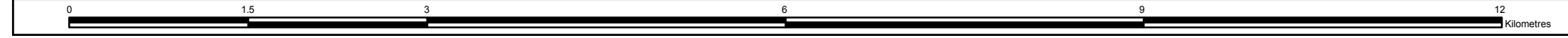


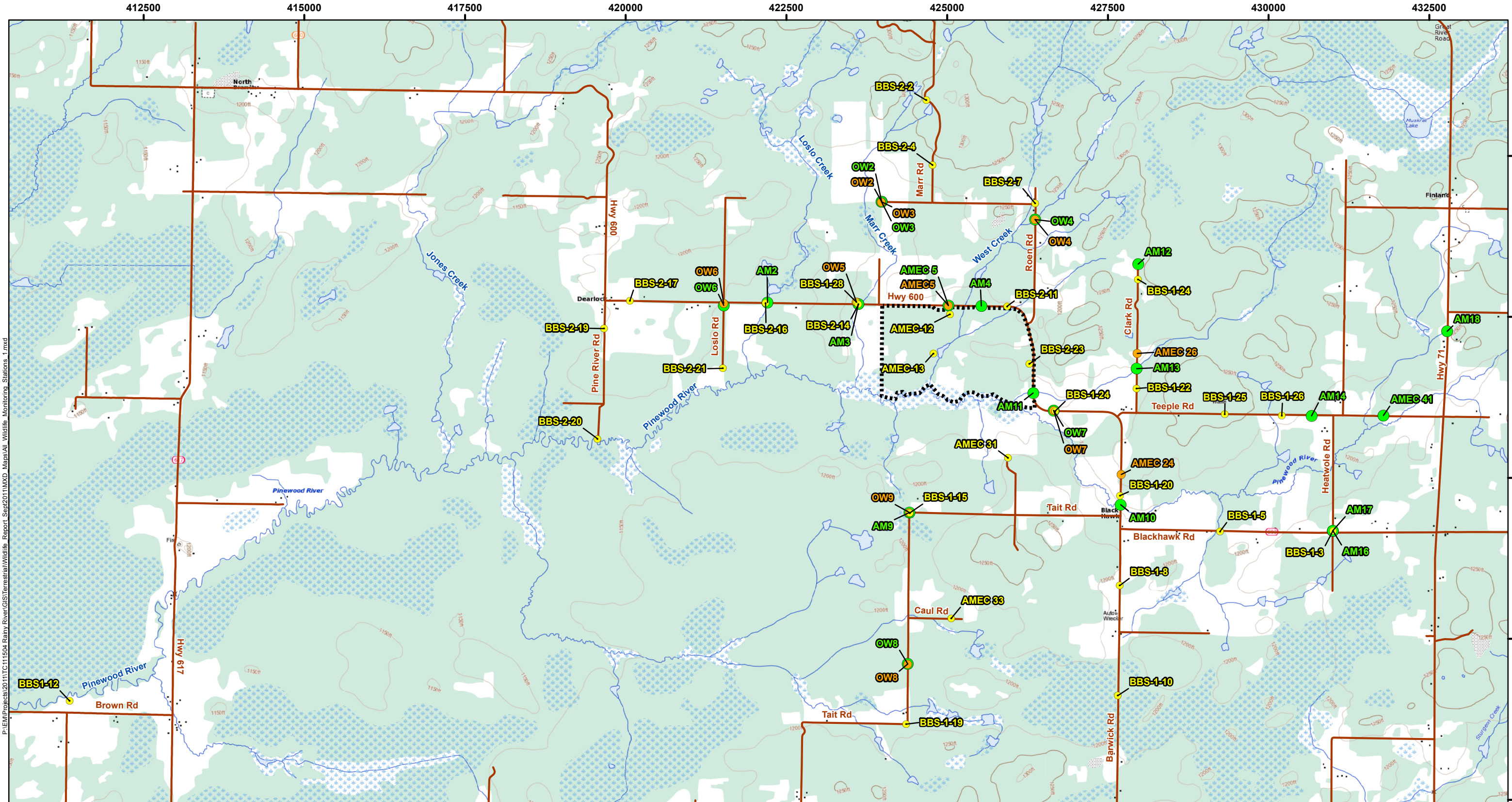
PROJECT N^o: TC111504

FIGURE: 2

SCALE: 1:45,000

DATE: January 2012





P:\EM\Projects\2011\TC111504 Rainy River\GIS\Terrestrial\Wildlife - Report_Sep2011\MXD Maps\All Wildlife Monitoring Stations_1.mxd

LEGEND

- General Project Exploration Area
- Roads

Wildlife Monitoring Stations (2011)

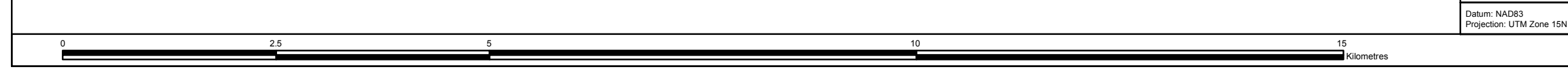
- BBS-2-21 Breeding Bird Survey Station
- OW8 Owl Survey Station
- AM9 Amphibian Survey Station

NOTES:
 - Road data extracted from Land Information Ontario, Ontario Road Network, MNR
 - Background topographic map extracted from Topogram, Geogratis, NRCan 1:50k DRG



RAINY RIVER GOLD PROJECT

Location of 2011 Wildlife Survey Stations

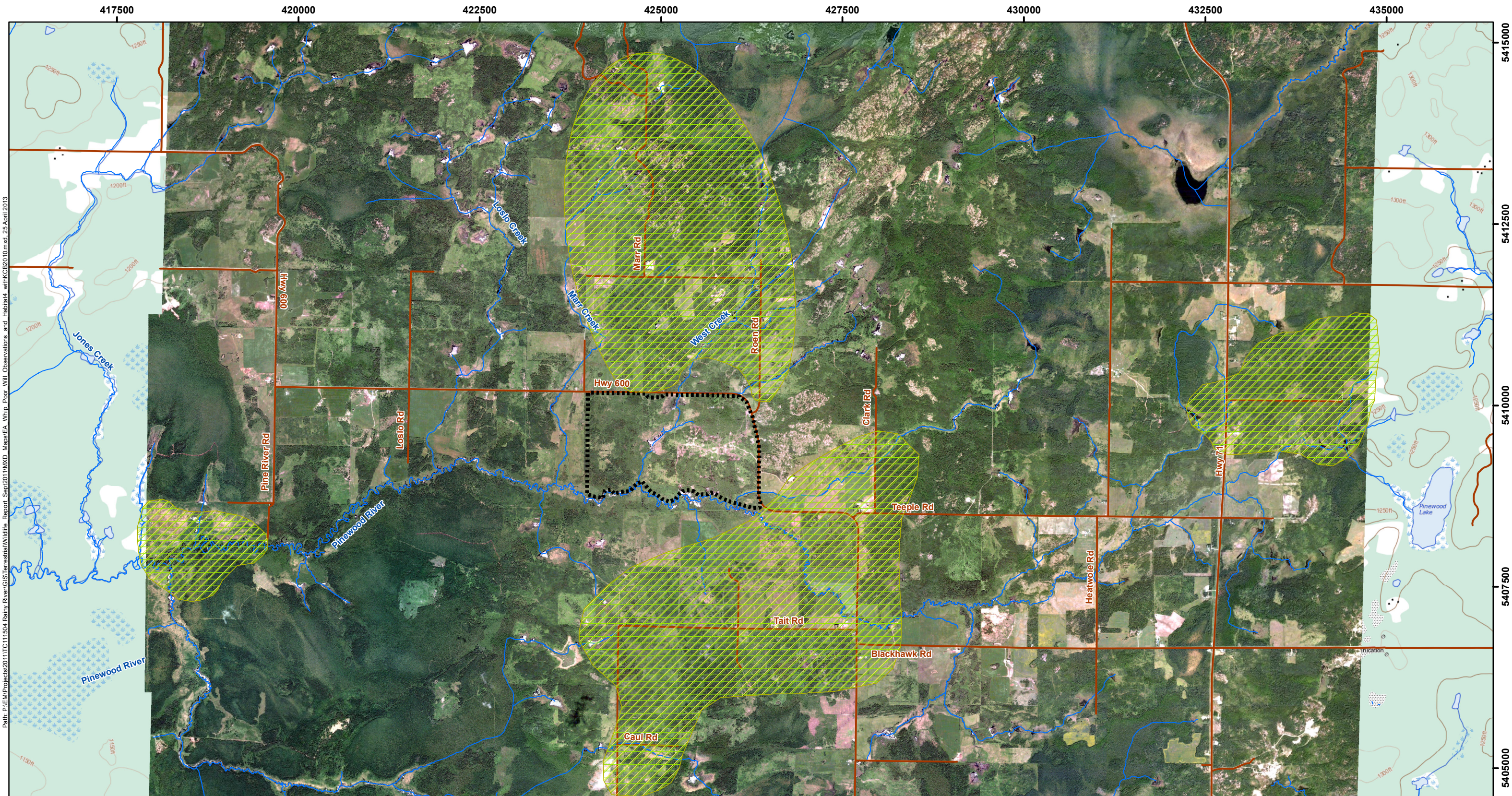


Datum: NAD83
 Projection: UTM Zone 15N

PROJECT N^o: TC111504
 SCALE: 1:57,000

FIGURE: 3
 DATE: January 2012

5412500
5410000
5407500
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Path: P:\EM\Projects\2011\TC111504 Rainy River\GIS\Terrestrial\Wildlife Report_Sep2011\MXD_Maps\EA_Whip_Poor_Will Observations and Habitat4_withKCB2010.mxd, 25 April 2013

LEGEND

General Project Exploration Area
 Species at Risk General Locations

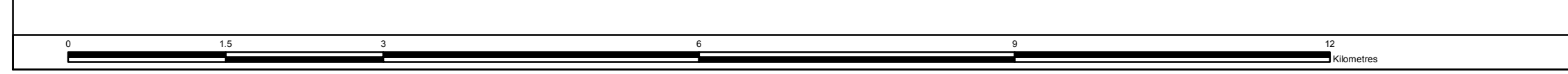
Roads

NOTES:
 - Road data extracted from Land Information Ontario, Ontario Road Network, MNR
 - Background topographic map extracted from Toporama, Geogratis, NRCan 1:50k DRG

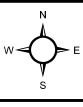
RAINY RIVER
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RAINY RIVER GOLD PROJECT

Whip-poor-will Observation Areas

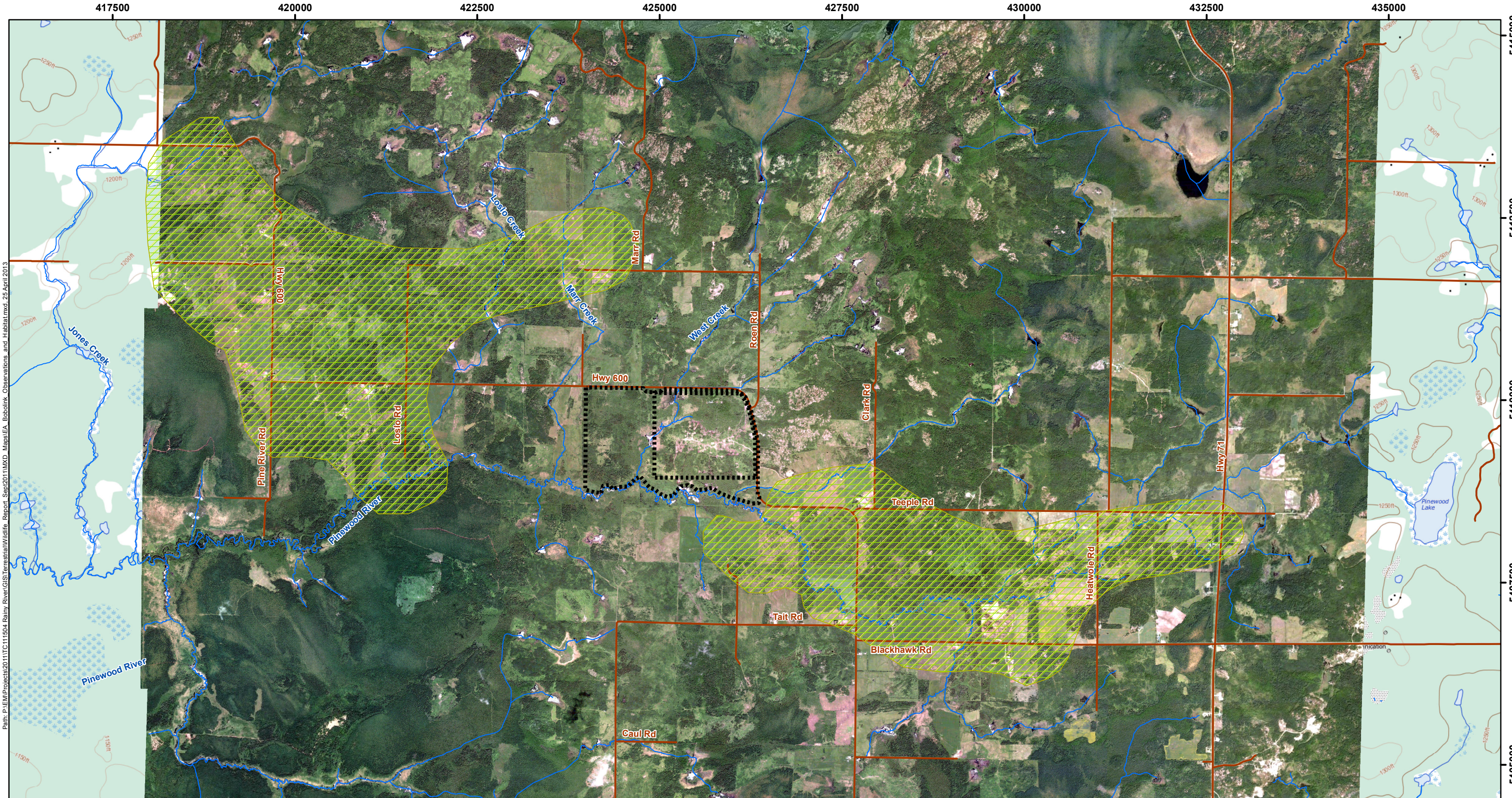


Datum: NAD83
 Projection: UTM Zone 15N





PROJECT N°: TC111504
 SCALE: 1:50,000


FIGURE: 4
 DATE: January 2012



Path: P:\EM\Projects\2011\TC111504 Rainy River\GIS\Terrestrial\Wildlife Report_Sep2011\MXD_Maps\EA_Bobolink Observations and Habitat.mxd, 25 April 2013

LEGEND

 General Project Exploration Area
  Species at Risk General Locations

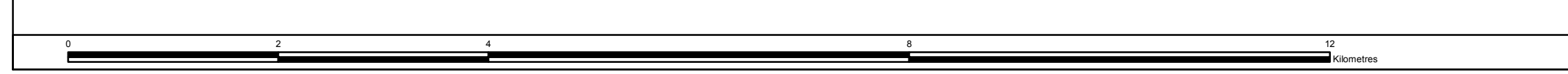
 Roads

NOTES:
 - Road data extracted from Land Information Ontario, Ontario Road Network, MNR
 - Background topographic map extracted from Topograma, Geogratis, NRCan 1:50k DRG

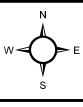


RAINY RIVER GOLD PROJECT

Bobolink Observation Areas

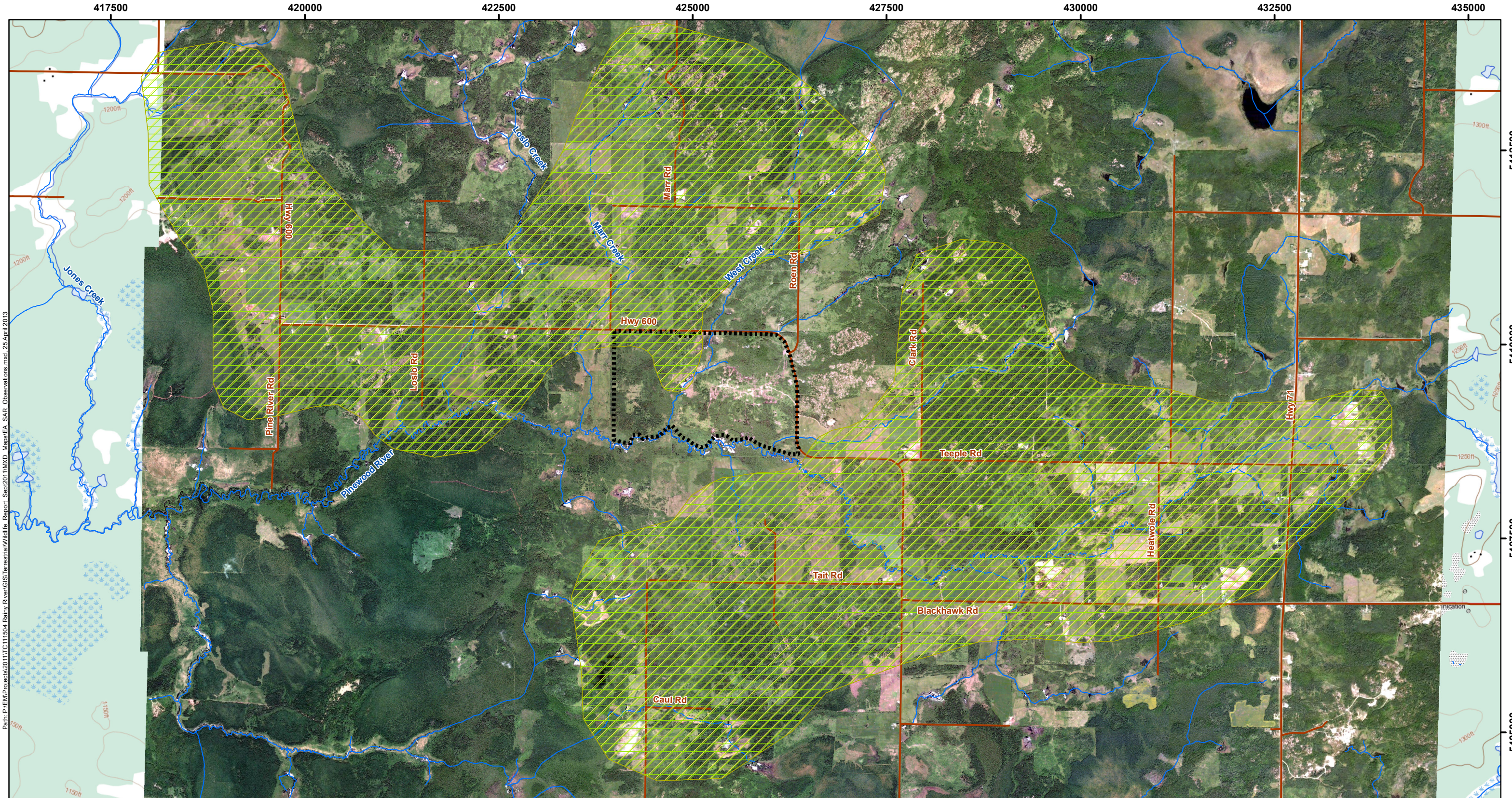


Datum: NAD83
 Projection: UTM Zone 15N



PROJECT N°: TC111504
 SCALE: 1:50,000

FIGURE: 5
 DATE: January 2012



Path: P:\EM\Projects\2011\TC111504 Rainy River\GIS\Terrestrial\Wildlife Report_Sep2011\MXD_Maps\EA_SAR_Observations.mxd_25 April 2013

LEGEND

General Project Exploration Area

Species at Risk General Locations

Roads

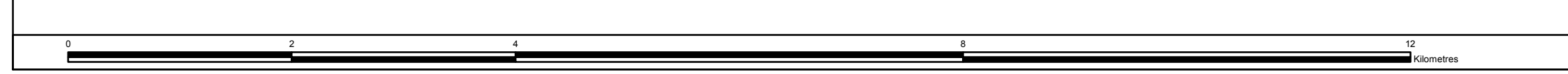
NOTES:

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- Background topographic map extracted from Toporama, Geogratis, NRCan 1:50k DRG

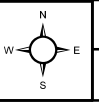
RAINY RIVER **amec**

RAINY RIVER GOLD PROJECT

Species at Risk (SAR) Observation Areas



Datum: NAD83
Projection: UTM Zone 15N



PROJECT N^o: TC111504
SCALE: 1:47,000

FIGURE: 6
DATE: January 2012

**APPENDIX A
COMPILED WILDLIFE SPECIES LIST**

Common Name	Latin Name	SARA* Rank	SARO** Rank	NHIC*** Rank
<u>MAMMALS</u>				
Snowshoe Hare	<i>Lepus americanus</i>	-	-	S5
Eastern Chipmunk	<i>Tamias striatus</i>	-	-	S5
Woodchuck	<i>Marmota monax</i>	-	-	S5
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	-	-	S5
Beaver	<i>Castor canadensis</i>	-	-	S5
Coyote	<i>Canis latrans</i>	-	-	S5
Mink	<i>Mustela vison</i>	-	-	S5
White-tailed Deer	<i>Odocoileus virginianus</i>	-	-	S5
<u>BIRDS</u>				
Canada Goose	<i>Branta canadensis</i>	-	-	S5B
Trumpeter Swan	<i>Cygnus buccinator</i>	NAR	NAR	S4
Wood Duck	<i>Aix sponsa</i>	-	-	S5B
Mallard	<i>Anas platyrhynchos</i>	-	-	S5
Hooded Merganser	<i>Lophodytes cucullatus</i>	-	-	S5B, S5N
Ruffed Grouse	<i>Bonasa umbellus</i>	-	-	S5B
Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>	-	-	S4B
Common Loon	<i>Gavia immer</i>	NAR	NAR	S5B, S5N
American White Pelican	<i>Pelecanus erythrorhynchos</i>	NAR	THR	S2B
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	NAR	NAR	S5B
American Bittern	<i>Botaurus lentiginosus</i>	-	-	S4B
Great Blue Heron	<i>Ardea herodias</i>	-	-	S4
Green Heron	<i>Butorides virescens</i>	-	-	S4B
Turkey Vulture	<i>Cathartes aura</i>	-	-	S5B
Bald Eagle	<i>Haliaeetus leucocephalus</i>	NAR	SC	S4B
Northern Harrier	<i>Circus cyaneus</i>	NAR	NAR	S4B
Red-tailed Hawk	<i>Buteo jamaicensis</i>	NAR	NAR	S5
Red-shouldered Hawk	<i>Buteo lineatus</i>	NAR	SC	S4B
American Kestrel	<i>Falco sparverius</i>	-	-	S4
Sora	<i>Porzana carolina</i>	-	-	S4B
Sandhill Crane	<i>Grus canadensis</i>	NAR	NAR	S5B
American Golden Plover	<i>Pluvialis dominica</i>	-	-	S2B, S4N
Killdeer	<i>Charadrius vociferus</i>	-	-	S5B, S5N
Wilson's Snipe	<i>Gallinago delicata</i>	-	-	S5B
American Woodcock	<i>Scolopax minor</i>	-	-	S4B
Ring-billed Gull	<i>Larus delawarensis</i>	-	-	S5B
Rock Pigeon	<i>Columba livia</i>	-	-	SNA
Mourning Dove	<i>Zenaida macroura</i>	-	-	S5B
Great Horned Owl	<i>Bubo virginianus</i>	-	-	S5
Barred Owl	<i>Strix varia</i>	-	-	S5
Long-eared Owl	<i>Asio otus</i>	-	-	S4
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	-	-	S4
Common Nighthawk	<i>Chordeiles minor</i>	THR	SC	S4B

Whip-poor-will	<i>Caprimulgus vociferus</i>	THR	THR	S4B
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	-	-	S5B
Belted Kingfisher	<i>Ceryle alcyon</i>	-	-	S4B
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	THR	SC	S4B
Hairy Woodpecker	<i>Picoides villosus</i>	-	-	S5B
Northern Flicker	<i>Colaptes auratus</i>	-	-	S4B
Pileated Woodpecker	<i>Dryocopus pileatus</i>	-	-	S5
Olive-sided Flycatcher	<i>Contopus borealis</i>	THR	SC	S4B
Eastern Wood-Pewee	<i>Contopus virens</i>	-	-	S4B
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	-	-	S5B
Alder Flycatcher	<i>Empidonax alnorum</i>	-	-	S5B
Least Flycatcher	<i>Empidonax minimus</i>	-	-	S4B
Eastern Phoebe	<i>Sayornis phoebe</i>	-	-	S5B
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	-	-	S4B
Eastern Kingbird	<i>Tyrannus tyrannus</i>	-	-	S4B
Blue-headed Vireo	<i>Vireo solitarius</i>	-	-	S5B
Philadelphia Vireo	<i>Vireo philadelphicus</i>	-	-	S5B
Red-eyed Vireo	<i>Vireo olivaceus</i>	-	-	S5B
Gray Jay	<i>Perisoreus canadensis</i>	-	-	S5B
Blue Jay	<i>Cyanocitta cristata</i>	-	-	S5B
Black-billed Magpie	<i>Pica pica</i>	-	-	S3?
American Crow	<i>Corvus brachyrhynchos</i>	-	-	S5B
Common Raven	<i>Corvus corax</i>	-	-	S5B
Tree Swallow	<i>Tachycineta bicolor</i>	-	-	S4B
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	-	-	S4B
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	-	-	S4B
Barn Swallow	<i>Hirundo rustica</i>	-	-	S4B
Black-capped Chickadee	<i>Poecile atricapillus</i>	-	-	S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	-	-	S5B
House Wren	<i>Troglodytes aedon</i>	-	-	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	-	-	S5B
Sedge Wren	<i>Cistothorus platensis</i>	NAR	NAR	S4B
Golden-crowned Kinglet	<i>Regulus satrapa</i>	-	-	S5B
Ruby-crowned Kinglet	<i>Regulus calendula</i>	-	-	S5B
Eastern Bluebird	<i>Sialia sialis</i>	NAR	NAR	S5B
Veery	<i>Catharus fuscescens</i>	-	-	S4B
Swainson's Thrush	<i>Catharus ustulatus</i>	-	-	S4B
Hermit Thrush	<i>Catharus guttatus</i>	-	-	S5B
American Robin	<i>Turdus migratorius</i>	-	-	S5B
Gray Catbird	<i>Dumetella carolinensis</i>	-	-	S4B
Brown Thrasher	<i>Toxostoma rufum</i>	-	-	S4B
European Starling	<i>Sturnus vulgaris</i>	-	-	SNA
Cedar Waxwing	<i>Bombycilla cedrorum</i>	-	-	S5B
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	THR	SC	S4B
Tennessee Warbler	<i>Oreothlypis peregrina</i>	-	-	S5B
Nashville Warbler	<i>Oreothlypis ruficapilla</i>	-	-	S5B
Northern Parula	<i>Parula americana</i>	-	-	S4B

Yellow Warbler	<i>Dendroica petechia</i>	-	-	S5B
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	-	-	S5B
Magnolia Warbler	<i>Dendroica magnolia</i>	-	-	S5B
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	-	-	S5B
Yellow-rumped Warbler	<i>Dendroica coronata</i>	-	-	S5B
Black-throated Green Warbler	<i>Dendroica virens</i>	-	-	S5B
Blackburnian Warbler	<i>Dendroica fusca</i>	-	-	S5B
Palm Warbler	<i>Dendroica palmarum</i>	-	-	S5B
Black-and-white Warbler	<i>Mniotilta varia</i>	-	-	S5B
American Redstart	<i>Setophaga ruticilla</i>	-	-	S5B
Ovenbird	<i>Seiurus aurocapilla</i>	-	-	S4B
Mourning Warbler	<i>Oporornis philadelphia</i>	-	-	S4B
Conneticut Warbler	<i>Oporornis agilis</i>	-	-	S4B
Common Yellowthroat	<i>Geothlypis trichas</i>	-	-	S5B
Wilson's Warbler	<i>Wilsonia pusilla</i>	-	-	S4B
Chipping Sparrow	<i>Spizella passerina</i>	-	-	S5B
Clay-colored Sparrow	<i>Spizella pallida</i>	-	-	S4B
Savannah Sparrow	<i>Passerculus sandwichensis</i>	-	-	S4B
LeConte's Sparrow	<i>Ammodramus leconteii</i>	-	-	S4B
Song Sparrow	<i>Melospiza melodia</i>	-	-	S5B
Swamp Sparrow	<i>Melospiza georgiana</i>	-	-	S5B
White-throated Sparrow	<i>Zonotrichia albicollis</i>	-	-	S5B
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	-	-	S4B
Bobolink	<i>Dolichonyx oryzivorus</i>	THR	THR	S4B
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	-	-	S4
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	-	-	S4B
Common Grackle	<i>Quiscalus quiscula</i>	-	-	S5B
Brown-headed Cowbird	<i>Molothrus ater</i>	-	-	S4B
Baltimore Oriole	<i>Icterus galbula</i>	-	-	S4B
Pine Siskin	<i>Spinus pinus</i>	-	-	S4B
American Goldfinch	<i>Spinus tristis</i>	-	-	S5B
House Sparrow	<i>Passer domesticus</i>	-	-	SNA
<u>REPTILES</u>				
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	-	-	S5
<u>AMPHIBIANS</u>				
American Toad	<i>Bufo americanus</i>	-	-	S5
Tetraploid Gray Treefrog	<i>Hyla versicolor</i>	-	-	S5
Spring Peeper	<i>Pseudacris crucifer</i>	-	-	S5
Boreal Chorus Frog	<i>Pseudacris maculata</i>	-	-	S5
Wood Frog	<i>Rana sylvatica</i>	-	-	S5
Northern Leopard Frog	<i>Rana pipiens</i>	NAR	NAR	S5
Mink Frog	<i>Rana septentrionalis</i>	-	-	S5
<u>INVERTEBRATES</u>				
Baskettail Sp.	<i>Epitheca sp.</i>	-	-	S5
Kennedy's Emerald	<i>Somatochlora kennedyii</i>	-	-	S4
Hudsonian Whiteface	<i>Leucorrhinia glacialis</i>	-	-	S5

Four-spotted Skimmer	<i>Libellula quadrimaculata</i>	-	-	S5
Duskywing Sp.	<i>Erynnis sp.</i>	-	-	S5
Canadian Tiger Swallowtail	<i>Papilio canadensis</i>	-	-	S5
Mourning Cloak	<i>Nymphalis antiopa</i>	-	-	S5

* **SARA** = *Species at Risk Act* and is the Federal Status. Rankings are provided by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

** **SARO** = *Species at Risk in Ontario* and is the Provincial Status. Rankings are provided by the Committee on the Status of Species at Risk in Ontario (COSSARO).

*****NHIC** = *Natural Heritage Information Centre* and is a database maintained by Ontario's Ministry of Natural Resources.

SARA (Federal Ranking)		SARO (Prov. Ranking)		NHIC (MNR Provincial Ranking)	
NAR	Not At Risk	NAR	Not At Risk	S2B	Imperiled - Breeding Migrants
SC	Special Concern	SC	Special Concern	S3?	Vulnerable - Rank Uncertain
THR	Threatened	THR	Threatened	S4	Apparently Secure
END	Endangered	END	Endangered	S4B	Apparently Secure Breeding Migrants
				S4N	Apparently Secure Non-breeding Migrants
				S5	Secure
				S5B	Secure Breeding Migrants
				S5N	Secure Non-breeding Migrants
				SNA	Status Rank Not Applicable