



**Infrastructure and Transportation**

Highway Planning and Design Branch  
Environmental Services Section  
1420 – 215 Garry St., Winnipeg, MB R3C 3P3  
T (204) 619-4359 F (204) 945-0593

May 12, 2015

Tracey Braun, M. Sc.  
Director, Environmental Approvals Branch  
Manitoba Conservation and Water Stewardship  
123 Main St., Suite 160  
Winnipeg, MB R3C 1A5

RE: Notice of Alteration to Environment Act Licence No. 3013  
Temporary Asphalt Plant Mixing Sites  
Client File No. 5577.00

Dear Ms. Braun:

MIT would like to request that Environment Act Licence No. 3013 be revised to include Pipestone Maintenance Yard as a temporary asphalt plant mixing site. A description of the site, existing environment, and potential impacts is attached. We are of the opinion that, with adherence to operational best management practices and conditions of the Licence, environmental effects for the proposed additional use of this Site will not be significant.

The Notice of Alteration Fee will be submitted via Interdepartmental Fund Transfer. Please send us the Inter-business Area Journal Entry with pertinent details.

Should you require additional information pertaining to this Notice, please contact the undersigned at (204) 619-4359 or at [Ryan.Coulter@gov.mb.ca](mailto:Ryan.Coulter@gov.mb.ca).

Sincerely,

Ryan Coulter, M. Sc., P. Eng.  
Manager of Environmental Services

CC: Tim Klassen, MIT  
Mike Neill, MIT  
John Biberdorf, MIT  
Whitney Street, MIT

## **ADDITIONAL TEMPORARY ASPHALT PLANT MIXING SITE PIPESTONE MAINTENANCE YARD**

In accordance with the Manitoba Environment Act, Manitoba Infrastructure and Transportation (MIT) applied for and received an Environment Act Licence (EAL No. 3013) for 42 Sites, strategically located throughout Manitoba, to accommodate portable asphalt mixing plants (the Plants) to produce asphalt paving mix for the construction and/or maintenance of provincial highways in Manitoba. The Plants are operated temporarily and are moved from location to location as dictated by the annual construction/maintenance program.

The Plants allowed to operate on these Sites are either owned by MIT or by third parties working for MIT and/or other departments. All Plants operating on these Sites are required to have a valid Manitoba Environment Act Licence and to operate in accordance with terms and conditions specified in these Licences. It should also be noted that the amount of operating time spent at each mixing site, as a general rule, is limited from 1 day to 2 weeks in any given year.

In addition to these 42 Sites, MIT requests that the existing EAL No. 3013 be revised to include the MIT Maintenance Yard at Pipestone (the Site) as a portable asphalt plant mixing site.

### **SITE LOCATION AND EXISTING LAND USE**

The Site is located along the north side of Provincial Trunk Highway (PTH) No. 2, approximately 1.5 km west of the village of Pipestone, at the SW ¼-17-7-26W, in the Rural Municipality of Pipestone (Figure 1). The Property and surrounding area is zoned as AG (Agriculture) by the RM of Pipestone.

The Site is currently being used as an MIT Maintenance Yard for equipment maintenance and storage, a construction material (culverts, aggregates, etc.) storage/stockpile site, and a salt and sand storage site for winter clearing operations. It is a rectangular shaped parcel of land with a square-shaped addition in the northwest corner of the yard, with a total area of approximately 4 ha.

The square addition in the northwest corner of the Site is fenced. This fenced area is predominantly gravel-covered, with an asphalt pad in one section. The rest of the Site is unfenced area. This unfenced area contains a salt/sand shed and storage piles of gravel, sand, fencing, asphalt, culverts, and suspected creosote-treated timber. It consists primarily of unmaintained vegetation, with some gravel base on the northwest portion. There is some natural mixed-grass prairie vegetation typical of drier (sandy) sites along the edges of the yard and two small wetland areas, one located in the middle of the yard and the second near the southwestern corner. Existing features of the Site are shown in Figure 2.

### **DESCRIPTION OF ENVIRONMENTAL EFFECTS**

#### **Soil, Terrain and Vegetation**

The Site is located within the Aspen Parkland Ecoregion, which is a transitional area between the boreal forest and the grasslands. Typically, this ecoregion was characterized by open

stands of trembling aspens, shrubs, bur oaks and grasslands. Currently though, most of areas are farmland, representing the most productive agricultural land in the Prairies (*Smith, et.al., 1998*).

The vegetation on the Site is typical to that of a grassland/pasture, with short grasses, forbs, shrubs and very few trees. There are two old borrow pits within the unfenced portion of the Site, both of which have become wetlands.

Impacts to the soil, terrain and vegetation can arise from clearing of sites, building of access roads and storage of material. A second potential source of impact is deposition of particulate matter on local vegetation.

Since the Site is located within an existing maintenance yard, no clearing or additional access is anticipated. Moreover, portions of the yard are already being used as stockpile sites for gravel, sand, asphalt, cobbles, and dirt, as well as culverts, bridge timbers, rebar and fencing materials.

Operation of the portable asphalt plants is subject to existing regulations that limit the quality of the air emissions, including particulate matter. Further, plants are required to operate according to the conditions of their licence and best management practices. Significance of effects of the operation on the existing soil, terrain and vegetation would be none to low.

### **Surface Water**

The fenced portion of the Site is generally flat (0 to 2% slope) with site drainage appearing to flow towards the edges. The unfenced area is bowl shaped, likely due the former borrow pit, and site drainage appears to flow towards the middle of the yard. There was also water observed in the wetland near the southwest corner of the Site.

The water from the road ditch along PTH 2 appears to drain east where it is then directed north at PTH 83 to a 2<sup>nd</sup> order drain.

Potential impacts to surface water can occur as a result of spills or emissions from the plant operation.

Portable asphalt plants will be located in an area within the Site, at least 30 m away from the wetlands. Operational best management practices including emergency response should avoid migration of spilled liquids if an accident happens.

### **Groundwater**

The Site currently has two (2) active sand point wells. A third well is located inside the office and appeared to be inactive during a site investigation conducted by Tower Engineering. The well is currently embedded in concrete with a plastic cap, but it was not evident if it has been decommissioned.

Manitoba Conservation and Water Stewardship groundwater database reports seven (7) groundwater wells located within 1.5 km of the Site (within a 5 m accuracy). The drill dates for the wells range from 2007 to 2013 and range from industrial, observation to domestic and livestock purposes. The depth of these wells range from 6 to 10 m.

Transferring of fuels, asphalt emulsion oil and other hazardous materials can create spills that may reach the ground water table and contaminate ground water supplies. Hazardous materials will be transported, stored, used and disposed of in accordance with applicable regulatory requirement to minimize risk of contamination.

The two active sand point wells are located inside the 2-bay and 1-bay sheds. Activity of the third well will be confirmed and, if decommissioned, will be checked for a proper seal. Operation of portable plants will not impact these wells.

With the application of appropriate machinery and fuel handling mitigation measures and operational best management practices, significant adverse environmental effects to groundwater are not likely to occur.

### **Aquatic Environment**

The 2<sup>nd</sup> order drain, located approximately 1.4 km northeast of the Site is a Type E fish habitat (FH), becoming Type C downstream. This 2<sup>nd</sup> order drain turns to the Belleview Drain. The portion of Belleview Drain immediately downstream of the 2<sup>nd</sup> order drain is Type D FH, becoming Type C approximately 3.6 km downstream. The Belleview Drain continues on as Type B FH and then Type A where it turns into Bell Creek before draining into Oak Lake, located 18.3km northeast of the Site (*Milani, 2013*). Oak Lake likely contains Walleye, Northern Pike, Perch, Brook Stickleback, Sand Shiner, Fathead Minnow and White Sucker.

Potential impacts to aquatic systems can occur as a result of spills migrating to a water course or emissions from operation settling in an aquatic environment.

The distance of the Site to a fish-bearing waterbody suggests low potential for impacts. Moreover, the ditches connecting to the 2<sup>nd</sup> order drain do not have a permanent baseflow.

Operational best management practices including adherence to the Emergency Response Plan submitted to Manitoba Conservation and Water Stewardship should avoid migration of contaminants if an accident happens. Significance of effects to aquatic environment is very low.

### **Species at Risk**

Consultation with the Conservation Data Centre yielded the following species of concern within a kilometre radius of the Site:

- Chestnut-collared Longspur (*Calcarius ornatus*)
- Loggerhead Shrike (*Lanius ludovicianus excubitorides*)
- Sprague's Pipit (*Anthus spragueii*)
- Grasshopper Sparrow (*Ammodramus savannarum*)
- Baird's Sparrow (*Ammodramus bairdii*)

With the exception of the Grasshopper Sparrow, all of the bird species listed above are protected under the *Manitoba Endangered Species Act* and/or the *Federal Species at Risk Act*. The Loggerhead Shrike and the Sprague's Pipit also have international protection in Canada, the US and Mexico, under the *Migratory Bird Convention Act of 1994*.

Impact to the bird species could occur as a result of increased noise and traffic activity from operating the plant. Noise during critical nesting periods could potentially disrupt nesting activities. The species listed above have nesting periods between May to early August. The 1 day to 2 week plant operation might fall within this nesting period. As such, plants to be operated at this Site will be required to employ noise and vibration dampening measures and isolation techniques. With these measures, occurrence of significant effects will likely be low.

### **Socio-Economic**

The Site is located approximately 1.5km West of the Village of Pipestone. There are also a couple of properties located at the northwest and southwest corners of the PTH 83 and PTH 2 junction, both of which are less than 1 km away from the Site.

Impacts would primarily be to those residences which are within 1 km of the portable asphalt plant site. In such cases, noise, odour and air quality could all be impacted. Obscuring the visibility for traffic is a potential impact as the Site is situated along PTH 2. Reductions in visibility increase the potential for traffic accidents.

Plants to be operated at this Site will be required to employ pollution control devices as well as noise and vibration dampening measures and isolation techniques. Plants will operate in accordance to the terms and conditions of their licences. In the event that particulate matter and/or water vapour discharge from plant operations result in reduced visibility in adjacent roadways, plant operations will cease until atmospheric conditions become favourable.

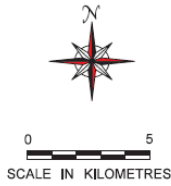
Significant negative socio-economic impacts are not expected.

## REFERENCES

- Milani, D.W.. 2013. *Fish Community and Fish Habitat Inventory of Streams and Constructed Drains through Agricultural Areas of Manitoba (2002-2006)*. Canadian Data Report of Fisheries and Aquatic Sciences 1247. Fisheries Protection Program, Central and Arctic Region, Fisheries and Oceans Canada, Winnipeg, Manitoba and Aquatic Habitat Management Section, Fisheries Branch, Manitoba Water Stewardship, Winnipeg, Manitoba
- Smith, R.E., H. Veldhuis, G.F. Mills, R.G. Eilers, W.R. Fraser, and G.W. Lelyk. 1998. *Terrestrial Ecozones, Ecoregions, and Ecodistricts, An Ecological Stratification of Manitoba's Landscapes*. Technical Bulletin 98-9E. Land Resource Unit, Brandon Research Centre, Research Branch, Agriculture and Agri-Food Canada, Winnipeg, Manitoba.
- Tower Engineering Group Limited Partnership. 2015. *Phase I Environmental Site Assessment (ESA) and EM31 Surveys – Pipestone Yard*

# R.M. OF PIPESTONE

PROVINCE OF MANITOBA  
INFRASTRUCTURE AND TRANSPORTATION  
HIGHWAY PLANNING AND DESIGN BRANCH  
GEOGRAPHIC & RECORDS MANAGEMENT SECTION  
WINNIPEG  
AUGUST 2002



### LEGEND

- PROVINCIAL TRUNK HIGHWAYS ..... ACCESS ROADS .....
- PROVINCIAL ROADS ..... RAILWAYS .....

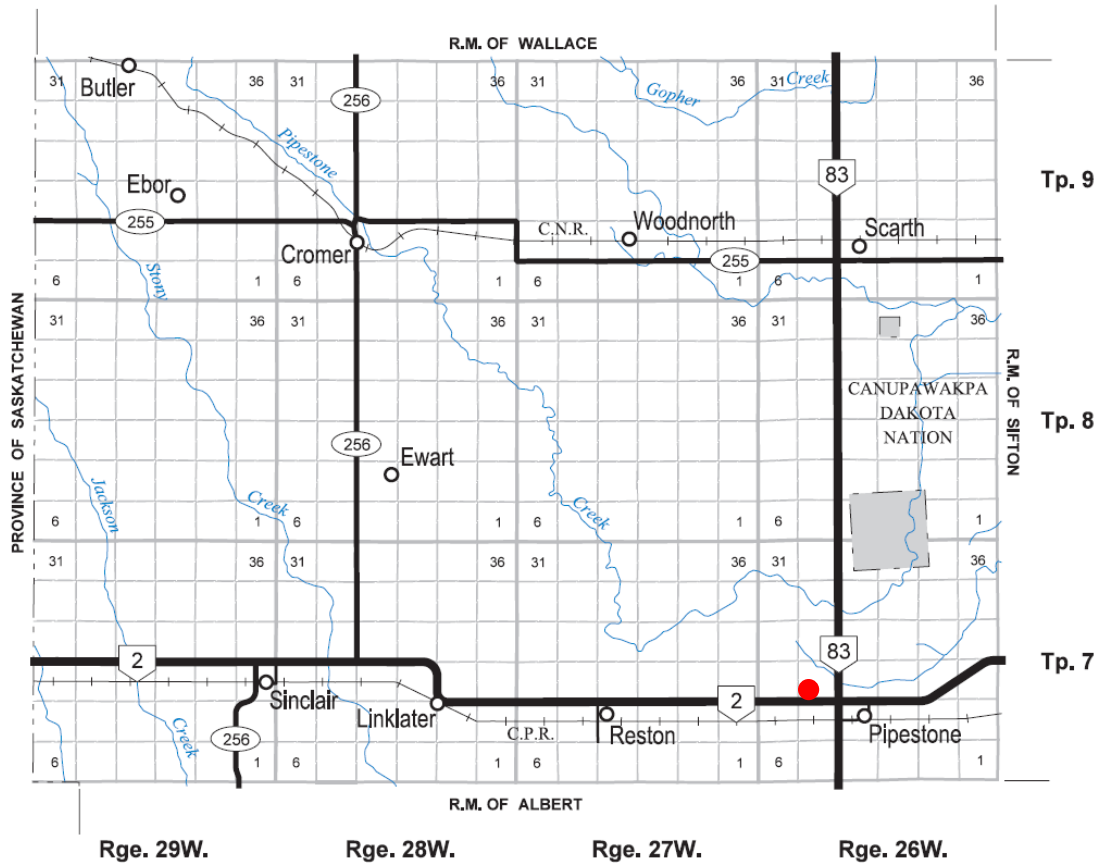


Figure 1. Site location indicated by the red dot

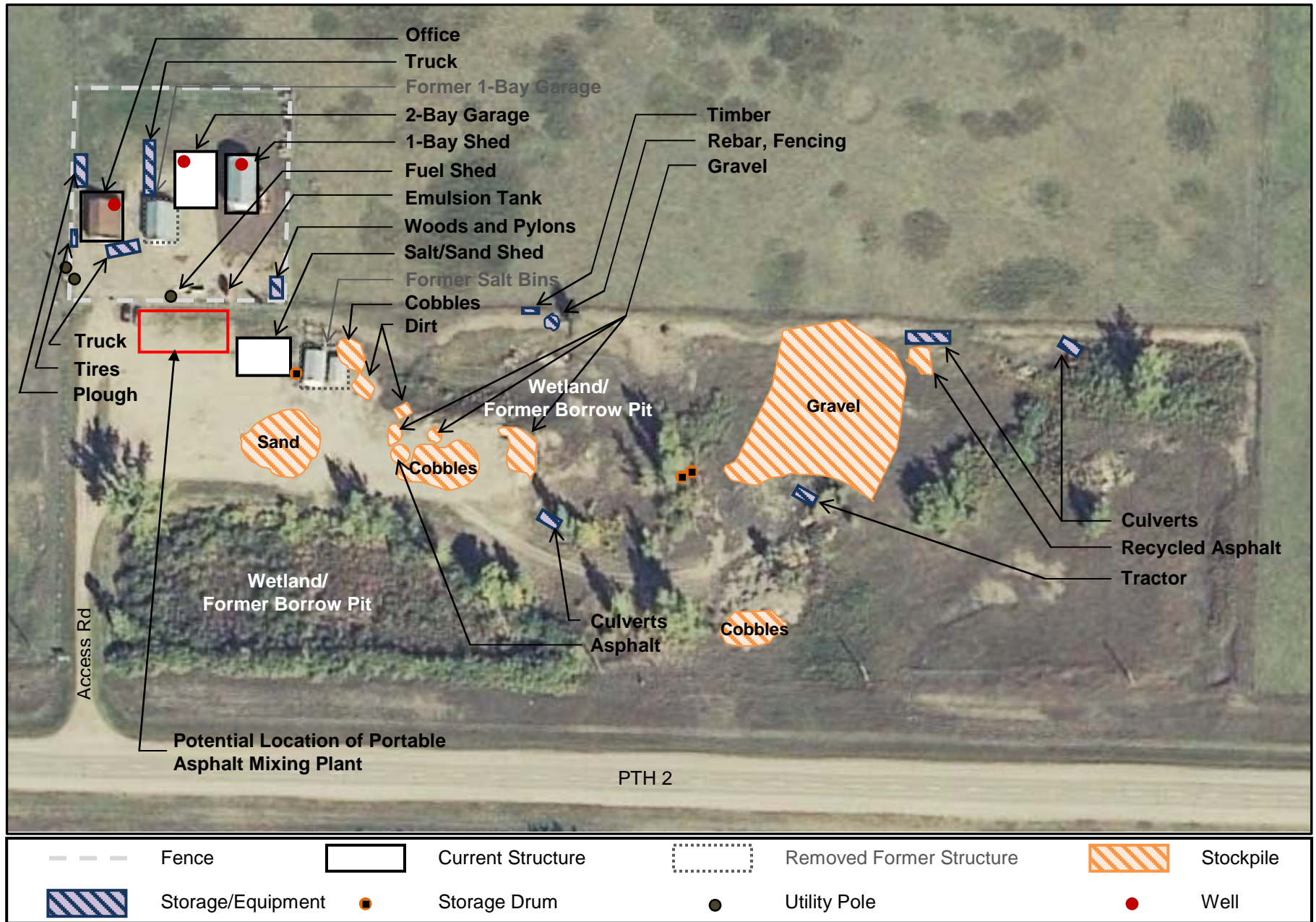


Figure 2. Site Features and Potential Location of Portable Asphalt Mixing Plant



**Manitoba**



**Infrastructure and Transportation**

Highway Planning and Design Branch  
Environmental Services Section  
1420 - 215 Garry St., Winnipeg, MB R3C 3P3  
T (204) 619-4359 F (204) 945-0593

August 19, 2015

Tracey Braun, M. Sc.  
Director, Environmental Approvals Branch  
Manitoba Conservation and Water Stewardship  
123 Main St., Suite 160  
Winnipeg, MB R3C 1A5

RE: Notice of Alteration to Environment Act Licence No. 3013  
Temporary Asphalt Plant Mixing Sites  
Client File No. 5577.00

Dear Ms. Braun:

As part of the Notice of Alteration submitted on May 12, 2015 for the inclusion of Pipestone Maintenance Yard, MIT would also like to include Piney Maintenance Yard as a portable asphalt plant mixing site under Environment Act Licence No. 3013. A description of the site, existing environment, and potential impacts is attached. We are of the opinion that, with adherence to operational best management practices and conditions of the Licence, environmental effects for the proposed additional use of these Sites will not be significant. We request that this submission be treated as an addendum to the May 12, 2015 submission and therefore be considered one Notice of Alteration.

Should you require additional information pertaining to this Notice, please contact the undersigned at (204) 619-4359 or at [Ryan.Coulter@gov.mb.ca](mailto:Ryan.Coulter@gov.mb.ca).

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Coulter", is written over a light blue horizontal line.

Ryan Coulter, M. Sc., P. Eng.  
Manager of Environmental Services

CC: Tim Klassen, MIT  
Mike Neill, MIT  
John Biberdorf, MIT  
Chris Potter, MIT

**Manitoba**  
spirited energy

## **ADDITIONAL TEMPORARY ASPHALT PLANT MIXING SITE PINEY MAINTENANCE YARD**

In accordance with the Manitoba Environment Act, Manitoba Infrastructure and Transportation (MIT) applied for and received an Environment Act Licence (EAL No. 3013) for 42 Sites, strategically located throughout Manitoba, to accommodate portable asphalt mixing plants (the Plants) to produce asphalt paving mix for the construction and/or maintenance of provincial highways in Manitoba. The Plants are operated temporarily and are moved from location to location as dictated by the annual construction/maintenance program.

The Plants allowed to operate on these Sites are either owned by MIT or by third parties working for MIT and/or other departments. All Plants operating on these Sites are required to have a valid Manitoba Environment Act Licence and to operate in accordance with terms and conditions specified in these Licences.

In addition to these 42 Sites and the previously submitted Pipestone Maintenance Yard, MIT requests that the existing EAL No. 3013 be revised to include the MIT Maintenance Yard at Piney (the Site) as a portable asphalt plant mixing site.

### **SITE LOCATION AND EXISTING LAND USE**

The Site is located north of the town of Piney in the RM of Piney, west of PTH 89, approximately 146 km southeast of Winnipeg on a 4.83 acre parcel of land. The legal description of the Site is: NE ¼ 36-1-11E (Figure 1). The Site has a 1.5 m fence with a gate that leads into the yard. The fence borders the east half of the south side, the east side west of the parking lot and office area, and the east half of the north side of the property.

The Site is currently being used as an MIT Maintenance Yard for equipment maintenance and storage, a construction material (culverts, aggregates, etc.) storage/stockpile site, and a salt and sand storage site for winter clearing operations. Existing features of the Site are shown in Figure 2.

The Site is bordered by bushes and forest on the west side, PTH 89 on the east, followed immediately by a forested area. On the south side, the Site is bordered by a pasture and a Manitoba Conservation Fire Program Initial Attack Base is located on the north side of the Site.

### **DESCRIPTION OF ENVIRONMENTAL EFFECTS**

#### **Soil, Terrain and Vegetation**

The Site is located within the Lake of the Woods Ecoregion, specifically the Piney Ecodistrict. Vegetation within this Ecodistrict varies with soil type and drainage. The lowlands, where drainage has been improved, are cultivated. Medium to fine textured soils support various mixtures of trees, shrubs, grasses and forbs (*Smith, et.al., 1998*).

The vegetation surrounding the Site reflects this variation, with the north side being mostly wooded and the south side cultivated.

Impacts to the soil, terrain and vegetation can arise from clearing of sites, building of access

roads and storage of material. A second potential source of impact is deposition of particulate matter on local vegetation.

Since the Site is located within an existing maintenance yard, no clearing or additional access is anticipated. Moreover, portions of the yard are already being used as stockpile sites for aggregates and cold mix asphalt, as well as culverts, bridge timbers, rebar, fencing and other miscellaneous materials.

Operation of the portable asphalt plants is subject to existing regulations that limit the quality of the air emissions, including particulate matter. Further, plants are required to operate according to the conditions of their licence and best management practices. Significance of effects of the operation on the existing soil, terrain and vegetation would be none to low.

### **Surface Water**

The Site is generally flat (0 to 2% slope), with perimeter drainage ditches surrounding it. This perimeter ditch drains toward the ditch of PTH 89. Water from the ditch of PTH 89 drains toward a 2<sup>nd</sup> order drain, ending up at Pine Creek approximately 4km southeast of the Site.

Potential impacts to surface water can occur as a result of spills or emissions from the plant operation. Operational best management practices including emergency response should avoid migration of spilled liquids if an accident happens.

### **Groundwater**

The Site is reported to have two wells, the first of which was located in the southeast section of the fenced yard, south of the Grader Shop. The second well was reported to be located west of the Office, but this was not visually confirmed during a site visit by Tower Engineering. Figure 2 shows approximate locations of the wells.

Manitoba Conservation and Water Stewardship groundwater database shows six (6) groundwater wells located within 1 km of the Site (Figure 3). Uses are mostly for domestic purposes, one for municipal and another for livestock.

Transferring of fuels, asphalt emulsion oil and other hazardous materials can create spills that may reach the ground water table and contaminate ground water supplies. Hazardous materials will be transported, stored, used and disposed of in accordance with applicable regulatory requirement to minimize risk of contamination.

Operation of portable plants will not impact these wells.

With the application of appropriate machinery and fuel handling mitigation measures and operational best management practices, significant adverse environmental effects to groundwater are not likely to occur.

### **Aquatic Environment**

The 2<sup>nd</sup> order drain, located approximately 750 m from the Site, to which the ditch of PTH 89 drains into is a Type E fish habitat. This 2<sup>nd</sup> order drain continues east towards Pine Creek, which is classified as Type A fish habitat. Pine Creek, at this area, likely contains Blackside

Darter, Johnny Darter, Central Mudminnows, Fathead Minnows, Brassy Minnows, Finescale Dace, Pearl Dace, Northern Redbelly Dace, Brook Stickleback, White Sucker and Creek Chub.

Potential impacts to aquatic systems can occur as a result of spills migrating to a water course or emissions from operation settling in an aquatic environment.

The distance of the Site to a fish-bearing waterbody suggests low potential for impacts. Moreover, the ditches of PTH 89 connecting to the 2<sup>nd</sup> order drain do not appear to have a permanent baseflow.

Operational best management practices including adherence to the Emergency Response Plan submitted to Manitoba Conservation and Water Stewardship should avoid migration of contaminants if an accident happens. Significance of effects to aquatic environment is very low.

### **Species at Risk**

Based on the Conservation Data Centre database, the closest known occurrences of species of concern are located approximately 1.2km NE of the Site (Figure 4). Barn swallow (*Hirundo rustica*) and Bobolink (*Dolichonyx oryzivorus*) have international protection in Canada, the US and Mexico, under the *Migratory Bird Convention Act of 1994*.

Impact to the bird species could occur as a result of increased noise and traffic activity from operating the plant. Noise during critical nesting periods could potentially disrupt nesting activities. The species listed above have nesting periods between May to early August. The 1 day to 2 week plant operation might fall within this nesting period. However, the distance of the observed occurrences from the Site serves as a buffer from the noise generated during the operation. Moreover, if necessary, plants to be operated at this Site will be required to employ noise and vibration dampening measures and isolation techniques. With these measures and the proximity of the occurrences to the Site, impacts to the bird species will likely be low.

### **Socio-Economic**

The closest property is a Manitoba Conservation Fire Program Initial Attack Base, which is immediately North of the Site. The Site is located approximately 500m North of Community of Piney. Other neighbouring properties within 1 km radius of the Site are shown in Figure 5.

Impacts would primarily be to those properties which are within 1 km of the portable asphalt plant site. In such cases, noise, odour and air quality could all be impacted. Obscuring the visibility for traffic is a potential impact as the Site is situated along PTH 89. Reductions in visibility increase the potential for traffic accidents.

Plants to be operated at this Site will be required to employ pollution control devices as well as noise and vibration dampening measures and isolation techniques. Plants will operate in accordance to the terms and conditions of their licences. In the event that particulate matter and/or water vapour discharge from plant operations result in reduced visibility in adjacent roadways, plant operations will cease until atmospheric conditions become favourable.






Significant negative socio-economic impacts are not expected.

## REFERENCES

- Manitoba Infrastructure and Transportation. 2011. *Draft Phase I Environmental Site Assessment (ESA) – Piney Yard*
- Milani, D.W.. 2013. *Fish Community and Fish Habitat Inventory of Streams and Constructed Drains through Agricultural Areas of Manitoba (2002-2006)*. Canadian Data Report of Fisheries and Aquatic Sciences 1247. Fisheries Protection Program, Central and Arctic Region, Fisheries and Oceans Canada, Winnipeg, Manitoba and Aquatic Habitat Management Section, Fisheries Branch, Manitoba Water Stewardship, Winnipeg, Manitoba
- Smith, R.E., H. Veldhuis, G.F. Mills, R.G. Eilers, W.R. Fraser, and G.W. Lelyk. 1998. *Terrestrial Ecozones, Ecoregions, and Ecodistricts, An Ecological Stratification of Manitoba's Landscapes*. Technical Bulletin 98-9E. Land Resource Unit, Brandon Research Centre, Research Branch, Agriculture and Agri-Food Canada, Winnipeg, Manitoba.
- Tower Engineering. 2015. *Piney Maintenance Yard – Preliminary Observations*

# R.M. OF PINEY

## LEGEND

- PROVINCIAL TRUNK HIGHWAYS ..... 
- PROVINCIAL ROADS ..... 
- ACCESS ROADS ..... 
- MAIN MARKET ROADS ..... 
- RAILWAYS ..... 

PROVINCE OF MANITOBA  
 INFRASTRUCTURE AND TRANSPORTATION  
 HIGHWAY PLANNING AND DESIGN BRANCH  
 GEOGRAPHIC & RECORDS MANAGEMENT SECTION  
 WINNIPEG  
 JANUARY 2015

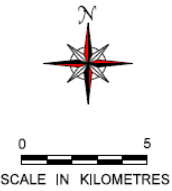
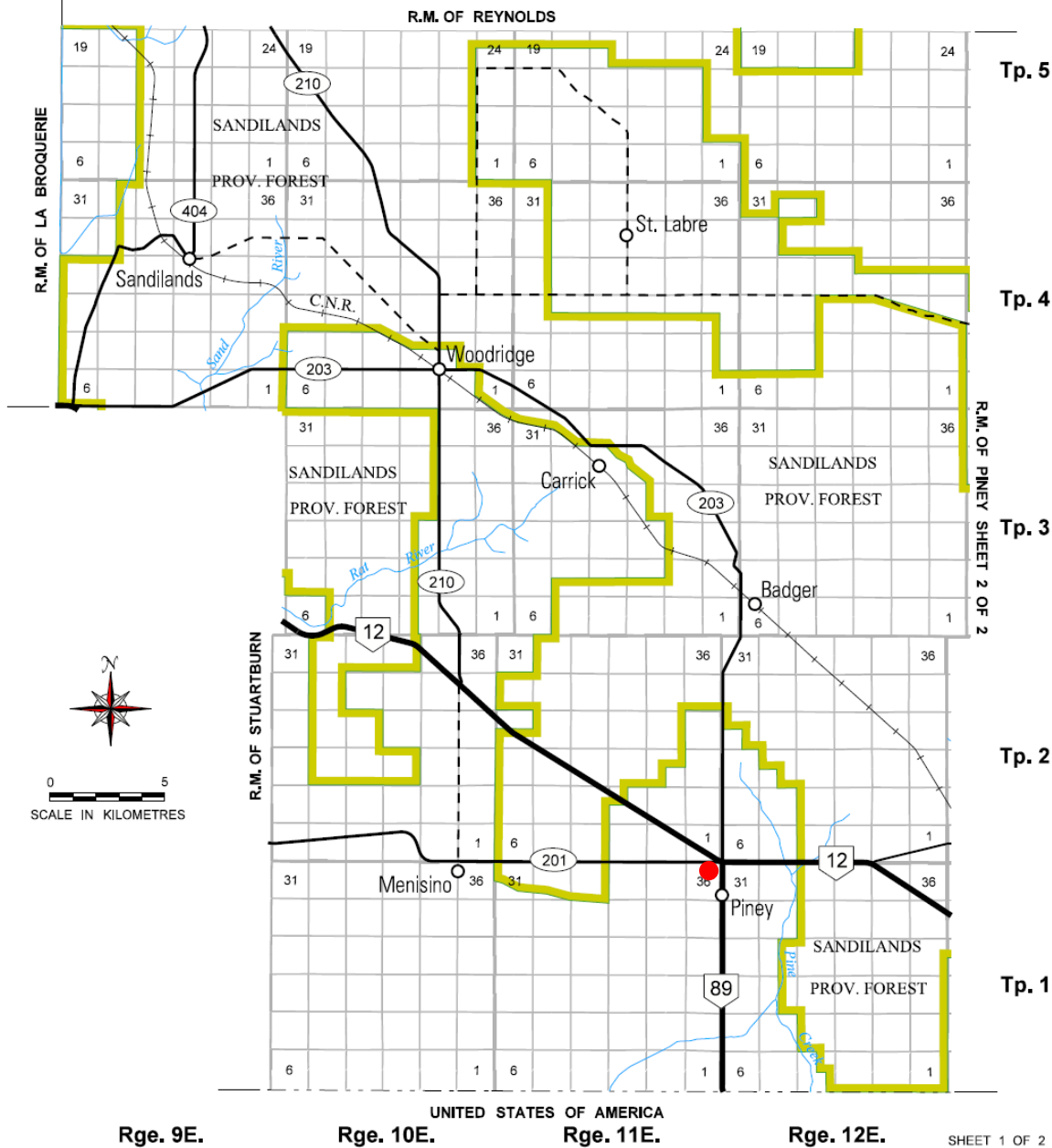
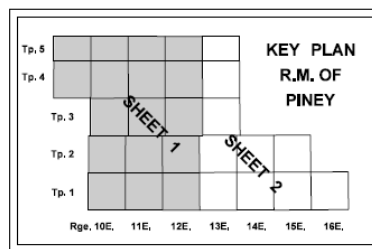


Figure 1. Site location indicated by the red dot

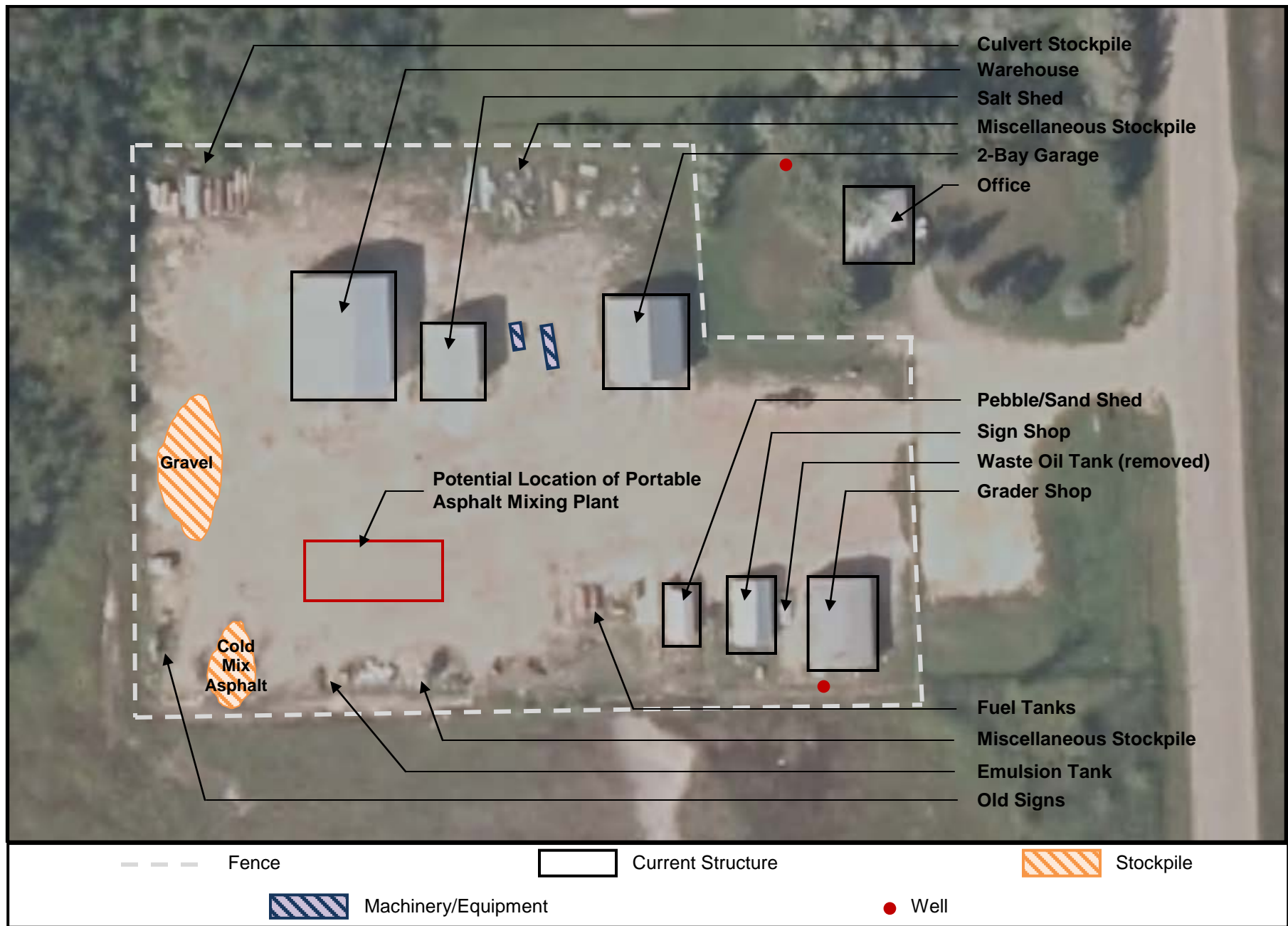


Figure 2. Site Features and Potential Location of Portable Asphalt Mixing Plant

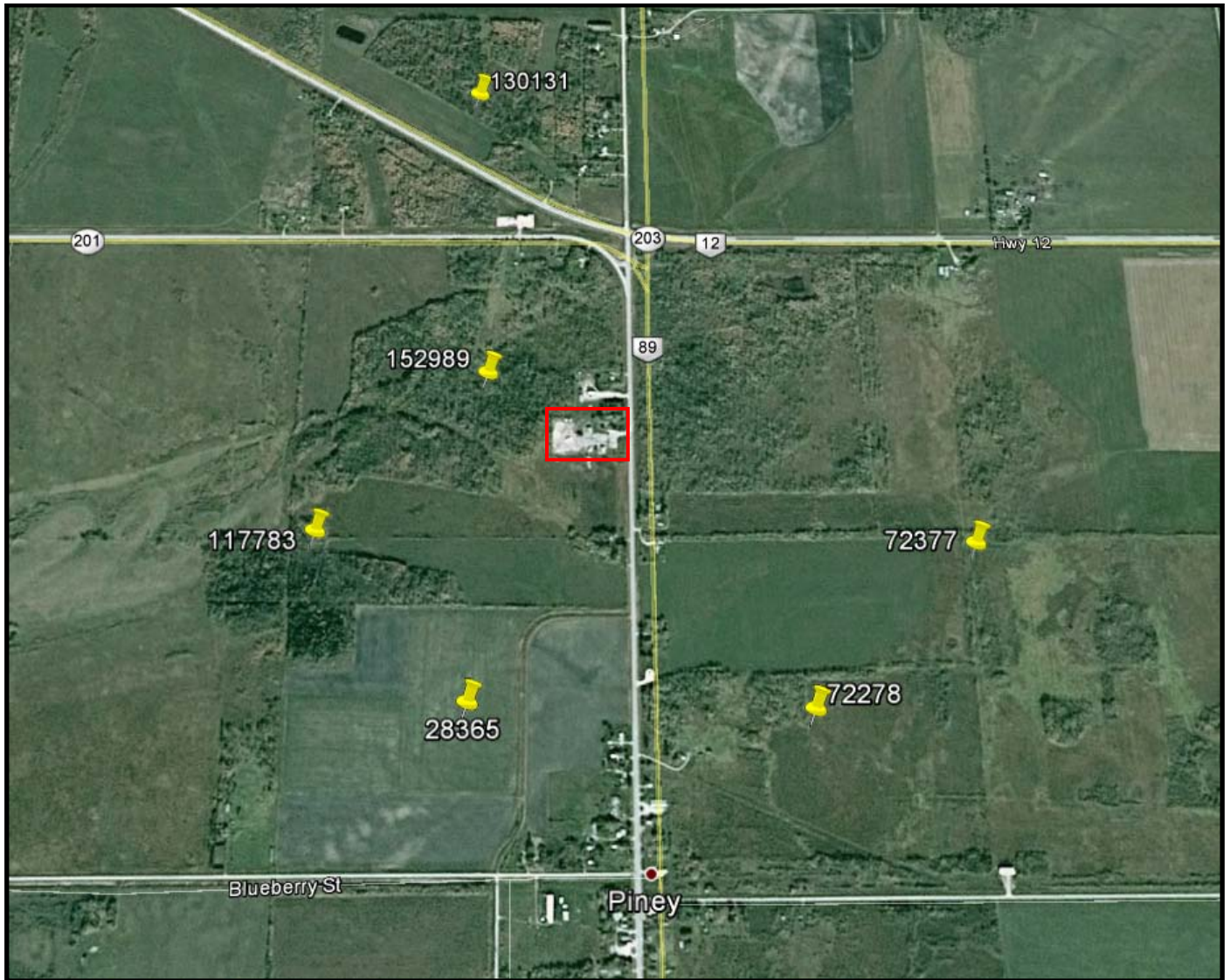


Figure 3. Groundwater Wells within 1km from the Site



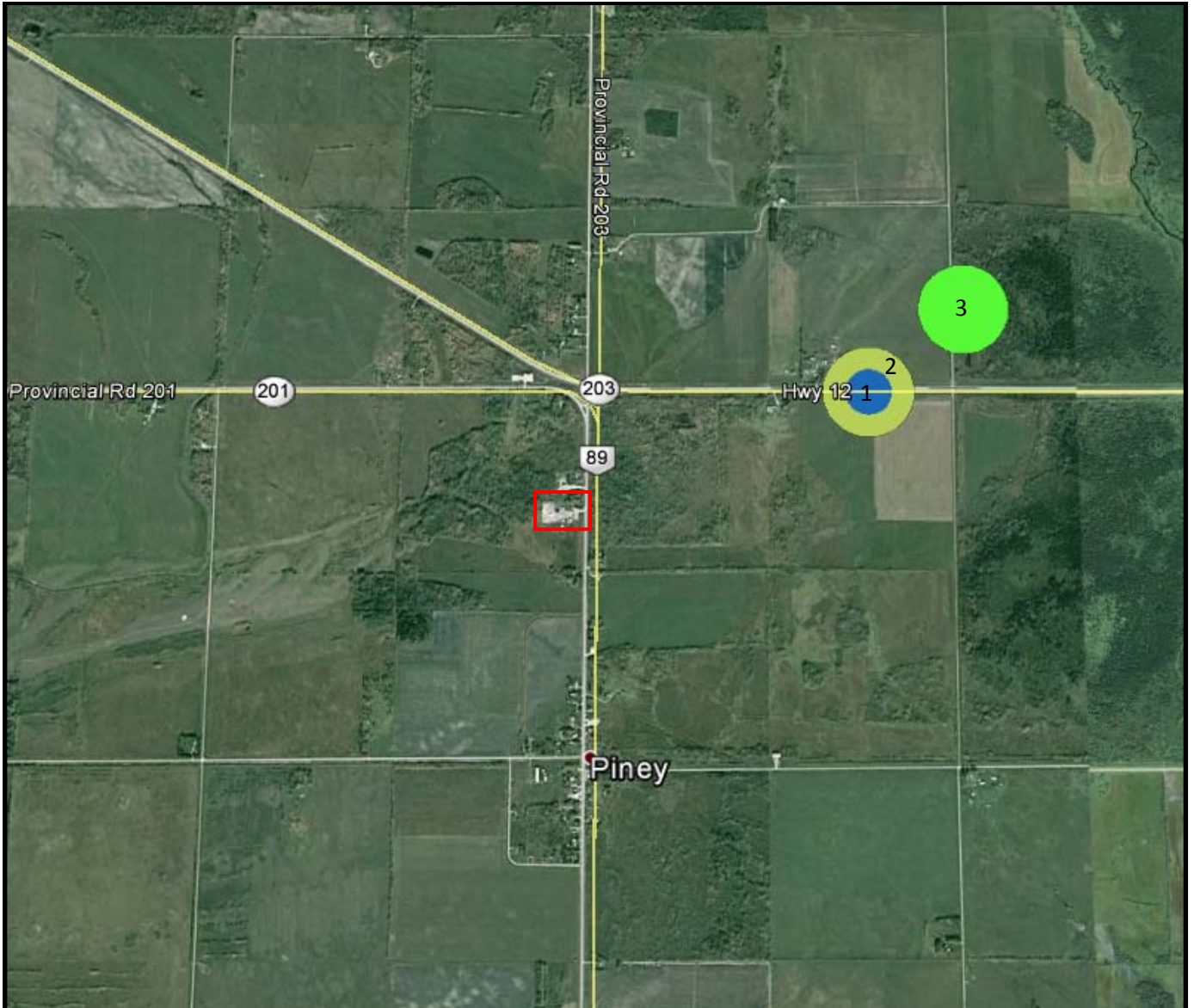


Figure 4. Occurrence of Species of Concern

- 1 – Barn Swallow (*Hirundo rustica*)
- 2 – Bobolink (*Dolichonyx oryzivorus*)
- 3 – Bobolink (*Dolichonyx oryzivorus*)

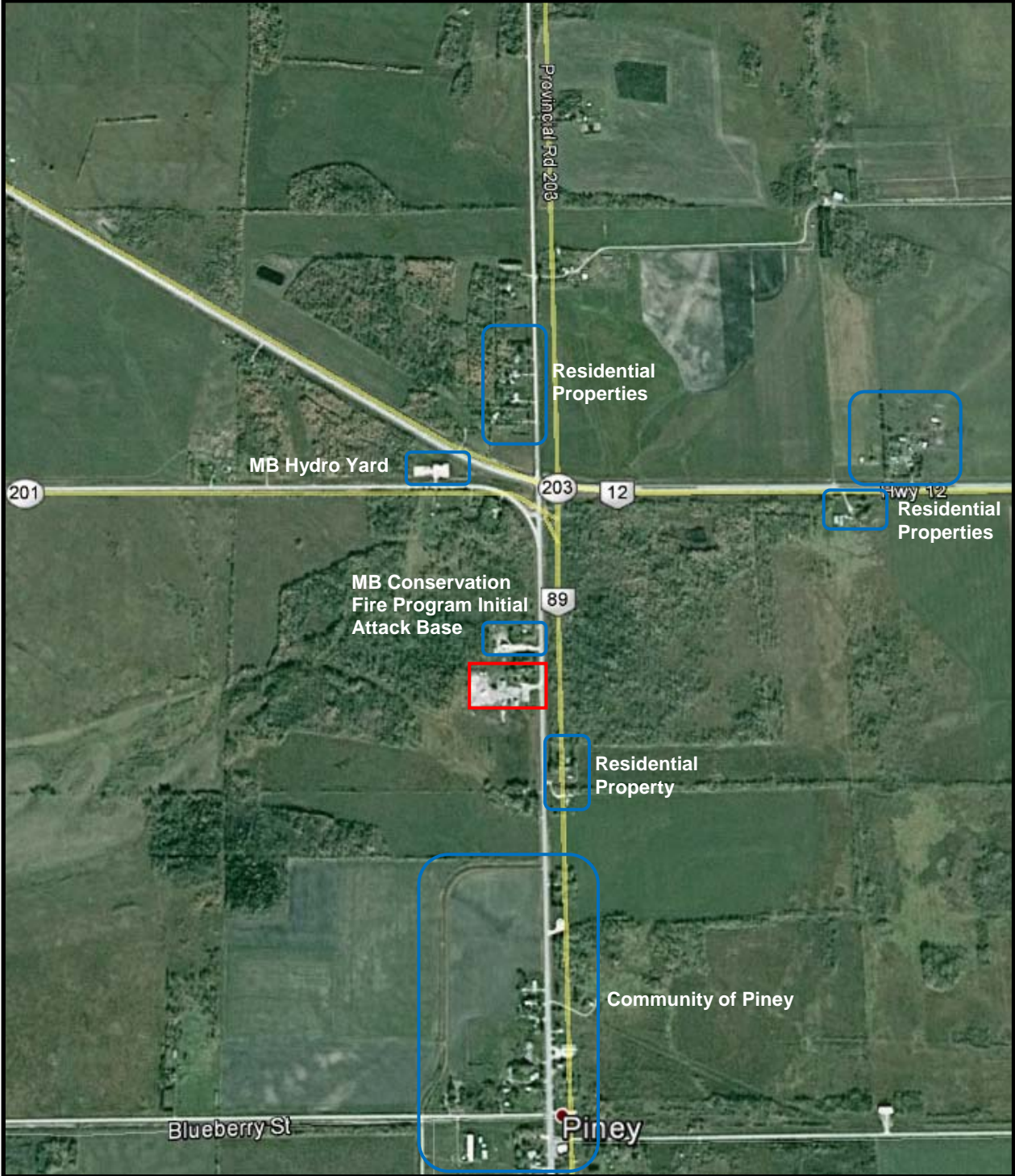


Figure 5. Neighbouring Properties within 1km Radius

# Manitoba



**Infrastructure and Transportation**

Highway Planning and Design Branch  
Environmental Services Section  
1420 – 215 Garry St., Winnipeg, MB R3C 3P3  
T (204) 619-4359 F (204) 945-0593

September 11, 2015

Tracey Braun, M. Sc.  
Director, Environmental Approvals Branch  
Manitoba Conservation and Water Stewardship  
123 Main St., Suite 160  
Winnipeg, MB R3C 1A5

RE: Notice of Alteration to Environment Act Licence No. 3013  
Temporary Asphalt Plant Mixing Sites  
Client File No. 5577.00

Dear Ms. Braun:

As part of the Notice of Alteration submitted on May 12, 2015 and August 17, 2015 for the inclusion of Pipestone Maintenance Yard and Piney Maintenance Yard, respectively, MIT would also like to include the stockpile site at junction of PTH 10 and PTH 16 at Minnedosa as a portable asphalt plant mixing site under Environment Act Licence No. 3013. A description of the site, existing environment, and potential impacts is attached. We are of the opinion that, with adherence to operational best management practices and conditions of the Licence, environmental effects for the proposed additional use of these Sites will not be significant.

Should you require additional information pertaining to this Notice, please contact the undersigned at (204) 619-4359 or at [Ryan.Coulter@gov.mb.ca](mailto:Ryan.Coulter@gov.mb.ca).

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Coulter", is written over a light blue circular stamp.

Ryan Coulter, M. Sc., P. Eng.  
Manager of Environmental Services

CC: Tim Klassen, MIT  
Mike Neill, MIT  
John Biberdorf, MIT  
Whitney Street, MIT

**Manitoba**  
spirited energy

## **ADDITIONAL TEMPORARY ASPHALT PLANT MIXING SITE STOCKPILE SITE AT PTH10-PTH 16 JUNCTION, MINNEDOSA**

In accordance with the Manitoba Environment Act, Manitoba Infrastructure and Transportation (MIT) applied for and received an Environment Act Licence (EAL No. 3013) for 42 Sites, strategically located throughout Manitoba, to accommodate portable asphalt mixing plants (the Plants) to produce asphalt paving mix for the construction and/or maintenance of provincial highways in Manitoba. The Plants are operated temporarily and are moved from location to location as dictated by the annual construction/maintenance program.

The Plants allowed to operate on these Sites are either owned by MIT or by third parties working for MIT and/or other departments. All Plants operating on these Sites are required to have a valid Manitoba Environment Act Licence and to operate in accordance with terms and conditions specified in these Licences. It should also be noted that the amount of operating time spent at each mixing site, as a general rule, is limited from 1 day to 2 weeks in any given year.

In addition to these 42 Sites and the previously submitted Pipestone Maintenance Yard and Piney Maintenance Yard, MIT requests that the existing EAL No. 3013 be revised to include the MIT stockpile site at the junction of PTH 10 and PTH 16 in Minnedosa (the Site) as a portable asphalt plant mixing site.

### **SITE LOCATION AND EXISTING LAND USE**

The Site is located at the intersection of PTH 10 and PTH 16, approximately 2 km southwest of the Town of Minnedosa, in the RM of Minto-Odanah. The legal description of the Site is: SE ¼ 33-14-18W (Figure 1). The Site is accessed through a municipal road off westbound PTH 16.

The east side of the property is currently being used as an MIT stockpile site for aggregates and riprap materials, while the west portion has two wetlands and unmaintained vegetation. Aerial view of the Site is shown in Figure 2.

The Site is bordered by PTH 10 and a farmland on the northwest side, and PTH 16, bushes and then farmland on the northeast. On the south side, the Site is bordered by another farm. East of the Site is a municipal road immediately followed by the Minnedosa Auto-Wreckers.

### **DESCRIPTION OF ENVIRONMENTAL EFFECTS**

#### **Soil, Terrain and Vegetation**

The Site is located within the Aspen Parkland Ecoregion, specifically the Hamiota Ecodistrict. This Ecodistrict is characterized by grassland pastures with depressions of water ringed by grasses, sedges and rushes. Slopes are generally less than 5% (*Smith, et.al., 1998*).

The soil and vegetation surrounding the Site reflects this description, with numerous wetlands, sloughs and ponds dotting the surrounding area.

Impacts to the soil, terrain and vegetation can arise from clearing of sites, building of access roads and storage of material. A second potential source of impact is deposition of particulate

matter on local vegetation.

Since the Site is located within an existing stockpile site, no clearing or additional access is anticipated.

Operation of the portable asphalt plants is subject to existing regulations that limit the quality of the air emissions, including particulate matter. Further, plants are required to operate according to the conditions of their licence and best management practices. Significance of effects of the operation on the existing soil, terrain and vegetation would be low.

### **Surface Water**

The Site has generally flat to gentle slopes (<5%), with site drainage mostly flowing towards the ditch of PTH 16, northeast of the Site. This highway ditch appears to drain towards an intermittent 1<sup>st</sup> order drain, and onto the Little Saskatchewan River.

There was also water observed in the wetlands west of the stockpile site.

Potential impacts to surface water can occur as a result of spills or emissions from the plant operation.

Portable asphalt plants will be located in an area within the Site, at least 30 m away from the wetlands. Operational best management practices including emergency response should avoid migration of spilled liquids if an accident happens.

### **Groundwater**

There are no wells within the MIT property where the Site is located. Manitoba Conservation and Water Stewardship groundwater database shows two (2) groundwater wells located within 1 km of the Site (Figure 3). Both wells were intended for domestic use; one of them for livestock use as well. However, it is uncertain if either well is presently active as the properties are believed to be supplied with town water.

Transferring of fuels, asphalt emulsion oil and other hazardous materials can create spills that may reach the ground water table and contaminate ground water supplies. Hazardous materials will be transported, stored, used and disposed of in accordance with applicable regulatory requirement to minimize risk of contamination.

Operation of portable plants will not impact these wells.

With the application of appropriate machinery and fuel handling mitigation measures and operational best management practices, significant adverse environmental effects to groundwater are not likely to occur.

### **Aquatic Environment**

The 1<sup>st</sup> order drain, located approximately 2.75 km east of the Site, to which the ditch of PTH 16 drains into, is a Type E fish habitat. This 1<sup>st</sup> order drain continues north towards the Little Saskatchewan River, which is classified as Type A fish habitat. The Little Saskatchewan River, downstream of Minnedosa Dam, likely contains Blackside Darter, Longnose Dace, Johnny Darter, Rock Bass, White Sucker, Burbot and Northern Pike (*Milani, 2013*).

Potential impacts to aquatic systems can occur as a result of spills migrating to a water course or emissions from operation settling in an aquatic environment.

The distance of the Site to a fish-bearing waterbody suggests low potential for impacts. Moreover, the ditches of PTH 16 connecting to the 1<sup>st</sup> order drain do not appear to have a permanent baseflow.

Operational best management practices including adherence to the Emergency Response Plan submitted to Manitoba Conservation and Water Stewardship should avoid migration of contaminants if an accident happens. Significance of effects to aquatic environment is very low.

### **Species at Risk**

Based on the Conservation Data Centre database, the closest known occurrences of species of concern are as follow (see Figure 4):

- Horned Grebe (*Podiceps auritus*), approximately 1.4km S
- Common Snapping Turtle (*Chelydra serpentina*), approximately 2.9 km NW
- Bobolink (*Dolichonyx oryzivorus*), approximately 3.1km E

The Common Snapping Turtle (*Chelydra serpentina*) is protected under the federal *Species at Risk Act*. Snapping turtles may be impacted by noise levels during breeding and nesting period. Another potential source of impact is contaminants migrating to turtle habitats.

Horned Grebe (*Hirundo rustica*) and Bobolink (*Dolichonyx oryzivorus*) have international protection in Canada, the US and Mexico, under the *Migratory Bird Convention Act of 1994*. Impact to the bird species could occur as a result of increased noise and traffic activity from operating the plant. Noise during critical nesting periods could potentially disrupt nesting activities.

The species listed above have nesting periods between May to early August. The 1 day to 2 week plant operation might fall within this nesting period. However, the distance of the observed occurrences from the Site serves as a buffer from the noise generated during the operation. Moreover, if necessary, plants to be operated at this Site will be required to employ noise and vibration dampening measures and isolation techniques. Operational best management practices including emergency response should avoid migration of spilled liquids if an accident happens.

With these measures and the proximity of the occurrences to the Site, impacts to the species of concern will be low.

### **Socio-Economic**

The closest property is the Minnedosa Auto-Wreckers, which is immediately east of the Site, separated only by the municipal road. There are also few residential properties south of the auto-wrecking company. The Site is located approximately 2 km southwest of the Town of Minnedosa. Neighbouring properties within 1 km radius of the Site are shown in Figure 5.

Impacts would primarily be to those properties which are within 1 km of the portable asphalt plant site. In such cases, noise, odour and air quality could all be impacted. Obscuring the

visibility for traffic is a potential impact as the Site is situated at the junction of PTH 10 and PTH 16. Reductions in visibility increase the potential for traffic accidents.

Plants to be operated at this Site will be required to employ pollution control devices as well as noise and vibration dampening measures and isolation techniques. Plants will operate in accordance to the terms and conditions of their licences. In the event that particulate matter and/or water vapour discharge from plant operations result in reduced visibility in adjacent roadways, plant operations will cease until atmospheric conditions become favourable.

Significant negative socio-economic impacts are not expected.

## REFERENCES

- Milani, D.W.. 2013. *Fish Community and Fish Habitat Inventory of Streams and Constructed Drains through Agricultural Areas of Manitoba (2002-2006)*. Canadian Data Report of Fisheries and Aquatic Sciences 1247. Fisheries Protection Program, Central and Arctic Region, Fisheries and Oceans Canada, Winnipeg, Manitoba and Aquatic Habitat Management Section, Fisheries Branch, Manitoba Water Stewardship, Winnipeg, Manitoba
- Smith, R.E., H. Veldhuis, G.F. Mills, R.G. Eilers, W.R. Fraser, and G.W. Lelyk. 1998. *Terrestrial Ecozones, Ecoregions, and Ecodistricts, An Ecological Stratification of Manitoba's Landscapes*. Technical Bulletin 98-9E. Land Resource Unit, Brandon Research Centre, Research Branch, Agriculture and Agri-Food Canada, Winnipeg, Manitoba.





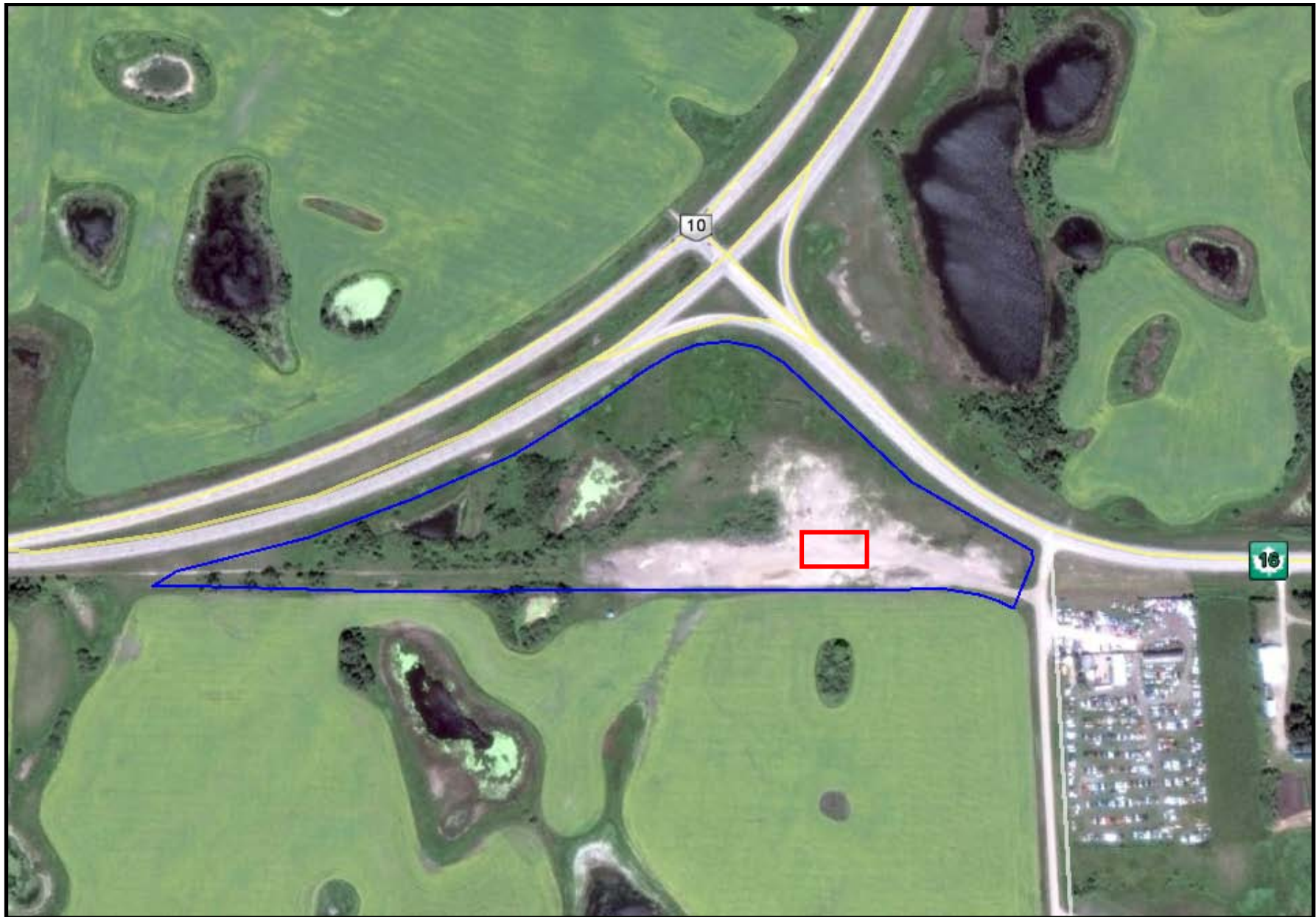


Figure 2. Aerial View showing Boundaries of the Site (blue) and Potential Location of Portable Asphalt Mixing Plant (red box)



Figure 3. Groundwater Wells within 1km from the Site

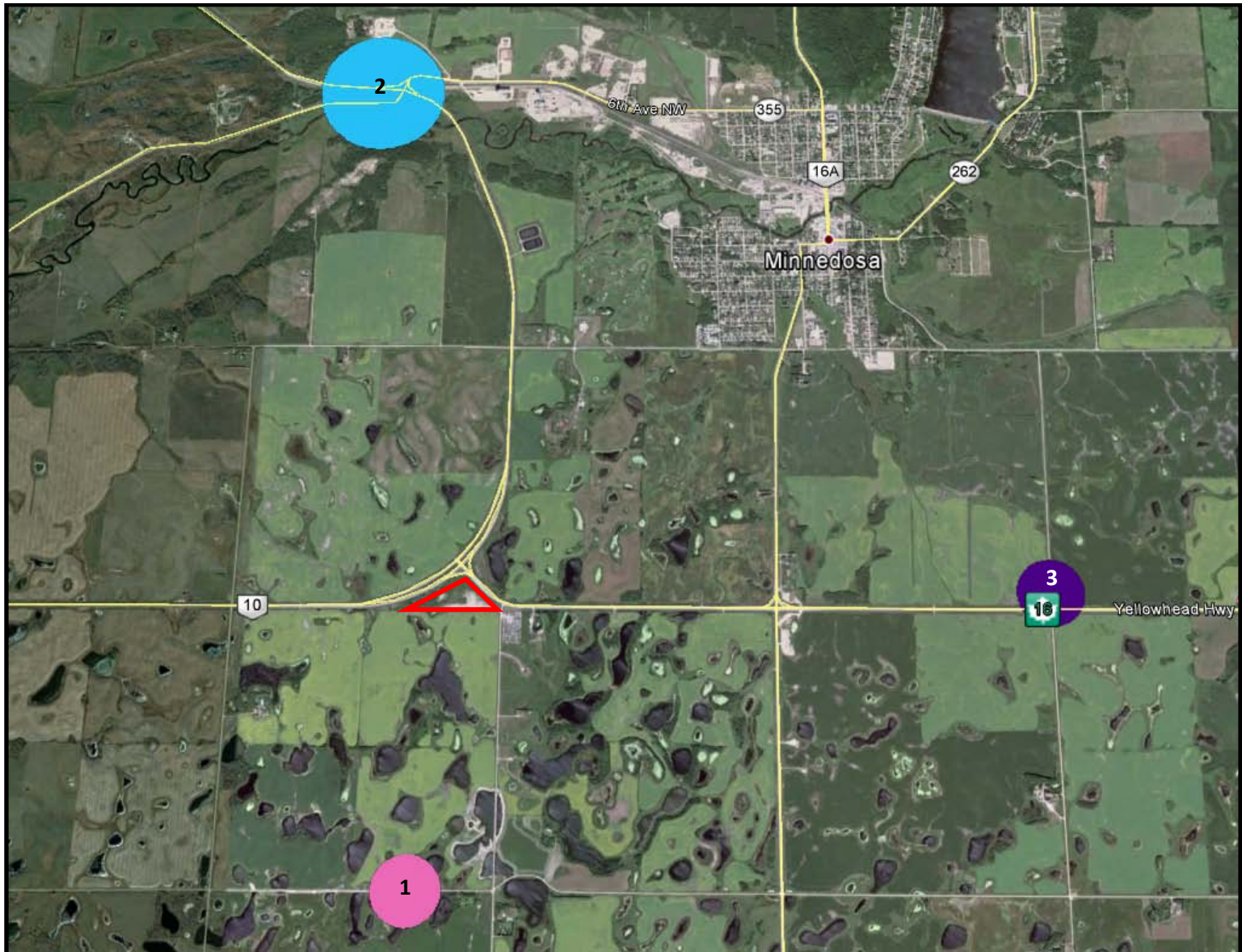


Figure 4. Occurrence of Species of Concern

- 1 – Horned Grebe (*Podiceps auritus*)
- 2 – Common Snapping Turtle (*Chelydra serpentina*)
- 3 – Bobolink (*Dolichonyx oryzivorus*)



Figure 5. Neighbouring Properties within 1km Radius