

GREAT LAKES INDIAN FISH & WILDLIFE COMMISSION

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• MEMBER TRIBES •

MICHIGAN

Bay Mills Community
Keweenaw Bay Community
Lac Vieux Desert Band

WISCONSIN

Bad River Band
Lac Courte Oreilles Band
Lac du Flambeau Band

Red Cliff Band
St. Croix Chippewa
Sokaogon Chippewa

MINNESOTA

Fond du Lac Band
Mille Lacs Band



November 17, 2011

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Ms. Foss and Mr. Clark,

Enclosed please find the comments of Great Lakes Indian Fish and Wildlife Commission (GLIFWC) staff on the October 20, 2011 – Draft Staff Recommendation: Waters Used for the Production of Wild Rice – Partridge and Embarrass Rivers. GLIFWC is an intertribal agency exercising delegated authority from 11 federally recognized Ojibwe (or Chippewa) tribes in Wisconsin, Michigan and Minnesota.¹ Those tribes have reserved hunting, fishing and gathering rights in territories ceded in various treaties with the United States. GLIFWC's mission is to assist its member tribes in the conservation and management of natural resources and to protect habitats and ecosystems that support those resources.

¹ GLIFWC member tribes are: in Wisconsin -- the Bad River Band of the Lake Superior Tribe of Chippewa Indians, Lac du Flambeau Band of Lake Superior Chippewa Indians, Lac Courte Oreilles Band of Lake Superior Chippewa Indians, St. Croix Chippewa Indians of Wisconsin, Sokaogon Chippewa Community of the Mole Lake Band, and Red Cliff Band of Lake Superior Chippewa Indians; in Minnesota -- Fond du Lac Chippewa Tribe, and Mille Lacs Band of Chippewa Indians; and in Michigan -- Bay Mills Indian Community, Keweenaw Bay Indian Community, and Lac Vieux Desert Band of Lake Superior Chippewa Indians.

Embarrass River Watershed

Historic Data and Information

It appears that the background information used to determine that Embarrass Lake is the nearest water used for the production of wild rice is limited to information developed since 2008. While this information is valuable in defining the existing conditions at the site, we believe that the process used to inform this determination must incorporate historic information of wild rice presence, abundance and habitat. The following section provides historic information on wild rice that, when viewed in combination with other more recent information, suggests that the Embarrass River produces or has produced wild rice in several areas upstream of Embarrass Lake. Therefore, we suggest that the compliance point for the wild rice sulfate standard should be upstream of the Embarrass Lake location.

Manoomin or Wild Rice can be found throughout the Great Lakes but the areas of greatest concentration are in Minnesota and Wisconsin (Figure 1) (Peter David, GLIFWC wild rice biologist, personal communication, Jenks 1901, Moyle 1944, MRC 1969). The areas of greatest concentration, which are defined as wild rice districts by Jenks, encompass lakes and streams within the region covered by glacial outwash. Jenks' description of the wild rice district is often cited in other publications that describe the range of wild rice (GLIFWC, 1999). Jenks provides additional information on wild rice distribution by stating that within the wild rice district, rice is found wherever there is suitable habitat. Specifically:

“Farther south the St. Louis River system tells the same tale – the streams all bear abundant stores of wild rice” (Jenks, 1901, page 1035)

This publication supports the accounts of tribal members from the tribes acting as cooperating agencies for this project. The draft Cultural Landscape Report prepared as part of the Polymet SDEIS dated September 15, 2011 states, “With the potential for wild rice in the shallow margins of lakes and streams, and abundant wild plant, fishing and hunting habitats, portions of the Preliminary Project APE may have been very attractive to the Ojibwe” (pg. 48). That report also includes an account from a Bois Forte tribal member indicating that harvest occurred on the Embarrass River. Another tribal member stated that she knows of a family that harvested wild rice in the vicinity of the LTV tailings dam on the Embarrass River. These specific descriptions would indicate harvest occurring upstream of Embarrass Lake and upstream of Wynne and Sabin Lakes. Additional information on wild rice in this region may become available as the draft Cultural Landscape Report becomes final.

GLIFWC staff recognizes that the draft Cultural Landscape Report was not available when the PCA developed its Draft Staff Recommendation. Now that this

information is available, we hope that the oral information provided by tribal members is incorporated into the recommendation.

Another corroborating piece of information is the presence of a wild rice farm straddling the Embarrass River. This wild rice farm operated from 1957 until 1993 when the operation went bankrupt (Barr, 1995). Aerial Photos taken in the spring of 1991 and 1992 show the flooded rice paddies and some ditches connecting the farm to the Embarrass River (Figure 2). The use of water from the river in the farm operation clearly defines the Embarrass River as used for the production of wild rice. Figure 2 also shows that Unnamed Creek (Labeled Rice Farm Creek in Figure 2) was likely a source of water for the farm. This creek currently originates at the northwest corner of the LTV tailings basin (Figure 3).

GLIFWC staff believe that the combination of the historic wild rice information, the tribal interview information contained in the draft Cultural Landscape Report, the presence of a wild rice farm, and the field surveys conducted by Barr Engineering are more than sufficient to warrant a reevaluation of sections of the Embarrass River upstream of Embarrass Lake as waters used for the production of wild rice (Figure 3).

Fluctuation in Wild Rice Abundance

Staff are concerned that the original MPCA recommendation was developed after only a single year of field data. It is unclear if the additional years of field data, which found additional wild rice locations, were used to revise the recommendation. Fluctuations in the presence and density of wild rice are well documented in the literature (Moyle 1944, Rogosin 1951, Meeker 1993). This variability exists over time (year to year) and over space (place to place). Many factors contribute to this variability (water depth and speed, water chemistry, wildlife browsing, etc.) and this variability is reflected in the table (Occurrences of Wild Rice on Embarrass River Between Wynne Lake and Hwy 135, Years 2009-2011) that accompanies the draft staff recommendation. Because of this natural variability, it cannot be assumed that the absence of rice at any particular time in areas of suitable habitat of the Embarrass River equals no rice at all. For example, sites 2, 3, 4, 5, and 7 in the table indicate rice presence in one out of the three survey years. This variability is consistent with what is known of wild rice ecology. Site 6 in the table shows a change in rice abundance from 5 plants in 2009 to 20 plants in 2010, to 75 plants in 2011. The aerial extent of this rice bed also changes from an area of 20 feet in 2010 to 25 feet in 2011. Again, this fluctuation is characteristic of a functioning wild rice bed. GLIFWC staff are concerned that fluctuation was not properly considered in the development of the draft staff recommendation.

Specific Comments on the Draft Staff Recommendation: Waters Used for the Production of Wild Rice – Partridge and Embarrass Rivers

Field data collected by Barr Engineering (Barr, 2011) indicates that mine related sulfate effluent has already impacted the river to the point of exceeding the wild rice standard. The Draft Staff Recommendation does not provide information on how the MPCA considered the existing water quality in its recommendation and to what extent the high sulfate values have already impacted wild rice on the Embarrass River. A description of how the issues of wild rice habitat protection and existing elevated sulfate levels in the Embarrass River water were treated in the development of the recommendation is needed.

GLIFWC staff strongly disagree that the staff recommendation for the Embarrass River is “conservative”. The presence of wild rice beds upstream of Embarrass Lake (Barr table: Occurrences of Wild Rice on Embarrass River Between Wynne Lake and Hwy 135, Years 2009-2011) in addition to historic information on wild rice presence and abundance in the area, define the Embarrass River area as a rice water. “Conservative” ought to be defined as a recommendation that is as protective of the wild rice resource as possible.

It is not clear how MPCA staff determined that the number of wild rice plants upstream of Embarrass Lake is not enough to be used as a food source by wildlife. GLIFWC staff is not aware of research that defines the number of plants or the density of a rice bed that would make it usable to blackbirds, muskrat, geese, or other wildlife. A single plant can provide nutrition to wildlife. Furthermore, browsing by wildlife is one of the reasons that wild rice fluctuates in abundance and density from year to year (Peter David, GLIFWC wild rice biologist, personal communication). The variability that is observed in the wild rice survey data on the Embarrass River may well be the result of wildlife use. A justification of the scientific basis for the MPCA determination that the wild rice on the Embarrass River is not sufficient to be used by wildlife is needed.

The Presence of Productive Wild Rice Waters in the Embarrass River.

Based on available information the GLIFWC staff believes that productive wild rice waters on the Embarrass River are where wild rice is currently growing and is confirmed to have been present in the past. The basis for this view is:

- Wild Rice has been present at these locations during at least one of the three survey years (2009 – 2011).
- Wild Rice is food for wildlife regardless of its density and the observed inter annual fluctuation in abundance of wild rice in the Embarrass River is consistent with the ecology of wild rice.

- Historic information from tribal sources indicates past harvest in this area and non-tribal sources support the assertion that this is an area where wild rice was found.
- The existence of a rice farm in this area is consistent with the assertion that the Embarrass River water quality was supportive to wild rice prior to mining impacts.
- Wild rice in the Embarrass River endures despite degraded water quality. It is likely that the degraded water quality has decreased the abundance of wild rice in this river.

It is important to note that this view is based on current information and field data. Should new information be developed or field data be collected, this view may change.

It is our understanding that the Draft Staff Recommendation: Waters Used for the Production of Wild Rice – Partridge and Embarrass Rivers document presents the rationale for the decision to name the inlet of Embarrass Lake as the point at which the 10 mg/l sulfate standard for wild rice applies. MPCA should reconsider the point of compliance in light of the additional information collected since the initial recommendation was developed.

Partridge River Watershed

Based on available data, the MPCA staff determination that the wild rice standard in the Partridge River applies just downstream of the confluence with Colvin Creek is appropriate (Figure 4). In addition, the 2009 Barr wild rice survey identified wild rice in Longnose Creek, which is a tributary of the Partridge River. Therefore, based on currently available data, portions of Longnose Creek produce wild rice. MPCA should add the portion of Longnose Creek with wild rice as a point of compliance for the wild rice sulfate standard.

As with the Embarrass River, this view is subject to change based on additional information and field data.

Timeline Issues

The determination of the point of compliance for the wild rice sulfate standard is an important consideration in the design of several features and potential mitigation measures at the Polymet plant site. Specifically, the extent and design of the seepage capture well system for the tailings basin and the capacity of the proposed treatment facility that would treat the water captured by the wells that is not redirected to other parts of the mine process. A change in the point of compliance could require changes in the design of the project.

Figure 1: Manoomin in the Western Great Lakes

Areas of high monoomin density are mapped based on information in Jenks 1901, MRC 1969, and personal communications with Peter David, GLIFWC manoomin biologist.

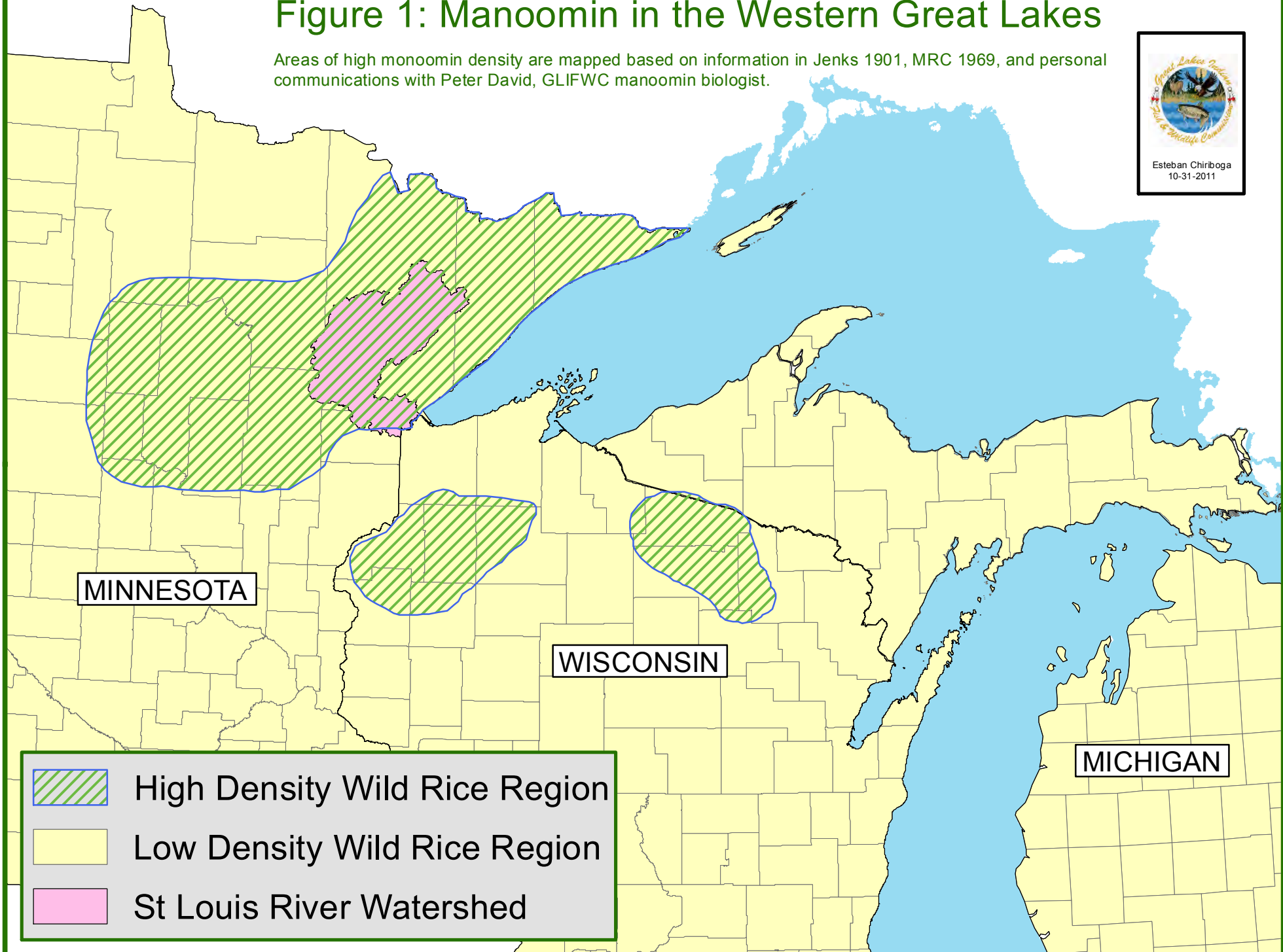


Figure 2:
Embarrass River Wild Rice Farm

0 0.125 0.25 0.5 Miles

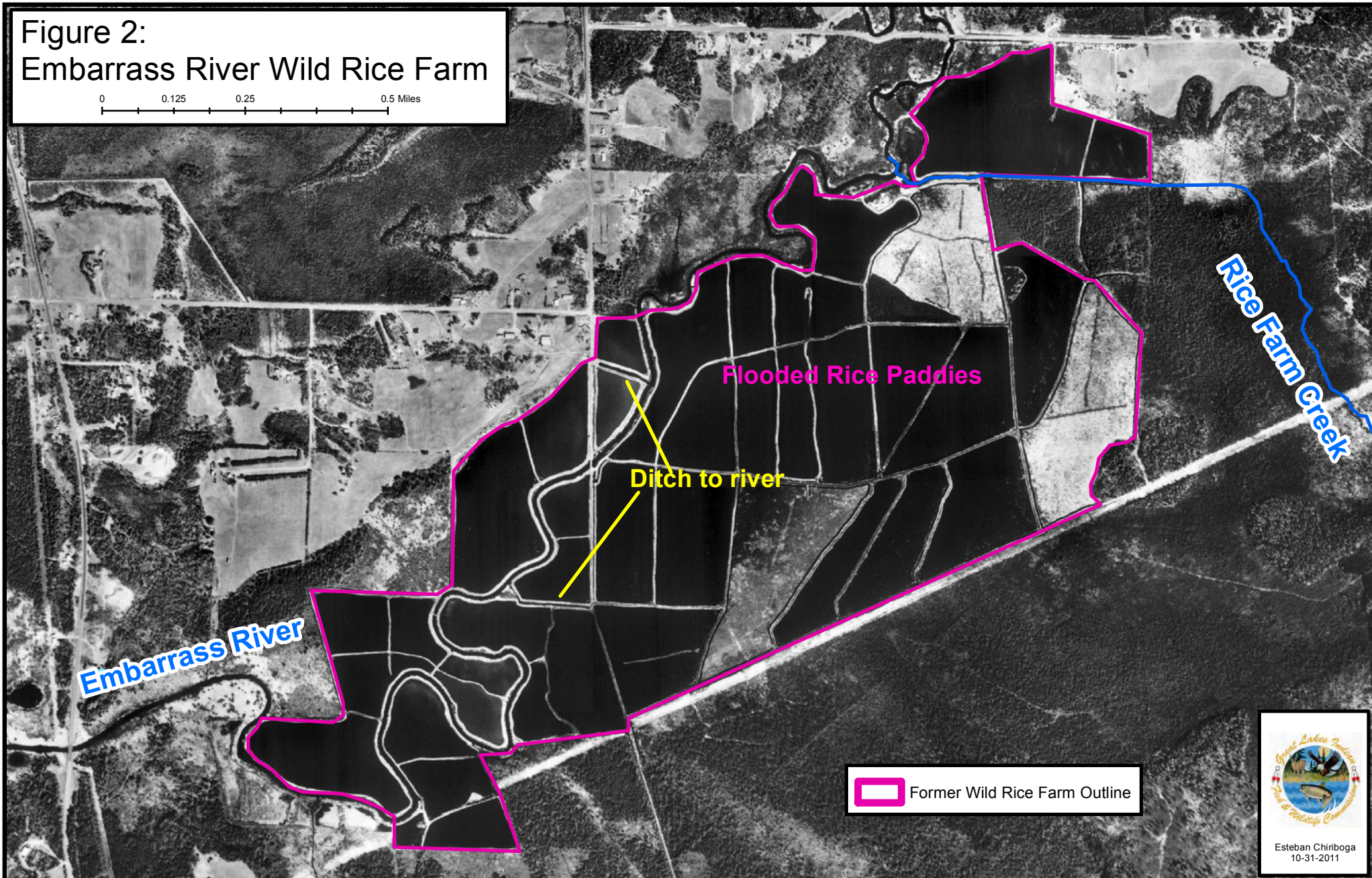
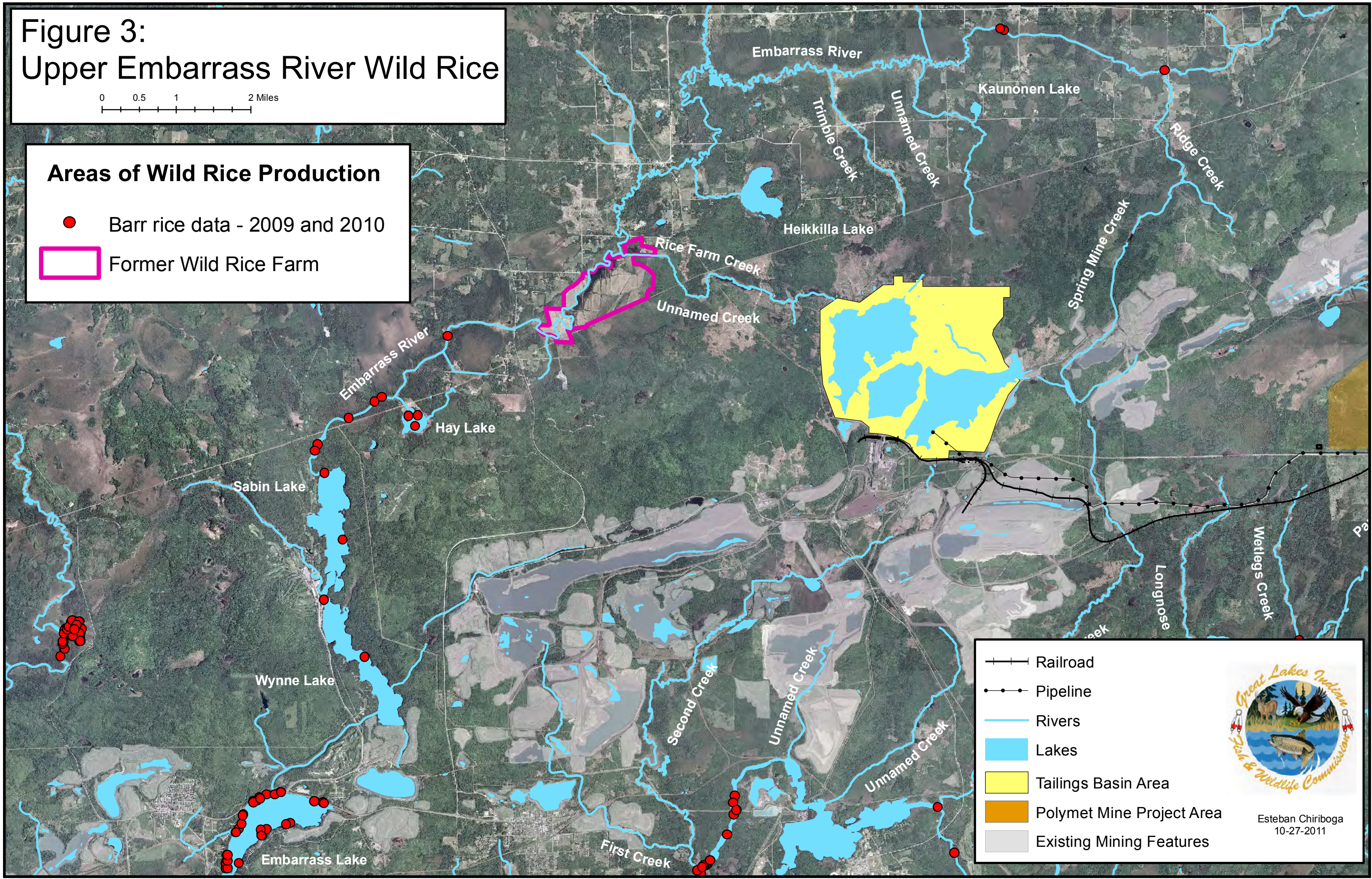


Figure 3:
Upper Embarrass River Wild Rice

0 0.5 1 2 Miles

Areas of Wild Rice Production

- Barr rice data - 2009 and 2010
- Former Wild Rice Farm



- +— Railroad
- Pipeline
- Rivers
- Lakes
- Tailings Basin Area
- Polymet Mine Project Area
- Existing Mining Features



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10-27-2011

Figure 4:
Partridge River Wild Rice

0 0.5 1 2 Miles

—+—+— Railroad

—•—•— Pipeline

— Rivers

— Lakes

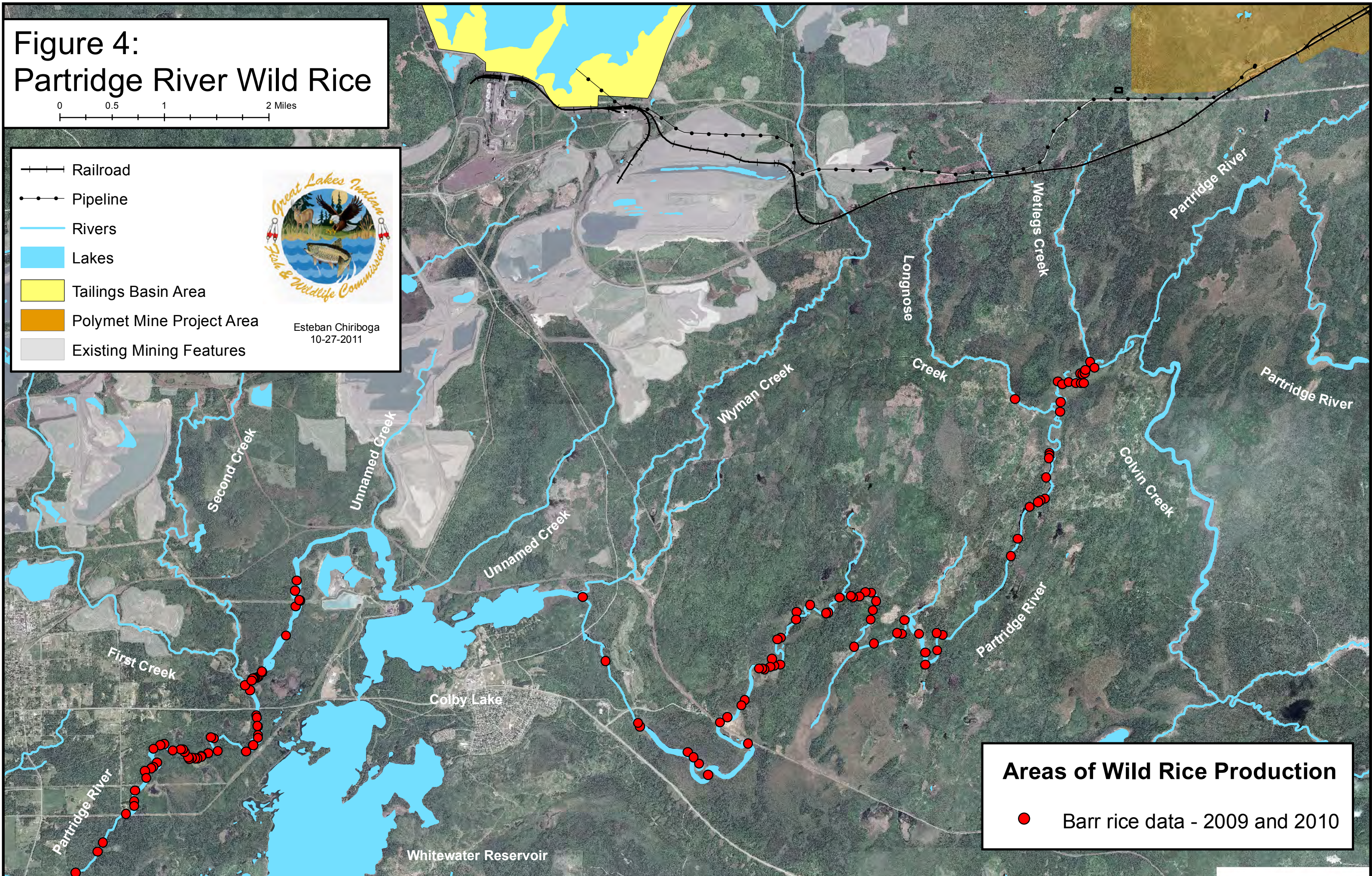
— Tailings Basin Area

— Polymet Mine Project Area

— Existing Mining Features



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10-27-2011



Areas of Wild Rice Production

● Barr rice data - 2009 and 2010

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- Rogosin, A., An Ecological History of Wild Rice, Minnesota Department of Conservation, Division of Game and Fish, 1951.

We appreciate the opportunity to submit these comments. We look forward to working with you and your staff as the NEPA process for the NorthMet project and the proposed land exchange move forward. Please contact me or John Coleman at 608-263-2873 with any questions.

Sincerely,



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