

SURVEY GUIDE

For Rare Species in the Bad River Watershed

Help protect habitat areas of rare and sensitive species in the Bad River watershed

This family-friendly activity is a great way to get outside and defend Wisconsin wildlife!

The goal is to find new occurrences of protected species at stream and river crossings, or elsewhere along the proposed route of the [Line 5](#) crude oil pipeline.

Finding, documenting, and reporting rare species will support the efforts to protect critical habitat areas along the route.

If you are visiting Ashland, Bayfield, or Iron counties this summer, keep an eye out for the species in this guide.

The Bad River Band is conducting similar surveys within the reservation. Your help is needed in off-reservation areas of the watershed.



SURVEY STEPS



Surveying by land?

Please respect landowner rights on private lands open to public access and observe postings on private land to avoid trespassing.

- Refer to the DNR's [Public Access Lands](#) webpage for maps by county

Surveying by water?

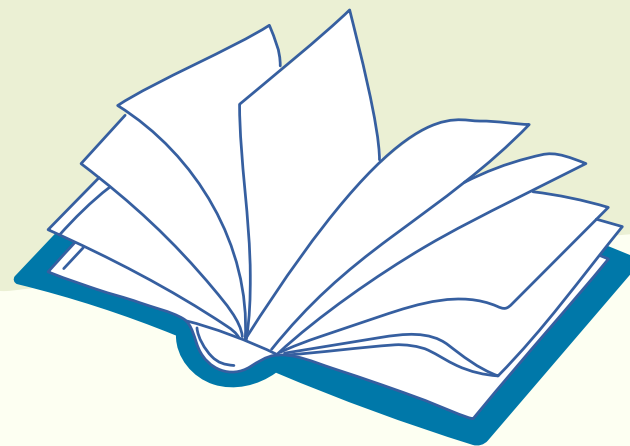
You have the right to survey (and enjoy) any public waterway, provided you gain access through legal means.

- Refer to the DNR's public access [Factsheet](#) for questions about trespassing

BEFORE YOU COLLECT DATA

Know what to look for

We are particularly interested in documented sightings of *Wood Turtles*, *Braun's Holly Fern*, and rare aquatic species.



Begin by studying the plants and animals in this guide. Next, look over the full list of protected species previously seen in the three-county area.

Find the full list (with linked photos and descriptions) in the [DNR records](#), or by email request to John Coleman



jcoleman@glifwc.org

- If you have a smartphone, consider downloading a plant & animal identification app, such as Seek by iNaturalist
 - When collecting sightings through iNaturalist, please join the [Biota of the Bad River Watershed](#) project
- Accurate location of the sighting is essential. Latitude & longitude coordinates must be recorded, and location should be embedded in photos if possible
 - Turn on location services in Photos on your smartphone

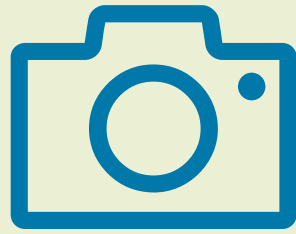


REMINDER

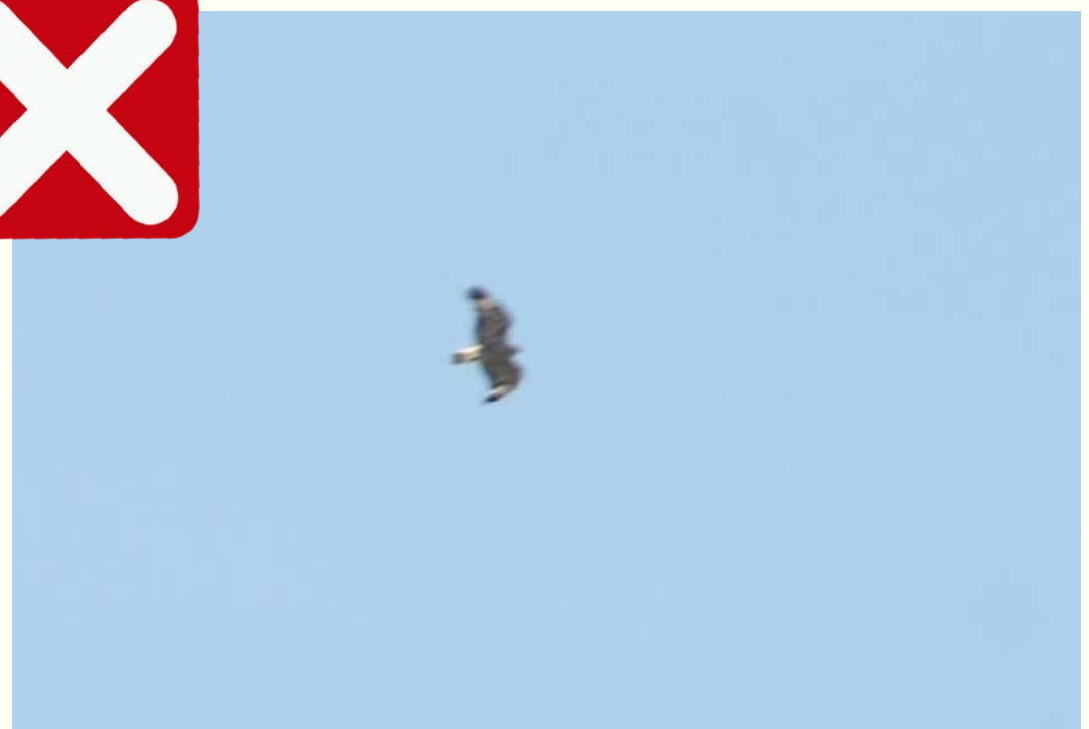
There are many protected species in the three-county area. You may walk right by a member of a protected species if you don't recognize it!

HOW TO COLLECT DATA

Good photos and detailed descriptions are critical in verifying the sighting. Photos must be clear and all necessary information must be recorded.



Make sure your photo includes some or all identifying features of the species you photograph.



Along with the photo, collect ALL the following information about your observation:

- Date & Time
- Number of individuals seen
- Estimated area (sq. ft. of area where individuals were seen)
- Latitude & Longitude (exact coordinates)
- Location description
- Habitat type

Bring a notepad or use your phone to take detailed notes.

Do not collect members of any species (beings), particularly if it is on the state list of protected species.

HOW TO SUBMIT DATA

When you're ready to submit your survey data and photos enter all of the information into the data sheet, save it, and send it by email to GLIFWC.



Download the data sheet [HERE](#) or by email request

	A	B	C	D	E	F	G	H	I	J
1	Your Name and address:									
2	Scientific or Common Name	Date	Time	Number of individuals	Est. Area (sq.ft)	Pic?(Y/N)	Lattitude	Longitude	Location Description	Habitat
3										

Using a data sheet to record observations increases consistency. Please fill in all sections.

Once everything is saved in the data sheet, send the sheet and your photos as attachments to:



John Coleman
jcoleman@glifwc.org



Dawn White
dwhite@glifwc.org

Please submit your photos and data sheet as an email with the subject line "**Rare Species Report**"

TOP SPECIES TO LOOK FOR

1

Wood Turtle (*Glyptemys insculpta*)

Threatened



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Attribution: US Fish and Wildlife Service

learn about
surveying for wood
turtles by canoe on
page 11!

Habitat: This threatened turtle is found on both land and water. Its habitat includes rivers and streams with close wetlands and deciduous forests, willow and alder thickets. It stays within 1000 feet from water.

Size: 6-8 in.

Identifiers: Brownish upper shell with yellow and black lines radiating outwards from the ridges on the rugged shell. The underside of the turtle is yellow with dark colored blotches. The sides are slightly lifted and jagged.

2

Braun's Holly-fern (*Polystichum braunii*)

Threatened



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Attribution: "Fungus Guy"

Habitat: This threatened plant is a shade-loving forest native that grows on moist cliffs and on the banks of rocky perennial streams.

Size: 12 - 29 in.

Identifiers: Stiff lance-shaped, twice-divided, bristle-tipped, dark green fronds; young fronds are densely covered with orange-brown scales when unfurling in the spring.

MORE SPECIES TO LOOK FOR

3

Extra-striped Snaketail (*Ophiogomphus anomalus*)

Endangered



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Habitat: This endangered insect is found around clean, rapid, and cold rivers. Larvae live in swift-flowing rivers. Adults patrol these rivers and forage in adjacent wetlands and nearby forests.

Size: 1.7 in.

Identifiers: Bright green and black dragonfly with a cobra-like clubtail.

4

Gray wolf (*Canis lupus*)

Endangered



Image in Public Domain

Habitat: This endangered mammal can live in most habitats in northern Wisconsin.

Size: 50 - 100 lb.

Identifiers: Buff-colored tan coat grizzled with gray and black. Rounded short ears with a large and blocky muzzle. Tails usually held straight out from the body.

MORE SPECIES TO LOOK FOR

5

Red-shouldered Hawk (*Buteo lineatus*)

Threatened



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Attribution: "Kate Pez"

Habitat: This threatened bird prefers larger stands of old hardwoods near rivers, swamps, and northern forests with pockets of wetland close.

Size: Body 8 - 24 in. **Wingspan** 4 ft.

Identifiers: Broad, rounded wings and medium-length tails that they fan out when soaring. In flight, they often glide or soar with their wingtips pushed slightly forward, in a distinctive, "reaching" posture.

6

Spruce Grouse (*Canachites canadensis*)

Threatened



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Attribution: US Fish and Wildlife Service

Spruce Grouse are famous for their tameness around humans—they're sometimes known as "fool hens"

TheCornellLab 

Habitat: This threatened bird lives in lowland coniferous forest near swamps.

Size: Chicken size

Identifiers: Males are brown-black with neat white spots and, during displays, a searing red eyebrow comb. Females are scaly with brown, buff, and white.

MORE SPECIES TO LOOK FOR

7

Caspian Tern (*Hydroprogne caspia*)

Endangered



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Attribution: John Harrison

Habitat: This endangered bird lands in open flat areas very near water. They migrate along coastlines, using riverbanks and islands to nest.

Size: Crow size

Identifiers: Gull-like tern. Silver-grey above and white below, with dark wing tips. The tail is relatively short. Bright red bill in adults. The flight is direct, with purposeful shallow beats.

8

Loggerhead Shrike (*Lanius ludovicianus*)

Endangered



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Attribution: Kevin Cole

Thick and thorny shrubs are used for nesting, hunting perches, and **prey impalement** locations.

TheCornellLab

Habitat: This endangered bird lives in short grass with occasional bare ground and shrubs or low trees.

Size: Body: 9 in. **Wingspan:** 12 in.

Identifiers: Gray body, black wings, white wing patch, black eye mask and white throat.

MORE SPECIES TO LOOK FOR

9

American Marten (*Martes americana*)

Endangered



T. Gettelman

Image used under Creative Commons License
Attribution: Tatiana Gettelman

Habitat: This endangered mammal can be found in mature, dense forests. Martens often live in the trees of northern pine forests or forests with a mixture of conifers and deciduous trees including hemlock, white pine, yellow birch, maple, fir and spruce.

Size: 18 - 26 in.

Fluffy tail half the length of the body. Velvety and stiff coat with pale buff to dark brown coloring. The chest and throat are often orange.



OTHER SPECIES

There are many other protected species you may encounter in the Bad River watershed, including species never before seen in the area. To learn more about Wisconsin's threatened and endangered species visit:

[Endangered Resources | Wisconsin DNR](#)

[Wisconsin's endangered and threatened species list](#)

<https://dnr.wisconsin.gov/topic/EndangeredResources/ETList>



REMINDER

Don't forget to look at the [DNR records](#) of all protected species in the three-county area. You'll find more pictures and descriptions linked there!

WOOD TURTLE

CANOE SURVEY TIPS

There are two ways to survey for wood turtles in a canoe:

- **Basking surveys by canoe:**

For this method, put in at a legal access point. Float down the river with binoculars, scanning for any wood turtles basking in the sun. Generally, they are seen basking in the late morning into the early afternoon, and then again as the sun begins to set. For this type of survey, air temps should be 60-80F, and the water temps need to be at least 50F.

- **Combination basking surveys by canoe and land survey:**

For this method, while conducting a basking survey by canoe occasionally pull off ([legally](#)) in quality habitat, such as alder thickets, forest openings, and willow thickets, to search for land-bound wood turtles. The tactic of getting out and surveying on land tends to be more effective because wood turtles sometimes opt out of basking on logs in the rivers, instead choosing open areas near alder willow thickets to warm up. This is especially true early in spring. The willows and alders tend to give them some sense of security while they warm up on land. When getting out of the canoe, focus on areas with southern and western exposure. These places warm up faster in spring, and tend to get more turtle activity as a result. Ideal temps for land surveys are water temps above 50F, and air temps between 55-75F.



Written by: Andrew Badje, Wisconsin DNR
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MAPS

Right: The Bad River Watershed

The Bad River flows 74.3 miles through Ashland County to Lake Superior in northern Wisconsin. The river drains an area of 1,061 square miles in portions of Ashland, Bayfield and Iron counties.

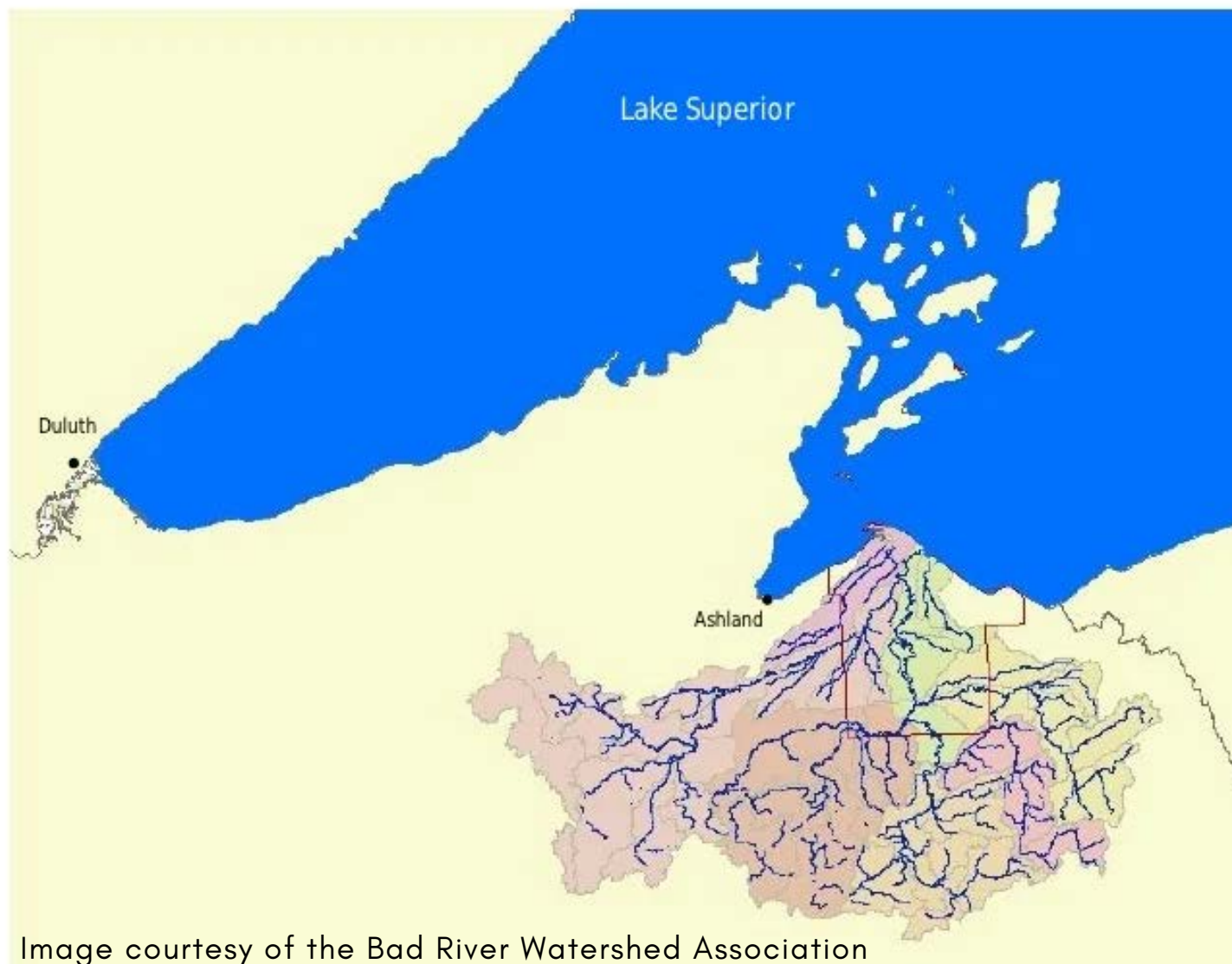


Image courtesy of the Bad River Watershed Association

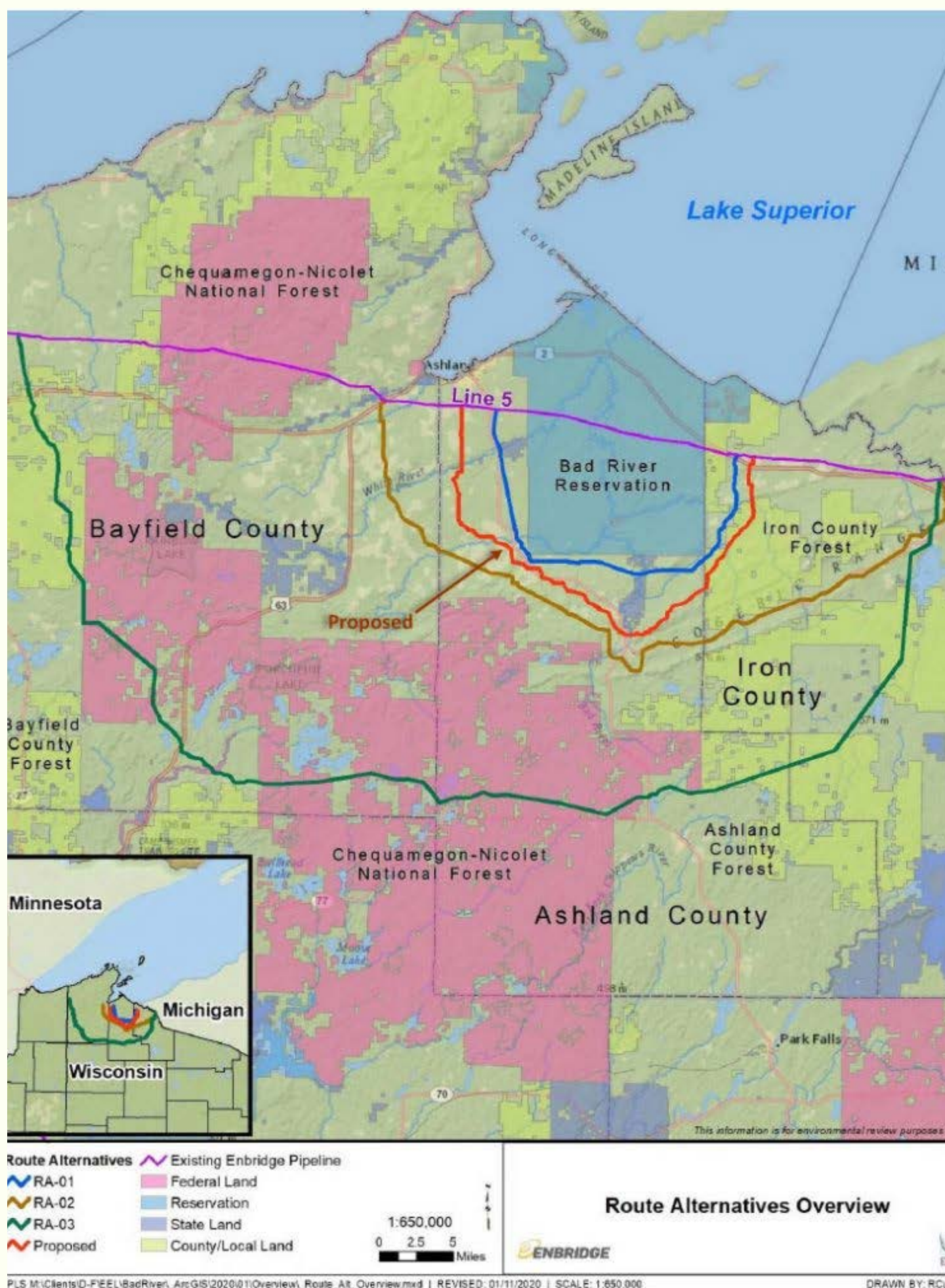


Image courtesy of the Wisconsin DNR

Left: Line 5 Proposed Route

Line 5 currently runs across the reservation of the Bad River Band of Lake Superior Chippewa, but some easements that allowed the company to use tribal land expired in 2013. The tribe has since filed a federal lawsuit to expel Enbridge from its reservation.

Enbridge is now pushing to build a new 41-mile section of pipeline routed around the reservation, but not excluding it from grave risk. Prioritize searching for protected species along the route.



Made by Jacob Ahrens-Balwit, Clean Wisconsin
for the Great Lakes Indian Fish and Wildlife Commission

