

Sensitive Species Review - Minnesota

Project Name: LMRWD Savage Dredge Site

T27 R24 S30

Federal Review (County List)						
County	Common Name	Scientific Name	Federal ESA Status	Habitat	Decision	Justification
Scott	Bald Eagle	<i>Haliaeetus leucocephalus</i>	Protected by BGA and MBTA	Nests in mature trees near bodies of water.	Cleared with conditions	The project site is located in the vicinity of suitable habitat for the federally protected bald eagle. If work will begin between January 15 and July 31, an eagle nest survey must be conducted by a qualified biologist prior to mobilization to the site. After mobilization, if any eagle activity is observed within 660 feet of the project site, including access route, please call Barr for further guidance.
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. During late spring and summer roosts and forages in upland forests.	Cleared with conditions	If a USACE or other federal permit will be required at this location removal of woody vegetation greater than 3" dbh should occur prior to April 1 or after October 31. If removal of woody vegetation > 3" dbh will occur during this time frame coordination with the permitting agency and USFWS may be required.
	Rusty Patched Bumblebee	<i>Bombus affinis</i>	Endangered	Grasslands with flowering plants from April through October, underground and abandoned rodent cavities or clumps of grasses above ground as nesting sites, and undisturbed soil for hibernating queens to overwinter.	Cleared	No suitable habitat for this species occurs within the project site. Vegetation within the site is either absent due to the presence of dredge material or is dominated by forested or wetland communities.
Reviewer:	David Haar			Date:	12/20/2018	

State Review (NHIS Data)						
County	Common Name	Scientific Name	MN Status	Habitat	Decision	Justification
	Blanchard's Cricket Frog	<i>Acris blanchardi</i>	END	Blanchard's cricket frogs inhabit shallow wetlands, lakes, streams, or rivers, and are rarely found in large lakes, wide rivers, or polluted sites (Gray et al. 2005). They typically occupy areas along the water's edge, and prefer open areas with muddy shorelines and abundant emergent vegetation (Oldfield and Moriarty 1994; Gray et al. 2005).	Cleared with conditions	No impacts can occur to the channel and associated fringe wetland west of the project site. Install BMPs and erosion control devices as necessary to avoid sedimentation or runoff to this area.
	Mucket	<i>Actinonaias ligamentina</i>	THR	The mucket mussel is known to inhabit medium to large rivers. Substrates that are most preferred include coarse sand and gravel (Parmalee and Bogan 1998).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.

Rock Pocketbook	<i>Arcidens confragosus</i>	END	The rock pocketbook inhabits medium to large rivers. It may be found in fine substrates such as silt or sand in slow current areas (Parmalee and Bogan 1998).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Sullivant's Milkweed	<i>Asclepias sullivantii</i>	THR	In Minnesota, <i>A. sullivantii</i> is restricted to undisturbed wet and mesic tallgrass prairies. It frequently occurs with other declining prairie species such as <i>Arnoglossum plantagineum</i> (tuberous Indian-plantain) and <i>Parthenium integrifolium</i> (wild quinine).	Cleared	No suitable habitat occurs within the scope of this project. Vegetative communities at the site are primarily forested and would not support this species.
Kitten-tails	<i>Besseyia bullii</i>	THR	<i>Besseyia bullii</i> is primarily a species of oak savanna communities, though it also occurs in dry prairies and oak woodlands (including dry-mesic oak (maple) woodlands, dry-mesic oak-hickory woodlands, and dry-mesic pine-oak woodlands). The Minnesota populations are largely restricted to the bluffs and terraces of the St. Croix, Mississippi, and Minnesota river valleys, with many populations occurring in the greater Twin Cities area. Terraces of the Cannon River also support a number of populations. Plants show a preference for partial to open light and upper slopes. Some populations exhibit a preference for less xeric north-facing slopes in prairie habitats. Soils are most often sandy to gravelly, well-drained soil derived from alluvium or limestone bedrock.	Cleared	No suitable habitat occurs within the scope of this project. Forest communities at the site are dominated by mesic species such as green ash, sugar maple, silver maple, box elder and slippery elm. No oak savannah habitat will be impacted by this project.
Sterile Sedge	<i>Carex sterilis</i>	THR	<i>Carex sterilis</i> is a conspicuous member of the sedge family, but it can be easily confused with <i>C. interior</i> (interior sedge), which often occurs in the same habitat. Both species have fairly slender leaves a few millimeters wide arising from a dense clump. On flowering culms, <i>C. sterilis</i> typically has 4 spikes (flower clusters or heads), the terminal one either all pistillate (female) or all staminate (male), or nearly so. <i>Carex interior</i> usually has 3 spikes, the terminal one largely pistillate with staminate scales at the base that give the spike a tapered (clavate) base. Some plants in a population of <i>C. sterilis</i> produce all-male spikes that appear quite different from the fertile plants, but they still exhibit the densely clumped growth form and other characteristics of this species.	Cleared	No suitable habitat occurs within the scope of this project. No fen habitat will be impacted by this project. Wetlands on the site will not be impacted and lack the calcareous features that would support this species.

Beaked Spikerush	<i>Eleocharis rostellata</i>	THR	All known Minnesota populations of <i>E. rostellata</i> occur in fens that are maintained by the surface discharge of calcareous or circumneutral groundwater. This habitat type is rare compared with the other wetland types in the prairie region and in the vast expanses of acidic, mineral-poor peatlands in the forested region. Acid peatlands typically receive only mineral-poor surface water or rainwater. The habitat type that harbors <i>E. rostellata</i> has been described as a calcareous fen in the prairie region and as a spring fen in the northern forested region of Minnesota. Calcareous fens are generally more calcareous and mineral-rich than the spring fens, but intermediate examples are found along the prairie-forest border. In all cases, these specialized areas are wet, sunny habitats dominated by low-growing sedges and mosses.	Cleared	No suitable habitat occurs within the scope of this project. No fen habitat will be impacted by this project. Wetlands on the site will not be impacted and lack the calcareous features that would support this species.
Butterfly	<i>Ellipsaria lineolata</i>	THR	The butterfly mussel usually inhabits areas of large rivers with swift currents in sand or gravel substrates. However, it appears that the butterfly has adapted to life in reservoirs in some southern states, where it is found in water depths up to 6 m (20 ft). (Parmalee and Bogan 1998).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Elephant-ear	<i>Elliptio crassidens</i>	END	The elephant-ear mussel primarily inhabits large rivers in mud, sand or fine gravel (Cummings and Mayer 1992).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.

Scott

Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	Wetland complexes and adjacent sandy uplands are necessary to support viable populations of Blanding's turtles. Calm, shallow waters, including wetlands associated with rivers and streams with rich aquatic vegetation are especially preferred. In Minnesota, this species appears fairly adaptable, utilizing a wide variety of wetland types and riverine habitats in different regions of the state. In central Minnesota, shrub wetlands are utilized throughout the summer and also serve as over-wintering sites (Piepgras and Lang 2000). In southeastern Minnesota, open marshes and bottomland wetlands provide summer and winter habitat. Ephemeral wetlands are utilized in spring and early summer, while deeper marshes and backwater pools are utilized in both the summer and winter (Hamernick 2000 PDF ; Pappas et al. 2000). In southwestern Minnesota, meandering streams and rivers, fens, prairie marshes, backwaters, and oxbows are important aquatic habitats, and upland habitats include adjacent agricultural lands (Lang 2003 PDF). Female Blanding's turtles often nest in agricultural fields. This may be hazardous to both adult females and nests in the form of chemicals, disking, machinery usage, increased nest predation, and shade produced by growing crops.	Pending	Suitable habitat for this species occurs in the vicinity of the project. Consultation with MN DNR is recommended to discuss minimization and avoidance for impacts to this species.
Spike	<i>Eurytnia dilatata</i>	THR	Spike mussels are usually found in small to large rivers, but they are also known to inhabit reservoirs and lakes. Whether in rivers or lakes, they are most often found in sand and gravel substrates in depths ranging from 0.6-7.3 m (2-24 ft.) (Parmalee and Bogan 1998). When spike mussels do inhabit lakes or reservoirs, they are usually associated with outlet habitats dominated by swift currents.	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Black Buffalo	<i>Ictiobus niger</i>	THR	The Black Buffalo is found in sloughs, impoundments, and both fast- and slow-flowing portions of rivers (Hatch et al. in preparation). In Mississippi River Pool 4 , from 1994-2015, 38 of 45 Black Buffalo were found in tailwater zones of dams; 3 in side channel borders; 2 in main channel borders, 1 in backwaters, and 1 in impounded shoreline. Secchi readings (transparency) ranged 27-100 cm (11-39 in.), depths of 1.0-8.0 m (3.3-26.2 ft.) (37 fish at 4.1 m [13.5 ft.] or more), and velocities of 0.0-0.57 m/s (0.0-1.9 ft./s) (41 at 0.29 m/s [0.95 ft./s] or less) (LTRMP 2016).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.

Yellow Sandshell	<i>Lampsilis teres</i>	END	In Minnesota, the yellow sandshell inhabits large sized rivers. As its name implies, it is at home in fine sediments, but it may also occur in coarse substrates, and in slow or moving current (Parmalee and Bogan 1998).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Fluted-shell	<i>Lasmigona costata</i>	THR	The fluted-shell prefers habitats of medium to large rivers (Cummings and Mayer 1992), dominated by gravel substrates in areas with swift currents and water that is at least 0.6 m (2 ft.) deep (Hart 1995).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Washboard	<i>Megaloniaias nervosa</i>	END	The washboard is typically a large river species, inhabiting the main channel areas of a stream. Suitable habitat consists of slow current areas with substrates composed of sand, gravel, or mud.	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Winged Mapleleaf	<i>Quadrula fragosa</i>	END	Historically, the winged mapleleaf has been described as a large river species (Baker 1928). It has been found in the St. Croix River in riffles dominated by gravel, sand, and rubble substrates in water averaging about 1 m (3 ft.) deep (Hornbach et al. 1996). In general, winged mapleleaves have similar habitat requirements as the other mussel species residing in the St. Croix River mussel community. Three species of mussels, the deerto (Truncilla truncata), the fawnsfoot (T. donaciformis), and the monkeyface (Quadrula metanevra), have been found to be significantly associated with winged mapleleaves (Hornbach et al. 1996).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Wartyback	<i>Quadrula nodulata</i>	THR	The wartyback is found in large rivers in Minnesota, and it can be found in fine or coarse substrates in areas of slow or moderate current.	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Ebonysell	<i>Reginaia ebenus</i>	END	The ebonysell mussel primarily inhabits large rivers in sand or gravel (Cummings and Mayer 1992).	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.

Hair-like Beak Rush	<i>Rhynchospora capillacea</i>	THR	<p>The primary habitat of <i>R. capillacea</i> in Minnesota is calcareous fens, as they occur in the prairie region of the state. Calcareous fens are groundwater-maintained wetlands that have a deep accumulation of peat. These native plant communities have a high pH, high levels of dissolved minerals, and low levels of dissolved oxygen. Within this habitat, <i>R. capillacea</i> prefers the margins of calcareous fen pools and marl flats where competition is minimal.</p> <p>A secondary habitat for this species is spring fens that have recently been discovered within large peatland complexes in the forested region. This fen type is quite similar to the calcareous fens of the prairie region but does not exhibit the extremes in water chemistry.</p>	Cleared	No suitable habitat occurs within the scope of this project. No fen habitat will be impacted by this project. Wetlands on the site will not be impacted and lack the calcareous features that would support this species.
Whorled Nutrush	<i>Scleria verticillata</i>	THR	<p><i>Scleria verticillata</i> is entirely restricted to calcareous fens in the prairie regions of Minnesota, and seems to occur only in the better quality, least disturbed examples of this specialized plant community. It has never been found in the spring fens or ribbed fens that sometimes occur in the large peatland complexes of the forested regions of the state. Within calcareous fens, <i>S. verticillata</i> acts as a pioneer species on exposed marl and along the margins of shallow pools. Conditions there are quite severe, with a very high pH and high mineral content. <i>Scleria verticillata</i> is usually found in association with other strict fen species such as <i>Rhynchospora capillacea</i> (hair-like beak-rush) and <i>Carex sterilis</i> (sterile sedge).</p>	Cleared	No suitable habitat occurs within the scope of this project. No fen habitat will be impacted by this project. Wetlands on the site will not be impacted and lack the calcareous features that would support this species.
Monkeyface	<i>Theliderma metanevra</i>	THR	Hornbach et al. (1996) reported that densities of the monkeyface mussels in the St. Croix River peaked in habitats dominated by stable substrates in water over 2 m (6.6 ft) deep.	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.
Pistolgrip	<i>Tritogonia verrucosa</i>	END	In Minnesota, the pistolgrip is most often found inhabiting larger rivers in areas with moderate current and gravel substrates.	Cleared	This project will not impact the Minnesota River, no suitable habitat occurs within the scope of the project.

	Edible Valerian	<i>Valeriana edulis var. ciliata</i>	THR	<p>Valeriana edulis var. ciliata appears to favor a moist, sunny, calcareous habitat, including calcareous fens, wet meadows, and moist prairies. Many of these habitats are found along railroad right-of-ways. In these habitats, V. edulis var. ciliata is typically associated with other declining species such as Asclepias sullivantii (Sullivant's milkweed), Cypripedium candidum (small white lady's-slipper), and Arnoglossum plantagineum (tuberous Indian-plantain). In the Paleozoic Plateau of southeastern Minnesota, the species occurs in thin, rocky soil and on cliff ledges associated with dry bluff prairies. Though these bluff settings share a similar pH, they appear much drier than the more typical moist prairie, meadow, and fen habitats. However, plants often seem to be growing in localized microsites along bedrock strata where extra moisture seems to be present.</p>	Cleared	<p>No suitable habitat occurs within the scope of this project. No fen habitat will be impacted by this project. Wetlands on the site will not be impacted and lack the calcareous features that would support this species.</p>
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