# DOOR COUNTY, WI ENVIRONMENTAL COMPLIANCE RECOMMENDATIONS FOR BROADBAND DEPLOYMENT

Broadband Deployment Environmental Resource Guide


## Abstract

Compiled environmental compliance recommendations and contacts to streamline fiber broadband deployment throughout Door County, WI.



Hatch, Jessica

jhatch@co.door.wi.us

# Door County Environmental Compliance Recommendations:

ISP contractors once they establish project scope (where disturbance occurs, route plans etc.) Typically, efforts include the following, this list is not comprehensive.

1. Reach out to WDNR wetlands to ensure compliance
2. Reach out to WDNR for an Environmental review
3. Utilities, DOT, existing structural work
4. Reach out to various land owners where work is occurring to notify them of work and make sure to include enough time to reach out to various easement holders. (60 days' notice is usually sufficient)

Municipal tasks and consideration for environmental BMP adoption. These efforts may overlap with contractors and municipalities may place all of these responsibilities on contractors to ensure state and federal compliance (make sure to get in writing, emails work great!) This list may not be fully comprehensive.

1. State Natural Areas: State natural areas (SNAs) protect outstanding examples of Wisconsin's native landscape of natural communities, significant geological formations and archeological sites. Encompassing 406,000 acres on lands owned by the state and its many partners, including land trusts, local and county governments, and private citizens, Wisconsin's natural areas are valuable for research and educational use, the preservation of genetic and biological diversity and for providing benchmarks for determining the impact of use on managed lands. They also provide some of the last refuges for rare plants and animals. https://dnrmaps.wi.gov/H5/?Viewer=Public_Access_Lands on the bottom left side of the panel select layers. In Layers uncheck recreation and under open public lands you can see information on State Natural Areas (Figure 1) Contact for State Natural Areas:
    - Josh Martinez Joshua.Martinez@wisconsin.gov
    - Jake Koebernik Jacob.Koebernik@wisconsin.gov

2. Wetland and Water Ways: Ryan Pappas is Door County's Water Reg/Zoning Specialist with the Wisconsin DNR. He will be able to point municipalities in the direction with what they will need or what their ISP or ISP contractor installing infrastructure will need to be following compliance with State and Federal laws. His info can be found here: https://dnr.wi.gov/staffdir/_newsearch/contactsearchext.aspx?exp=Water+Management+Specialist-+Wetland+Team&exptype=e&DORCountyServed=15

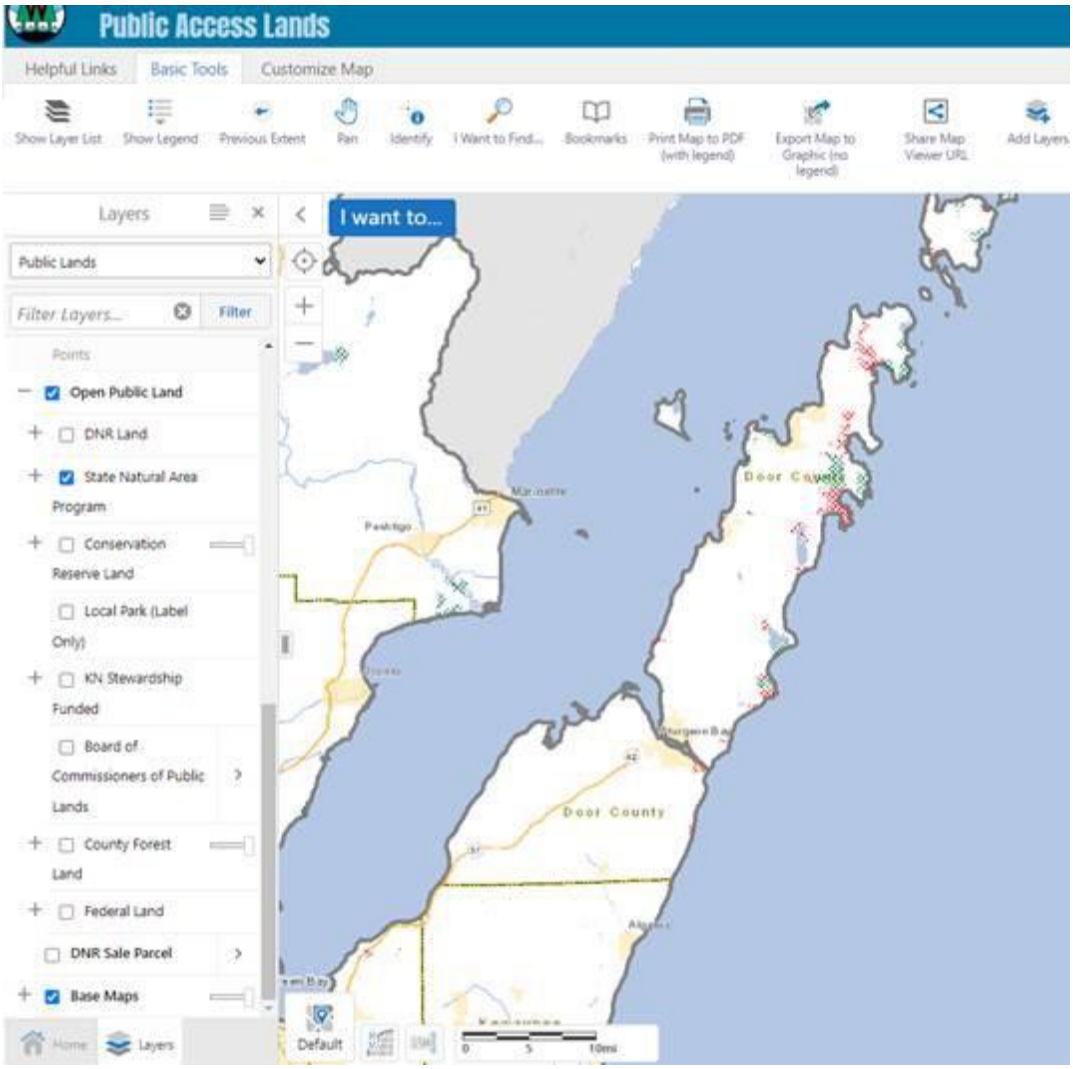

Figure 1.

3. State Endanger Resource Review: Preliminary checks are free and done here: https://dnr.wisconsin.gov/topic/erreview/PublicPortal.html Depending on their results they may be required to do an ER review the cost is $75 if they receive one of the following outcomes: ER Review is Required, ER Review is Strongly Recommended, and or ER Review is recommended. Encourage them to do this as it will save them compliance headaches later on unless they receive no further actions are necessary. Again, the ISP or ISP contractor installing infrastructure will need to be following State and Federal laws and may do this when they have selected a route. Depending on results there may be re-routing.

4. Public Land partners and non-profits.
    - Door County Land Trust Emily Wood ewood@doorcountylandtrust.org
    - The Nature Conservancy Kari Hagenow: khagenow@TNC.ORG
    - The Ridges Sam Hoffman: sam@ridgessanctuary.org
    - Crossroads Laurel Hauser: laurel@crossroadsatbigcreek.org
    - Wisconsin State Parks Eric Hyde: eric.hyde@wisconsin.gov
    - All are great partners with their municipalities. It is important to provide notice of work occurring.
5. Utilities: The contractor selected to install the lines should know who to contact but it is always good to remind them they need to talk to existing utility companies!
6. Wisconsin DOT: For work occurring along State HWY. DOT still needs permitting for work occurring along the State HWY. The permitting process information can be found in the Utility Accommodation Policy (UAP)
   Specifically, you will want to go to 9-15-15 section 2.2 (Permit Application Form & Instructions). You will need to fill out form dt1553 (Application/Permit to Construct, Operate and Maintain Utility Facilities on Highway Right-of-Way) Section 2.2 also directs you to a document dt1553i that has instructions for filling out the form. Also, and Environmental Coordination & Checklist will need to be included with the application. This is located in 9-15-16.

   Additional information:

    - One County per permit. If the utility covers two counties, you will need to fill out two permits.
    - Show dimensions from the ROW line or white edge line (fog line)
    - Match lines at the ends of each page (so it is easier to follow the alignment)
    - Show existing utilities on your plan sheets
    - Access plan – how are you planning to gain access to the work sites?
    - Traffic control plans
    - Erosion control plans (as needed)
    - Specs for any vaults, pedestals, or other appurtenances that will be included with the conduit and fiber
    - Plat map with location labeled required. Also include any other location maps you'd like.
    - Depth of fiber
    - Depth of fiber at crossings under road. If there is a crossing, include a cross-section.
    - Include letter/email/documentation stating the project is for broadband expansion
    - Please submit permit application to COROWPermits@dot.wi.gov, which is the general email box in the Bureau of Highway

Contacts for this:

- Douglas Wiegand Douglas.Wiegand@dot.wi.gov
- Matt Ternes matthew.ternes@dot.wi.gov
- Joshua Falk joshua.falk@dot.wi.gov
- Roy Tilleman roy.tilleman@dot.wi.gov
- Kathy Jennings Kathy.jennings@dot.wi.gov

7. US Fish and Wildlife Service (USFWS) if working in project areas that are critical for federally listed species. Especially if efforts will impact known populations. They will help with mitigation requirements. (Figures 2 and 3 outline Threatened & Endangered species critical areas that require additional BMPs).
    - IPAC project planning tool for environmental review process
    - Section 7 process
    - Threateneed/Endangered Species impact in Door County.
        - Northern Long Eared Bat: Overall, we recommend that tree removal work be completed during the winter months, which appears to be the case for this project. This will avoid direct impacts to NLEB during the time they are hibernating. Please be aware that the Service is in the process of developing additional guidelines that should be publicly available sometime this year. The latest information on Section 7 review for NLEB can be found on the species profile including the streamlined Interim Consultation Framework. The seasonal dates for bat activity (inactive vs active) can also be found in this collection.

        - Dwarf Lake Iris (Iris lacustris) Dwarf lake iris (DLI) is found along the coasts of the Great Lakes. It mainly occurs on young, raw, well drained soils with poorly developed soil horizons. Typical habitats include, beach ridges, stabilized dunes, limestone ridges, forest gaps and edges, and ditches. Dwarf lake iris is sensitive to mechanical disturbance or removal of substrate. Measures recommended to minimize impact:

            1. Suspend the fiber optic cables whenever feasible if DLI populations are found within a ROW for installation of the cables or explore rerouting alternatives
            2. If these options are not possible, installation companies should contact and coordinate with the Service on transplanting options.

        - Rusty Patched Bumble Bee (Bombus affinis) The rusty patched bumble bee (RPBB) require access to both nectar and pollen from spring to fall to support all stages of colony development during their long active season (early April – October). We assume that the rusty patched bumble bee nests in upland grasslands and shrublands that contain diverse and abundant foraging resources during the summer and fall and as far as 30 meters into the edges of forest and woodlands that contain forage during the spring. Queens must locate nests where plant species diversity is sufficient to ensure that forage will be available throughout their active season. We also assume that the species winters exclusively beneath trees in upland forest and woodlands where woodland spring ephemerals

provide early spring nectar and pollen resources for recently emerged queens.

The Service uses the high potential zone (HPZ) model to suggest areas with the highest potential for RPBB based on bumble bee foraging distance, behavior, and estimated dispersal across different landcover types (USFWS 2022). At the moment, these Door County project overlaps two RPBB HZPs (One in the Ellison Bay area and one west of Clark Lake). Something for the installation companies to consider is whether these routes which will run on previously disturbed ground are providing suitable foraging and nesting habitat to support RPBB colonies. Measures recommended to minimize impact:

1. To minimize any potential direct impacts to individual RPBBs, it is recommended that ground disturbance be limited to non-foraging times during November 1 to March 31 in areas with suitable habitat.
2. Some resources to look into are
    a. Conservation management guidelines
    b. species profile for more information on RPBB and High Potential Zones

- Hine's Emerald Dragonfly

Hine's emerald dragonfly (HED) prefers graminoid (herbaceous plants with grass-like morphology) wetlands with seeps or slow-moving rivulets (cool, shallow slow flowing water). Its long aquatic stage may extend from 2-4 years and adults emerge in early July and the flight period may extend through August, depending on weather conditions.

Some impacts to consider for this project are indirect impacts to larvae from installation on sites where redirecting water flow may be necessary and if sediment runoff structures are required. Other impacts to consider are direct impacts to adults from collision with machinery during increased traffic activities, whether these are temporary or more long-term, and whether there is suitable habitat available for HED in the installation routes.

Measures recommended to minimize any potential impacts during the molt/emergence and adult flight period

1. Avoid ground disturbance activities in areas with HED suitable habitat.

○

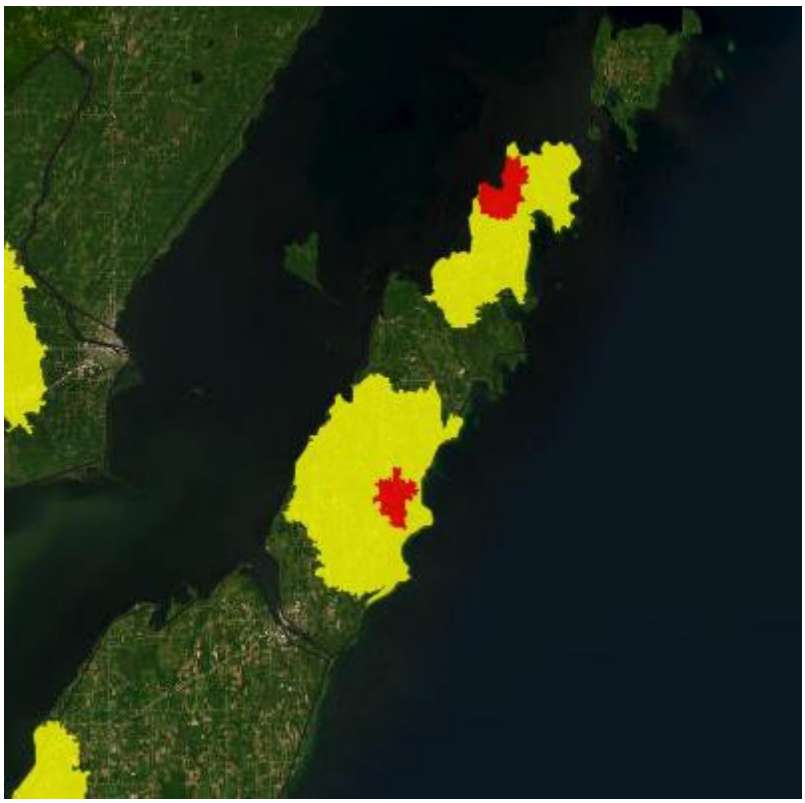

Figure 2. Rusty patch bumble bee potential zones. Red areas are high potential for rusty patch bumble bees and areas of focus.

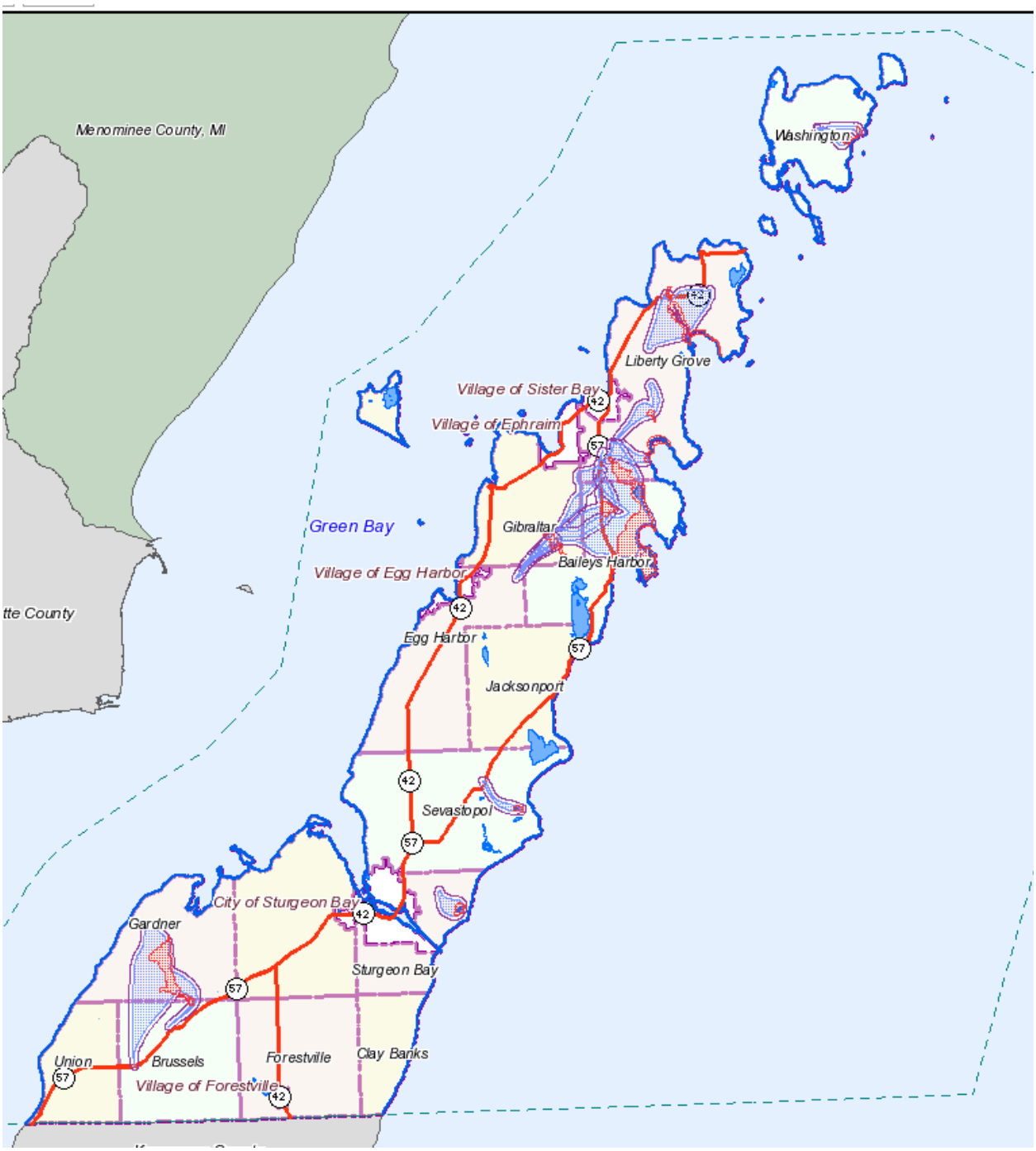

Figure 3. Hines Emerald dragonfly Critical Habitat outlined in red.

- Gray Wolf (Canis lupus) The grey wolf is the largest member of the canid family distinguished by its large blocky muzzle, rounded ears, and large stature (50-120 lbs, 2.5 ft tall and 5-6 ft long). Wolves have many color variations but tend to be buff-colored tans with gray and black. In winter, their coloration becomes darker on the neck, shoulders and rump. The wolf's populations are isolated with scattered populations in northern Wisconsin. Final critical habitat for the species has been identified in the project areas, however; Door County has not documented a known pack and rarely sees a lone wolf within the County limits. The project is limited to ROWs, utility corridors, private roads and existing driveways, areas already heavily disturbed by anthropogenic presence. The project anticipates minimal tree clearing and grubbing and restricting ground disturbance to already highly disturbed areas where the likelihood of coming across potential den sites and/or individuals is minimal to negligible. For these reasons there is no on-the-ground impacts to the grey wolf. No stressor identified.

- Karner Blue Butterfly (Lycaedes Melissa samuelis) There is proposed critical habitat for Karner Blue Butterfly populations: The Karner blue butterfly is a small butterfly with wingspan of less than one inch, distinguished by distinct colorations. The male's wings are a silvery or dark blue color. Female's wings have a grey/brown color especially near the outer portions of the wings, in addition female wings have irregular bands of orange crescents inside the narrow black border. The butterfly is dependent on wild lupine for their larval and caterpillar life cycles. Door County does not have many populatiosn of wild lupine that would support breeding populations of the Karner Blue Butterfly. Wild lupine populations in Door are not typically found with existing utility corridors, existing ROWs, and minimally may occur along existing driveways. Since efforts will be restricted to already heavily disturbed areas, efforts are anticipated to have negligible impacts to Karner populations, since there will be no disturbance of preferred habitat.
- Whooping Crane (Grus Americana) is an experimental species and considered non-essential with no critical habitat listed within the project area.
- Piping Plover (Charadrius melodus)
- Red Knot (Calidris canutus rufa)
- Pitcher's Thistle (Cirsium pitcheri)

- Proposed Species in Door County:
  - Tricolor bat (Perimyotis subflavus)

- Candidate Species in Door County:
  - Monarch Butterfly (Danaus Plexippus)
  - Experimental Population and non-essential Whooping Crane (Grus Americana)

- Designated and/or Proposed Critical Habitat in Door County
    - Hine's Emerald Dragonfly (Somatochlora hineana)

Stressor Information:

- No stressor identified: Gray Wolf (Canis lupus) and Karner Blue Butterfly (Lycaeides melissa samuelis).

- Purposeful or incidental decrease in habitat quantity, quality, accessibility, and/or function: Northern Long-eared Bat (Myotis septentrionalis), Tricolor bat (Perimyotis subflavus), Piping Plover (Charadrius melodus), Red Knot (Calidris canutus rufa), Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), Monarch Butterfly (Danaus plexippus), Dwarf Lake Iris (Iris lacustris) & Pitcher's Thistle (Cirsium pitcheri). This project may result in a temporary incidental decrease in habitat accessibility, quality, and/or function by work occurring adjacent to habitats used by these species. These incidental impacts are anticipated to be only temporary once work has ceased prolonged disturbance cause by installation is not anticipated. Examples of temporary impacts include impacts to surface water if installation has to temporarily redirect water flow and if sediment runoff structures are required. These efforts would negatively impact Hine's Emerald Dragonflys (Somatochlora hineana). Trimming trees, clearing trees, and grubbing within existing corridors may occur resulting in potential negative impacts to northern Long-eared Bat (Myotis septentrionalis) & tricolor bat (Perimyotis subflavus). Efforts also include utilization of machinery like trenchers to install the cable resulting in localized disturbance potentially impacting foraging habitat for Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus), and potential nursery plant habitat for Rusty Patched Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus). Heavy machinery generates exhaust and loud noises temporarily impacting the surrounding habitat potentially impacting stop over sites of piping plover (Charadrius melodus) and red knot (Calidris canutus rufa). There are few occurrences of dwarf lake iris and/or Pitcher's dune thistle occuring within existing ROWs, utility corridors, and/or driveways however there is the potential for this project to impact these species and temporarily decrease their localized habitat quality.

- Purposeful or incidental harassment, harm, wounding, and/or killing: Northern Long-eared Bat (Myotis septentrionalis), Tricolor bat (Perimyotis subflavus), Piping Plover (Charadrius melodus), Red Knot (Calidris canutus rufa), Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), Monarch Butterfly (Danaus plexippus), Dwarf Lake Iris (Iris lacustris) & Pitcher's Thistle (Cirsium pitcheri). This project may result in a temporary incidental harassment, harm, and/or killing of the species listed as a result of the projects scope of work. These incidental impacts are anticipated to be minimal. Hine's Emerald Dragonflys (Somatochlora hineana) larvae and adults may be harmed or killed during work in breeding weltands; however, the project area is already

so restricted to existing anthropogenic disturbances this impact potential is minimal to neglagible. Trimming trees, clearing trees, and grubbing within existing corridors may occur resulting in potential harassment, harm, and/or killing of northern Long-eared Bat (Myotis septentrionalis) & tricolor bat (Perimyotis subflavus). Efforts also include utilization of machinery like trenchers to install the cable resulting in localized disturbance potentially harassing, harming, and/or killing Rusty Patched Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus), when work occurs in vegetative areas that these species may use as nursery plant habitat and/or foraging habitat. Heavy machinery generates exhaust and loud noises temporarily harassing species that utilize the surrounding habitat such piping plover (Charadrius melodus) and red knot (Calidris canutus rufa) that may use specific shoreline habitat as stop over sites. There are few occurrences of dwarf lake iris and/or Pitcher's dune thistle occuring within existing ROWs, utility corridors, and/or driveways due to the nature of ground disturbance there is a chance effort for this project may harm and/or kill either one of these plant species if they do occur within the active project area.

- Purposeful or incidental alteration, destruction, or adverse modification of critical habitat: Northern Long-eared Bat (Myotis septentrionalis), Tricolor bat (Perimyotis subflavus), Piping Plover (Charadrius melodus), Red Knot (Calidris canutus rufa), Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), Monarch Butterfly (Danaus plexippus), Dwarf Lake Iris (Iris lacustris) & Pitcher's Thistle (Cirsium pitcheri). This project may result in a temporary incidental alteration of critical habitats for these species by work occurring for this project. These incidental impacts are anticipated to be only temporary once work has ceased prolonged disturbance cause by installation is not anticipated. Examples of temporary impacts include impacts to surface water if installation has to temporarily redirect water flow and if sediment runoff structures are required. These efforts would negatively impact Hine's Emerald Dragonflys (Somatochlora hineana). Trimming trees, clearing trees, and grubbing within existing corridors may occur resulting in potential negative impacts to northern Long-eared Bat (Myotis septentrionalis) & tricolor bat (Perimyotis subflavus). Efforts also include utilization of machinery like trenchers to install the cable resulting in localized disturbance potentially impacting foraging habitat for Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus), and potential nursery plant habitat for Rusty Patched Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus). Heavy machinery generates exhaust and loud noises temporarily impacting the surrounding habitat potentially impacting stop over sites of piping plover (Charadrius melodus) and red knot (Calidris canutus rufa). There are few occurrences of dwarf lake iris and/or Pitcher's dune thistle occuring within existing ROWs, utility corridors, and/or driveways however there is the potential for this project to impact these species and temporarily modify their critical habitat.

Consequences (Description of Effects)

- No stressor identified: Gray Wolf (Canis lupus) and Karner Blue Butterfly (Lycaedes Melissa samuelis).

- Discountable - increased probability of Death: Northern Long-eared Bat (Myotis septentrionalis), Tricolor bat (Perimyotis subflavus), Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), Monarch Butterfly (Danaus plexippus), Dwarf Lake Iris (Iris lacustris) & Pitcher's Thistle (Cirsium pitcheri). This project may result in a discountable - increased probability of death of the species listed as a result of the projects scope of work. These discountable - increased probability of death impacts are anticipated to be minimal. Hine's Emerald Dragonflys (Somatochlora hineana) larvae and adults may be harmed or killed during work since some of the project area may include fringe portions of their breeding and foraging habitat; however, the project area is already so restricted to existing anthropogenic disturbances this impact potential is minimal to negligible. Trimming trees, clearing trees, and grubbing within existing corridors may occur resulting in discountable - increased probability of death of northern Long-eared Bat (Myotis septentrionalis) & tricolor bat (Perimyotis subflavus). Efforts also include utilization of machinery like trenchers to install the cable resulting in localized disturbance potentially resulting in discountable - increased probability of death of Rusty Patched Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus) in nursery plant habitat and/or foraging habitat. There are few occurrences of dwarf lake iris and/or Pitcher's dune thistle occurring within existing ROWs, utility corridors, private roads, and/or driveways due to the nature of ground disturbance their is a chance efforts for this project may discountably - increased probability of death of either one of these plant species if they do occur within the active project area.

- Discountable - Altered function, structure, quantity, and/or quality of critical habitat: Northern Long-eared Bat (Myotis septentrionalis), Tricolor bat (Perimyotis subflavus), Piping Plover (Charadrius melodus), Red Knot (Calidris canutus rufa), Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), Monarch Butterfly (Danaus plexippus), Dwarf Lake Iris (Iris lacustris) & Pitcher's Thistle (Cirsium pitcheri). This project may result in a temporary incidental alteration of critical habitats for these species by work occurring for this project. These incidental impacts are anticipated to be only temporary once work has ceased prolonged disturbance cause by installation is not anticipated. Examples of temporary impacts include impacts to surface water if installation has to temporarily redirect water flow and if sediment runoff structures are required. These efforts would negatively impact Hine's Emerald Dragonflys (Somatochlora hineana). Trimming trees, clearing trees, and grubbing within existing corridors may occur resulting in potential negative impacts to northern Long-eared Bat (Myotis septentrionalis) & tricolor bat (Perimyotis subflavus). Efforts also include utilization of machinery like trenchers to install the cable resulting in localized disturbance potentially impacting foraging habitat for Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus), and potential nursery plant habitat for Rusty Patched

Bumble Bee (Bombus affinis), and Monarch Butterfly (Danaus plexippus). Heavy machinery generates exhaust and loud noises temporarily impacting the surrounding habitat potentially impacting stop over sites of piping plover (Charadrius melodus) and red knot (Calidris canutus rufa). There are few occurrences of dwarf lake iris and/or Pitcher's dune thistle occuring within existing ROWs, utility corridors, and/or driveways however there is the potential for this project to impact these species and temporarily modify their critical habitat.

Recommended Determination(s) of Effect(s)

- No Effect: Gray Wolf (Canis lupus) and Karner Blue Butterfly (Lycaedes Melissa samuelis)
- May Affect, Not Likely to Adversely Affect: Northern Long-eared Bat (Myotis septentrionalis), Tricolor bat (Perimyotis subflavus), Piping Plover (Charadrius melodus), Red Knot (Calidris canutus rufa), Hine's Emerald Dragonfly (Somatochlora hineana), Rusty Patched Bumble Bee (Bombus affinis), Monarch Butterfly (Danaus plexippus), Dwarf Lake Iris (Iris lacustris), Pitcher's Thistle (Cirsium pitcheri) & Hine's Emerald Dragonfly (Somatochlora hineana) "CH"
- May Affect Liekly to Adversely Affect: N/A