WisDOT Migratory Bird Treaty Act Guidance Updates

Recent Changes

Depredation Permits

- The U.S. Fish and Wildlife Service (USFWS) is adhering to the purpose and intent of migratory bird depredation permits. They will only issue these permits for situations where the take[1] of migratory birds is necessary to address depredation (i.e., damage or loss caused by birds).
- Depredation includes agricultural damage, private property damage, threats to human health and safety, and threats to recovery of protected wildlife.
- USFWS does not consider migratory bird nesting on bridges or culverts depredation. As such, WisDOT or its contractors will no longer be able to obtain a depredation permit for construction projects or maintenance activities.

Migratory Bird Treaty Act Take

- The current federal administration's legal opinion (M-Opinion 37085; 37050) is that migratory bird take[1] incidental to an activity is not prohibited by the Migratory Bird Treaty Act (MBTA).
- Direct and affirmative purposeful take is prohibited by MBTA without authorization.

Implications for WisDOT Actions

- WisDOT has a continued responsibility to avoid and minimize adverse effects to migratory birds under other regulatory requirements:
    - Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds
    - Expectation under NEPA (§771.105(e)) to incorporate measures to mitigate adverse impacts to migratory birds.
    - WDNR Administrative Code NR 10.02: Protected Wild Animals
    - Wisconsin Endangered Species Law and Federal Endangered Species Act (specific species)
- WisDOT will continue to survey structures for signs of migratory bird nesting and will implement avoidance and minimization measures for migratory birds when feasible.
- WisDOT will evaluate if avoidable migratory bird take can be authorized under Section 1439 of the Fixing America's Surface Transportation (FAST) Act.

Next Steps

- Review detailed procedural guidance for MBTA compliance below.
- WisDOT is updating its standardized special provisions (STSP) for migratory birds.
- WisDOT's MBTA guidance document will be updated in the future to incorporate this information.

Detailed Guidance

The remainder of this document provides further details on WisDOT procedures to address MBTA compliance for design, construction and maintenance activities.

[1] Take means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.

Projects in Design

Pre-construction surveys must be completed between June 1 of the nesting season prior to construction and before the start of the next nesting season (April 15 or May 1).

Structure survey conducted and there was no evidence of migratory bird nesting.

- Impacts are not expected during construction.
    - Utilize migratory birds **STSP specification A**.

Structure survey conducted and there was evidence of migratory bird nesting in the immediate work area.

1. **Nesting season avoidance**

   Schedule bridge/culvert construction activities to avoid the nesting season.
    - North of US 8: May 1 – August 31; south of US 8: April 15 – August 31
    - Utilize migratory birds **STSP specification C**.

2. **Exclusion/deterrent**

   Install bird exclusion/deterrent measure before the start of the nesting season.
    - Confirm that a deterrent measure can reasonably be installed on the structure.
    - Determine who will install it (highway contractor, county highway dept, ecological services consultant).
    - Utilize migratory birds **STSP specification B** and correct **deterrent bid item** (install/maintain or maintain).

If option 1 or 2 can't be implemented due to project schedule or structure specific constraints, evaluate the options below.

3. **Determine if FAST Act Section 1439 take authorization applies.**

   If project is eligible, take of swallows is authorized under MBTA.
    - Must meet all eligibility criteria:
        - Eligible for federal funding under title 23 U.S.C.
        - Federal bridge in National Bridge Inventory
        - Any structure component condition rated 3 or less
        - Only swallow nesting, no other bird species
    - Must coordinate with USFWS before and after FAST Act authorized take.
        - In design phase, design engineer or Region Environmental Coordinator (REC) submits coordination form to USFWS migratory bird contact. Recommend completing coordination by pre-PS&E.
        - Construction engineer submits coordination form to USFWS migratory bird contact no later than 60 days after last take occurs.
    - Utilize migratory birds **STSP specification D** unless design coordination with USFWS indicates a different approach is preferred.

4. **Consider if egg/young savage/transfer is appropriate.**

   Possession of eggs/juvenile birds is authorized under the MBTA Good Samaritan provision of the MBTA (50 C.F.R. § 21.76(a)) for the purpose of immediate transport to a federal and state permitted wildlife rehabilitator or licensed veterinarian.

   - Evaluate safety, feasibility, timing, etc.
   - Must develop a salvage/transfer plan in design.
   - Develop a work order with ecological services consultant to conduct the salvage/transfer.
   - Utilize migratory birds **STSP specification E**.

5. **Determine if activity may result in incidental take or it is considered purposeful take.**

   Incidental take: The purpose of the activity is not to intentionally injure/kill a migratory bird or remove an active nest[2]; however, nest abandonment/damage or bird injury/death may occur as a result of the activity. E.g., construction vibration causes an active nest to dislodge from a structure.

   Purposeful take: The purpose of the activity is direct and intentional removal of an active migratory bird nest or intentional injury/killing of a bird. E.g., using a pressure washer to remove active nests from a structure.

   If activity may result in incidental, but not purposeful, take:

   - Designer or REC submits coordination form to USFWS migratory bird contact by pre-PS&E.
   - Utilize migratory birds **STSP specification D** unless coordination with USFWS indicates a different approach is preferred.

   If activity is considered purposeful take, re-evaluate options 1-4 above.

Structure survey conducted. There was evidence of migratory bird nesting on the structure but not in the immediate work area.

- Direct impacts to active nests are not anticipated during construction. Absence of migratory bird or their nests during pre-construction survey does not eliminate the possibility of future nesting during construction.
  - Construction risk can be minimized by implementing nesting season avoidance (option 1) or deterrent measure (option 2).
  - As appropriate, utilize migratory birds **STSP specification C**.

Projects in Construction

Migratory bird STSP specification A was used in the Special Provisions. A pre-construction structure survey was conducted, and no evidence of migratory bird nesting was observed.

- **New nest building activity or active[2] nests are now present on the structure during construction but are not in the immediate work area.**
  - Leave nearby active nests alone. Direct impacts to active nests are not anticipated.

[2] Active nest contains eggs and/or young birds.

- **New nest building activity or active nests are now present on the structure during construction in the immediate work area.**
    - Construction engineer determines feasibility of implementing avoidance/deterrent measures and directs contractor to implement feasible measures.
        - Measures may include avoiding the nesting season, installing a deterrent system and/or removal of unoccupied or partially constructed nests by scraping or pressure washing.
    - Purposeful take cannot occur unless authorized under Section 1439 of the FAST Act. See option 3 under design section of this guidance document.
    - Prior to any activity that may result in active nest take, the construction engineer will contact the REC. The REC will initiate coordination with USFWS through the submittal of the coordination form to the migratory bird contact.

Migratory bird STSP specification C was used in the Special Provisions. A pre-construction survey was conducted, and evidence of migratory bird nesting was observed. Based on the scope/location of construction activities, direct impacts were anticipated to be avoided.

- **It is determined in construction that direct impacts to known nesting areas on the structure will occur.**
    - Construction engineer determines feasibility of implementing avoidance/deterrent measures and directs contractor to implement feasible measures.
        - Measures may include avoiding the nesting season, installing a deterrent system and/or removal of unoccupied or partially constructed nests by scraping or pressure washing.
    - Purposeful take cannot occur unless authorized under Section 1439 of the FAST Act. See option 3 under design section of this guidance document.
- Prior to any activity that may result in active nest take, the construction engineer will contact the REC. The REC will initiate coordination with USFWS through the submittal of the coordination form to the migratory bird contact.

Maintenance Activities

Nesting season avoidance

Schedule maintenance activities to avoid the nesting season.

- North of US 8: May 1 – August 31; south of US 8: April 15 – August 31

Direct nest avoidance

Evidence of migratory bird nesting on the structure but not in the immediate work area.

- Leave nests alone if they will not be disturbed by the maintenance action (e.g., work on deck with nests on girders).

Any other situation

Prior to any activity that may result in active nest take, discuss with the REC.

- Coordination with USFWS migratory bird contact may be necessary.

Appendix: Migratory Bird Resources

Bird and Nest Guide

Cliff Swallow

Sources: Ryan Brady (left), Don DeBold (center), NPS (right)

Appearance: metallic blue above and gray below, with a short, square-tipped tail.
Behavior: feeds on swarming insects, usually high above the ground (>100ft).
Nest: colonially nests in gourd-shaped mud nests, often below bridges or inside culverts.
Egg: white, creamy, or pinkish, with brown speckles or blotches.

Barn Swallow

Sources: Ryan Brady (left), Shawn Carey (center), Lemon Bay Conservancy (right)

Appearance: metallic blue above and white or pale orange below, with a long and forked tail that may appear as a single point when held closed.
Behavior: swoops and dives near ground level.
Nest: nests alone or in small groups in bowl-shaped mud nests, often found underneath bridges or on culvert walls.
Egg: creamy or pinkish white, spotted with brown, lavender, and gray.

Appendix: Migratory Bird Resources

American Robin

Sources: Cornell University (left), Hawk Ridge (center), Mike's Birds (right)

Appearance: gray above, orange below, and a black head.
Behavior: swift, direct flight on rapidly beating wings.
Nest: builds a bowl-shaped nest out of twigs and grasses in trees, gutters, eaves, and the underside of bridges.
Egg: sky blue or blue-green and unmarked.

Eastern Phoebe

Sources: Princeton University (left), Flying Lessons (center), Evan Buck (right)

Appearance: brownish-white above and off-white below, with a dark head and square tail.
Behavior: perches low in trees or on fence lines, making short flights to capture insects and often returning to the same perch.
Nest: constructs large nests out of mud, moss, and leaves under eaves or ledges.
Egg: white, sometimes speckled with reddish brown.

Appendix: Migratory Bird Resources

Bank Swallow



Sources: Audubon (left), Jay McGowan (center), USFWS (right)

Appearance: brown above and white below, with a thick brown band across the chest. Relatively short pointed wings, and a slightly forked tail
Behavior: fluttery flight with periods of brief gliding. Frequently changes course to catch small insects.
Nest: nest in burrows in vertical surfaces, such cliff or bluff faces (natural or human made), including as borrow pits.
Egg: white

Northern Rough-Winged Swallow



Sources: Cornell University (left, center), Jim Burns (right)

Appearance: small-bodied with relatively broad, pointed wings. Brown above and white below.
Behavior: harvests insects in midair while twisting and turning low above water bodies and open areas.
Nest: nests near water in burrows, such as cliff or bluff faces (natural or human made), including those in borrow pits.
Egg: white

Appendix: Migratory Bird Resources

Deterrents

The effectiveness of any deterrent method is dependent upon proper installation, maintenance, and monitoring. Netting and barriers should be checked regularly throughout the nesting season to make sure they are firmly attached and remain undamaged, since improperly installed or maintained deterrents can lead to unwanted nesting and/or incidental take, as well as safety concerns to the travelling public.

Install deterrents or remove nests before the start of the nesting season. Deterrents can be removed after the nesting season ends or after construction is complete.

Deterrents are not practical for use on borrow pits or soil/material storage piles. When feasible, avoid leaving vertical faces and grade banks to a natural angle of repose. If nesting occurs, observing the avoidance window is the only recommended option for these sites.

Exclusion Netting (Bridges and Culverts)
Exclusion netting is material either wrapped around or draped and fastened to bridge decks/abutments and culvert corners to prevent bird entry.

Materials: Polyethylene netting or galvanized wire mesh (hardware cloth) with either ½" x ½" or ¾" x ¾" openings. Mesh with larger openings increases the risk of entrapment, since it may allow birds to pass through and nest. However, mesh with smaller openings may provide a suitable rough surface for Swallow nesting and presents the risk of foot entrapment.

Installation (bridges): Remove empty nests prior to the beginning of the nesting season. Anchor lumber to bridge along perimeter of intended netting and fasten netting around the bridge abutments, underneath the bridge deck, and any other locations where birds could build their nests. The net should not have any loose pockets or wrinkles that could trap and entangle birds. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

Left: properly installed bridge netting (netting.com)
Right: bird mortality from net entanglement (GDOT)

Appendix: Migratory Bird Resources

Installation (culverts): Remove empty nests prior to the beginning of the nesting season. Attach netting at a 45-degree angle at the culvert corner so it extends at least 12" below the corner. The net should not have any loose pockets or wrinkles that could trap and entangle birds. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

Maintenance and monitoring requirements: Construction projects that have netting in place should be inspected every two weeks, as well as after large storm events or high winds. This monitoring will ensure that the netting is properly maintained, no gaps or holes have formed, and that the nets are functioning properly. Monitoring will also include removing all nesting attempts and releasing any entrapped birds. If a trapped bird is found, contact a DNR transportation liaison at: https://widnr.widen.net/s/lx85tv6vsc/liaisons. Efforts should be made to release the bird unharmed and repair the netting to prevent birds from entering again.

Pros:

- Highly effective with low bird entanglement, if installed correctly and regularly maintained**.**
- Provides a flexible option for bridges or culverts that are not uniform along their entire length.
- Materials typically less expensive than commercial culvert corner slopes.

Properly installed culvert corner netting (TxDOT)

Cons:

- Can allow birds and other wildlife to enter and become entangled if installed improperly or not frequently maintained. Netting is the only deterrence measure that, if it fails, will both delay projects and harm birds. (Other measures will allow birds to nest but will not cause harm.) *Do not use netting unless it is in an area that can be properly maintained.*
- Structure complexity/height can encumber installation.
- Installation can be very labor intensive.

<u>Plastic Curtains (Bridges and Culverts)</u>

Strips of plastic installed along the edge of vertical surfaces preferred for nesting.

Materials: Three-foot wide lengths of 6 mil minimum plastic sheeting with the lower 2 feet cut into vertical strips two inches wide.

Installation: Remove empty nests prior to the beginning of the nesting season. Staple plastic curtain strips to treated lumber and affix to the underside of the bridge deck or top of box culvert.

Maintenance and monitoring requirements: Construction projects that have curtains in place should be inspected every two weeks, as well as after large storm events or high winds. This monitoring will ensure that the curtains are properly maintained and functioning properly. Monitoring will also include removing all nesting attempts, ensuring there are no tears, holes, or

creases, and releasing any entrapped birds. If a bird is entrapped, contact a DNR transportation liaison at: https://widnr.widen.net/s/lx85tv6vsc/liaisons.
Efforts should be made to release the bird unharmed and repair the netting to prevent birds from entering again.

Pros

- Minimally expensive material and labor costs
- Minimal maintenance (though plastic sheeting should be replaced if it becomes creased, since it could create a foothold for nest establishment).
- Able to withstand most culvert storm flows.
- Possible to permanently install a track or pipe to allow for easier curtain installation and removal.

Flexible strip curtains in a concrete box culvert (Tate 2010)

Cons

- Difficult to install on tall structures, especially over water.
- Potential for mud to be stuck to flaws in curtain or mounting system, providing an opportunity for birds to nest.

<u>Corner Slopes (Bridges and Culverts)</u>

Corner slopes cover the corners where migratory birds prefer to nest.

Materials: U.V. stabilized prefabricated PVC or polycarbonate corner slopes from commercial bird-deterrent manufacturers, or an approved equal.

Installation: Remove empty nests prior to the beginning of the nesting season. Attach corner slopes to the structure per the manufacturer's recommendations or using urethane-based adhesives. Install end caps or seal ends of corner slopes to prevent entry of birds or other animals.

Properly installed corner slopes on a box culvert (GDOT)

Maintenance and monitoring: Construction projects that have corner slopes in place should be inspected every two weeks, as well as after large storm events or high winds. This monitoring will ensure that corner slopes are properly maintained and functioning properly. Monitoring will also include removing all nesting attempts, ensuring there are no cracks or holes, and releasing any entrapped birds.

Pros

- Require little maintenance, though periodic inspection is recommended.
- Good longevity (several years) and effectiveness with minimum need for repair if properly installed.

Cons

- Removal can be difficult.

Nest Removal (Bridges, Culverts)

Nest removal involves the removal and disposal of unoccupied or partially constructed nests without eggs or nestlings. Eastern Phoebes, Cliff Swallows, and Barn Swallows all demonstrate high site fidelity and will reuse old nests, so removing nests will eliminate a visual cue for a potential breeding location, especially for first-time breeders. Removing all evidence of nesting (e.g. cleaning droppings from structures) does not prevent nest establishment, but it can delay the process.

Nests can be removed in a number of ways, including scraping or pressure washing, but this can prove labor-intensive for large structures.

Pros:

- Relatively inexpensive
- Can delay nesting to provide time for other measures to be put in place
- May be compatible with bridge cleaning or other maintenance activities

Cons:

- Effective only when used in addition to other methods.
- Must be out in the field every two days to remove newly-built nests before eggs are laid.
- Nest removal can be impractical for tall structures or those over water.