



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

Pat Quinn, Governor
Marc Miller, Director

October 14, 2014

Ms. Andrea McCool
Administrative Assistant
GSS Inc
3311 109th Street
Urbandale, IA 50322

Re: BNSF PTC BARSTOW SUB - MILE POST 87.39
Endangered Species Consultation Program
Project Number(s): 1505185
Alternate Project Number(s): 1505184
County: Carroll

Dear Ms. McCool:

This letter concerns the Endangered Species Consultation for the **BNSF PTC BARSTOW SUB - MILE POST 87.39**, located in **Carroll** County, Section **36**, Township **23N**, and Range **3E**. This project was submitted for consultation in accordance with the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code Part 1075*.

The proposed action involves: "PROPOSED INSTALLATION OF A 40' WAYSIDE POLE WITH A 10' ANTENNA WITHIN THE RAILROAD RIGHT-OF-WAY IN BALLAST MATERIAL FOR THE PURPOSES OF THE POSITIVE TRAIN CONTROL (PTC) SAFETY SYSTEM."

E&T Review

The Department has completed its review of the project and determined that the action may have an adverse impact on the Blanding's Turtle, Ornate Box Turtle, Plains Hog-nosed Snake, Pinweed, Umbrella Sedge, and the Thomson - Fulton Sand Prairie INAI site. To minimize potential impacts, the Department recommends that the following measures be implemented by GSS Inc.

Blanding's Turtle, *Emydoidea blandingii*

This species inhabits a variety of wetlands, wetland complexes, and upland habitats; therefore, these turtles will attempt to travel across the landscape in search of upland nesting sites and again, on their way back to wetlands. Juvenile turtles will also traverse the landscape after hatching in the fall, in search of wetland areas.

Recommendation #1. Educate and inform construction crews and all on-site personnel about Blanding's Turtles before work begins. Distribute photos (adult and juvenile) of the species and discuss the site management plan for responding to encounters in a training session and at the preconstruction site meeting. If a turtle is encountered on site, inform crews to immediately stop construction in the surrounding area

and contact the Department's Heritage Biologist, Duane Ambroz, 815/990-8653, keeping in mind it is a criminal act to handle a listed species. Personnel on site should watch the turtle until the proper authority arrives to alleviate the situation, keeping at a respectable distance. If the turtle moves, crews should mark the spot they first saw the turtle and the last spot it was seen.

Recommendation #2. The project area may contain the route to a nesting site. Therefore, potential harm to transiting turtles is a concern. The Department recommends limiting work to between late October and late March, when this species is hibernating, to prevent construction activities from crushing or injuring juvenile or adult turtles.

Recommendation #3. If construction cannot be limited to the recommended time frame, exclusionary fencing should be installed and in place to prevent turtles from entering the construction areas. Daily inspections should occur for the first two weeks and then be maintained weekly throughout the construction period to ensure the exclusionary fencing has been properly installed (dug into the ground) and to check if any turtles are present on either side of the fence.

Recommendation #4. Because of the existence of high quality prairie, sandy soils, and listed species records in the vicinity of the project area, all material and equipment should be transported and remain on existing railroad right of way (ROW).

Recommendation #5. Because trenches can trap turtles (and other reptiles and amphibians), trenches and excavations should be routinely inspected throughout the day to ensure no turtles have become trapped within them. Trenches should also be checked before being backfilled, covered at the end of each work day, and returned to original grade when project is done. Graded areas should be planted with native, non-invasive species.

Ornate Box Turtle, *Terrepenne ornate*

This species was listed by Illinois as threatened in October 2009. Many populations have been adversely affected by habitat conversion to agriculture and development, road-kills, and over-collection for the pet trade. It is a relatively small turtle (less than six inches), and it can easily escape notice.

From late September through mid-April, the Ornate Box Turtle hibernates (brumates) in burrows as deep as three feet underground. Such burrows are far from obvious to humans, so that for more than six months of the year, this species is not subject to easy observation. This species spends significant portions of each day underground, either in burrows or shallow excavations near the surface called "forms." Hatchlings spend most of their time underground during their first two or three years of life. Excavation of soils and trenching activities in potential habitat during the above-noted timeframe run the risk of killing or injuring unobserved turtles. This species also demonstrates high fidelity to brumation sites, often returning to within a yard of where it spent the winter the previous year.

Recommendation #1. Educate and inform construction crews and all on-site personnel about Ornate Box Turtles before work begins. Distribute photos (adult and juvenile) of the species and discuss the site management plan for responding to encounters in a training session and at the preconstruction site meeting. If a turtle is encountered on site, inform crews to immediately stop construction in the surrounding area and contact the Department's Heritage Biologist, Duane Ambroz, 815/990-8653, keeping in mind it is a criminal act to handle a listed species. Personnel on site should watch the turtle until the proper authority arrives to alleviate the situation, keeping at a respectable distance. If the turtle moves, crews should mark the spot they first saw the turtle and the last spot it was seen.

Recommendation #2. The Department recommends limiting work to between October and March, when this species is hibernating, to prevent construction activities from crushing or injuring juvenile or adult turtles.

Recommendation #3. If construction cannot be limited to the recommended time frame, exclusionary fencing should be installed and in place to prevent turtles from entering the construction areas. Daily

inspections should occur for the first two weeks and then be maintained weekly throughout the construction period to ensure the exclusionary fencing has been properly installed (dug into the ground) and to check if any turtles are present on either side of the fence.

Recommendation #4. All vehicles and machinery should stay off any soils that are defined as sandy. All material and equipment should be transported and remain on existing railroad right of way (ROW). Any disturbance of the sandy soils or prairie in the immediate area could result in a “take” of the Ornate Box Turtle. ‘Take’ means, in reference to animals and animal products, to harm, hunt, shoot, pursue, lure, wound, kill, destroy, harass, gig, spear, ensnare, trap, capture, collect, or to attempt to engage in such conduct. If this species is confirmed within or near the construction area, work must immediately stop, and GSS Inc. should consider obtaining Incidental Take Authorization from the Department’s Office of Resource Conservation, pursuant to 520 ILCS 10/5.5.

Recommendation #5. Because trenches can trap turtles (and other reptiles and amphibians), trenches and excavations should be routinely inspected throughout the day to ensure no turtles have become trapped within them. Trenches should also be checked before being backfilled, covered at the end of each work day, and returned to original grade when project is done. Graded areas should be planted with native, non-invasive species since invasive and exotic species can form dense patches which make it difficult for turtles to travel through.

Plains (Western) Hog-nosed Snake, *Heterodon nasicus*

This subspecies of the Western Hog-nosed is a thick-bodied snake typically found in sand prairies, savannas, and nearby woodlands. An ambush predator, this snake sometimes buries itself in the soil with only its eyes exposed and waits for prey, primarily toads, frogs, and rodents, to move within striking distance, or moves about slowly while searching for prey which has burrowed just beneath the surface. Although not usually classified as a venomous reptile dangerous to humans, it is sometimes described as rear-fanged, having enlarged rear teeth which serve to deflate toads and frogs (which swell themselves as a defense against being swallowed). Its saliva (venom) is toxic, but it cannot deliver large amounts. Even so, bites from this animal, though rare, may require medical attention.

Plains Hog-nosed Snakes may use abandoned rodent burrows for thermo-regulation or during its hibernation period (September through March). They are most active in the early morning and late evening, spending much of the rest of the time seeking shade or warmth to regulate their temperature. In Illinois, mating begins soon after spring emergence, with females depositing eggs in the soil beginning in June or July: eggs usually require six to eight weeks to hatch (in August or September), and neonates are fully capable of independent existence. Adults neither guard the nest nor provide care to young.

Construction activities pose the threat of road-kill or injury to basking or traversing snakes. Noise generated by work and excavation or trenching activities could interfere with animal communication and may hinder reproductive success, depending on the length and intensity. Vibrations from construction activities may pose another risk factor since reptiles are very sensitive to vibrations transmitted through the ground. Further, compaction of sandy soils can make it difficult, or impossible, for this species to retreat to rodent burrows it uses for thermo-regulation or during its hibernation period (September through March).

Recommendation #1. Educate and inform construction crews and all on-site personnel about Plains (Western) Hog-nosed Snake before work begins. Distribute photos (adult and juvenile) of the species and discuss the site management plan for responding to encounters in a training session and at the preconstruction site meeting. If a snake is encountered on site, inform crews to immediately stop construction in the surrounding area and contact the Department’s Heritage Biologist, Duane Ambroz, 815/990-8653, keeping in mind it is a criminal act to handle a listed species. Personnel on site should watch the snake until the proper authority arrives to alleviate the situation, keeping at a respectable distance.

Recommendation #2. The Department recommends limiting work to between October and March, when this species is hibernating, to prevent construction activities from crushing or injuring juvenile or adult snakes.

Recommendation #3. If construction cannot be limited to the recommended time frame, exclusionary fencing should be installed and in place to prevent snakes from entering the construction areas. Daily inspections should occur for the first two weeks and then be maintained weekly throughout the construction period to ensure the exclusionary fencing has been properly installed (dug into the ground) and to check if any snakes are present on either side of the fence.

Recommendation #4. All vehicles and machinery should stay off any soils that are defined as sandy. All material and equipment should be transported and remain on existing railroad right of way (ROW). Any disturbance of the sandy soils or prairie in the immediate area could result in a “take” of the Plains Hog-nosed Snake. ‘Take’ means, in reference to animals and animal products, to harm, hunt, shoot, pursue, lure, wound, kill, destroy, harass, gig, spear, ensnare, trap, capture, collect, or to attempt to engage in such conduct. If this species is confirmed within or near the construction area, work must immediately stop, and GSS Inc. should consider obtaining Incidental Take Authorization from the Department’s Office of Resource Conservation, pursuant to 520 ILCS 10/5.5.

Recommendation #5. Because trenches can trap snakes (and other reptiles and amphibians), trenches and excavations should be routinely inspected throughout the day to ensure no snakes have become trapped within them. Trenches should also be checked before being backfilled, covered at the end of each work day, and returned to original grade when project is done. Graded areas should be planted with native, non-invasive species.

Thomson - Fulton Sand Prairie and Listed Plant Species

Please note that a population of Pinweed (*Lechea intermedia*) and Umbrella Sedge (*Cyperus grayoides*), state-listed vascular plants, have been recorded in the vicinity of the project location. Care should be taken to avoid impacts to these areas from planned construction activities. While listed plant species are the property of the landowner, it would be beneficial to conserve the genetic material if the plant is present at the project site and will be disturbed or destroyed. This could include translocation, seed collection, or stockpiling and replacing the surface soils containing the seed bank. You must have written permission from the landowner to disturb or relocate the plants.

Recommendation #1. Because of the existence of high quality prairie and listed species within close proximity to this work site, all material and equipment should be transported and remain on existing railroad right of way (ROW).

You may contact INPC Natural Areas Preservation Specialist John Nelson at 815/385-1573, or IDNR District Heritage Biologist Duane Ambroz at 815/990-8653, if you have questions or need additional information regarding these sites and listed species.

Consultation under 17 Ill. Adm. Code Part 1075 is terminated. In accordance with 17 Ill. Adm. Code 1075.40(h), GSS Inc must notify the Department of its decision regarding these recommendations, whether they will:

- Allow the action to proceed as originally planned;
- Require the action to be modified per Department recommendations (please specify which measures, if not all, will be required); or
- Forgo the action.

Consultation for Part 1075 is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database and the Illinois Wetlands Inventory at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Cordially,

A handwritten signature in black ink, appearing to read "Sheldon R. Fairfield". The signature is fluid and cursive, with the first name "Sheldon" being the most prominent.

Sheldon R. Fairfield
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cc: Duane Ambroz, District Heritage Biologist – Illinois Department of Natural Resources
John Nelson, Natural Areas Preservation Specialist – Illinois Nature Preserves Commission