

CTDOT AND CTDEEP WORKING TOGETHER TO HELP PROTECT STATE LISTED SPECIES

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DOT-DEEP SPECIES COORDINATION



- Coordination--OEP –CTDEEP NDDDB.....CTDEEP Wildlife.
- Over 500 Reviews on CTDOT projects since 2010 (State and Municipal projects).
- Changes that have helped streamline this process:
 - review/expiration date on reviewed projects from 6 months to 1 year to the current 2 year window.
 - CTDOT OEP access to the protected NDDDB to prescreen projects and submit within the necessary time frame to stop double reviews on projects that linger in Design.
 - Implement the CTDOT approved protection protocols for a quicker review process.



1.10 SPECIES SPECIFICATIONS

STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND
INCIDENTAL CONSTRUCTION FORM 817



CTDOT OEP has worked with CTDEEP NDDDB and the Wildlife Division over the past 10 years to develop and implement protection protocols for 20 commonly encountered listed species.

Some species include:

Bald Eagle (*Haliaeetus leucocephalus*) T

Peregrine Falcon (*Falco peregrinus*) T

All Listed Bat Species E / SC

Timber Rattlesnake (*Crotalus horridus*) E

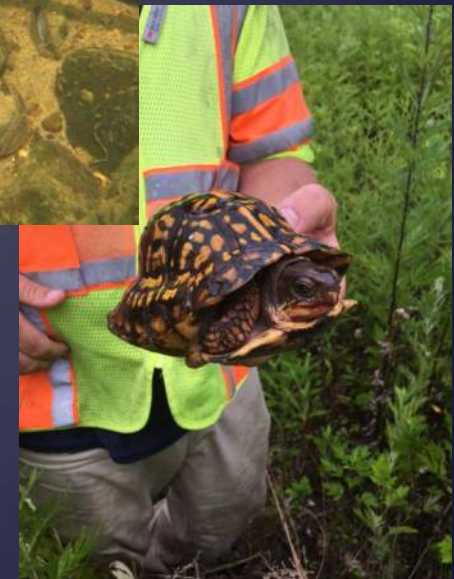
Eastern Hog-nosed Snake (*Heterodon platirhinos*) SC

Northern Diamondback Terrapin (*Malaclemys terrapin*) SC

Spotted Turtle (*Clemmys guttata*) SC

Eastern Box Turtle (*Terrapene carolina carolina*) SC

Northern Leopard Frog (*Lithobates pipiens*) SC





1.10 SPECIFICATION EXAMPLES

SECTION 1.10 - ENVIRONMENTAL COMPLIANCE

In Article 1.10.03-Water Pollution Control:
REQUIRED BEST MANAGEMENT PRACTICES

Add the following after Required Best Management Practice Number 13:

14. The Contractor is hereby notified that the State listed species of Special Concern Northern diamondback terrapin (*Malaclemys t. terrapin*), is present within the Project limits. Northern diamondback terrapins are the only species of turtle in North America that spends its life in brackish water (water that is less salty than sea water). They are most abundant in tidal estuaries and will also be found in salt marshes and tidal creeks. Northern diamondback terrapins nest on the sandy borders of these habitats from June to July. Northern diamondback terrapins hibernate during the winter submerged in the mud of tidal creeks. They enter hibernation as early as November and emerge as early as April through the end of May depending on water temperature.

All construction activities taking place within the Project limits will need to be coordinated with the Office of Environmental Planning (OEP) through the Engineer. At least 10 days prior to the commencement of any physical construction activities, the Contractor shall, through the Engineer, arrange for a CTDOT OEP Environmental Inspector, or their authorized delegate, to meet and discuss proper protocol for maintaining environmental commitments made for the protection of this species and habitat. OEP will provide oversight through the Engineer to ensure that the following protocols are followed and maintained during the course of the Project.

During the terrapin's dormant period (November 1 to May 31):

- Once the areas within the Project limits have been inspected and cleared of any nest sites, construction activities will be allowed in upland areas.
- Work is not allowed in wetland/watercourse and sandy border areas unless these areas were in active construction prior to November 1, and additionally, do not contain any areas of terrapin habitat.

For any work done during the terrapin's active period, which includes the nesting and hatching period, (April 1 to October 31), the CTDOT will require the following precautionary measures to protect the terrapin and terrapin habitat:

- a. All construction personnel working within Northern diamondback terrapin habitat must be apprised of the species description and the possible presence of this listed species.
- b. Exclusionary practices will be required in order to prevent any Northern diamondback terrapin access to construction areas. These measures will need to be installed at the limits of disturbance as shown on the plans.

Brief description of the species and its habitat-

Direction to the Contractor that OEP must be brought in to discuss commitments made –prior to any work

Detailed protection measures with TOY



HOW THIS WORKS

- The Section 1.10 Specifications are *Standard Specifications included in the Departments FORM 817 “Standard Specifications for Roads, Bridges and Incidental Construction.”*
- All specs are reviewed per project and included into the projects contract.
- These specs are then reviewed at each individual projects Pre-Construction meeting held with the Contractor and the CTDOT.





ID SHEETS FOR CONSTRUCTION TRAILERS/WORKERS



Timber Rattlesnake **VENEMOUS: DO NOT APPROACH** Connecticut Endangered Species

Scientific Name: *Crotalus horridus*
Size: Adults: 36-54 inches (91.4-136.2 cm) in length

Habitat Type:
Deciduous forests (often second growth) in rugged terrain with steep ledges, rock slide nearby water supply. Dens are usually located in rocky ledges. This is an upland snake occurring 500 feet or more above sea level.

Coloration:

- Three color variations (yellow, black, brown) which have black or brown crossbands or brown or gray background.
- The crossbands, which may be V-shaped, break up toward the head to form a row of d down the back and on each side.
- The darker variants have heavy speckling of black or very dark spots (black or very dark which hides much of the lighter pigment).

Characteristics:

- Heavy bodied upland snake.
- Distinctive, segmented rattle at the tip of the tail
- Both sexes are similar, although the males have longer tails (not rattles).
- Vertical eye pupils.
- Large heat-sensing pits between the eyes and nostrils.
- A flattened, unmarked, triangular head about twice the size of the neck.
- Raised ridge (known as a keel) in the center of each scale, making the skin appear rough.

CAUTION

If you encounter a timber rattlesnake, observe it from a distance, calmly and slowly be from it, and allow the snake to go on its way. Quick movements often scare snakes and provoke a defensive strike. You should not try to agitate the snake by getting too close handling it. Rattlesnakes will usually let you know if you are getting too close. All snakes retreat from humans if given a chance.

If any timber rattlesnakes are observed in or around the project area the Office of Envi Planning must be notified at 860-594-2937 or 860-594-2938. If OEP staff cannot be reached at the above referenced phone numbers, the District environmental coordinator must be contacted to facilitate further coordination with OEP's Water and Noise Compliance Unit.



Northern Diamondback Terrapin Connecticut Species of Special Concern

Scientific Name: *Malaclemys t. terrapin*
Size: Males: 4-5.5 inches (10.2-14 cm) in length
Females: 6-9 inches (15.2-22.9 cm) in length

Habitat Type:

The Northern diamondback terrapin is the only species of turtle in North America, including Connecticut, that spends its life in brackish water (water that is less salty than sea water) which includes salt marshes, estuaries and tidal creeks. They hibernates in the water submerged in the mud of tidal creeks. If a safety boat or barge is to be used, be cognizant of turtles possibly mating within the project area and proceed slowly when in tidal areas. Nests are constructed on the sandy borders of salt marshes and in dunes.

Coloration:

- The terrapin has both a dark and light variation. Both variations have carapaces (top of shell) patterned with concentric rings or ridges.
 - The dark variant has a completely black carapace (top of shell) with a yellow to off-white plastron (bottom chest plate). Their heads are gray to off-white with small black spots or streaks and their legs are dark gray to black.
 - The lighter variant has a gray to light brown carapace with yellow to greenish gray plastrons. Their heads are gray with small pepper-like gray spots and their legs are gray.
- The plastron may or may not be marked with bold, dark markings.
- The limbs and head may be spotted.
- Hatchlings are patterned similar to adults, but are brighter.

Characteristics:

- Small marine turtle. They spend their entire lives in a brackish environment.
- The carapace is wedge-shaped when viewed from above, with the widest part in the rear.
- They have large webbed feet.

If any Northern diamondback terrapins are observed in or around the project area, the Office of Environmental Planning (OEP) must be notified at 860-594-2937 or 860-594-2938. If OEP staff cannot be reached at either of the above referenced phone numbers, the District Environmental Coordinator will need to be contacted to facilitate further coordination with OEP's Water and Noise Compliance Unit.



PEREGRINE FALCON Connecticut Threatened Species

Protective Legislation: Federal - Migratory Bird Treaty Act of 1918. State - Connecticut General Statutes Sec. 26-311.

Scientific Name: *Falco peregrinus*
Size: 15-20 inches (38.1-50.8 cm) in length
Wingspan: 43-46 inches (109.2-116.8 cm)

Habitat Type:

Open country, from coastal lowlands to mountainous high country. High perches in urban areas, bridges and billboards.

Coloration:

- Adult peregrine falcons have long, pointed wings and a long, rounded tail with narrow, black bands, ending with a broad, dark band tipped with white.
- The barred upperparts are blue-gray, while the underparts are white to light buff and cross-banded with brown.
- The black crown and nape extend to the cheeks, forming a distinct black helmet.
- The feet are yellow.
- Immature peregrines are similar, but the back and underparts are brown and the throat is heavily streaked with brown.
- Both adult and immature peregrines have a bold, dark, vertical whisker-like mark (moustache mark) on the sides of the head.

Characteristics:

- Long-winged, medium-sized bird of prey.
- Call: A rasping kack-kack-kack. Also a long ascending wail, WEE-chew-WEE-chew.
- Typical Nesting Period: April through July.
- Nest sites are located above open areas consisting of a hollow, unlined scrape on a cliff, ledge or rocky outcrop. There are falcon nest boxes (top, right photo) located on bridges across Connecticut. Abandoned hawk or raven nests may also be used.
- Pairs may use the same nest site for years.

The peregrine falcon is a highly vocal and aggressive bird. Falcons pose a threat to anyone working around the nest area. Falcons will actively defend their nests by swooping and diving at predators. Falcons are capable of plunging from tremendous heights at speeds estimated at over 180 miles per hour. This is their preferred method of hunting. Falcons have sharp talons for grasping and holding prey and should not be approached or handled. It is required that there be no harassment, intentional or unintentional, to any falcons under state and federal law.

If any peregrine falcons are observed in or around the project area the Office of Environmental Planning (OEP) must be notified at 860-594-2937 or 860-594-2938. If OEP staff cannot be reached at either of the above referenced phone numbers, the District environmental coordinator will need to be contacted to facilitate further coordination with OEP's Water and Noise Compliance Unit.



SUMMER 2018 HIGHLIGHTS



OEP is actively involved in the protection, relocation, monitoring, survey, and reporting of 4 State Endangered plants and 1 State Threatened Plant.



CTDOT 15-336 SIKORSKY AIRPORT



- Project to relocate Route 113 for installation of an EMAS system to comply with FAA safety standards.
- Numerous state listed species were surveyed for and some where impacted.
- State Endangered Coastal Violet (*Viola brittoniana*) --OEP replanted 200 plants grown by the New England Wildflower Society from seed collected by OEP in 2016 back at the Sikorsky Airport to complete the modified Incidental Take Report project commitments issued in 2016.





CTDOT 4-116/118



- State Threatened Davis' Sedge (*Carex davisii*)- OEP staff relocated over 500 individual plants as well as an additional 300 State Special Concern Virginia Waterleaf (*Hydrophyllum virginianum*) for an upcoming project in Avon. This was a condition of an Incidental Take Permit issued in 2016.





SPECIES HIGHLIGHT

PEREGRINE FALCON



- 16 known peregrine nesting sites on state owned structures - currently 9 sites are active
- 3 nesting boxes currently in place/ 2 currently active
- 3 current Dept. projects include nesting boxes to be installed

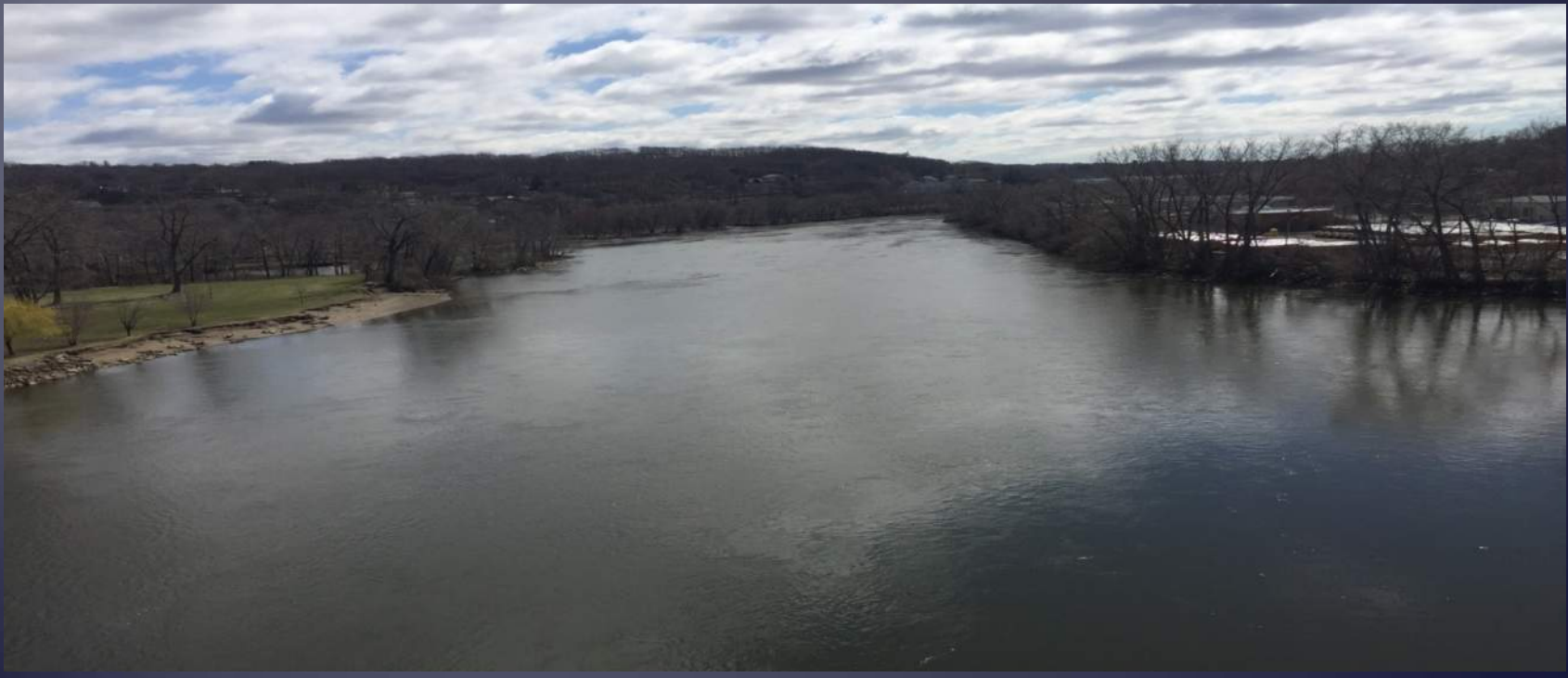




PEREGRINE VANTAGE POINT ROUTE 8 OVER THE HOUSATONIC RIVER -DERBY



- 2016 unknown active nest found with 4 chicks
- Chicks were removed and brought to a rehabilitator
- CTDOT has a large rehab for this structure in Design





2016 CHICK REMOVAL





2016 RELEASE



- Released onsite later that summer





PRO-ACTIVE MEASURES





2018 NESTING





TEMPORARY BOX CONSTRUCTION





TEMPORARY BOX INSTALLATION





SUCCESS !



- One chick was successfully fledged from the temporary structure
- After fledging the temporary box was removed –it will be reinstalled prior to the 2019 nesting season
- After construction is completed a permanent box will be installed to provide this pair a safe nesting area in the future



Any Questions?