

## **Connecticut Department of Energy and Environmental Protection License\***

**Flood Management Certification Approval** 

Licensee(s):	CTDEEP (State Parks Division)
Licensee Address(s):	79 Elm St
	Hartford, CT 06106
License Numb <mark>er(s):</mark>	202309045-FM
Municipality:	Haddam
<b>Project Description:</b>	In-kind replacement of a deteriorated fishing pier at Eagle
	Landing State Park, as an off-site mitigation measure for Amtrak's replacement of Bridge MB 106.89 over the CT River
Project Address/Location:	14 Little Meadow Rd, Haddam, CT 06438
Waters:	Connecticut River
Authorizing CT Statute(s)	CGS Section 25-68b to h
and/or Federal Law:	4 ENVIR
Applicable Regulations of	25-68h-1 to 3
<b>CT State Agencies:</b>	
Agency Contact:	Land & Water Resources Division,
	Bureau of Water Protection & Land Reuse, 860-424-3019
License Expiration:	Five (5) years from the date of issuance of this license.
Project Site Plan Set:	11 sheets of Plans Titled "Replacement of MB 106.89 Over
	Connecticut River: Eagle Landing Fishing Pier Reconstruction for
	Mitigation Haddam, Connecticut," Prepared by Hardesty &
	Hanover, LLC Engineering, dated October 13, 2023
License Enclosures:	LWRD General Conditions; Site Plan Set; LWRD Compliance Certification Form; NDDB Determination No. 202305135

\*Connecticut's Uniform Administrative Procedure Act defines License to include, "the whole or part of any agency permit, certificate, approval, registration, charter or similar form of permission required by law..."

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## **Authorized Activities:**

The Licensee is hereby authorized to conduct the following work as described in application # 202309045 and as depicted on any site plan sheets / sets cited herein:

- 1. In-kind replacement of the southernmost fishing pier at Eagle Landing State Park in Haddam, per site plans cited herein as follows:
  - a. mobilize, clear site, and set up temporary environmental and security safeguards, to remain in place until location is stabilized;
  - b. installation of fencing and protection measures for existing conduit/piping to be protected;
  - c. disconnect and remove existing electrical conduit, demolish existing fishing pier, and remove existing timber piles 2-ft below mudline (minimum);
  - d. demolish existing approach walkways;
  - e. drive new timber piles for proposed fishing pier 3-ft from existing pile locations and construct new fishing pier per site plans cited herein;
  - f. install electrical conduit and reconnect electrical service to the fishing pier;
  - g. prepare subbase, form, and pour proposed realigned concrete landing and bituminous walkways; and
  - h. remove temporary construction facilities and restore site in accordance with the requirements of the project specifications and in conformance with project environmental permits.

# Failure to comply with the terms and conditions of this license shall subject the Licensee and / or the Licensee's contractor(s) to enforcement actions and penalties as provided by law.

## This license is subject to the following Terms and Conditions:

- 1. License Enclosure(s) and Conditions. The Licensee shall comply with all applicable terms and conditions as may be stipulated within the License Enclosure(s) listed above.
- 2. **Time of Year Restrictions.** The licensee shall ensure the following time of year restrictions are followed per DEEP Fisheries.
  - a. All unconfined in-stream work shall be restricted to the period of July 1<sup>st</sup> to September 30<sup>th</sup>, inclusive.
  - b. In-water work will be confined within turbidity curtains to protect fisheries resources from April 1<sup>st</sup> to June 30<sup>th</sup>.
  - c. To protect fish during their migration all pile driving below MHW should be prohibited during the period from April 1<sup>st</sup> to June 30<sup>th</sup>, inclusive.
  - d. All pile driving to the extent practicable shall be performed with vibratory hammers during the period from May 1<sup>st</sup> to October 1<sup>st</sup>, inclusive to prevent acoustical injury to Atlantic and Short nose Sturgeon.

- i. Should pile driving with impact hammers be required during this period, a "soft start" shall be implemented. A soft start is defined as a low-energy start-up which builds over a period of 20-40 minutes to provide adequate time for fish to leave the area.
- 3. Endangered and Threatened Species Requirements. The Licensee shall conduct work in accordance with mitigation measures identified in NDDB Final Determination #202305135 dated August 7, 2023, attached hereto.
- 4. **Associated License Conditions.** The Licensee shall adhere to all special condition imposed under this authorization and any subsequent authorizations associated with the proposed project.

Issued under the authority of the Commissioner of Energy and Environmental Protection on:

February 27, 2024

Date

Brian P. Thompson Division Director Land & Water Resources Division



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## **LWRD General Conditions**

- 1. Land Record Filing (for Structures Dredging & Fill, Tidal Wetlands, Certificate of Permission, and Long Island Sound General Permit Licenses only). The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to <u>DEEP.LWRDRegulatory@ct.gov</u> no later than sixty (60) days after license issuance. If a Land Record Filing form is not enclosed and the work site is not associated with an upland property, no filing is required.
- 2. Contractor Notification. The Licensee shall give a copy of the license and its attachments to the contractor(s) who will be carrying out the authorized activities prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The Licensee's contractor(s) shall conduct all operations at the site in full compliance with the license and, to the extent provided by law, may be held liable for any violation of the terms and conditions of the license. At the work site, the contractor(s) shall, whenever work is being performed, have on site and make available for inspection a copy of the license and the authorized plans.
- **3.** Work Commencement<sup>1</sup>. Not later than two (2) weeks prior to the commencement of any work authorized herein, the Licensee shall submit to <u>DEEP.LWRDRegulatory@ct.gov</u>, on the Work Commencement Form attached hereto, the name(s) and address(es) of all contractor(s) employed to conduct such work and the expected date for commencement and completion of such work, if any.
  - For water diversion activities authorized pursuant to 22a-377(c)-1 of the Regulations of Connecticut State Agencies, the Licensee shall also notify the Commissioner in writing two weeks prior to initiating the authorized diversion.
  - For emergency activities authorized pursuant Connecticut General Statutes Section 22a-6k, the Licensee shall notify the Commissioner, in writing, of activity commencement at least one (1) day prior to construction and of activity completion no later than five (5) days after conclusion.
- 4. For Coastal Licenses Only License Notice. The Licensee shall post the first page of the License in a conspicuous place at the work area while the work authorized therein is undertaken.
- 5. Unauthorized Activities. Except as specifically authorized, no equipment or material, including but not limited to, fill, construction materials, excavated material or debris, shall be

<sup>&</sup>lt;sup>1</sup> The Work Commencement condition and the need for a Work Commencement Form is not applicable to Flood Management Certification approvals.

deposited, placed or stored in any wetland or watercourse on or off-site. The Licensee may not conduct work within wetlands or watercourses other than as specifically authorized, unless otherwise authorized in writing by the Commissioner. Tidal wetlands means "wetland" as defined by section 22a-29 and "freshwater wetlands and watercourses" means "wetlands" and "watercourses" as defined by section 22a-38.

- 6. Management of Materials. Any materials removed from the site shall be managed in accordance with all federal, state, and local requirements, including Chapter 446K Water Pollution Control, Chapter 445 Hazardous Waste, and Chapter 446d Solid Waste of the Connecticut General Statutes.
- 7. Unconfined Instream Work. Unless otherwise noted in a condition of the license, the following conditions apply to projects in non-coastal waters:
  - Unconfined instream work is limited to the period June 1 through September 30.
  - Confinement of a work area by cofferdam techniques using sand bag placement, sheet pile installation (vibratory method only), portadam, or similar confinement devices is allowed any time of the year. The removal of such confinement devices is allowed any time of the year.
  - Once a work area has been confined, in-water work within the confined area is allowed any time of the year.
  - The confinement technique used shall completely isolate and protect the confined area from all flowing water. The use of silt boom/curtain or similar technique as a means for confinement is prohibited.
- 8. For State Actions Only Material or Equipment Storage in the Floodplain. Unless approved by a Flood Management Exemption, the storage of any materials at the site which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or which could in the event of a flood be injurious to human, animal or plant life, below the elevation of the five-hundred (500) year flood is prohibited. Any other material or equipment stored at the site below said elevation by the Licensee or the Licensee's contractor must be firmly anchored, restrained or enclosed to prevent flotation. The quantity of fuel stored below such elevation for equipment used at the site shall not exceed the quantity of fuel that is expected to be used by such equipment in one day. In accordance with the licensee's Flood Contingency Plan, the Licensee shall remove equipment and materials from the floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the Licensee's responsibility to obtain such warnings when flooding is anticipated.
- **9.** Temporary Hydraulic Facilities for Water Handling. If not reviewed and approved as a part of the license application, temporary hydraulic facilities shall be designed by a qualified professional and in accordance with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, the 2004 Connecticut Stormwater Quality Manual, or the Department of Transportation's ConnDOT Drainage Manual, as applicable. Temporary hydraulic facilities may include channels, culverts or bridges which are required for haul roads, channel relocations, culvert installations, bridge construction, temporary roads, or detours.

- **10. Excavated Materials.** Unless otherwise authorized, all excavated material shall be staged and managed in a manner which prevents additional impacts to wetlands and watercourses.
- **11. Best Management Practices.** The Licensee shall not cause or allow pollution of any wetlands or watercourses, including pollution resulting from sedimentation and erosion. In constructing or maintaining any authorized structure or facility or conducting any authorized activity, or in removing any such structure or facility, the Licensee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. For purposes of the license, "pollution" means "pollution" as that term is defined by CGS section 22a-423. Best Management Practices include, but are not limited, to practices identified in the *Connecticut Guidelines for Soil Erosion and Sediment Control* as revised, 2004 Connecticut Stormwater Quality Manual, Department of Transportation's ConnDOT Drainage Manual as revised, and the Department of Transportation Standard Specifications as revised.
- 12. In-Water Work Vessel Staging and Storage. (for Structures Dredging & Fill, Tidal *Wetlands, Certificate of Permission*, and *Long Island Sound General Permit* Licenses only). For any barge, vessel, skiff or floating work platform ("work vessels") utilized in the execution of the work authorized herein, the Licensee shall ensure that such work vessels:
  - do not rest on, or come in contact with, the substrate at any time, unless specifically authorized in the license.
  - are not stored over intertidal flats, submerged aquatic vegetation or tidal wetland vegetation or in a location that interferes with navigation. In the event any work vessel is grounded, no dragging or prop dredging shall occur to free it.
- **13. Work Site Restoration.** Upon completion of any authorized work, the Licensee shall restore all areas impacted by construction, or used as a staging area or accessway in connection with such work, to their condition prior to the commencement of such work.
- **14. Inspection.** The Licensee shall allow any representative of the Commissioner to inspect the project location at reasonable times to ensure that work is being or has been conducted in accordance with the terms and conditions of this license.

## 15. Change of Use. (Applies only if a use is specified within the License "Project Description")

- a. The work specified in the license is authorized solely for the purpose set forth in the license. No change in purpose or use of the authorized work or facilities as set forth in the license may occur without the prior written approval of the Commissioner. The Licensee shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this license, request permission from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.
- b. A change in the form of ownership of any structure authorized herein from a rental/lease commercial marina to a wholly-owned common interest community or dockominium may constitute a change in purpose as specified in paragraph (a) above.
- 16. De Minimis Alteration. The Licensee shall not deviate from the authorized activity without

prior written approval from the Commissioner. The Licensee may request a de minimis change to any authorized structure, facility, or activity. A de minimis alteration means a change in the authorized design, construction or operation that individually and cumulatively has minimal additional environmental impact and does not substantively alter the project as authorized.

- For diversion activities authorized pursuant to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, a de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.
- 17. Extension Request. The Licensee may request an extension of the license expiration date. Such request shall be in writing and shall be submitted to <u>DEEP.LWRDRegulatory@ct.gov</u> at least thirty (30) days prior to the license expiration. Such request shall describe the work done to date, what work still needs to be completed, and the reason for such extension. The Commissioner may extend the expiration date of this license for a period of up to one year, in order for the Licensee to complete the authorized activities. It shall be at the Commissioner's sole discretion to grant or deny such request. No more than three (3) one-year extensions will be granted under this license.
- **18. Compliance Certification.** Not later than 90 days after completion of the authorized work, the Licensee shall prepare and submit to <u>DEEP.LWRDRegulatory@ct.gov</u>, the attached Compliance Certification Form. Such Compliance Certification shall be completed, signed, and sealed by the Licensee and a Connecticut Licensed Design Professional. If non-compliance is indicated on the form, or the Commissioner has reason to believe the activities and/or structures were conducted in non-compliance with the license, the Commissioner may require the Licensee to submit as-built plans as a condition of this license.
- **19. Maintenance.** The Licensee shall maintain all authorized structures or work in optimal condition or shall remove such structures or facility and restore the affected waters to their prework condition. Any such maintenance or removal activity shall be conducted in accordance with applicable law and any additional approvals required by law.
- **20. No Work After License Expiration.** Work conducted after the license expiration date is a violation of the license and may subject the licensee to enforcement action, including penalties, as provided by law.
- **21. License Transfer.** The license is not transferable without prior written authorization of the Commissioner. A request to transfer a license shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Licensee's obligations under the license shall not be affected by the passage of title to the license site to any other person or municipality until such time as a transfer is approved by the Commissioner.
- **22. Document Submission.** Any document required to be submitted to the Commissioner under the license or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:

DEEP.LWRDRegulatory@ct.gov or

Regulatory Section Land & Water Resources Division Department of Energy and Environmental Protection 79 Elm Street Hartford, Connecticut 06106-5127 860-424-3019

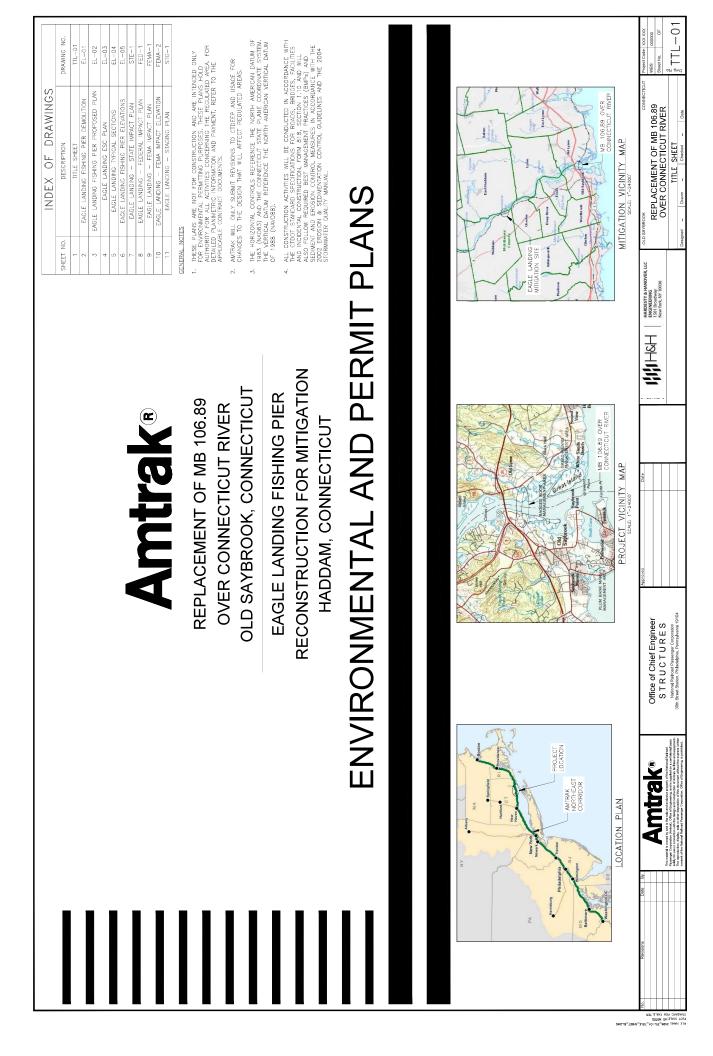
- **23. Date of Document Submission.** The date of submission to the Commissioner of any document required by the license shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under the license, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in the license, the word "day" as used in the license means calendar day. Any document or action which is required by the license to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or a Connecticut or federal holiday.
- 24. Certification of Documents. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under the license shall be signed by the Licensee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense."
- **25.** Accuracy of Documentation. In evaluating the application for the license, the Commissioner has relied on information and data provided by the Licensee and on the Licensee's representations concerning site conditions, design specifications and the proposed work, including but not limited to representations concerning the commercial, public or private nature of the work or structures, the water-dependency of said work or structures, its availability for access by the general public, and the ownership of regulated structures or filled areas. If such information proves to be false, deceptive, incomplete or inaccurate, the license may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.
- **26. Limits of Liability.** In granting the license, the Commissioner has relied on all representations of the Licensee, including information and data provided in support of the Licensee's application. Neither the Licensee's representations nor the issuance of the license shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.
- 27. Reporting of Violations. In the event that the Licensee becomes aware that they did not or may not comply, or did not or may not comply on time, with any provision of this license or of any document incorporated into the license, the Licensee shall immediately notify the

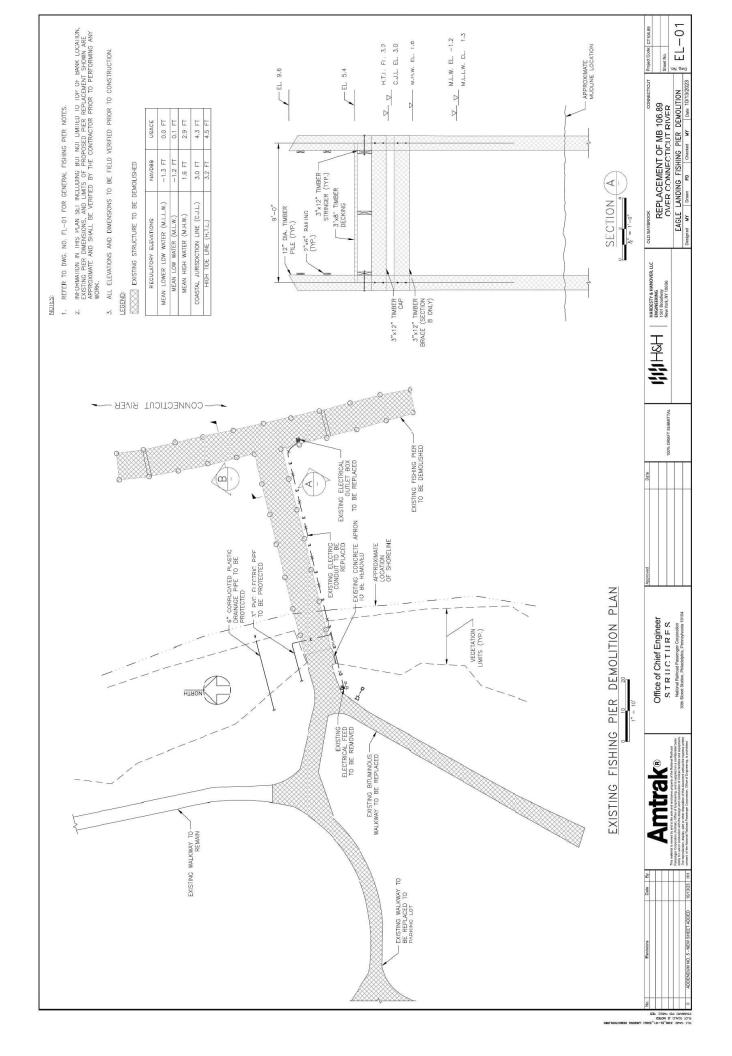
agency contact specified within the license and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the agency contact, the Licensee shall provide, for the agency's review and written approval, a report including the following information:

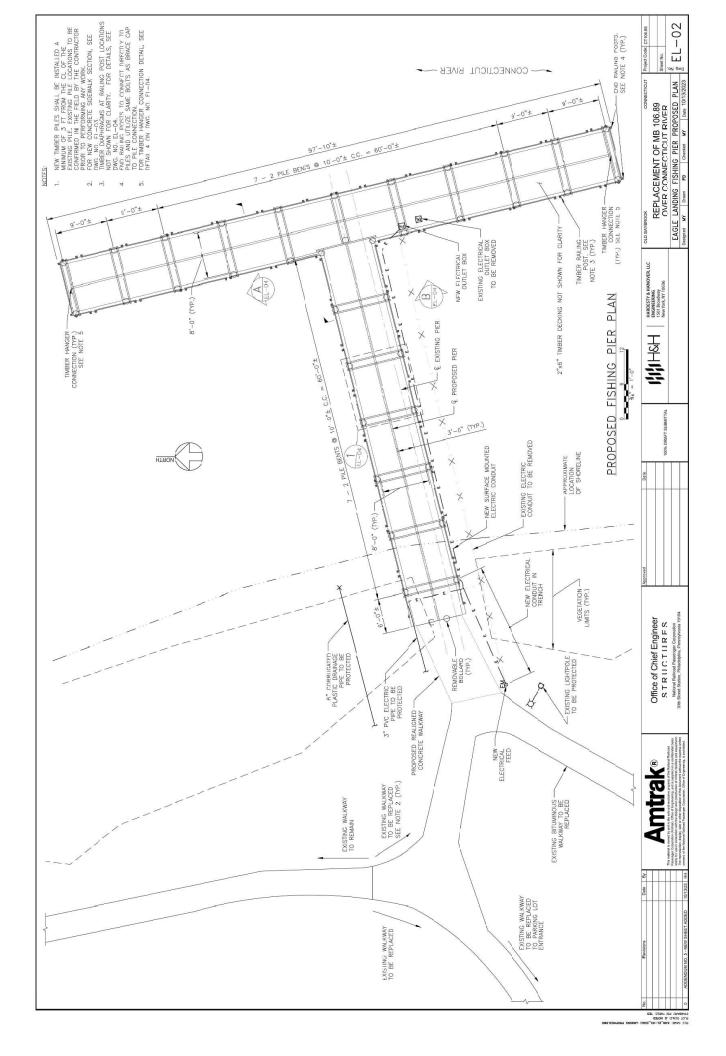
- a. the provision(s) of the license that has been violated;
- b. the date and time the violation(s) was first observed and by whom;
- c. the cause of the violation(s), if known;
- d. if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;
- e. if the violation(s) has not ceased, the anticipated date when it will be corrected;
- f. steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented; and
- g. the signatures of the Licensee and of the individual(s) responsible for actually preparing such report.

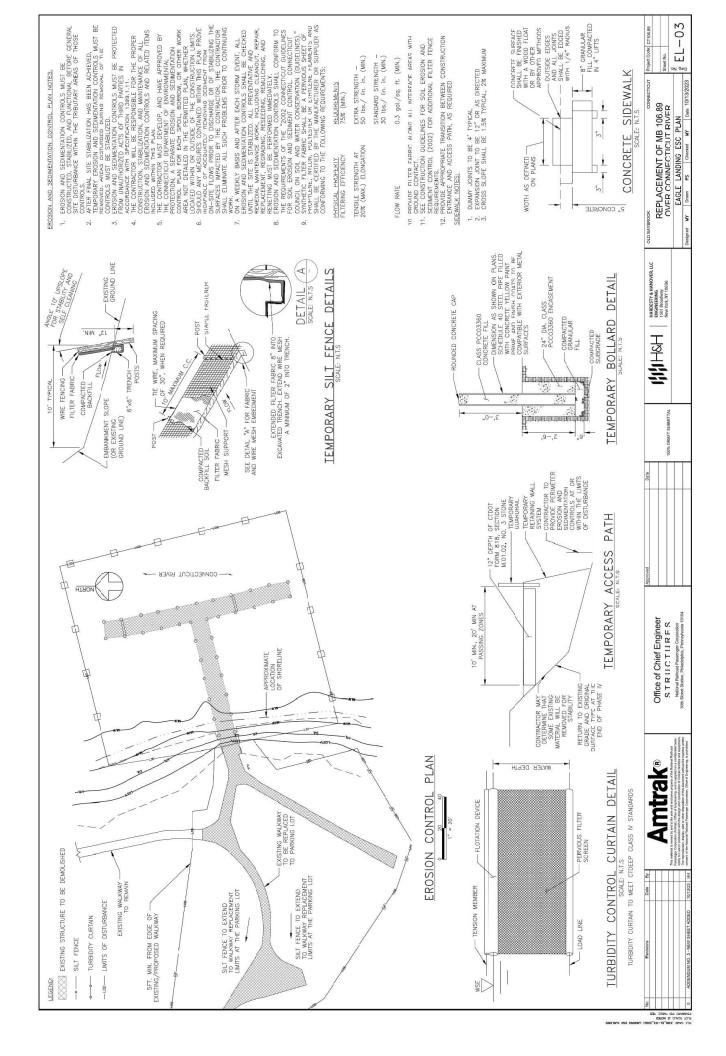
If the violation occurs outside of normal business hours, the Licensee shall contact the Department of Energy and Environmental Protection Emergency Dispatch at 860-424-3333. The Licensee shall comply with any dates which may be approved in writing by the Commissioner.

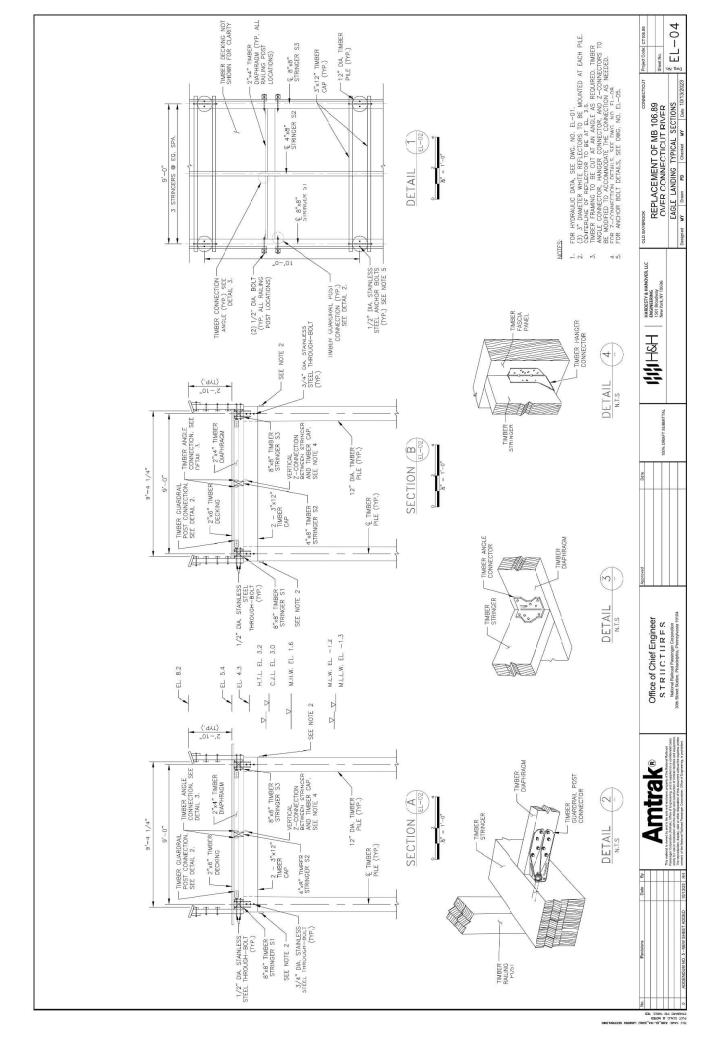
- **28. Revocation/Suspension/Modification.** The license may be revoked, suspended, or modified in accordance with applicable law.
- **29. Other Required Approvals.** License issuance does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, state and local law.
- **30. Rights.** The license is subject to and does not derogate any present or future property rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the property or activity affected hereby.
- **31. Condition Conflicts.** In the case where a project specific special condition listed on the license differs from, or conflicts with, one of the general conditions listed herein, the project specific special condition language shall prevail. It is the licensee's responsibility to contact the agency contact person listed on the license for clarification if needed prior to conducting any further regulated activities.

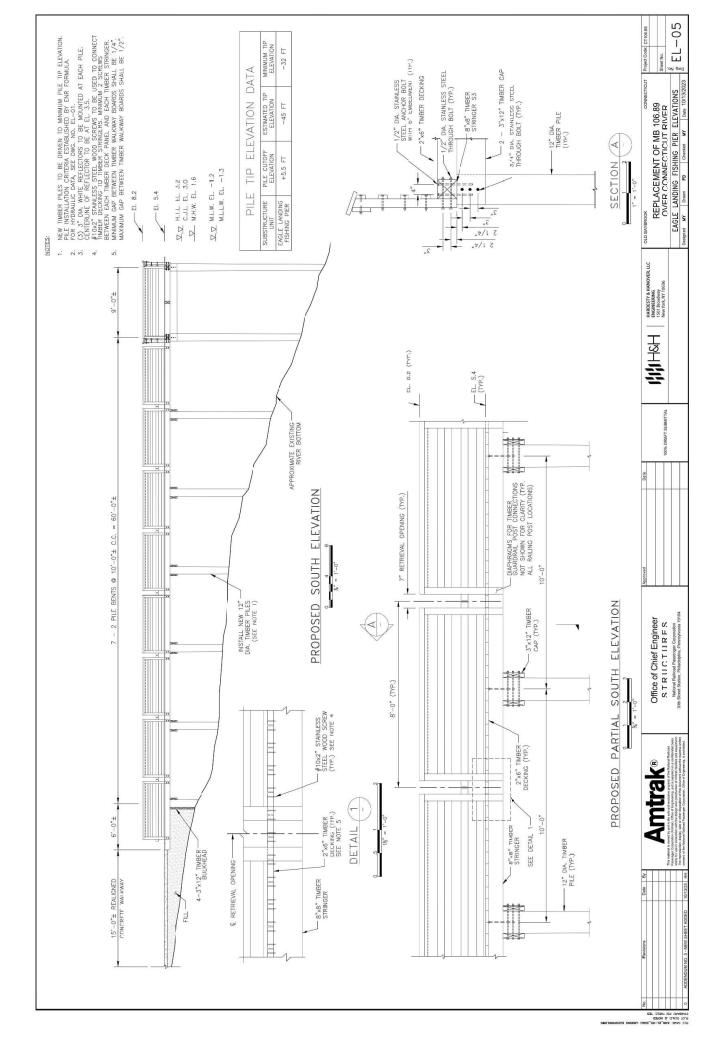


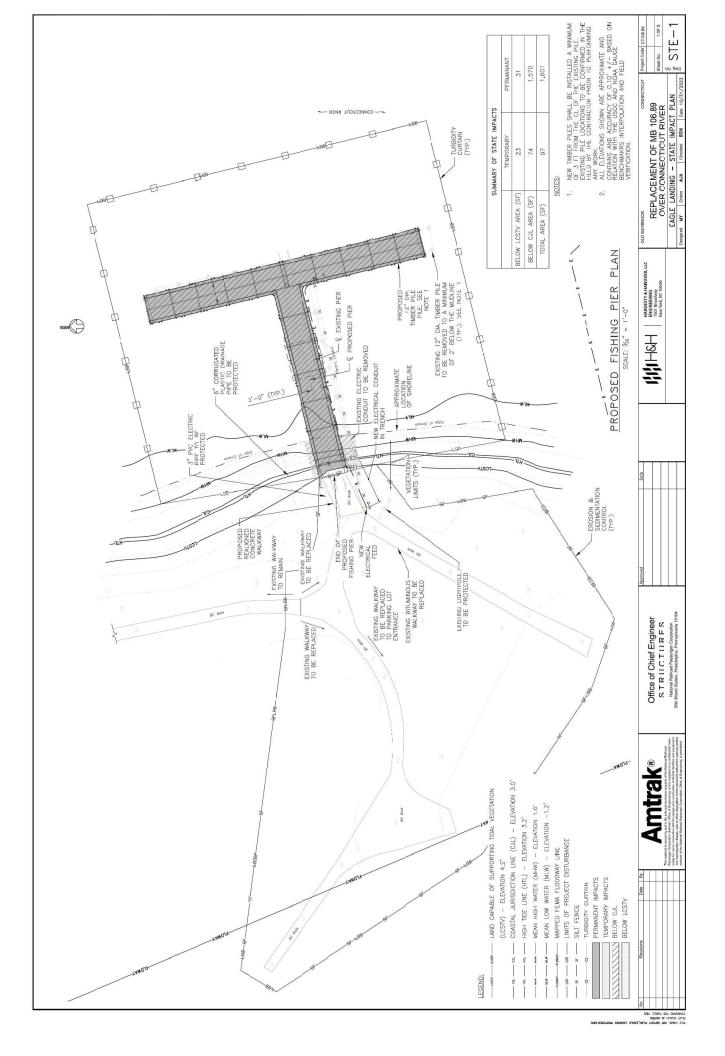


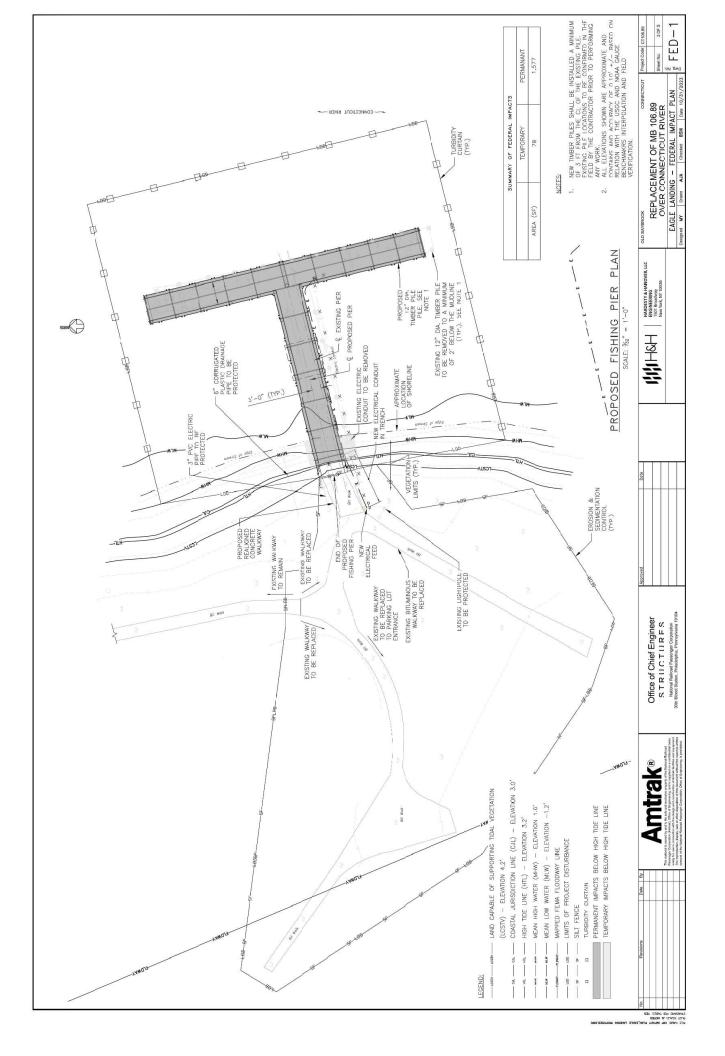


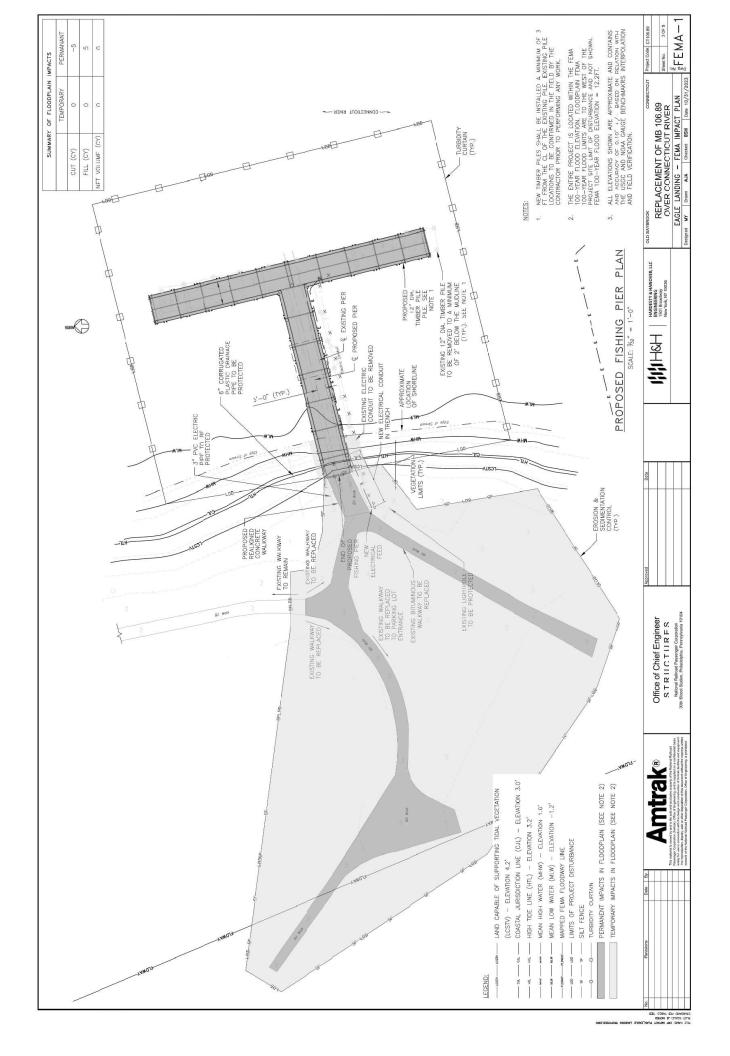


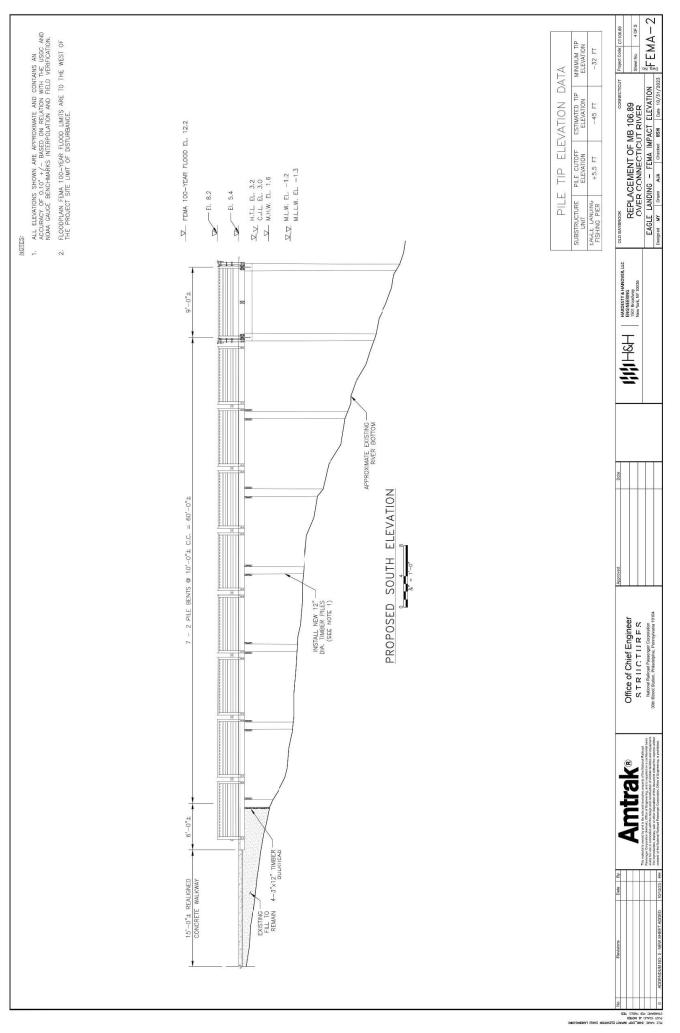


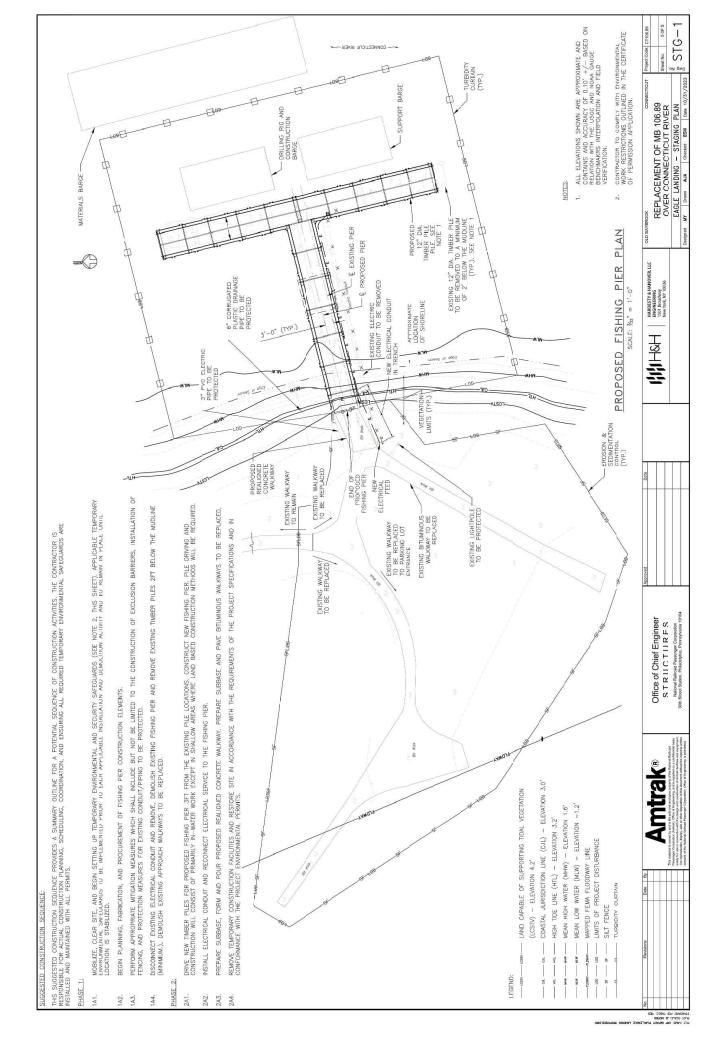














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## **Compliance Certification Form**

The following certification must be signed by the licensee working in consultation with a Connecticut-licensed design professional and must be submitted to the address indicated at the end of this form within ninety (90) days of completion of the authorized work.

1. Licensee Name: CT DEEP, State Parks Division		
DEEP License Number(s): <u>202309045-FM</u>		
Municipality in which project is occurring:Haddam		
2. Check one:		
(a) (i) "I certify that the final site conditions and / or structures are in general conformance with the approved site plans". Identify and describe any deviations and attach to this form.		
(b)		
3. "I understand that any false statement in this certification is punishable as a criminal offence under section 53a-		
157b of the General Statutes and under any other applicable law."		
Signature of Licensee Date		
Name of Licensee (print or type)		
Signature of CT-Licensed Design Professional Date		
Name of CT-Licensed Design Professional (print or type)		
Professional License Number (if applicable) Affix Stamp Here		
<ul> <li>As-built plans shall include: elevations or tidal datums, as applicable, and structures, including any proposed elevation views and cross sections included in the approved license plans. Such as-built plans shall be the original ones and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut.</li> </ul>		
• The Licensee will be notified by staff of the Land and Water Resources Division (LWRD) if further compliance review is necessary. Lack of response by LWRD staff does not imply compliance.		
Submit this completed form to :		
DEEP.LWRDRegulatory@ct.gov or Regulatory Section		
Department of Energy and Environmental Protection		
Land & Water Resources Division 79 Elm Street		
Hartford, CT 06106-5127		



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August 7, 2023

Ryan Apanovitch AECOM Technical Services, Inc. 500 Enterprise Drive Rocky Hill, CT 06067 <u>Ryan.apanovitch@aecom.com</u>

Project: In-Kind Eagle Landing Fishing Pier Replacement as Part of Mitigation for Connecticut River Amtrak Bridge (Old Lyme and Lyme) in Eagle Landing State Park at 14 Little Meadow Road in Haddam, Connecticut NDDB Portal Filing No.: 98663
NDDB Determination No.: 202305135
Expiration Date: August 7, 2025

#### Dear Ryan Apanovitch,

According to our records, the following State-listed species (RCSA Sec. 26-306) have been documented in close proximity and may occur within the proposed project area for the In-Kind Eagle Landing Fishing Pier Replacement as Part of Mitigation for Connecticut River Amtrak Bridge (Old Lyme and Lyme) in Eagle Landing State Park at 14 Little Meadow Road in Haddam:

#### **Reptiles and Amphibians**

- Atlantic coast leopard Frog (Rana kaufauldii) Protection Status: \*Proposed as Endangered
- Eastern Box Turtle (Terrapene carolina carolina) Protection Status: State Special Concern
- Mudpuppy (*Necturus maculosus*) Protection Status: State Special Concern

#### Dragonfly

- Riverine clubtail (Stylurua amnicola) Protection Status: State Threatened
- Cobra clubtail (Gomphus vastus) Protection Status: State Threatened

#### Tiger Beetle

• Hairy-necked tiger beetle (Cincindela hirticollis) Protection Status: State Special Concern

#### Freshwater Mussel and Snail

- Eastern pondmussel (Ligumia nasuta) Protection Status: State Special Concern
- Tidewater mucket (Leptodea ochracea) Protection Status: State Special Concern
- Woodland pondsnail (Stagnicola catascopium) Protection Status: State Special Concern

#### Fish

- Shortnose sturgeon (Acipenser brevirostrum) Protection Status: Federal and State Endangered
- Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) Protection Status: Federal and State Endangered
- Blueback herring (Alosa aestivalis) Protection Status: State Special Concern

#### **Protection for State Listed Fish Species**

Please be advised that a DEEP Fisheries Biologist will review the permit applications you may submit to DEEP regulatory programs to determine if your project could adversely affect list fish species. DEEP Fisheries Biologists are routinely involved in pre-application consultations with regulatory staff and applicants in order to identify potential fisheries issues and work with applicants to mitigate negative effects, including to endangered species. If you have not already talked with a Fisheries Biologist about your project, you may contact the Permit Analyst

assigned to process your application for further information, including the contact information for the Fisheries Biologist assigned to review your application.

#### **Protection for Tiger Beetle**

The hairy-necked tiger beetle species occupies sandy soils with open patches of xeric (dry), loose shifting sands, without water that are sparsely vegetated.

To avoid impact to these species:

- Avoid impact to sandy areas of the project property.
- Outside of area of impact- apply management efforts that would preserve, maintain, or restore sandy habitat with patches of open sand and areas of sparse vegetation

#### **Protection for Dragonfly Species**

The Riverine clubtail and Cobra clubtail require trees along the river/brook, especially tree stumps above the water line to provide important emergence sites for the larvae to crawl on to and turn into adults. The adults spend the majority of their lives in the tree canopy. The aquatic nymph stage requires fine sand deposits. Activities that alter the physical or chemical nature of the aquatic habitat, cause siltation or any source of pollution will be detrimental. Avoid disturbing riverbed or removing riparian vegetation. The emergence and flight period for this species occurs primarily between June 5- July 31.

You will need to develop a protection plan designed to minimize adverse effects on the listed dragonfly in this location. This plan should be developed by an invertebrate biologist specializing in dragonflies. The Wildlife Division does not maintain a list of invertebrate biologists in the state. The plan must be sent to the NDDB Program (<u>deep.nddbrequest@ct.gov</u>) before any in-water work may begin. Once you settle on a dragonfly expert, please let our program know.

The dragonfly management plan must include:

- a. Anticipated impacts to dragonflies
- b. Planned mitigation or management practices that will be employed
- c. Habitat descriptions

d. Statement/resume giving the biologist's qualifications

#### Incomplete reports or unqualified biologists may not be accepted.

The following general considerations will benefit these species:

- Adhere strictly to water quality standards at your project site.
- Pay special attention and address specific monitoring targets for sediment, pH, water temperature, and water levels.
- Avoid changing water level fluctuations of streams and ponds outside of natural conditions and patterns.
- No vegetation should be removed from the 100ft buffer of waterways.

• Disturbance and traffic through shorelines should be minimized. Species sensitive areas should be delineated and protected from disturbance. Disturbance can occur through direct activity along shorelines as well as from indirect wave action from motorboats.

• In the surrounding watershed, turf grass and impervious surface should be minimized. This will protect water quality as well as provide foraging and roosting habitat for adults.

• Take action to reduce non-point source pollution and educate the surrounding community about how to reduce non-point source pollution. More information can be found in our resources for Low Impact Development here: • www.ct.gov/deep/cwp/view.asp?a=2719&q=464958&deepNav GID=1654

Vegetation cover within a kilometer of natal grounds is vital for adult foraging and shelter, especially for females who are driven from natal sites during emergence and flight periods.

- Protect the vegetation within the 100ft wetland buffer to protect water quality and natal site suitability.
- Outside of the 100ft Wetland buffer:

• Substantial vegetation removal should not be conducted during the primary emergence and flight period for this species.

Water quality targets for waterways that contain this species:

- Water levels should not fluctuate beyond natural variation as a result of any water diversions or water discharge
- Turbidity should not increase 8 NTU over background levels

- Maximum induced suspended sediments in any 24-hour period should be less than 25mg/L over background levels
- Induced suspended sediments averaged over 30-day period should be less than 5mg/L over background levels
- Water temperature should not increase 1° C (~1.8°F)
- pH should remain within natural range

Use best management practices available to control storm water runoff from this site both during construction and after construction: Qualified Environmental Inspector(s) shall be on-site daily during

the duration of construction, weekly during stabilization, and within 24 hours of storm events with 0.5 inches of precipitation or more to inspect sedimentation and erosion controls to ensure that they continue to function as intended. Stock-piled soils should be situated at least 10 feet from the watercourse and within sedimentation and erosion control devices.

#### **Protection for Reptiles and Amphibians**

#### Atlantic coast leopard frog

The State Endangered Atlantic coast leopard frog was recently discovered in Connecticut and is thought to have declined precipitously in New York, including vanishing from Long Island. A handful of populations remain in the lower Hudson Valley and on Staten Island. Loss and fragmentation of wetlands and the expansion of the invasive Phragmites australis are all thought to be threats to the Atlantic coastal species. This frog occurs in open habitats, including grasslands, wet meadow, grassy edges, shallow wetlands and clear, slow-moving ditches. In summer they use grassy areas adjacent to breeding habitat and are rarely found far from water.

#### <u>Mudpuppy</u>

In Connecticut the mudpuppy is the largest and only fully aquatic salamander found in Connecticut. The mudpuppy occurs in a wide range of water conditions, including rivers and drainage ditches. In Connecticut, it is mainly found in deeper waters of the Connecticut and Housatonic Rivers and associated drainages. Mudpuppies feed on fish and their eggs, crayfish, aquatic insects and larvae, mollusks, snails, worms, spiders, plant material, and an occasional salamander. They are eaten by fish, turtles, herons, and water snakes. Work within your community to help keep Connecticut's water resources free of siltation and pollution.

#### Eastern box turtles

State Special Concern Eastern box turtle inhabits a variety of habitats, including woodlands, field edges, thickets, marshes, bogs, and stream banks. Typically, however, box turtles are found in well-drained forest bottomlands and a matrix of open deciduous forests, early successional habitat, fields, gravel pits, and or powerlines.

You will need to develop a protection plan designed to minimize adverse effects on the listed reptiles and amphibians in this location. This plan should be developed by a herpetologist <u>with extensive experience in</u> <u>Connecticut with the State Endangered Atlantic coast leopard frog</u>. The Wildlife Division does not maintain a list of herpetologists in the state. The protection plan must be sent to the NDDB Program (<u>deep.nddbrequest@ct.gov</u>) before any work may begin. Once you settle on a herpetologist with extensive experience in Connecticut with the Atlantic coast leopard frog, please let our program know who will be doing the work for concurrence.

The reptile and amphibian management plan must include:

- a. Anticipated impacts to Atlantic coast leopard frog, Eastern box turtle and Mudpuppy at this project site.
- b. Planned mitigation or management practices that will be employed to protect all state listed species.
- c. Habitat descriptions
- d. Statement/resume giving the biologist's qualifications

Incomplete reports or unqualified herpetologists may not be accepted.

#### Protection for Freshwater Mussels and Snail

You will need to develop a freshwater mussel management plan designed to minimize adverse effects on the listed freshwater mussels and state listed snail in this location. This plan should be developed by an invertebrate biologist specializing in freshwater mussels. The Wildlife Division does not maintain a list of invertebrate biologists

in the state. A DEEP permit will be required by the biologist to conduct mitigation work; you should ask if your biologist has one. Be aware that if biological surveys are required, they will need to be conducted during the active season (usually between May 1- September 30) and this may affect the timing of your project. The plan must be sent to the NDDB Program (deep.nddbrequest@ct.gov) before any in-water work may begin. Once you settle on an invertebrate freshwater mussel and snail expert, please let our program, please let our program know who will be doing the work for concurrence.

The mussel management plan must include:a. Anticipated impacts to musselsb. Planned mitigation or management practices that will be employed to protect/conserve the freshwater mussels and snails.c. Habitat descriptions.

d. Statement/resume giving the biologist's qualifications.

Incomplete reports or unqualified biologists may not be accepted.

This determination is valid for two years and will expire on August 4, 2025.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as enhance existing data. Such new information is incorporated in the NDDB as it becomes available.

Please contact me if you have any questions (deep.nddrequest@ct.gov). Thank you for consulting with the Natural Diversity Data Base and continuing to work with us to protect State-listed species.

Sincerely,

Dawn m. mokay

Dawn M. McKay Environmental Analyst 3