



Land Record Filing*

To: Town of Branford Clerk

**Signature and
Date:**

Carol Szymanski 10/30/18

Subject: 60 Averill Place
License #201806038-SDFTW

Pursuant to Section 22a-363g of the Connecticut General Statutes, the Commissioner of Energy and Environmental Protection gives notice that a license has been issued to Town of Branford, 1019 Main Street, Branford, CT 06405 to:

1. Replace and extend below CJL an existing flood and erosion control structure damaged by stormwater erosion, place 200 cubic yards of fill below CJL and install five coir logs to create a living shoreline on a waterfront slope.

If you have any questions pertaining to this matter, please contact the Land & Water Resources Division at 860-424-3019.

Return to:

Land & Water Resources Division
State of Connecticut
Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

*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 the Commissioner no later than sixty (60) days after license issuance.



Work Commencement Form

To: Regulatory Section
Department of Energy and Environmental Protection
Land & Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

Licensee Name: _____

Licensee Address: _____

License No(s): _____

CONTRACTOR(s):

1 Name: _____
Address: _____
Telephone: _____
E-mail: _____

2 Name: _____
Address: _____
Telephone: _____
E-mail: _____

3 Name: _____
Address: _____
Telephone: _____
E-mail: _____

Date Contractor(s) received a copy
of the license and approved plans: _____

EXPECTED DATE OF COMMENCEMENT OF WORK: _____

EXPECTED DATE OF COMPLETION OF WORK: _____

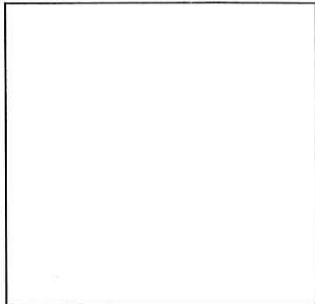
LICENSEE: _____
(Signature) (Date)



**Connecticut Department of Energy and
Environmental Protection**
Bureau of Water Protection and Land Reuse
Land & Water Resources Division

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: _____ License Number(s): _____	
2. Check one: (a) <input type="checkbox"/> "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) <input type="checkbox"/> "The final site conditions and / or structures are not in general conformance with the approved site plans. The enclosed "as-built" plans note the modifications".	
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 style="list-style-type: none">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.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 : Regulatory Section Department of Energy and Environmental Protection Land & Water Resources Division 79 Elm Street Hartford, CT 06106-5127	



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

April 9, 2018

Mr. Michael P. Harkin
Harkin Engineering, LLC
78 Wolf Hollow Lane
Killingworth, CT 06419
harkineng@sbcglobal.net

Project: Replacement of Existing Flood and Erosion Control Structure with a Living Wall Design; Averill Place Drainage Easement, #60 Averill Place in Branford, Connecticut
NDDDB Determination No.: 201803643

Dear Michael Harkin,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for the proposed replacement of existing flood and erosion control structure with a living wall design for the Averill Place Drainage Easement, #60 Averill Place in Branford, Connecticut. According to our information there are extant populations of State Special Concern *Malaclemys t. terrapin* (northern diamondback terrapin) in the area of this property.

Diamondback Terrapin: The northern diamondback terrapin is the only species of turtle in North America that spends its life in brackish water (water that is less salty than sea water). Diamondback terrapins are most abundant in tidal estuaries west of the Connecticut River. They are tolerant of some pollution and are known to congregate at warm water discharge outputs of power stations along the Connecticut shoreline. Habitat destruction, degradation or alteration and fragmentation of saltmarsh and sandy coastal shores all threaten diamondback terrapin populations. Turtles are also particularly vulnerable to any activity that consistently reduces adult survivorship. Disturbances to saltmarshes and sandy borders of coastal marshes, dunes and sandy beaches are all potentially detrimental activities for the diamondback terrapin. The greatest concern during projects occurring in diamondback terrapin habitat are turtles being run over and crushed by mechanized equipment. Reducing the frequency of habitat altering machinery would be beneficial in minimizing direct mortality of adults.

These best management practices are recommended for these turtles include:

- Completing the proposed construction activity between the months of December and April to minimize the potential for disturbance to the terrapin.
- In the event that construction cannot be completed during the winter months then the work may be performed between May and November in accordance with the protection measures and Best Management Practices below:
 1. Daily inspections should be conducted during the construction period to monitor for any *malaclemys t. terrapin*. All construction workers should be advised and educated about these turtles and protection strategies.

2. Silt Fencing should be installed around the work area prior to commencement of construction. Said erosion control should not be embedded with any netting and should be inspected daily.
3. A visual inspection should be conducted once silt fencing is in-place and prior to start of any work activity to locate any potential turtles.
4. All work personnel will be notified to be alert for the potential presence of the turtles and will be provided with a description of the species. Any turtle that may be discovered will be carefully moved, without harm, to a location outside the work area, and positioned in the same orientation that it had been moving.
5. No vehicles or machinery should be parked in any identified turtle habitat.
6. Special care to avoid harm to basking or foraging individuals should be taken for any work conducted in the early morning and evening hours.
7. Report any observations of these turtles to our DEEP-NDDDB Program at deep.nddbrequest@ct.gov as soon as possible.

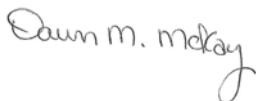
If these protection strategies are followed then the proposed activities will lessen the impact on these turtles. I have attached a fact sheet so you may educate workers about this turtle.

This determination is good for two years. Please re-submit an NDDDB Request for Review if the scope of work changes or if work has not begun on this project by April 9, 2020.

Natural Diversity Data Base 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 Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes 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 into the Data Base as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,



Dawn M. McKay
Environmental Analyst 3



 Governor Dannel P. Malloy |


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NORTHERN DIAMONDBACK TERRAPIN

Malaclemys t. terrapin



Background: 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). Diamondback terrapins are most abundant in tidal estuaries west of the Connecticut River. They are tolerant of some pollution and are known to congregate at warm water discharge outputs of power stations along the Connecticut shoreline.

In the early 1900s, diamondbacks were a popular gourmet food. Their numbers declined due to unregulated harvesting and habitat loss through coastal development. Motorboat propellers have been responsible for inflicting serious wounds to terrapins, usually causing death. Terrapins also become trapped and then drown in submerged crab and lobster pots. During the nesting season, many females are killed as they attempt to cross coastal roads in search of nesting areas.

The diamondback terrapin is currently protected by Connecticut Regulation 26-66-14a which states that there is no open season for taking terrapins in any development stage. Therefore, diamondback terrapins can no longer be collected or possessed in Connecticut.

Range: The northern subspecies of the diamondback terrapin occurs along the Atlantic coast from Cape Cod, Massachusetts, to Cape Hatteras, North Carolina. Other subspecies are found from Cape Hatteras south to the Florida Keys and west along the Gulf Coast and the Texas coastline.

Description: Diamondback terrapins have a gray, light brown, or black top shell (carapace) that is broad and patterned with concentric rings or ridges. The carapace is also wedge-shaped, and when viewed from above, the widest part is in the rear. The under shell (plastron) can range from yellowish to greenish gray, with or without bold, dark markings. The large feet are webbed, and the head and limbs may be spotted. Male terrapins are smaller than the female, weighing an average of 0.5 pounds and measuring 4-5.5 inches in length. Females weigh an average of 1.5 pounds and measure 6-9 inches long.

Habitat and Diet: Diamondback terrapins live in the brackish water of salt marshes, estuaries, and tidal creeks. They feed on fish, marine snails, crabs, marine and tidal mollusks, carrion, clams, and worms.

Life History: Adult terrapins nest on sandy borders of coastal salt marshes or in dunes from June to July. Maximum egg-laying activity usually occurs at high tide, ensuring that the eggs will be laid above the high water level. The females dig cavities 4 to 8 inches deep, depositing 4 to 18 pinkish white eggs (average 9), which are about 1.5 inches long, leather-like, and thin-shelled, with a blunt end. The eggs hatch in 9 to 15 weeks. The 1 to 1.25-inch hatchlings are patterned similar to the adults, but brighter. Occasionally after hatching, the young may remain in the nest for the first winter, emerging in April and May to head for brackish waters. Multiple nestings during one season have not been documented in Connecticut; however, studies in New York indicate that females lay at least two clutches per nesting season. Females reach sexual maturity in about 7 years; males mature earlier.

Interesting Facts: The diamondback terrapin is the only marine species of turtle that regularly occurs in Connecticut. The turtles hibernate during winter submerged in the mud of tidal creeks.

During the early 1930s, when terrapin numbers decreased, the popularity of this turtle as a food item faded. Terrapin populations have since rebounded with the lack of harvesting pressure.

Adult terrapins are often seen basking on mud flats.

The excess salt that terrapins consume in their diet is excreted through special glands at the eye.



Research indicates that diamondback terrapins have temperature-dependent sex determination. Artificial incubation of eggs at low temperatures has produced all male hatchlings, while incubation at higher temperatures has produced all females.

Diamondback terrapin nests are depredated by skunks, raccoons, and foxes. Upon emerging from the nest, young hatchlings are often eaten by gulls, crows, and black-crowned night-herons. Although the hatchlings are less vulnerable to predation when in water, they can still be preyed on by herons and predatory fish.

Terrapins have a long lifespan of about 25 to 40 years.

How You Can Help: You can help conserve Connecticut's diamondback terrapin population by supporting the protection, conservation, and restoration of Connecticut's salt marsh habitats.

If you are a boater, navigate carefully in tidal creeks and estuaries where large numbers of terrapins may gather in late spring to mate at the water's surface. Boaters are also reminded that it is a violation of the Federal Pollution Control Act to pump or discharge any kind of oil into navigable waters. Oil spills have the potential to devastate many coastal wildlife populations, including terrapins.

All turtles should stay in the wild. Not only is collecting a diamondback terrapin illegal in Connecticut, but it can hurt the population. A terrapin taken from the wild often becomes sick and dies. When a captive turtle is released, it is often killed by predators or run over by vehicles as it tries to return to its original home from unfamiliar surroundings.

While driving on coastal roads in June and July, be aware of any turtles that may be crossing the road to nest. If you see a turtle crossing the road, move it to the side that it is headed, if it is safe for you to do so. Do not take the turtle to a "safer" place. Remember, turtles have a home area that they are familiar with and they will try to return there.

(rev. 9/2008)

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79 Elm Street, Hartford, CT 06106-5127 / Phone: 860-424-3000

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Connecticut Department of
 Energy & Environmental Protection
 Bureau of Water Protection & Land Reuse
 Office of Long Island Sound Programs

NAE-2018-00667

MAR19'18 REG DIV

ATTACHMENT N: U.S. ARMY CORPS OF ENGINEERS DEEP PERMIT CONSULTATION FORM

To the applicant- Prior to the submission of your permit application to the Connecticut Department of Energy and Environmental Protection - Office of Long Island Sound Programs (DEEP- OLISP), please complete Part I and submit this form to the U.S. Army Corps of Engineers (USACE), Regulatory Division, Attn: Diane M. Ray, 696 Virginia Road, Concord, MA 01742, with a location map of your site and project plans. Once they return the completed form to you, please submit it along with your permit application to the DEEP.

Part I: Applicant Information

To be completed by applicant.

1. List applicant information:

Name: Town of Branford - First Selectman (James B. Cosgrove)
 Mailing Address: 1019 Main Street
 City/Town: Branford State: CT Zip Code: 06405
 Business Phone: 203-315-0606 ext. N/A Fax: N/A
 Contact Person: Ms. Janice Plaziak, P.E. Title: Town Engineer
 E-mail: jplaziak@branford-ct.gov

2. List engineer, surveyor or agent information:

Name: Harkin Engineering, LLC
 Mailing Address: 78 Wolf Hollow Lane
 City/Town: Killingworth State: CT Zip Code: 06419
 Business Phone: 860-663-4248 ext. _____ Fax: 860-663-4249
 Contact Person: Michael P. Harkin, P.E. Title: Principal
 E-mail: harkineng@sbcglobal.net
 Service provided: Engineering

3. Site location:

Name of site : Averill Place Drainage Easement
 Street Address or Location Description: 60 Averill Place
 City/Town: Branford State: CT Zip Code: 06405
 Tax Assessor's Reference: Map E07-000 Block 008 Lot 00022

4. Are plans attached? Yes No If yes, provide date of plans: 6/16/14

Part I: Applicant Information (continued)

5. Provide or attach a brief, but thorough description of the project:

See Attached Detailed Narrative

Part II: To be Completed by US Army Corps of Engineers

This consultation form is required to be submitted as part of an application for a Structures, Dredging & Fill permit (section 22a-361 of the Connecticut general Statutes (CGS)) and/or Tidal Wetlands permit (CGS section 22a-32) to the DEEP- OLISP. The application has not yet been submitted to the DEEP. Please review the enclosed materials with regard to the U.S. Army Corp of Engineers review process pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act; and provide any comments or recommendations you may have with regard to this proposal. Please call DEEP-OLISP at 860-424-3034 to speak with the analyst assigned to the town in which the work is proposed if you have any questions. **Please return the completed form to the applicant.**

COMMENTS/RECOMMENDATIONS:

1. Unless the coved area is a recent erosional feature, the proposed stabilization should follow the approximate tidal contours.
2. Any vegetation selected for the slopes should be suitable for different tidal elevations and should provide sufficient stabilization characteristics.
3. On the cross sections, there is not any soil medium indicated between the coir logs or within the proposed riprap facing at the cove, and therefore the vegetated bank will probably not survive.
4. You should consider looking into alternatives to the concrete/riprap that would promote the establishment of lasting vegetation.
5. Vegetation should be planted into the bank as well as the coir logs for additional stabilization.
6. Rather than back filling the entire cove to elevation 5.00, a lower tidal wetland shelf should be considered for the center and waterward section.
7. A survey of submerged aquatic vegetation (SAV) should be performed if one has not been conducted at the in the past three years. Tidal SAV at the site should be identified in the field prior to the start of work and equipment should not anchor or impact any SAV.
8. No activity should produce sedimentation in tidal wetlands, natural rocky habitats, or areas containing shellfish. This may be achieved using setbacks of 100 feet from tidal SAV or 25 feet from tidal wetlands or natural rocky habitats.
9. Appropriate soil erosion, sediment and turbidity controls should be used and maintained in effective operating condition during construction. Work capable of producing turbidity or sedimentation should be done during periods of low-flow or no-flow, when the tide is waterward of the work, or when controls are used to obtain dry work conditions.
10. Any in-water work that is expected to produce greater than minimal turbidity or sedimentations should be performed outside of April 1 through August 31.

USACE Application number: NAE-2018-00667

Signature of Project Manager

April 18, 2018

Date

Daniel Breen

Printed Name of Project Manager