

DEPARTMENT OF THE ARMY PERMIT

Permittee_ Mohegan Aquaculture LLC

Permit No. 200002677

Issuing Office New England District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

The installation and maintenance of various subsurface long lines, on bottom cages and submersible surface bags for the rearing of shellfish (*Eastern oyster, bay scallop and hard clam*) in Waters of the U.S., specifically Niantic Bay, Fishers Island Sound, Pine Island Bay, Stonington Harbor, Long Island Sound and the Pawcatuck River. Submerged long lines will consist of a main line, two terminal primary helix anchors, two secondary helix anchors, and shellfish rearing trays installed parallel to the prevailing current direction. The project locations and a depiction of specialized gear are attached to this permit.

(Project Description Continued on Page 4)

Project Location:

Waters of Long Island Sound and Fishers Island Sound including Niantic Bay, Pine Island Bay, Stonington Harbor, and the Pawcatuck River in or offshore of Stonington, Groton, East Lyme, Waterford, and Mystic Connecticut.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on _____ . If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The permittee shall ensure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for work.

(Special Conditions continued on Page 5)

Further Information:

1. **Congressional Authorities:** You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

() Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 108 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. **Limits of this authorization.**

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. **Limits of Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. **Extensions.** General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE)

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

(DISTRICT ENGINEER)

(DATE)

Thomas L. Koning
Colonel, Corps of Engineers

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

(Description continued from page 1)

Each long line will be approximately 400 feet in length, and contain approximately 50 stacks of trays, secured with tensioned anchors at a depth of no less than 10' below the water surface at all times. 165 such long lines will be placed in a total of 50.78 acres (year five) in a staggered configuration, end to end, with approximately 25' clearance between anchor lines and 50' clearance between gear in the waters of Fishers Island Sound, Niantic Bay and Long Island Sound.

On-bottom shellfish rearing cages, totaling 45.29 acres (year five) in Long Island Sound, Fishers Island Sound and Niantic Bay, will consist of 1,166 5-cage unit trawls, set directly on the sea floor. Cages are 15' wide and 2' high and will be placed in water depths ranging from 17' to 30'. The length of each 5-cage trawl will vary with water depth and they will be placed in rows approximately 10 to 20 feet apart, parallel to the prevailing currents.

Installation of 425 partially submerged shellfish rearing bag units, totaling 28.52 acres (year 5) in Long Island Sound and the Pawcatuck River. The system will consist of a grid harness with individual bags attached to the harness in pairs of five (10 harnesses), each separated by a recycled plastic spreader bar. One unit will consist of 100 bags, and will have a typical dimension of 164' long, 8' wide and 1.5' deep. The units will be anchored at each end with helix screw anchors. System flotation is provided by a buoyed centerline.

Installation and maintenance of two 76' long by 32' wide floating upweller circulation units, 6 new 10-pile dolphin clusters, and 40 new battered brace piles (within the footprint of an existing 184' long fixed dock) at 70/72 Water Street in Stonington Harbor, at Stonington Borough, Connecticut. Also, install and maintain 3 nearshore upweller mooring systems consisting of three 3-pile timber dolphins (northeast, southwest and northwest corners) in the Pawcatuck River, and eight helix anchors (4 on each side) on the nearshore waters (eastern shore) of Ram Island.

(Special Conditions continued from Page 2)

If the permit is issued after the construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. If the permit is issued after receipt of bids or quotes, the entire permit shall be included in the contract or sub-contract as a change order. The term “entire permit” includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

2. Within 60 days of permit issuance, the permittee shall develop and submit for Corps review and approval, a plan outlining an environmental monitoring program to ensure that there is no irreversible or unacceptable adverse impact to water quality or benthic habitat as a result of the installation and operation of the aquaculture operation. The environmental monitoring program shall be developed in coordination with the Corps, the CT Department of Environmental Protection (CT DEP) the National Marine Fisheries Service, and the Environmental Protection Agency (EPA) and be directed at: a) the assessment of the physical habitat in the vicinity of, and down-drift from, the shellfish retention systems, and b) monitoring of water quality parameters such as temperature, dissolved oxygen, conductivity, chlorophyll a, total organic carbon, and total suspended solids. The monitoring plan shall also include provisions for mitigating action should episodes of water quality violations benthic habitat alteration occur. The schedule for the monitoring shall be developed in coordination with all of the agencies identified above, shall commence with the first installation of the culture gear identified above and continue for at least three years after installation of the “full build” configuration, after which the need for continued monitoring shall be determined based on the results of subject monitoring, to date. The permittee shall generate an annual monitoring report and submit 2 copies to the Corps, Regulatory Division Inspection Section no later than December 15 of the year being monitored. Failure to submit monitoring reports constitutes permit non-compliance. Installation of aquaculture gear shall not occur until the Corps approves the monitoring plan, in writing.

3. No activity, including the laying of gear and mooring tackle, shall occur within a distance of 25 feet from beds of submerged aquatic vegetation (eelgrass), nor shall such vegetation, under any circumstances, be damaged or removed. Installation and/or continued operation of the culturing facilities must avoid existing beds of submerged aquatic vegetation, or areas where colonization of submerged aquatic vegetation is seen to be occurring.

4. Within the first five years of the project, annual build-out (installation of new gear) shall not occur until the Corps has reviewed and approved, the previous year’s monitoring report, in writing.

5. Initial installation and subsequent deployment activities shall not occur at Lease 525, Lease 528, Ragsdale Ram Island West, and Davis Pawcatuck River culture sites from February 1 through May 31 of any given year.

6. Before the authorized structures are installed the permittee shall contact the U.S. Coast Guard (USCG), First District; Aids to Navigation Branch at 408 Atlantic Avenue, Boston, MA 02110-3350 (800-848-3942) to coordinate the proper buoy markings. The permittee shall install and maintain lights, markings and other features the USCG requires. Also before the authorized structures are installed the permittee shall submit a permit application to the State of Connecticut Navigation Safety/Boating Access Unit and shall submit a copy of the permit application to the Corps of Engineers. State of Connecticut Marker permit applications can be obtained from the CTDEP, Bureau of Outdoor Recreation/Boating Division, 333 Ferry Road, P.O. Box 280, Old Lyme, CT 06371-0280.

7. Authorization of the aquaculture gear, described herein, is contingent upon compliance with all of the terms and conditions of February 19, 2002, State of Connecticut Coastal Zone Consistency Determination.

8. Tray stacks or nets shall be suspended a minimum of 3 feet above the bottom.

9. At no time shall the submerged long line gear installed at Lease 589 be less than 10 feet below the water surface, or the submerged long line gear installed at Lease 525 be less than 11 feet below the water surface.

10. Each helical anchor shall be installed to meet a minimum installation pressure of the torque motor of 725 pounds per square inch.

11. The upwellers shall, at a minimum, be secured with bow-stern point moorings and be moored, generally, parallel to the prevailing current at the site to ensure that vessel movement is minimized.

12. Within 60 days of permit issuance, the permittee shall develop and submit for Corps review and approval, a contingency plan for the handling and/or movement of the retention devices and the floating upwellers in the event of an emergency or natural disaster.

13. There shall be no laboratory modification of shellfish seed stock, and only seed stock meeting Connecticut state criteria may be used.

14. No pesticides, chemical therapeutics, antibiotics or anti-foulants shall be used.

15. Within 60 days of permit issuance, the permittee shall develop and implement, in coordination with the Mystic Marine Life Aquarium Stranding Network, a contingency plan and protocol for the handling of stranded or entangled wildlife and marine mammals.

16. The permittee shall conduct an exploratory survey of the Ragsdale Ram Island West aquaculture area to identify if Submerged Aquatic Vegetation (SAV) is present at, or within 100 feet of, the area that is to receive gear. If SAV is present, the permittee shall delineate the extent and maximum depth of the SAV beds. Design and implementation of the survey shall be coordinated with the Corps, Connecticut Department of Environmental Protection and the National Marine Fisheries Service and be conducted in accordance with established seagrass survey guidelines. Aquaculture gear shall not be installed at this site until the survey is complete and the Corps approves the results of the study, in writing.

17. The right of the public to traverse or utilize the waters not physically occupied by authorized structures and moored vessels within the areal limits of this authorization shall not be impeded.

18. National Ocean Service (NOS) has been notified of this authorization. You must notify NOS and this office in writing at least two weeks before you begin work and upon completion of the activity authorized by this permit. Your notification of completion must include a drawing by a registered engineer or surveyor, which identifies the location and configuration of the authorized gear (a certified permit drawing may be used). Notifications to NOS should be sent to: Director, National Ocean Service (N/CS26), 1315 East-West Highway, Silver Spring, MD 20910-3282.

19. All buoys, other than state and federal required aids to navigation, shall consist of low visibility color to minimize associated aesthetic impact.

20. At no time shall the structures authorized herein be located outside of the demarcated gear perimeter. Also, there shall be no change in use, size, or number of authorized structures inside the authorized gear perimeter, nor shall there be a change in the location or configuration of the authorized gear perimeter without reapplication to the Corps of Engineers and receipt of written approval from the Corps for the proposed change. If plans for work within Corps jurisdiction need to be changed, please contact us immediately to discuss modification of this authorization.

21. The permittee shall locate structures far enough outside the limits of the Federal Navigation Project (FNP) so neither the structures nor any vessels tied to these structures encroach into the boundary of the FNP. This distance shall be at least three times the authorized depth of the FNP.

22. The permittee shall remove all structures and ground tackle, if necessary, to allow performance of periodic hydrographic surveys and maintenance dredging.

23. The permittee shall not hold the Government or its contractor responsible for damage(s) to these structures, or to any vessels tied to them, during surveying or dredging operations.

24. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

25. In the event that the permittee surrenders or loses the right to use the leased areas, the permittee shall, within 30 days, remove all gear and equipment associated with the aquaculture operation.

26. The permittee shall not store, on the seafloor, unused gear or gear/equipment not specifically designed for the rearing of shellfish.

27. All gear authorized by this permit shall be marked and maintained in good condition in accordance with U.S. Coast Guard requirements and limitations.

28. Except where stated otherwise, reports, drawings, correspondence and any other submittals required by this permit shall be marked with the words "Permit No. 200002677" and shall be addressed to "Inspection Section, CENAE-R, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751." Documents which are not marked and addressed in this manner may not reach their intended destination and do not comply with the requirements of this permit.

29. In the event that the above-referenced permitted gear is lost or is relocated from its permitted position, the permittee shall be required to fill out and submit to the Corps the attached notification form within 48 hours of loss or discovery of the loss of gear.