**Scope of Work:**

Contractor shall furnish and deploy a minimum of two thousand cubic yards (2,000 yd3) of spat on cultch material with living attached oyster spat (spat-on-cultch) in Morgan Harbor and 3-Mile Bay. Deployment zones and spacing requirements within the reef site are detailed below.

This bid is for turn-key services which include: obtaining oyster larvae and cultch material, setting larvae on cultch material, holding spat-on-cultch for a specified amount of time or until spat reach the specified size, and deploying spat-on-cultch in locations designated by LDWF. Contractor shall provide all labor, equipment, materials and any necessary incidental items necessary to produce and deploy spat-on-cultch at the designated LDWF sites while maintaining compliance with the specifications listed herein. In addition, the Contractor shall provide all applicable permits related to nursery or grow-out areas including, but not limited to, required U.S. Army Corps of Engineers (USACE) permit, Department of Natural Resources Coastal Zone Consistency, and Department of Environmental Quality Water Quality Certification. LDWF needs to be contacted at least seventy two (72) hours prior to any deployment to verify deployment areas.

Bidders shall provide evidence either through documentation of prior experience or a detailed logistics plan that they have the technical knowledge and experience to implement a project of this nature and the capacity to produce the volume of material requested. Facility location and capacity, marine life support systems, material-handling equipment, source of material, material deployment methods, and vessel logistics must be addressed in this documentation. LDWF reserves the right to inspect the Bidder’s facilities to confirm the information provided in the bid submittal prior to accepting the Bidder’s bid.

## **Oyster Larvae:**

1. Oyster larvae shall be produced by Contractor from Eastern Oyster (*Crassostrea virginica*) broodstock. Broodstock shall originate from the northern Gulf of Mexico, specifically Louisiana waters. Oysters not originating from Louisiana water must follow the importation application process and be approved by LDWF.
2. Contractor shall provide a map indicating the origin of broodstock.

## **Cultch:**

1. Cultch material shall be any combination of crushed concrete, limestone, fossilized shell or clean oyster and/or clam shell obtained from the northern Gulf of Mexico. Material must measure at least three inches (3”) along its longest diameter. LDWF considers fossilized or clean oyster shell a “premium material” and will provide a ten percent (10%) preference in the bid price for supplying fifty percent (50%) or more of this material. Any bidder quoting premium material will be expected to provide such upon performance of the job. Material is subject to inspection by LDWF.

**Specify if bidding premium material: Yes: \_\_\_\_\_\_\_ No: \_\_\_\_\_\_\_**

**If yes, specify type of premium material bidding: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**If yes, specify percentage of premium material bidding: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Cultch material must be **clean** and **free of any hazardous substances and/or material not suitable as cultch material** as determined by LDWF, which includes, but is not limited to: plastics, wood, wiring of any type, rebar, dirt and other debris. Presence of any visible debris in the cultch material prior to setting spat on the cultch material or after the spat is set on cultch material may be grounds for rejection of the cultch material or spat-on-cultch material. The Contractor will not be compensated for either material or costs associated with transportation and/or handling of the material.
2. Cultch material must meet the specifications of the Louisiana Artificial Reef Plan and the Louisiana Inshore Nearshore Artificial Reef Plan (both available at: <https://www.wlf.louisiana.gov/page/artificial-reefs>).
3. LDWF reserves the right to inspect cultch material or spat-on-cultch at any time prior to and/or during deployment, and to reject any material that does not meet specifications. The LDWF also reserves the right to proportionately reduce payment to the Contractor for any material that does not meet specifications.

**Oyster Spat-on-Cultch:**

1. Oyster larvae shall be set at a rate no less than two hundred-fifty thousand (250,000) live eyed larvae per cubic yard of cultch material.
2. An open water nursery area shall be designated and permitted. The permittee for the nursery area shall be the Contractor unless otherwise agreed upon by LDWF. Spat-on-cultch shall be held and “soaked” in the nursery setting for at least thirty (30) days and no more than ninety (90) days following the setting of the larvae on cultch material or until spat reach at least half an inch (0.5”) in diameter. LDWF expects at least forty percent (40%) of the spat to be half an inch (0.5”) or greater.
3. **On average**, there shall be no less than one quarter (0.25) viable spat per square inch of cultch at the time of deployment.
4. LDWF reserves the right to inspect spat-on-cultch at any time following the setting of spat-on-cultch and prior to the deployment of spat-on-cultch.

## **Location:**

1. Spat-on-cultch shall be deployed within a permitted site at locations designated and approved by LDWF. The permittee for reef deployment locations shall be LDWF. The potential locations and coordinates are provided in the attached maps. The exact deployment area will be in or near these permitted areas and the exact locations will be provided to the Contractor sometime between bid award and day of deployment. Communication with LDWF is needed at least seventy two (72) hours before deployment of material.
2. Bidders are urged and expected to visit the project areas and take such other steps as may be reasonably necessary to ascertain the nature and location of the work and the general and local conditions which can affect the work or cost thereof. Failure to do so will not relieve bidders from the responsibility for estimating properly the difficulty or cost of successfully completing the contract or constitute grounds for a claim after award. LDWF will assume no responsibility for any understanding or representation concerning conditions made by any of its employees, agents, or consultants prior to the execution of the contract unless included in the contract documents. A site visit will **NOT** be conducted by LDWF. For additional information regarding the jobsites, please contact Jason Froeba 225-765-01123 ext. 1345 jfroeba@wlf.la.gov.

## **Transportation:**

1. Spat-on-cultch shall be transported to the restoration area of the public seed grounds and deployment areas on vessels that are of such size, and loaded in such a manner, as to not damage the water bottoms over which they pass. Such damage will be the responsibility of the Contractor.
2. Drafts of any and all vessels shall not exceed the recommended depth for each restoration area while under power.
3. If LDWF determines that the Contractor and/or subcontractors are damaging the inshore artificial reef or other water bottoms, they reserve the right to specify the size of vessel and route used by the Contractor to access the deployment locations.
4. The Contractor and/or subcontractor is required to have a Global Positioning System (GPS) system on board so as to track and record the path of all vessels during approach, deployment, and retreat. This information shall be **maintained by the Contractor and/or subcontractors for no less than one hundred and twenty (120) days after project completion**. Upon request, it shall be provided in its entirety to LDWF in an agreed upon format acceptable to LDWF in a timely fashion.
5. Tug boats will not be allowed to use engine thrusts to maintain their position, with or without barges, in or around the project area while on standby. A stationary anchorage system, (spud-barge, anchor, or other LDWF-approved means of securing tug boats/barges) must be utilized to secure equipment while within the public oyster area, when needed, to minimize disturbing bottom sediments. LDWF may assist with the identification of a suitable anchorage area within deployment area, but the responsibility of choosing and utilizing such a location lies solely with the Contractor.
6. Tug boats and supporting vessel operators should have the GPS coordinates of the four (4) corners of the deployment location, provided by LDWF, entered into an onboard GPS unit or plotted on a map of the project area prior to arriving on location.

## **Method of Deployment:**

1. LDWF will provide the Contractor with the USACE Permit for each of the deployment locations. The Contractor shall maintain a copy of the permit, at all times, while deploying spat-on-cultch within the reef sites.
2. Spat-on-cultch shall be deployed under direct supervision of LDWF.
3. LDWF shall be contacted at least seventy two (72) hours prior to deployment.
4. Throughout the deployment process, vessels shall be maneuvered over the deployment site in a manner that disperses spat-on-cultch over an entire area at a density specified by LDWF. However, vessels shall be operated such that bottom sediment disturbance is kept to an absolute minimum.
5. All activities shall be conducted in such a manner as to maintain all parts and portions of tug boats/barges within the specified draft restriction provided in “*Transportation*” above.
6. Scheduling tug boats/barges is the sole responsibility of the Contractor. Deployment shall take place only during daylight hours, unless specifically authorized by LDWF.
7. Contractor is responsible for verifying the position and permitted water bottom clearance of the spat-on-cultch material to ensure the material is deployed in accordance with terms and conditions set forth in the USACE permit.

## **Additional Information:**

1. Work shall be completed by **December 31, 2024**.
2. The Contractor shall require all personnel to wear U.S. Coast Guard-approved personal flotation devices (PFDs) while on deck during deployment.
3. The Contractor **shall retrieve any and all debris and trash** which is expelled from boats, barges, equipment, etc. during contracted operations.
4. The Contractor is responsible for adhering to all applicable federal/ state/local safety and pollution requirements.
5. The Contractor shall contact LDWF to schedule a date of deployment. Adjustments to these dates may only occur upon the approval of LDWF. Date adjustments may include delays initiated by LDWF, based upon biological or economic factors.
6. LDWF may assist with the identification of pipelines, oyster leases, potential access routes, etc. in the general project area, but the final responsibility for identification of and damages to water bottom features, structures, pipelines, etc. lies with the Contractor.
7. The Contractor is responsible for contacting Louisiana One Call (811 or **800-272-3020 or** <http://www.laonecall.com>) at an appropriate time prior to beginning on-site work.
8. The Contractor is responsible for contacting the United States Coast Guard to determine if a Local Notice to Mariners and/or permitting will be required due to anchorage location.
9. To ensure proper placement and water bottom clearance, a post-project bottom contour and side-scan survey signed and stamped by a licensed surveyor is required at each deployment location following the completion of the contracted activity. The results of these surveys will be sent to LDWF within thirty (30) days of deployment. The total area to be scanned will be determined by the amount of material deployed. LDWF expects this area to be less than ten (10) acres.

**Spat-on-shell Deployment Locations:**

1. Morgan Harbor

2. 3-mile Bay



