

2024 Production and Delivery of Spat on Shell to Maryland Public Oyster Bars Request for Bids

Deadline for Bid Submission: May 3, 2024

1.0 Background-The Oyster Recovery Partnership (ORP) is seeking bidders to produce and plant *Crassostrea virginica* Spat-on-Shell (SOS) onto selected public areas for commercial fishery harvest, requested by the county oyster committees, throughout the Maryland portion of the Chesapeake Bay.

The work is being funded by a grant from the Maryland Department of Transportation Port Authority, revenue from oyster surcharges purchased from licensed commercial oystermen, and revenue from the bushel tax. The work will be implemented by ORP in accordance with its memorandum of understanding (MOU) with the Maryland Department of Natural Resources (MD DNR).

All shell used for SOS production must be *Crassostrea virginica* (eastern oyster) shell unless approval is given for *C. gigas* (west coast) shell. *C. gigas* shell may also be used but ONLY IF all relevant state and federal permits are received, and additional authorization is provided in writing by the MD DNR, and the county chair approves its use prior to setting and planting in MD waters. All shell should be aged on land based on the minimum aging requirements set forth by the MD DNR prior to being used to produce SOS.

Failure to use an approved substrate in the production and planting of SOS will result in no payment and any uncompleted projects may be modified, terminated or re-assigned to another MD DNR-approved entity for completion.

Read the proposal and bid requirements carefully. **Failure to provide a response to all requirements outlined in the documents will result in your bid being disqualified.**

2.0 Scope of Work:

Operations:

- A. Typical county projects will be for **10 to 40 million oyster SOS** per project. Qualified vendors must have a minimum annual production capacity of 10 million SOS and be ready to set on or before May 1, 2024.
- B. Potential vendors are required to submit a production plan in addition to the bid paperwork. In your production plan, please be sure to include the following information:
 - Description of how a typical planting process will happen, including a description of steps: tank breakdown, vessel loading, transport conditions, unloading technique (e.g., spreader, conveyer, hoses), etc. Please include anything that is pertinent to your company's planting process. If you are bidding for multiple jobs, please take that into consideration when drafting your plan and make the necessary adjustments for each job. A complete plan is not necessary for each job; however, if details differ from job to job, please note the relevant changes.
 - Expected project timeline and completion date: MD DNR or its designee will conduct periodic 'check-ins' with participating vendors to ensure that all work is on track for timely completion. If it is found that a vendor has failed to start production and/or planting within thirty (30) days of the date the contract was awarded, any uncompleted

- projects may be modified, terminated or re-assigned to another MD DNR-approved entity for completion.
- C. When choosing a project for bid and completing bid paperwork, please refer to the Production, Planting and Reporting Guidelines (included as **Attachment B** below) for the necessary requirements. Please note that vendors may not use state-owned assets (e.g., setting tanks, setting equipment or oyster shell) to produce the SOS.

3.0 Vendor Qualifications:

- A. This bid is open to all commercial Maryland entities who can produce and deliver SOS to the public fishery areas in Maryland waters and who meet the minimum production and planting qualifications set forth by MD DNR.
- B. All interested vendors will need to possess the required permits for their operation at the time of submitting a bid and provide copies along with their bid. This is not a comprehensive list but some examples of required permitting based on the work outlined in this RFB include:
- Nursery permit from MD DNR
 - Discharge permit
 - Larvae and shell importation permits (if acquiring from out of state)
 - Planting vessels have USCG Certification and/or updated safety exam
- C. All interested vendors will need to obtain the following minimum insurance policies. A quote showing proof that this insurance is obtainable is required at time of bid. Proof of acquired insurance will be needed at contract award.
- General Liability
 - Protection & Indemnity - \$500,000 per occurrence
 - Aggregate or Umbrella policy up to \$1,000,000 per occurrence
 - Sudden & Accidental Pollution or separate pollution policy
 - Workers Compensation Policy – as required by Federal, State and Maritime laws; \$500,000/\$500,000/\$500,000 minimum limits: USL&H is included
 - ORP will be listed as “Additional Insured” on all applicable policies
 - Waiver of Subrogation in favor of ORP must be included on all applicable policies
 - Coverage provided must be primary & non-contributory
- D. It is up to the individual vendors to secure the necessary larvae and substrate (oyster shell) to complete the projects that they elect to bid on. Vendors are encouraged to seek more than one source of larvae since hatcheries cannot guarantee the amount or timing of larvae availability.
- E. **Bidders should obtain a letter of commitment from each hatchery from which they plan to receive larvae.**

For a complete list of hatchery options along the East Coast, please refer to the East Coast Shellfish Hatchery and Nursery Directory here:

<https://ocean.njaes.rutgers.edu/marine/east-coast-shellfish-hatchery-nursery-directory/>

Ferry Cove Shellfish

Website: ferrycove.org

Contact: Steven Weschler

Phone: 410 886 1006

Email: orders@ferrycove.org

Piney Point Aquaculture Center

Website: dnr.maryland.gov/fisheries/pages/hatcheries/shellfish.aspx

Contact: James Dumhart

Phone: 301 994 0241

Email: james.dumhart@maryland.gov

Horn Point Oyster Hatchery (UMCES)

Website: hatchery.hpl.umces.edu

Contact: Stephanie Alexander

Phone: 410 221 8357

Email: tobash@umces.edu

4.0 Bid Checklist:

Be sure to include the following information when submitting your bid:

- Bid Form – please make sure it is filled out completely and accurately (*see attachment A*)
- Copy of Insurance (see insurance requirements in Section 3.0, item C. above)
- Copies of necessary permits
- USCG vessel certification and/or safety examination
- Production plan with timeline
- Letter of Support from one or more hatcheries

5.0 Application & Selection Process:

- A. After the date of the deadline for bid submissions, the bids will be reviewed in consultation with the respective County Oyster Committee and the qualified vendor(s) for each project will be identified and notified. Oyster Recovery Partnership, Inc. (“ORP”) will award the project to the winning vendor(s) and complete the appropriate procurement contracts. All contracts will only be applicable for the 2024 planting season. Submission of a bid does not guarantee a project will be awarded to the bidder.
- B. Consideration for selecting vendors will include:
 - Overall project cost
 - Expected project completion time
 - Production capacity

- Distance from the planting site
 - Site visits by MD DNR personnel or another authorized representative
- C. MD DNR works within Maryland State procurement law and policy, and therefore reserves the right to disqualify bids based on the following factors:
- Exceedingly high-cost relative to average rates from Chesapeake Bay hatchery and nursery shellfish producers.
 - Business is not in “good standing” with the State, meaning there may be some outstanding legal or State compliance issue including taxes or other debts to the State.
 - Past contract issues: e.g. a business has a documented history of breach of contract where deliverables were not completed for any justifiable reason.
- D. By submitting a bid application, the bidder, on behalf of themselves, heirs, personal representatives and subcontractors, hereby voluntarily and fully releases the State of Maryland and the Oyster Recovery Partnership, its directors, officers and employees from any and all claims, suits or liability for bodily injury, death or property damage resulting from participating in this RFB and any resultant contract, and voluntarily assumes all risk and full responsibility for any such bodily injury, death or property damage that occurs during the course of participating in this RFB and any resultant contract.
- E. The bidder shall, to the fullest extent permitted by law, indemnify and save harmless and defend ORP and the DNR and all of its representatives from all suits, actions, or claims of any character, brought on account of any injuries or damage sustained by any person or property in consequence of any work performed under any resultant contract, either by the contractor or any subcontractor, or their employees, agents, or representatives. This responsibility is not to be deemed as a waiver of any immunity which may exist in any action against DNR.
- F. Each Bid submitted in response to this RFB shall list any deviation(s), exception(s), or variation(s) to or from: the terms and conditions of this RFB, the terms and conditions of any attachment(s) to this RFB, the terms and conditions of any addendum to this RFB, and, the terms and conditions of any documents or agreements incorporated into this RFB by reference. The section of a Bid containing any such deviation(s), exception(s), or variation(s) shall be clearly labeled “Exceptions to RFB”. The failure of a Bidder to note a deviation, make an exception, or list a variation to the terms and conditions of this RFB, any attachment(s) or addenda to this RFB, or the terms and conditions of any documents or agreements incorporated into this RFB by reference shall be deemed an express waiver by that Bidder of such deviation, exception, or variation.
- G. Each awardee shall be bound by all terms of the MOU, including the DNR’s General Conditions for Memoranda of Understanding. See *Appendix A*
- H. All correspondence or questions concerning the potential projects or bidding process should be directed to Jennifer Walters at (410) 990-4970 Ext. 1019. All bid forms and supporting documentation should be returned to ORP (attn: Jennifer Walters) by **May 3rd** to be considered.

Please send, fax or email all completed bidder forms to:

Oyster Recovery Partnership
(ATTN: Jennifer Walters)
1805 A Virginia Street Annapolis, MD, 21401
Tel: 410-990-4970 ext. 1019 // Fax: 443-782-2275
jwalters@oysterrecovery.org

Maryland Department of Natural Resources

Vendor Information for Spat on Shell Production and Delivery for the Public Fishery

All Fields Are Required

Vendor Information:

Company: _____

Contact Full Name: _____

Address: _____

City: _____ State: ____MD____ Zip code: _____

Phone: _____ Email: _____

Social Security No. or Federal TIN: _____ (this field required)

Planting Vessel Information:

Vessel Name: _____ Home Port: _____

Size (Length): _____ Draft: _____ Propulsion: _____

Vessel Load Capacity: _____ Bushels

Production Information:

Please note that only vendors who meet the minimum annual capacity qualifications (10 million SOS per year) will be considered; Vendors must be ready to receive larvae and begin spat on shell production no later than 30 days from contract award.

Number of Tanks _____ Size/Volume of Tanks _____ Max Larvae Capability _____

Number of containers per tank _____ Size/Volume of each container _____

Average amount of shell per container _____

Total Bushels per tank _____ Type of aged oyster shell intend to use _____

Number of bushels of aged oyster shell currently available _____

Length of time shell has been aged _____

Please add any additional pertinent information below (ex: tanks of different size):

Bid Information and Pricing:

Enclosed is your bid sheet and list of project options. Please select the ones that you are interested in bidding on and provide the bid cost. Bids must be priced to complete an entire project; **partial projects will not be awarded.**

All prices should include the price for shell, larvae, equipment usage, labor, crew and any other costs associated with the production and planting of the spat on shell (SOS). While every effort will be made to not change the planting locations/amounts, unforeseen instances may occur that require modification.

In addition to providing a single bid per project/location, vendors are asked to provide bid(s) on three size classes of spat. A County Oyster Committee may express a preference for a larger animal or keeping animals in the tanks longer. The size structure is as follows:

- Tier 1: 1-2 mm
- Tier 2: 2-3 mm
- Tier 3: 3+ mm

Select which project(s) you are bidding on and provide the necessary bid information, including prices for each size class listed per million spat on shell produced and planted. **Please note that actual amounts and or locations may change, and the final requested totals may increase/decrease, or projects may be eliminated entirely due to unsuitable planting conditions. Also note that use of any substrate other than aged *c. virginica* oyster shell used for setting (such as *C. gigas*) requires prior written approval from MD DNR in addition to any required state and federal permits.**

Project A; Anne Arundel County: Up to 36M Spat on Shell (SOS) to be placed in AA waters of the Chesapeake Bay and the South River.

- Coots (~9M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Saunders Point (~9M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Perdy Flats (~9M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Outer Round Point (~9M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project B; Anne Arundel County: Up to 50M Spat on Shell (SOS) to be placed in AA waters of the Chesapeake Bay and the South River.

- Coots (10M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Saunders Point (10M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

- Outer Round Point (10M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Thunder and Lightning (20M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project C; Baltimore County: Up to 14M Spat on Shell (SOS) to be placed in Baltimore county waters.

- Man O'War (12-14M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project D; Baltimore County: Up to 14M Spat on Shell (SOS) to be placed in Upper Chesapeake Bay for Kent County.

- Swan Point (12-14M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project E; Baltimore County: Up to 14M Spat on Shell (SOS) to be placed in Upper Anne Arundel Shore in the Chesapeake Bay.

- Mountain Point (12-14M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project F; Charles County: Up to 50M SOS to be planted in the Wicomico River (Lower Western Shore).

- Windmill (11-12M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Charleston Creek (11-12M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Wicomico Lumps (11-12M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Lancaster Bar (7-10M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project G; Calvert County: Up to 5M SOS to be planted in the Patuxent River on Petersons. - Tentative based on remaining funding

- Petersons (4-5M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project H; Kent County: Up to 26M SOS to be planted in the Chester River, Eastern Bay; Tred Avon River and on Swan Point (Peach Orchard) in the Upper East of the Chesapeake Bay.

- Parson's Island (4M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Bugby (4M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Town Point (Ferry Bar) (4M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Peach Orchard (6M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Swan Point (8M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project I; Queen Anne's County: Up to 120M SOS to be planted in Eastern Bay across multiple bars including but not limited to the ones listed below.

- Parsons Island (20+M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Herring Island (20+M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Crab Alley Lumps (20+M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Batts Neck (20+M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project J; Queen Anne's County: Up to approximately 40M SOS to be planted in the Chester River – TENTATIVE – this project may not be contracted

- Chester River Middleground \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Piney Point \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project K; Wicomico County: Approximately 30M SOS (triploids preferred) to be planted in the Wicomico/Nanticoke River (s): SOS on 3” or greater shells.

- Middleground (30M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project L; Dorchester County: Approximately 20 - 30M in the Choptank River and Fishing Bay.

- Dickinson/Turtleback (8-10M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Flat Rock (10-20M) - triploids \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project M; St. Mary’s County: 14M SOS guaranteed on Bramleigh Creek and St. Catherine and up to 32M total to be planted in the Wicomico River across the following bars dependent on availability of wild seed and shell.

- Bramleigh Creek (7-8M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- St. Cathrine Sound (7-8M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- White Point (7-8M) - **Tentative** \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Key (7-8K) - **Tentative** \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project N; Talbot County: Up to 26M SOS to be planted in the Choptank and Tred Avon Rivers.

- Lighthouse (8-10M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- La Trappe (8-10M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Town Point (Ferry Bar) (4-6M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Project O; Talbot County: Up to 120M SOS to be planted in the Talbot County portion of Eastern Bay.

- Bozman Neck (20+M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Aldridges Discovery (20+M)\$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Lows Point (Coopers Hollow) (20+M)\$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm
- Sycamore (20+M) \$_____ 1-2mm; \$_____ 2-3mm; \$_____ 3+mm

Please provide the type of substrate you intend to use for this project (ex: eastern oyster shell, gigas oyster shell): _____

Production, Planting and Reporting Guidelines

1. Once a vendor has been selected by the DNR, the following guidelines must be followed by the vendor to ensure full payment for product and service. MD DNR or its designee reserves the right to conduct spot checks at any time during the production process. If a vendor fails to follow the guidelines listed below any uncompleted projects may be modified, terminated or re-assigned at any time.
 - a. The vendor shall provide documentation of larvae source for each planting event. Larvae shall be only of the species *Crassostrea virginica* from Chesapeake brood stock unless otherwise authorized by DNR. Diploid larvae are preferred, however, triploid or disease resistant larvae may be used if available and approved by the committee chair and DNR.
 - b. An import permit is required from DNR for any out-of-state larvae, brood stock, and aged oyster shell and must be secured well in advance of the project commencing. A minimum of 30 days must be given between submittal of a complete import permit application and permit acquisition date. Failure of the vendor to procure proper permits may inhibit production and cause loss of part or all the contract(s).
 - c. For early season setting (prior to May 1) vendors must use heaters in production tanks and follow early season planting protocols established by DNR and highlighted below. The recommendations for Vendors wishing to start prior to May 1 are as follows:
 1. Water temperature: When it is time to turn on the flow of ambient water, first turn the heater off **but do not turn on the ambient flow. Instead**, let the tank cool down for 24 hours as air temperature decreases the water temperature. Ambient water should be turned on to flow through the tanks as a trickle to continue to slowly decrease temperature for another 24 hours. After that time (24 hours of cooling, plus 24 hours of cooling with slow-drip flow), regular flow can be established. Slowly cool the tanks down so the spat can acclimate.
 2. Food Availability: For early season setting, spat shall be held several days longer than normal before planting – no less than 8 days post-flow through and 10 days post-set. If possible, supplement food (using e.g., Instant Algae) for the first few days spat are being held in tanks. Consult with hatcheries if supplementing food. If the vendor determines a tank had a poor set and very few spat-on-shell were developed, the vendor will notify ORP of the issue, provide spat counts, and propose solutions. ORP will then consult with MD DNR and the respective County Oyster Committee and determine the best course of action.
 - d. **No Planting Zones (areas where spat are prohibited):** Once under contract, the vendor must not plant the contents of a setting tank at any location other than the contracted location without written permission from MD DNR. Planting locations that are in close proximity to “No Planting Zones” as determined by DNR may require an onboard observer, designated by DNR, to ensure that plantings occur in the approved areas only. No payment will be made for spat planted in an unauthorized location and any uncompleted projects may be modified, terminated, or re-assigned to another MD DNR-approved entity for completion.

ORP and DNR are not obligated to pay for SOS until it is confirmed that the planting was completed and conducted in the approved location.

- e. For MD DNR tracking purposes, the vendor shall provide the following documentation:
 1. A detailed set log; a standardized set log to use for all tanks set for SOS production is provided in *Appendix B*.
 - Number of larvae added to each tank
 - Source of larvae
 - Ploidy of larvae
 - Salinity of larvae at rearing
 - Salinity & temp at set
 - f. A verification count data sheet provides the quantity of spat that is set by the vendor and delivered in the planting event. A verification sheet must be provided for each tank which contributes spat on shell to each planting event. Verification data sheets are filled out by a MD DNR-authorized entity for each tank of spat at the time of deployment (e.g., UMCES Horn Point, MD DNR Piney Point, Ferry Cove Oyster Hatcheries (FCO), etc.)
 1. A standardized verification count form is provided in *Appendix C* along with guidelines for how to determine the number of shells and spat per tank and planting. This form should be filled out fully and submitted to ORP prior to the planting. This form includes the following information:
 - Number of larvae added to each tank
 - Bushels of shell or number of shell bags added to each tank, including the average number of shells per bushel or bags per tank. The vendor should specify which bushel they are using (crab bushel or MD oyster bushel, or other).
 - g. Vendors will be required to count the number of shells in three to six bushels, per set, dependent on the size of your tank, to determine the average shell count per tank for a given set. This is requested to account for shell used per set and provide accurate details for planting and payment purposes. ORP/DNR will advise on the number of bushels of shell needed to be counted per set based on the size of tank. This information will be provided at time of contract award and should be maintained throughout the entire planting season.
 - h. All shells used for SOS production should be of legal harvest size or greater (>2.5”).
 - i. To ensure full payment for product and service, several important criteria for the verification counts must be met:
 1. At the vendor’s expense, MD DNR-authorized hatchery personnel shall receive 30-60 randomly selected shells from each tank (dependent on your tank size, see Table 1) for spat count verification. Tank breakdown shall occur during normal working hours (8am to 5pm) unless pre-arranged. Vendors are responsible for covering the cost of shell counts (i.e. \$1-2/shell).

2. If vendors choose to take shells to MD DNR Piney Point, UMCES Horn Point or FCO for spat counting verification, the vendor should randomly collect 30 to 60 shells to be counted (based on your tank capacity – see Table 1. The vendor should provide these shells within 36 - 48 hours prior to anticipated planting. The vendor is responsible for contacting the authorized hatchery representative at the numbers provided to schedule a drop of the shells to be counted. The MD DNR-authorized hatchery will conduct the counting of spat on shell within 24 hours prior to anticipated planting. The resulting count sheet should be provided to ORP within 24 hours prior to the planting. A quick reference guide for the information that the vendor needs to provide to the counting hatchery is provided in *Appendix D*.
3. To ensure consistency, spat should be held in setting tanks until visible with the naked eye (e.g., 1 mm in size or greater).

Table 1. Example of the number of shells to collect and get counted at an approved verification hatchery depending on the bushel capacity of your tank.

Tank Capacity (bushels)	Up to 300	301 – 599	600+
Shells to be Counted	30	45	60

- i. The number of spat per tank will be calculated based on the following:
 1. The spat count on each of the subsampled shells counted by the MD DNR- authorized entity will be capped at 40.
 2. For payment purposes, the payment will be based on spat counts no greater than an average of 20 spat per shell per tank.
 3. To ensure accurate reporting, all spat on shell produced in each tank should be planted on one bar even if the total exceeds the requested planting amount (partial tanks should not be planted for these projects). The vendors will be compensated for the extra spat on shell produced by up to 10% of the total requested project amount for that county.
 - j. Spat must be a minimum of 1mm in length and no less than seven days old (five days post-flow through in tanks) to be planted. Spat length will be verified during the hatchery counting process. Spat from tanks with less than an average length of 1mm will need to be held in tanks longer and recounted by hatchery staff prior to planting. Payment will not occur for spat planted from tanks without count data sheets from an approved hatchery or for spat planted from tanks with less than an average length of 1mm.
2. Once a vendor has created the product and can plant the spat on shell, the following guidelines must be followed by the vendor to ensure full payment for product and service. MD DNR or its designee reserves the right to conduct spot checks at any time during the transport process.
 - a. To ensure payment and continuation of the contract, all plantings shall only occur on sites that have been pre-approved by MD DNR. Selected sites may need to be surveyed by a MD DNR-authorized entity prior to the planting. The vendor

should assume that a site will be surveyed unless permission to waive the survey is granted by MD DNR. In either case, approval to plant and/or to waive a pre-planting survey shall be provided in an email by MD DNR to ORP and to the vendor.

- b. The vendor must notify ORP and the County Oyster Committee **representative at least 48 hours before the product is to be delivered for approval and as much advance notification as possible is strongly preferred.** It is preferable for the vendor to notify ORP once the tanks have been set, and anticipated planting date. Notification shall be in the form of an email, phone call and/or text message. ORP in turn will notify MD DNR personnel. All targeted sites for spat plantings must be approved by DNR 48 hours in advance of planting. The count sheets for the planting (for spat-on-shell) must be received by DNR prior to planting. This is to ensure that proper set rates were acquired, minimum size requirements are met, that sites were adequately ground-truthed prior to planting, and that the proper coordination can occur between DNR, the vendor, and the county observer. MD DNR reserves the right to temporarily postpone the planting if conditions on the water are known to be unfavorable (e.g., low oxygen or freshwater event in planned area), for safety reasons due to weather, a change in planting location based on request of the County Oyster Committee, or another factor that may negatively impact spat survival. Plantings conducted without prior permission by the Department will not be paid.
- c. The County Oyster Committee should appoint observers to perform ground-truthing of sites, place buoys to mark planting locations approved by DNR, and meet the planting vessel on the day of planting to ensure plantings are being conducted according to specifications. Any of these activities must be conveyed to MD DNR in advance and must meet the following requirements:
 - 1. County observers must be available by phone, have GPS, be able to interpret coordinates in degrees-decimal minutes format, have access to at least four buoys for marking corners of planting, and have the ability to travel to the site safely by boat.
 - 2. Counties should provide contact information for multiple observers. Only the observers specified by the county representative in advance qualify

for compensation. Individuals not approved in advance by ORP and DNR cannot be used as observers for these plantings. If a county observer is not available, the planting will be rescheduled to the next available day that a qualified observer is available (weather permitting, etc.).

3. The spat-on shell should be kept moist and shaded (when practical) at all times when traveling to the planting location takes over 4 hours. Spat should never be completely dry and should be protected from high temperatures, excessive temperature fluctuations, and direct sunlight during transport. Tarps should not be used to cover spat during transport.
 4. County Oyster Committee members or an approved representative will be responsible for placing flags/buoys onsite and signing for the delivery of the seed. They shall not assist the vendor with crew-related activities (e.g., unloading trucks, loading or unloading boats, planting the seed, operating the vessel during plantings, etc.). The vendor must provide staff for the labor required. Upon arrival to the planting location, it is the responsibility of the vendor/planting vessel captain to confirm that the buoys have been placed within the DNR-approved coordinates provided to them by ORP. If there is a discrepancy upon arrival at the planting location as to where the planting should occur, the vendor/Boat Captain must contact ORP immediately. Should a dispute occur, and the planting is done outside of DNR-approved coordinates, the vendor may not be compensated for the planted product. If sea conditions prevent completing the delivery paperwork safely, the observer can verbally confirm the receipt with the delivery vessel by cell phone or VHF radio and should notify DNR/ORP as soon as is practical to do so.
 5. The County Oyster Committee member or approved representative signing off on receipt of the planting for the day will be required to take a picture of the planting vessel on site and of the material on deck of the vessel. The captain of the planting vessel should also take a picture of the material aboard the deck of the vessel as a back-up, in the event that weather prohibits the county representative taking an up-close picture. The picture of the material on the deck should be taken from an angle to capture the majority of material on board. All pictures should be sent to the ORP point of contact the day of the planting. Failure to do so can result in ORP/DNR withholding payment to the county representative on site and/or the SOS vendor.
3. The vendor shall create a planting report for each deployment of a planting. For example, if four deployments (trips) are necessary to complete a single planting, then four planting reports are required. MD DNR may delay payment if the planting report is incomplete. A planting report shall contain the following:
- a. Volume (in bushels) of shell deployed and how measured. Date and time planting begins and ends.
 - b. Track lines recorded by GPS. GPS trackers will be provided by ORP. Trackers shall be engaged the entire time the vessel is underway. If the planting is occurring by a means other than by boat, a complete description of the transport process must be supplied prior to bid. If spat is transported via truck for any portion of the planting process, the production plan must indicate how the spat will be kept moist and avoid excessive temperatures. Vendors must keep the trackers charged and return them to ORP for download (if required) when requested. Payments might not be released until trackers are returned and planting

- locations are verified. The vendor shall notify ORP immediately if there are any indications that a tracker was not functioning properly.
- c. Vendors are responsible for confirming corner coordinates prior to any planting activities taking place; vendors may not receive compensation for plantings that occur outside of DNR-approved coordinates. If corner coordinates need to shift day-of for any reason (tide/depth, interfering gear, etc.) the vendor must call ORP or DNR immediately.
 - d. Receipt acceptance form acknowledging delivery and planting of the product that is signed by an approved County Oyster Committee representative.
 - e. Source tank, numbers of spat planted and volume of shell used in tank (in bushels) so that planting information can be paired with count verification data sheet completed by hatchery or authorized MD DNR representative.
 - f. Start time of initial tank unloading to end time when the SOS is planted in the water.
 - g. General weather conditions at the time of planting.
 - h. Verification count data sheet for each tank used in planting must be sent to ORP directly from hatchery at time of counting or payment will be delayed.
- The vendor shall provide to ORP an invoice and all supporting documentation and reports within 10 business days of completing a planting. The vendor can expect to receive partial payment within 30 days of invoice submission and full payment within approximately 45 to 60 days if all conditions listed herein are met

APPENDIX A

RELEVANT GENERAL CONDITIONS ASSOCIATED WITH ORP/DNR MEMORANDA OF UNDERSTANDING

ARTICLE II - THE PARTIES

A. Independent Contractor - The Contractor is not an employee of the Department but is an independent contractor. The Contractor shall be responsible for providing all supplies and materials necessary for performance of all work under the Contract, and for withholding any taxes and social security payments due in relation to the Contract. The Contractor is not an agent of the Department and cannot commit the Department to any expenditure of funds or enter into any contractual obligation on behalf of the Department.

B. Notices - Service of any notice required by the Contract shall be complete upon mailing of such notice, postage prepaid, to the appropriate contract representative at the address indicated in the MOU. If no contract representative is named, then the person executing the MOU for a party shall be the contract representative for purposes of notice.

ARTICLE III – PERFORMANCE

A. Standard of Performance - The Contractor is responsible for the supervision and inspection of, and the technical accuracy and coordination of all data and work pursuant to this Contract, and shall provide services and products meeting professional standards of quality and methodology.

B. Prosecution of the Work - The Contractor agrees to prosecute all work under this Contract continuously and diligently and to meet all milestones contained in the Contract. The Contractor further agrees that no charges or claims for damages shall be made by it for any delays or hindrances from any cause whatsoever during the progress of any portion of the work specified in this Contract.

Time extensions will be granted only for excusable delays that arise from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of the public enemy, acts of the State in either its sovereign or contractual capacity, acts of another Contractor in the performance of a contract with the State, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or delays of subcontractors or suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of either the Contractor or the subcontractors or suppliers.

C. Subletting or Assignment - The benefits and obligations hereunder shall inure to and be binding upon the parties hereto and their respective successors, provided the personnel of any such successor, whether such successor be an individual, a partnership or a corporation, is acceptable to the Department. The Contractor shall not hire consultants, sublet, sell, transfer, assign or otherwise dispose of this Contract or any portion thereof, or of its right, title or interest therein, without prior written consent of the Department.

In the case of any subcontract, the Contractor agrees to bind the subcontractor and every subcontractor agrees to be bound by all terms of this Contract unless particular provisions are expressly waived in writing by the Department.

D. Changes - The Department, by written direction to the Contractor, may at any time make any change in the work within the general scope of the Contract. Within fifteen (15) days of receipt of a Notice of Change, the Contractor shall advise the Department of the effect, if any, such changes would have on budgeting, cost, delivery schedules, milestones or any other Contract provisions. If such effects are acceptable to the Department, the Department shall issue a Notice to Proceed With Changes, upon receipt of which the Contractor shall immediately institute all such requested changes. Such directed additions or changes to the Scope of Work shall become part of the contractual obligation. Each contract modification or change order that affects contract price is subject to the prior written approval of the Department.

E. Suspension of Work - The Department unilaterally may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for a period of time the Department determines to be appropriate.

F. Disputes - If the Contractor intends to assert a claim against the Department, the Contractor shall do so within 30 days of the date the Contractor knows, or should know, of the basis of the claim. Failure to file a claim within the 30-day period is a complete bar to the claim. The claim shall consist of a written statement to the Department setting forth the nature and monetary extent of the claim, and the facts on which the claim is based. Pending resolution of a claim, the Contractor shall proceed diligently with the performance of the Contract.

ARTICLE IV – PROPERTY

A. Rights in Data, Public Disclosure - Unless otherwise specified by addendum to this Contract, the Contractor agrees that all reports, drawings, studies, specifications, estimates, maps, and computations prepared by or for it under the terms of this Contract shall be delivered to and become and remain the property of the Department upon termination or completion of the work. The Department shall have the absolute right to duplicate and use, for any purpose whatsoever, all or any part of the technical data which are to be delivered under this Contract.

The Contractor shall notify the Department in advance of public disclosure of any information related to this Contract, unless such disclosure is compelled by legislative or judicial process. The Contractor shall in all cases submit to the Department three (3) copies of any scientific or technical paper, abstract, report or other vehicle pertaining in whole or in part to this Contract which the Contractor desires to publish, submit for publication, distribute or otherwise publicly disseminate. Such submission shall be made by the Contractor to the Department at least thirty (30) days prior to its planned initial public dissemination, disclosure, or submission for publication. The Contractor shall include in any such documents or vehicles of public disclosure a statement which acknowledges the Department, the specific programs therein, and the financial support provided by this Contract. Furthermore, upon receipt of a written request from the Department, the Contractor shall also provide a disclaimer stating that the contents of the aforesaid document or vehicle of public disclosure do not in any way reflect the views, opinions, or policies of the Department.

B. Patents and Copyrights - The Contractor may retain the entire right, title, and interest throughout the world to each subject invention associated with or reduced to practice in the course of performance under this Contract. With respect to any subject invention in which the Contractor retains title, the Department, and in those cases where federal money is involved, the federal government, shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced the subject invention throughout the world.

The Contractor shall have the duty to disclose to the Department any invention associated with or reduced to practice in the course of performance under this Contract. Furthermore, the Contractor agrees that, if at any time during the course of performance of this Contract, it should become aware of a potential conflict between the rights of the Department under this Contract, and those of any other party or entity, as to ownership of any patent or copyright interests developing in relation to said performance, then the Department shall be immediately notified of such conflict. In such a case, it is agreed and understood that the terms of this Contract may be adjusted to provide for an equitable relationship between monies expended hereunder in pursuit of such patent or copyright interests and benefits to be obtained therefrom by the Department.

The Contractor assumes the risk that any materials, equipment, process, or other items required under the Contract or furnished by the Contractor are subject to any patent, copyright, trademark, trade secret or other property right of another. The Contractor shall pay for all royalties and license fees and shall obtain all necessary licenses or permits to permit use of any such item by the Department. The Contractor shall defend all suits or claims of infringement of any patent, copyright, trademark, trade secret or other property right of another and shall save the Department harmless from loss or expense on account thereof.

C. Equipment - Unless otherwise provided in the MOU, all non-expendable equipment, including major equipment as defined in this Article, procured with funds from this Contract, shall be Department property and shall be used primarily for work under this Contract. Prior written approval of the Department

shall be required for use of the equipment, on a non-interference basis, for other work of the Contractor. The Contractor shall use all effort to care for and maintain the equipment. Upon termination of this Contract, the Department shall determine what disposition shall be made of the equipment and shall so notify the Contractor within thirty (30) days. The Contractor shall report its acquisition of non-expendable equipment covered by this Contract to the Department annually. Non-expendable equipment is that which: 1) has a probable useful life in excess of one year beyond the date of acquisition, and 2) costs at least \$500, either as an individual piece or as a group of pieces intended to be used together.

All items of Major Equipment to be procured with funds from this Contract shall be itemized in the budget of this Contract to the extent possible. "Major Equipment" shall be defined as any item of equipment costing Two Thousand Dollars (\$2,000.00) or more. Unless itemized in the budget approved by the Department, purchase of each item of Major Equipment shall require prior written approval of the Department.

ARTICLE V - INDEMNIFICATION

A. Department Saved Harmless - The Contractor is, to the fullest extent permitted by law, responsible for all damage to life and property due to its activities, or those of its agents, employees, or subcontractors, in connection with its performance under this Contract, and is responsible for all work, both permanent and temporary, until all services under this Contract are declared accepted by the Department.

The Contractor shall, to the fullest extent permitted by law, indemnify and save harmless and defend the Department and all of its representatives from all suits, actions, or claims of any character, brought on account of any injuries or damage sustained by any person or property in consequence of any work performed under this Contract, either by the Contractor or any subcontractor, or their employees, agents, or representatives. This responsibility is not to be deemed as a waiver of any immunity which may exist in any action against the Department.

B. Insurance - If specified in the MOU, the Contractor shall provide insurance protecting the Department from bodily injury and property damage. Certificates of such insurance acknowledging the foregoing "Department Saved Harmless" clause shall be filed with the Department.

ARTICLE VI - WARRANTIES AND DISCLOSURES

A. Nondiscrimination in Employment - The Contractor agrees: (1) not to discriminate in any manner against an employee or applicant for employment because of race, color, religion, creed, age, sex, marital status, national origin, ancestry, or physical or mental handicap unrelated in nature and extent so as reasonably to preclude the performance of such employment; (2) to include a provision similar to that contained in subsection (1), above, in any subcontract except a subcontract for standard commercial

supplies or raw materials; and (3) to post and to cause subcontractors to post in conspicuous places available to employees and applicants for employment, notices setting forth the substance of this clause.

B. Compliance with Laws - The Contractor hereby represents and warrants that:

1. It shall comply with all federal, State and local laws, regulations, and ordinances applicable to its activities and obligations under this Contract; and
2. It shall obtain, at its expense, all licenses, permits, insurance, and governmental approvals, if any, necessary to the performance of its obligations under this Contract.

ARTICLE VII - ACCOUNTING

A. Retention of Records - Audit - The Contractor shall retain and maintain all records and documents relating to this Contract for three years after final payment by the Department hereunder or any applicable statute of limitations, whichever is longer, and shall make them available for inspection and audit by authorized representatives of the Department, including the procurement officer or designee, at all reasonable times. The Department shall have the right, during usual business hours, to examine and audit pertinent records of the Contractor to verify invoices submitted pursuant to this Contract.

B. Payment of State Obligations - Payments to the Contractor shall be made in accordance with the terms of the MOU. Charges for late payment are prohibited.

ARTICLE VIII - DURATION

A. Effective Date - It is understood and agreed by the parties hereto that this Contract and any modification thereof shall not become effective or enforceable until executed by the Department.

B. Termination for Convenience - The performance of work under this contract may be terminated by the Department in accordance with this clause in whole, or from time to time in part, whenever the Department shall determine that such termination is in the best interest of the Department. The Department will pay all reasonable costs associated with this contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with termination of the Contract. However, the Contractor shall not be reimbursed for any anticipatory profits that have not been earned up to the date of termination.

C. Termination for Default - If the Contractor fails to fulfill its obligation under this contract properly and on time, or otherwise violates any provision of the Contract, the Department may terminate the Contract by written notice to the Contractor. The notice shall specify the acts or omissions relied upon as cause for termination. All finished or unfinished work provided by the Contractor shall, at the Department's option, become the Department's property. The Department shall pay the contractor fair and equitable compensation for satisfactory performance prior to receipt of notice of termination, less the amount of damages caused by Contractor's breach. If the damages are more than the compensation payable to the Contractor, the Contractor will remain liable after termination and the Department can affirmatively collect damages.

D. Multi-Year Restriction - If the General Assembly fails to appropriate funds or if funds are not otherwise made available for continued performance for any fiscal period of this Contract succeeding the first fiscal period, this Contract shall be canceled automatically as of the beginning of the fiscal year for which funds were not appropriated or otherwise made available. The Contractor may not recover anticipatory profits or costs incurred after termination.

ARTICLE IX - LEGAL

A. Severability - If any of these provisions shall contravene, or be invalid under, the laws of the particular state, county or jurisdiction where used, such contravention or invalidity shall not invalidate the whole agreement, but the Contract shall be construed as if not containing the particular provision or provisions held to be invalid in the particular state, county, or jurisdiction, and the rights and obligations of the parties shall be construed and enforced accordingly.

B. Law Applicable - Unless otherwise authorized by the Board of Public Works, this Contract shall be governed by the laws of the State of Maryland, and the parties hereby expressly agree that the courts of the State of Maryland shall have exclusive jurisdiction to decide any question arising hereunder.

APPROVED as to form and legal sufficiency

Office of the Attorney General

Department of Natural Resources

December, 2011

APPENDIX B

Setting Tank Record

Name of Setter	
Location Tank Set	
Tank # or Unique Setting ID	
# bags/containers in tank	
Substrate(s) used in tank	
Date tank filled with water	
Date larvae introduced into tank	
Salinity of tank at time of introduction	
Temperature of tank at time of introduction	
Other water quality parameters collected of tank at time of introduction (if applicable)	
Was salt used? (Circle one)	Yes No
Was a heater used? (Circle one)	Yes No
Eyed Larvae information (brood #, source)	
Ploidy/Strain of larvae (Circle one)	Diploid Disease Resistant Triploid
Total amount of eyed larvae introduced (m)	
Hatchery that produced larvae	
Salinity at which larvae were reared (hatchery should provide)	
Date ambient water turned on	
Date tank deployed	

Shell Counts

Bushel 1	Bushel 2	Bushel 3	Bushel 4	Bushel 5	Bushel 6

Average number of shells per bushel: _____

20_____ Industry Planting Counts

Counted for (circle one): County or Private

Counted by: (circle one)

Ferry Cove

Horn Point

Piney Point

Other (please record name): _____



Tank #: _____ Counted for: _____

Date Counted: _____ Time: _____ Samples Scoped: YES NO

Counter's Name: _____ Hatchery Source for Larvae: : _____

Circle one: Diploid or DR Diploid or Triploid

Total Spat Count per shell	Total Spat Count per shell	Total Spat Count per shell	Total Spat Count per shell	Spat Size (mm)	Spat Size (mm)	Spat Size (mm)	Spat Size (mm)

Substrate Counted (ex: eastern oyster shell, gigas oyster shell, clam shell, whelk shell, other): _____

Sum of all measurements: _____ Average size: _____

Counted shells per tank: _____

Total live spat on shell counted	
Average Spat per Shell	
Total shells in tank*	
Total Spat Produced (m)	
# larvae set in tank	
Setting %	

Bushel #	# shells counted	Bushel #	# shells counted
1		4	
2		5	
3		6	
Total # shells counted		Average # shells per bushel	
Total # Bushels per tank		*Total # shells per tank	

APPENDIX D



University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE
HORN POINT LABORATORY

Calculating Spat on Shell Production for Industry Counts

The **Vendor** needs to provide the following information to the verification site:

- Tank #
Example 1-1
- Type of substrate in tank *Example:*
Eastern oyster shell
- Total number of bushels of substrate you have in the tank
Example: 160 bushels
- Sample size requested to be counted (30, 45 or 60 shells)
- Randomly collected shell samples from tank clearly labeled with tank number
- Counts on the number of substrate in at least 3 separate bushels *Example: 524, 578, 499*
- Hatchery that produced larvae
- Ploidy/Strain of larvae: Diploid, Diploid Disease Resistant, Triploid
- Amount of larvae set in tank