



# CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration  
Environmental Education*

## House Bill 1228

Natural Resources – Oysters – Spat, Shells, and Substrate

Date: March 4, 2022

To: House Environment and Transportation Committee

Position: Support with Amendments

From: Allison Colden, Sr. Fisheries Scientist

Chesapeake Bay Foundation (CBF) **SUPPORTS HB 1228 WITH AMENDMENTS.** This comprehensive bill addresses critical needs for oyster recovery in Maryland – oyster larvae, shell, and substrate. Through investments in hatchery and shuckinghouse capacity, incentives for shell recycling, and improved science, HB 1228 seeks to increase retention of oyster shell in Maryland and develop long-term plans for improved substrate management across the restoration, fishery, and aquaculture sectors.

Although recent monitoring studies indicate that alternative substrates like granite perform as well or better than oyster shell when used as a reef substrate, there are some aspects of oyster restoration that necessitate the use of oyster shell. So-called “spat-on-shell” is a restoration technique that involves placing oyster shells in a tank and allowing young oysters to settle on them. Those shells are then planted on sanctuary reefs where they provide habitat to a host of other fish and crab species. Without oyster shells, these programs would not be possible.

HB 1228 seeks to increase the volume of oyster shell retained in the state through investments in shuckinghouses and reforms to shell recycling programs. When oysters are harvested, they are sold directly to restaurants in the shell or to processors who shuck the oysters and sell the shucked meats. Once the oysters are distributed for sale, it is very difficult to recover the shell. The oyster shell recycling tax credit was first introduced in 2013 to incentivize the collection and return of shell from restaurants and processors. Each year, restaurants and seafood processors recycle tens of thousands of bushels of shell which are used for restoration, repletion, and aquaculture.

HB 1228 would transition the existing tax credit program, which would otherwise sunset in 2023, to a grant program and extend eligibility to community and nonprofit organizations who recycle small volumes of shell each year. This helps capture additional shell that may have otherwise been landfilled by diversifying the types of organizations that can participate in shell recycling programs.

Other critical inputs to oyster recovery programs include oyster larvae, which is used to produce spat-on-shell oysters that are placed on sanctuary reefs. HB 1228 includes investments in the University of Maryland Center for Environmental Science’s Horn Point Hatchery and Morgan State University’s PEARL lab with the goal of increasing oyster spat production to 5 billion annually by 2025. This would address a critical bottleneck and provide additional capacity to accelerate oyster restoration activities in the future.

Lastly, HB 1228 directs the Department of Natural Resources (DNR), the University of Maryland Center for Environmental Science, and other state agencies and partners to carry out research, surveying and long-

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Phone (410) 268-8816 • Fax (410) 280-3513

range planning to support more comprehensive management of oyster shell and habitat in the Bay in the future. This includes conducting a bay bottom survey to identify areas of existing habitat and areas that would support oyster restoration, addressing key research questions to inform restoration using substrate, and developing a long-term plan for oyster shell and substrate management. These actions will hopefully result in a more holistic, science-driven approach to managing Maryland's oyster habitat and resource.

CBF supports amendments to HB 1228 which would clarify the disposition of shell from the MARBIDCO loan program, conform the loan forgiveness rate and shell recycling grants per bushel rate with market rates for shell (\$5 per bushel), simplify the shell recycling grant program for processors and restaurants, and clarify the intent of the bay bottom survey (see *Attachment*). CBF welcomes the opportunity to work with the Committee to further refine and perfect amendments to the bill.

**CBF urges the Committee's FAVORABLE report on HB 1228 WITH AMENDMENTS.** For more information, please contact Dr. Allison Colden, Maryland Senior Fisheries Scientist at [acolden@cbf.org](mailto:acolden@cbf.org) and 443.482.2160.

**ATTACHMENT**

Suggested amendments in red:

Suggested amendment #1:

10-519.1.

1 (A) (1) IN THIS SECTION THE FOLLOWING WORDS HAVE THE MEANINGS  
2 INDICATED.

3 (2) "ELIGIBLE SEAFOOD PROCESSING PROJECT" MEANS A PROJECT  
4 TO ESTABLISH OR EXPAND THE BUSINESS OF A LICENSED SEAFOOD DEALER THAT:

5 (I) SUPPORTS THE GOAL OF INCREASING THE AMOUNT OF  
6 OYSTER SHELLS RETAINED IN THE STATE AND RETURNED TO THE CHESAPEAKE  
7 BAY; AND

8 (II) MEETS THE CRITERIA ESTABLISHED BY THE CORPORATION  
9 UNDER THIS SECTION.

10 (3) "LICENSED SEAFOOD DEALER" MEANS A PERSON LICENSED  
11 UNDER § 4-701 OF THE NATURAL RESOURCES ARTICLE TO BUY, PROCESS, PACK,  
12 RESELL, MARKET OR OTHERWISE DEAL IN FISH CAUGHT IN THE TIDAL WATERS OF  
13 THE STATE.

14 (B) (1) THE CORPORATION SHALL PROVIDE LOANS ~~AND GRANTS~~ UP TO  
15 \$250,000 TO FINANCE THE COSTS OF ELIGIBLE SEAFOOD PROCESSING PROJECTS IN  
16 ACCORDANCE WITH THIS SECTION,

17 (2) FINANCING PROVIDED UNDER THIS SECTION SHALL BE  
18 ~~CONDITIONED ON THE AGREEMENT BY THE RECIPIENT TO COMPLY WITH THE PROVISIONS~~  
19 ~~OF § 4-1019.2. RETURN, AT NO COST TO~~  
20 ~~THE STATE, ALL OYSTER SHELLS PROCESSED BY THE RECIPIENT;~~

21 ~~(I) TO THE DEPARTMENT OF NATURAL RESOURCES, FOR USE~~  
22 ~~IN REPLETION AND RESTORATION ACTIVITIES; OR~~

23 ~~(II) DIRECTLY TO OYSTER BARS IN THE PUBLIC FISHERY OR~~  
24 ~~RESTORATION AREAS, IN ACCORDANCE WITH REGULATIONS OF THE DEPARTMENT~~  
25 ~~OF NATURAL RESOURCES.~~

26 (3) THE CORPORATION SHALL FORGIVE ~~\$35~~ \$5 OF ANY LOAN PROVIDED  
27 UNDER THIS SECTION FOR EACH BUSHEL OF OYSTER SHELLS THAT THE LOAN  
28 RECIPIENT RETURNS TO THE DEPARTMENT OF NATURAL RESOURCES ~~OR DIRECTLY~~  
29 ~~TO OYSTER BARS IN ACCORDANCE WITH PARAGRAPH (2) OF THIS SUBSECTION.~~

30 (C) A PERSON IS ELIGIBLE TO RECEIVE FINANCING UNDER THIS SECTION IF  
31 THE PERSON:

32 (I) HAS BEEN A LICENSED SEAFOOD DEALER FOR AT LEAST 5  
YEARS; OR

1 (II) HAS HELD A TIDAL FISH LICENSE ISSUED UNDER § 4-701 OF  
2 THE NATURAL RESOURCES ARTICLE FOR AT LEAST 5 YEARS AND AGREES TO  
3 OBTAIN A SEAFOOD DEALER LICENSE ON RECEIVING FINANCING UNDER THIS  
4 SECTION;

5 (2) HAS PAID ALL APPLICABLE BUSINESS TAXES AND FEES FOR THE  
6 PAST 5 YEARS;

7 (3) DEMONSTRATES TO THE SATISFACTION OF THE CORPORATION  
8 THAT, WITHIN 5 YEARS AFTER RECEIVING FINANCING UNDER THIS SECTION, THE  
9 PERSON'S SEAFOOD PROCESSING BUSINESS WILL:

10 (I) EMPLOY AT LEAST 15 INDIVIDUALS; AND

11 (II) ACHIEVE VIABILITY AS A BUSINESS; AND

12 (4) MEETS ANY OTHER ELIGIBILITY REQUIREMENTS ESTABLISHED BY  
13 THE CORPORATION.

14 (D) FOR FISCAL YEAR 2024, THE GOVERNOR SHALL INCLUDE IN THE  
15 ANNUAL BUDGET BILL AN APPROPRIATION OF \$1,000,000 TO THE CORPORATION  
16 FOR THE PURPOSE OF PROVIDING GRANTS AND LOANS UNDER THIS SECTION.

Suggested amendment #2:

4-1019.1.

24 (A) THE DEPARTMENT SHALL PROVIDE ANNUAL GRANTS TO NONPROFIT  
25 ORGANIZATIONS, COMMUNITY ASSOCIATIONS, RESTAURANTS, AND SEAFOOD  
26 PROCESSORS THAT RECYCLE OYSTER SHELLS.

27 (B) (1) GRANTS TO NONPROFIT ORGANIZATIONS AND COMMUNITY  
28 ASSOCIATIONS SHALL BE PROVIDED IN THE FOLLOWING AMOUNTS:

29 (I) \$100 FOR THE RECYCLING OF AT LEAST 5 BUT LESS THAN 20  
30 BUSHELS OF OYSTER SHELLS IN A YEAR; AND

1 (II) \$250 FOR THE RECYCLING OF AT LEAST 20 BUSHELS OF  
2 OYSTER SHELLS IN A YEAR.

3 (2) GRANTS TO RESTAURANTS AND SEAFOOD PROCESSORS SHALL BE PROVIDED  
AT A RATE OF \$5 PER BUSHEL UP TO A MAXIMUM OF \$2000 IN A YEAR. ~~IN THE  
FOLLOWING AMOUNTS:~~

~~4 (I) \$100 FOR THE RECYCLING OF AT LEAST 25 BUT LESS THAN  
5 50 BUSHELS OF OYSTER SHELLS IN A YEAR;~~

~~6 (II) \$250 FOR THE RECYCLING OF AT LEAST 50 BUT LESS THAN  
7 100 BUSHELS OF OYSTER SHELLS IN A YEAR;~~

~~8 (III) \$500 FOR THE RECYCLING OF AT LEAST 100 BUT LESS THAN  
9 250 BUSHELS OF OYSTER SHELLS IN A YEAR;~~

~~10 (IV) \$1,000 FOR THE RECYCLING OF AT LEAST 250 BUT LESS  
11 THAN 500 BUSHELS OF OYSTER SHELLS IN A YEAR;~~

~~12 (V) \$1,500 FOR THE RECYCLING OF AT LEAST 500 BUT LESS  
13 THAN 1,000 BUSHELS OF OYSTER SHELLS IN A YEAR; AND~~

~~14 (VI) \$2,000 FOR THE RECYCLING OF AT LEAST 1,000 BUSHELS  
15 OF OYSTER SHELLS IN A YEAR.~~

16 (C) THE DEPARTMENT SHALL PROVIDE, AT NO COST, RECEPTACLES FOR  
17 THE COLLECTION OF OYSTER SHELLS TO RESTAURANTS THAT AGREE TO RECYCLE  
18 AT LEAST 25 BUSHELS OF OYSTER SHELLS PER YEAR.

19 (D) (1) THE DEPARTMENT SHALL ADOPT REGULATIONS TO CARRY OUT  
20 THE PROVISIONS OF THIS SECTION.

21 (2) THE REGULATIONS SHALL ESTABLISH ELIGIBILITY CRITERIA AND  
22 PROVIDE FOR THE CERTIFICATION OF NONPROFIT ORGANIZATIONS, COMMUNITY  
23 ASSOCIATIONS, RESTAURANTS, AND SEAFOOD PROCESSORS TO VERIFY THE AMOUNT OF  
OYSTER SHELLS RECYCLED BY EACH ENTITY.

(3) THE DEPARTMENT MAY ENTER INTO AGREEMENTS WITH NONPROFIT ORGANIZATIONS WITH EXPERTISE IN OYSTER SHELL RECYCLING TO EXECUTE THE PROVISIONS OF THIS SECTION.

Suggested amendment #3:

4-1102

1 (C) (1) BEGINNING IN FISCAL YEAR 2024, THE MARYLAND GEOLOGICAL  
2 SURVEY, IN CONJUNCTION WITH THE UNIVERSITY OF MARYLAND CENTER FOR  
3 ENVIRONMENTAL SCIENCE, SHALL SURVEY SUBMERGED AREAS OF THE STATE **TO MAP**  
4 **EXISTING AND POTENTIAL OYSTER HABITAT** IN  
5 ACCORDANCE WITH THE PROVISIONS OF THIS SUBSECTION.

6 (2) IN SELECTING SITES FOR SURVEYING UNDER THIS SUBSECTION,  
7 THE MARYLAND GEOLOGICAL SURVEY AND THE UNIVERSITY OF MARYLAND  
8 CENTER FOR ENVIRONMENTAL SCIENCE SHALL:

9 ~~(1)~~ **(1)** PRIORITIZE:

10 ~~(I)~~ **(I)** EASTERN BAY AND ITS TRIBUTARIES; AND

11 ~~(II)~~ **(II)** PUBLIC FISHERY AREAS WHERE THERE ARE LIKELY  
12 TO BE SHALLOWLY BURIED SHELL DEPOSITS FROM PREVIOUS REPLETION  
13 ACTIVITIES, IDENTIFIED IN CONSULTATION WITH COMMERCIAL OYSTER  
14 HARVESTERS.; ~~AND~~

15 ~~(II) AVOID IMPORTANT FISH SPAWNING AREAS, ESPECIALLY~~  
16 ~~AREAS WHERE STRIPED BASS OR STURGEON ARE KNOWN TO SPAWN.~~

17 (3) TO THE EXTENT PRACTICABLE, SURVEYS CARRIED OUT UNDER  
18 THIS SUBSECTION SHALL USE SUB-BOTTOM PROFILING COMBINED WITH PHYSICAL  
19 SAMPLING TO QUANTIFY THE TOTAL VOLUME OF SUBSURFACE SHELL MATERIAL.

20 (4) (I) FOR FISCAL YEARS 2024 THROUGH 2026, THE GOVERNOR  
21 SHALL INCLUDE IN THE ANNUAL BUDGET BILL AN APPROPRIATION OF \$2,000,000  
22 TO FUND THE SURVEYS REQUIRED UNDER THIS SUBSECTION.

23 (II) THE GOVERNOR SHALL PRIORITIZE THE USE OF FEDERAL  
FUNDS FOR APPROPRIATIONS REQUIRED UNDER THIS PARAGRAPH.

Suggested amendment #4:

24 SECTION 3. AND BE IT FURTHER ENACTED, That:

25 (a) The University of Maryland Center for Environmental Science shall  
26 collaborate with the Smithsonian Environmental Research Center, the Virginia Institute  
1 of Marine Science, appropriate State and federal agencies, and industry and other  
2 stakeholders to research:

3 (1) the types of substrate, including fresh shell, fossilized shell,  
4 combinations of shell, and alternative substrates, that are most appropriate for use in  
5 oyster harvest areas;

6 (2) the benefits, including habitat-related benefits, of using ~~larger stones~~  
7 ~~versus smaller~~ stones of various sizes in oyster restoration areas;

8 (3) alternative substrates used for oyster restoration or repletion in other  
9 regions, including the success of efforts to use alternative substrates; and

10 (4) the potential for retrofitting existing structures, such as riprap  
11 revetments, that are unrelated to oyster restoration but that use materials similar to  
12 artificial reefs, to include oyster plantings.