

MINUTES

COMMISSION MEETING

February 23, 2021

****In consideration of Governor Northam's Executive Order 55 and public safety, the February 23, 2021 Commission meeting of the Marine Resources Commission was held electronically at 9:39 AM at the Marine Resources Commission main office at 380 Fenwick Road, Fort Monroe, Virginia. As required by law, all interested persons were provided an opportunity to be heard on this matter as part of the electronic meeting as follows:**

1. Any interested party was invited to visit the agency web calendar at <https://mrc.virginia.gov/calendar.shtm> and look for the 02/22/2021 meeting date to see web links to the draft proposed regulation, instructions for meeting participation, public call-in information, and the meeting Webex livestream web link. Participants was instructed to join the livestream and public conference call starting at approximately 9:00AM since the meeting will begin at 9:30AM.
2. All persons interested in commenting were highly encouraged to submit written comments prior to the meeting. Comments sent by mail were to be sent to 380 Fenwick Rd, Ft. Monroe, VA 23561 and should be received by 02/22/2021. Comments could have also have been emailed to fisheries@mrc.virginia.gov and were accepted until NOON on 02/22/2021.
3. Any individuals interested in providing spoken testimony via the public conference call-in line during the public hearing held on the day of the meeting were instructed to email their name, hometown, and for or against regulation to fisheries@mrc.virginia.gov by 5PM on 02/22/2021.

The online meeting of the Marine Resources Commission was held at the Marine Resources Commission main office at 380 Fenwick Road, Fort Monroe, Virginia with the following present:

Steven G. Bowman

Commissioner
Present via conference call

John Tankard III

Ken Neill, III

John Zydron Sr.

Wayne France

Heather Lusk

Christina Everett

James E. Minor III

Associate Members
Present via conference call

Commission Meeting

**18695
February 23, 2021**

Kelci Block	Assistant Attorney General Present via conference call
Ellen Bolen	Deputy Commissioner Present via conference call
Jamie Hogge	Recording Secretary, Present via conference call
Erik Barth	Bs. Systems Manager Present via conference call
Todd Sperling	Bs. Systems Manager Present via conference call
Sheri Crocker	Chief, Admin. & Finance Management Present via conference call
Gloria Hatcher	Deputy Chief, Acct. Manager Admin. & Finance Management Present via conference call
Pat Geer	Chief, Fisheries Mgmt.; Present via conference call
Adam Kenyon	Deputy Chief, Fisheries Mgmt., Present via conference call
Shanna Madsen	Deputy Chief, Fisheries Mgmt., Present via conference call
Andrew Button	Head, Conservation & Replenishment Present via conference call
Alicia Nelson	Coordinator, RFAB/CFAB Present via conference call
Christopher Davis	Fisheries Biologist Present via conference call
Somers Smott	Fisheries Mgmt. Specialist, Present via conference call
Jill Ramsey	Fisheries Mgmt. Specialist Present via conference call
Lewis Gillingham	Director, SWFT Present via conference call
Jennifer Farmer	Regulatory Coordinator Present via conference call

Commission Meeting

**18696
February 23, 2021**

Olivia Phillips	Fisheries Mgmt. Specialist Present via conference call
Alexa Galvan	Fisheries Mgmt. Specialist Present via conference call
Tony Watkinson	Chief, Habitat Management Present via conference call
Randy Owen	Deputy Chief, Habitat Management Present via conference call
Justin Worrell	Environmental Engineer, Sr. Present via conference call
Mike Johnson	Environmental Engineer, Sr. Present via conference call
Jay Woodward	Environmental Engineer, Sr. Present via conference call
Mark Eversole	Environmental Engineer, Sr. Present via conference call
Allison Lay	Environmental Engineer, Sr. Present via conference call
Ben Nettleton	Environmental Engineer, Sr. Present via conference call
Tiffany Birge	Environmental Engineer, Sr. Present via conference call
Ben Stagg	Dir., Shellfish Aquaculture, Leasing and Mapping Present via conference call

Virginia Institute of Marine Science (VIMS): Present via conference call

Lyle Varnell	Emily Hein	Mark Luckenbach
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Others present via conference line

David Norris	Jack Blake	Rich Calvert
Kenny Presgraves	Bill Young	Rebecca Francese
David O' Brien	Charles Kennedy	Chris Moore
Lauren Pudvak	Madeline Ray	Monty Deihl
Rachael Roberts	Sammy McCarthy	Taylor Aillman
Zack Greenberg	Adrienne Rotulle	and others.

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Commissioner Bowman called the meeting to order at approximately 9:39 a.m.

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Associate Member Tankard said the invocation by the request of Commissioner Bowman.

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APPROVAL OF AGENDA. – Commissioner Bowman asked if there were any changes from the Board members or staff.

Associate Member Zydron moved to approve the agenda as presented. Associate Member France seconded the motion. The motion carried, 7-0. Chair voted yes. Associate Member Minor was not present during vote.

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MINUTES: Commissioner Bowman asked if there were any changes or corrections to be made to the January 26, 2021 Commission meeting minutes.

Associate Member Zydron moved to approve the minutes as presented. Associate Member France seconded the motion. The motion carried, 7-0. Chair voted yes. Associate Member Minor was not present during vote.

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Commissioner Bowman swore in the VMRC staff, VIMS staff and others that would be speaking or presenting testimony during the meeting prior to each item.

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- 2. PERMITS** (Projects over \$500,000.00 with no objections and with staff recommendation for approval).

Tony Watkinson, Chief, Habitat Management, reviewed the page 2 Items A through C

for the Associate Members. Mr. Watkinson’s comments are a part of the verbatim record.

2A. CITY OF HAMPTON, #20-1504, requests authorization to hydraulically dredge approximately 275,000 cubic yards of beach-quality sand from State-owned submerged land to a depth of -30 feet mean low water from Horseshoe Shoals and pump it onto 3,483 linear feet of Buckroe Beach in the City of Hampton. Staff recommends approval of the project with the following permit conditions: submittal of a post-dredging bathymetric survey showing the area was not dredged beyond the permitted depth, a pre-dredging conference held prior to the commencement of dredging, maintenance dredging and beach nourishment may be conducted through the expiration date, the permittee shall not dredge from July 1 through September 15 in order to protect migrating and spawning blue crabs, the permittee shall not dredge either the side slopes surrounding the existing borrow pit areas or within the existing borrow pit areas from December 1 through March 31 to protect the winter buried crabs, all materials shall be pumped through a submerged pipeline laid on the bottom, the route of the pipeline shall be marked with 50-inch circumference buoys spaced at 500-foot intervals, and the pipeline shall be placed in a position directly from the designated small boat channel along the marked route.

Fees:	\$ 600.00
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2B. MSC LITTLE CREEK LLC, #20-1960, requests authorization to replace existing marina piers adjacent to 8166 Shore Drive along Little Creek in the City of Norfolk. The applicant is proposing a total encroachment of 28,900 square feet over State-owned submerged lands and a total of 184 boat slips. A previous permit was issued in 1983 for a total of 30,541 square feet of encroachment over State-owned submerged land and a total of 215 boat slips. Staff recommends approval of the project with the following permit conditions: the use of wooden pile cap cushions should impact hammers be needed for the installation of hollow steel pilings, "ramp-up" procedures prior to initiating any pile driving, and the use of a bubble curtain during the installation or removal of hollow steel piles. Royalties were previously paid for the encroachment; therefore, no additional royalties will need to be paid.

Fees:	\$ 600.00
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- 2C. **DEPARTMENT OF WILDLIFE RESOURCES, #20-2313**, requests authorization to place up to ten (10) barges using spuds and anchor systems from mid-March through mid-September to create up to 65,000 square feet of temporary bird nesting habitat in Hampton Roads at the mouth of the James River adjacent to Fort Wool in the City of Hampton. Recommend approval of the permit for the 2021, nesting season.

Fees:	\$ 600.00
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No one spoke in support or opposition of the project.

Associate Member France moved to approve the page 2 Items A through C as presented. Associate Member Neill seconded the motion. The motion carried 7-0. Chair voted yes. Associate Member Minor was not present during vote.

- 3. **CONSENT AGENDA ITEMS. No consent agenda items.**

- 4. **CLOSED MEETING FOR CONSULTATION WITH, OR BRIEFING BY, COUNSEL – No closed meeting needed.**

- 5. **ROCKY FORGE WIND, LLC, # 21-0091**, requests authorization to repair the Route 622 bridge crossing of Mill Creek, to construct a second bridge crossing of Mill Creek, and to install up to six (6) electric utility lines (circuits) beneath Mill Creek by the directional bore method on Dagger Springs Road between its intersection with Gala Loop Road and North Mountain, as part of the Rocky Forge Wind Project in Botetourt County.

Mark Eversole, Environmental Engineer, Sr., gave the briefing of the information

provided in the staff's evaluation, with PowerPoint slides. Mr. Eversole's comments are a part of the verbatim record.

Mr. Eversole explained that as part of an ongoing effort to supply renewable energy to the electrical grid, Rocky Forge Wind, LLC is proposing to build a new onshore wind-generated power facility, Rocky Forge Wind. The footprint of the wind farm includes up to 22 wind turbine generators located along approximately 3.5 miles of the southernmost portion of North Mountain, and will include access roads, underground electrical collection lines, a substation, a switching station, an operations and maintenance (O&M) building, permanent meteorological tower(s), and a temporary construction laydown area.

The vast majority of the wind farm project and its structures are located on upland property, out of the Commission's jurisdiction. However, road and bridge improvements to accommodate access for large construction equipment and material deliveries, as well as utility lines to provide power to the proposed substation, constitute the new encroachments to Mill Creek. These elements, therefore, will require Commission authorization.

An application was received on January 18, 2021, requesting authorization for the access road and utility line installation work. Staff requested the application fee on January 19, receiving payment that same day. Adjacent property owners were notified and a public notice was placed in a local newspaper. Comments were requested from State agencies, including the Department of Transportation as they are the owners of the Route 622 Bridge. The Department of Wildlife Resources noted that Mill Creek has been designated a wild trout stream, known to support Brown Trout and Brook Trout. They recommend a time-of-year restriction protective of those species.

Staff understands the applicants desire to move forward with this innovative wind energy project, even as details on how electric power will be delivered to the project are being developed. Both the applicant and their agent, Stantec Consulting, have cooperated with VMRC staff to develop a permitting plan that allows for flexibility, especially concerning the installation of electric lines to the project.

Accordingly, after evaluating the merits of the project, providing flexibility to accommodate the uncertainty of utility location, and after considering all of the factors contained in §28.2-1205(A) of the Code of Virginia, staff recommends approval of the project as proposed, with the following special conditions:

1. No instream work associated with the electric utility line installation by the Open-Cut/Trench methods shall begin until plans and cross sections are received, and approved by VMRC staff;
2. A royalty in the amount of \$522.00 shall be assessed for the six (6) electric circuits (in each of the six (6) possible alignments) crossing beneath 29 linear feet of Mill Creek at a rate of \$3.00 per linear foot, and \$870.00 for the bridge crossing encroachment over 580 square feet of Mill Creek, at a rate of \$1.50 per square foot. No royalty is proposed for the improvements to the VDOT Bridge crossing of Route 622;
3. All areas of State-owned bottom and adjacent lands disturbed by this activity shall be restored to their original contours and natural conditions within thirty (30) days from the date of completion of the authorized work. All excess materials shall be removed to an upland site and contained in such a manner to prevent its reentry into State waters;
4. Erosion and sediment control measures shall be in conformance with the 1992 Third Edition of the Virginia Erosion and Sediment Control Handbook and shall be employed throughout construction;
5. The instream construction activities shall be accomplished during low flow periods and within cofferdams constructed of non-erodible materials in such a manner that no more than half the width of the waterway is obstructed at any point in time;
6. The Permittee agrees to abide by the Frac-out Monitoring and Response plan that is attached to, and becomes a part of, this permit;
7. A time-of-year restriction shall be in effect, protective of Brook and Brown Trout. No instream work is allowed between October 1 and March 31 of any year, without written approval from the Department of Wildlife Resources.

No one spoke in support or opposition of the project.

The matter was before the Commission for discussion and action.

Associate Member Neill made a motion to approve staff recommendation. Associate Member Tankard seconded the motion. The motion carried, 7-0. Chair voted yes. Associate Member Minor was not present during vote.

Royalties: (Encroachment of 174 LF @ \$3.00 / LF & encroachment of 580 SF @ \$1.50 / SF)	\$ 1,392.00
Fees:	\$ 300.00
Total Fees:	\$. 1,692.00

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- 6. **ANGELA CHERRY, #20-1848**, requests authorization to construct 129 linear feet of riprap revetment, sand fill and native wetland plantings adjacent to 4034 Tanglewood Trail along the Elizabeth River in the City of Chesapeake. This project requires a tidal wetlands permit.

Allison Lay, Environmental Engineer, Sr., gave the briefing of the information provided in the staff’s evaluation, with PowerPoint slides. Ms. Lay’s comments are a part of the verbatim record.

Ms. Lay explained that the project is located along the Eastern Branch of the Elizabeth River in the City of Chesapeake. The shoreline abuts a concrete bulkhead at the northern end of the project, then curves into a small cove that is shared with the adjacent property. The existing shoreline has rubble placed along the slope of the bank, with salt bush growing through the rubble and smooth cordgrass at the base within the cove. The applicant has proposed to construct a riprap revetment over the existing rubble and place sand fill with native wetland plantings channelward of the proposed revetment.

The proposed project will result in a loss of 31 square feet of vegetated tidal wetlands, conversion of 283 square feet of non-vegetated tidal wetlands to riprap, and conversion of 117 square feet of non-vegetated tidal wetlands to vegetated tidal wetlands. The creation of 36 square feet of vegetated tidal wetlands from uplands is proposed as on-site mitigation for the proposed loss of vegetated wetlands.

The applicant believes that the existing riprap would be too difficult and costly to remove from the wetlands. Having a riprap revetment over the existing rubble would allow the

rubble to be covered without the burden of removing it.

Staff considers the riprap revetment on the north side of the project adjacent to the bulkhead to be appropriate, but would like to see the revetment transition into a sill to prevent impacting the high marsh vegetation, and enhance the existing marsh. Staff believes the portion of the project to the north of point F on the plan view drawing is reasonable to protect the shoreline from erosion given the constraints of the corner created by the adjacent bulkhead. The portion of the riprap revetment south of point H is outside of the wetlands board's jurisdiction, and therefore does not require a permit from us.

Accordingly, after evaluating the merits of the project and considering all of the factors contained in §28.2-1302(10)(B) and Section 28.2-104.1 of the Code of Virginia and the Wetlands Mitigation-Compensation Policy and Supplemental Guidelines, staff recommends denial of the portion of the riprap revetment between point F and point H on the plan view drawing, and approval of the remainder of the project.

Richard Calvert, agent for the applicant, was sworn in. His comments are a part of the verbatim record.

Emily Hein from VIMS answered questions that Associate Members had in regards to the proposed project. Her comments are a part of the verbatim record.

No one spoke in opposition of the project.

The matter was before the Commission for discussion and action.

Associate Member Everett made a motion to approve staff recommendation. Associate Member Neill seconded the motion. The motion carried, 6-2. Chair voted yes. Associate Members France and Zydron voted no.

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7. PUBLIC COMMENTS:

Arthur Elliott – Request to have his Commercial Card reinstated. His comments are a part of the verbatim record.

Pat Geer, Chief, Fisheries Mgmt., explained the background of Mr. Elliott's license history and further explained the regulation that grants an exemption.

Kelci Block was asked to provide legal advice on Mr. Elliott's case that was before the Commission. Ms. Block stated that Mr. Elliott did not qualify for the exemption.

Commissioner Bowman offered a recommendation that Mr. Elliott could apply for a 2 year delayed license to obtain a Commercial Card in 2023. A vote was not needed because Mr. Elliott did not meet the requirements to have his Commercial Card reinstated.

Pat Geer acknowledged Jill Ramsey for exemplary recognition of her customer service in assisting Virginia waterman during the difficult times with COVID-19.

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- 8. PUBLIC HEARING:** Proposal to amend Chapter 4 VAC 20-751-10 et seq., "Pertaining to the Setting and Mesh Size of Gill Nets", to modify the dates of unlawful gill net mesh sizes within the restricted areas of the tributaries in the Chesapeake Bay.

Adam Kenyon, Deputy Chief, Fisheries Mgmt., gave the briefing of the information provided in the staff's evaluation, with PowerPoint slides. Mr. Kenyon's comments are a part of the verbatim record.

Mr. Kenyon explained that Chapter 4 VAC 20-751-10 et seq., "Pertaining to the Setting and Mesh Size of Gill Nets", describes legal gill net mesh sizes as well as establishes Restricted Areas for those mesh sizes that coincide with migratory areas in the tributaries of the Chesapeake Bay. The purpose of these restrictions is to reduce the out-of-season by-catch of American shad and reduce the harvest of coastal migratory striped bass.

In December 2019, the Commission amended Chapter 4 VAC 20-252-10 et seq., "Pertaining to the Taking of Striped Bass", to modify the dates associated with the 28" commercial maximum size limit in the Chesapeake Bay area. Although the current mesh sizes in the Restricted Areas continue to protect the out-of-season by-catch of American shad, the change in striped bass commercial maximum size limits in 2019 created a mismatch between legal mesh sizes and legal striped bass size limits. Currently, from March 16th through March 25th, individuals may only fish mesh sizes from 6 to 7 inches

within the Restricted Areas when targeting striped bass, however cannot legally keep striped bass greater than 28 inches that are commonly caught by these mesh sizes. This mismatch in mesh size and size limits increases the likelihood of dead discards of large striped bass in these areas.

During the 10-day time period from March 16th through March 25th, staff is proposing to amend the legal mesh sizes in the Restricted Areas from 6 to 7 inch mesh to 5 to 7 inch mesh to reduce dead discards of large striped bass while continuing to reduce American shad caught as by-catch. In addition to correcting the mismatch in mesh size, staff is also proposing to allow 5 to 7 inch mesh throughout the entire spring period from January 1 through March 25 to increase understanding and compliance of regulatory restrictions.

Staff requests the Commission approve amendments to Chapter 4 VAC 20-751-10 et seq., "Pertaining to the Setting and Mesh Size of Gill Nets", to modify the dates of unlawful gill net mesh sizes within the restricted areas of the tributaries in the Chesapeake Bay.

Mr. Lightfoot spoke in support of the change however, he did express that he would like to discuss an increased mesh size during the March 26 through June 15 time-period. His comments are a part of the verbatim record.

The matter was before the Commission for discussion and action.

Associate Member Minor made a motion to approve staff recommendation as presented. Associate Member Tankard seconded the motion. The motion carried, 8-0. Chair voted yes.

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9. DISCUSSION: Request for approval of the 2021 Oyster Replenishment and Restoration Plan (ORP) and the Associated Procurements Procedures.

Andrew Button, Head, Conservation & Replenishment, gave the briefing of the information provided in the staff's evaluation, with PowerPoint slides. Mr. Button's comments are a part of the verbatim record.

Mr. Button explained that the implementation of harvest effort controls, an effective management strategy, and consistent replenishment and restoration efforts have stabilized the level of oyster harvest in the public fishery. Prior to the negative market impacts of the COVID 19 pandemic, the five year average harvest from public grounds (255,302 bushels) was similar to the long term average dating back to the 1957-58 oyster season (257,036 bushels). It is anticipated that the harvest from both public and private ground will be lower for the 2020-2021 time period as a result of decreased demand. This is not a result of a decrease in the number of oysters that are currently of market size on both public and private ground. Long running stock assessment data indicates the standing stock of oysters has increased since low points that corresponded with the low harvest rates seen in the 1990s and early 2000s. Although the public oyster fishery is currently stable and the condition of the oyster resource is showing consistent improvement, the recent positive trends could reverse as result of consecutive years of poor spat sets, diminished replenishment and restoration efforts, other natural causes, or significant changes in the current management strategy.

In Virginia, the public and private fishery are closely intertwined. An increasing oyster population in any one area, harvest, sanctuary, or private lease, can have benefits to the others. These co-benefits run the gambit from collectively improving recruitment, water quality, and the development of disease resistance, to, for areas open to legal harvest, fulfilling market demands during certain times of year. Based on Virginia Marine Resources Commission (VMRC) harvest reporting, oysters from public ground provide the bulk of oyster harvest in Virginia during the fall and winter, while private ground harvest does the same in the spring and summer. In 2018, based on VMRC data, more than 70 % of all oysters harvested, from both public and private ground, could be considered “wild” and were largely dependent on natural spat sets or the transfer of “seed oysters” from public to private ground (Attachment 3). Many of the same people, be it buyers, harvesters, truck drivers, and the countless others that handle Virginia oysters on the journey to the consumer are employed in the oyster industry as a result of the continued success and growth of both the private and public oyster fishery. The entire seafood industry, both recreational and commercial, benefits not just from the increased number of oysters created by continued restoration work, but by the cascade of positive impacts a more fully functional ecosystem creates for all users. Both public and private ground benefit from restoration work. In addition, many of the factors that influence natural spat set, such as water quality and salinity levels, can adversely impact oyster hatchery production and the containerized oyster production that hatcheries support. This is a reason that for more than a century the public and private ground harvest has risen and fallen together.

Since about the mid-2000s, Virginia has been experiencing a period of relatively high and consistent spat sets or recruitment, in most areas most years. Spat sets in 2018 were an exception and lower than average in almost all areas of the Bay and its tributaries. This is likely correlated with 2018 being the wettest year the Chesapeake Bay region has ever recorded. In addition, many areas experienced substantial levels of oyster mortality. Portions of the Potomac, Rappahannock, and James Rivers experienced upwards of 90% mortality. Current climate science suggests that weather events such as those seen in 2018 are likely to become increasingly common. It should be noted that even in this year of record rainfall, there were two areas that received above average spat sets. Portions of the Tangier Sound and the James River, which were replenished with fossil shell in 2018, saw substantially higher numbers of spat per square meter. This highlights the importance of a continued Virginia bay wide replenishment and restoration effort that can take advantage of a spat set even if it is not evenly distributed. This helps to diversify the increased risk to the oyster resource and oyster fishery associated with a changing climate and unpredictable weather patterns. Seed from these areas of high recruitment was transported to other areas in both 2019 and 2020, and as a result, the negative impacts to the fishery were likely substantially mitigated. The recently increased replenishment effort also allowed for the record high spat sets of 2019 to be better captured. Simply put, having more shell on the bottom provides more locations for spat to attach in years of high recruitment.

The current fisheries management strategy has been relatively consistent for more than a decade. The last time a broad discussion of this management strategy took place was in 2007 with the second convening of the Blue Ribbon Oyster Panel (Attachment 4). Many of the recommendations of the 2007 Blue Ribbon Oyster Panel (BROP) and the Shellfish Management Advisory Committee (SMAC) relating to harvest and management have been implemented and have contributed to the increase in public harvest. Current harvest levels are largely not self-sustaining and are dependent on continued public investment in replenishment effort (shell planting). In more recent years, as oyster densities have reached new record high levels, some areas have been transitioned back to the less destructive harvest gears, patent tong and hand tongs, which dominated the fishery in the past. This will allow for a finite amount of replenishment effort to be further focused on improving additional areas, as less replenishment is needed in areas that have not seen extensive harvest utilizing dredges or scrapes.

In 2007, the BROP recommended that at least \$2.5 million in State General Funds be appropriated each year for oyster replenishment. Funding was inconsistent until Fiscal Year (FY) 2013, when the Governor and the General Assembly appropriated \$2 million

for oyster replenishment. Appropriations of \$2 million have been included in budgets for both the 2014-2016 and 2016-2018 biennia. Consistent funding for the oyster replenishment program is critical to maintaining productivity of the public oyster beds. However, the costs of oyster restoration have increased close to 400 percent since 2007. State General Funds were increased for FY 2019 and again for FY 2020. These budget increases are included in the FY 2021 and FY 2022 budget request as well. The budget increase, starting in FY 2019, included a change in language in the budget bill. Previously, all the General Funds were for the “replenishment” of public oyster grounds. The new language makes a distinction between funding for “restoration” and funding for “replenishment”. Although in the past, replenishment has been conducted on both harvest and non-harvest areas, it has been determined that, with the new budget language, restoration specific funds will be expended only on non-harvest areas. This brings the potential available General Funds for this year’s plan to \$4 million.

2014 Chesapeake Bay Agreement

In 2014, Virginia, along with all Commonwealths, States, and Districts in the Chesapeake Bay watershed, signed the Chesapeake Bay Watershed Agreement. This agreement outlined goals and outcomes, both broad and specific, with the overall intent of measurable improvement towards “*an environmentally and economically sustainable Chesapeake Bay watershed with clean water, abundant life, conserved lands and access to the water, a vibrant cultural heritage and a diversity of engaged citizens and stakeholders*.” One of the specific outcomes outlined in the Bay Agreement is to “*Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.*” Five of the ten tributaries are in Virginia; the other five are in Maryland.

The Marine Resources Commission has worked with many of the federal partners involved in oyster restoration, primarily the National Oceanic and Atmospheric Administration (NOAA) and the United States Army Corps of Engineers (USACE), on past restoration efforts. All restoration projects undertaken directly by VMRC will seek to maximize the benefits to the oyster resource, in its entirety, while seeking to meet the restoration goals outlined in the Bay Agreement. To assist the Commonwealth with meeting the “Oyster Outcome” described in the Bay Agreement the Governor included a \$10,000,000 Capital Fund request in the FY 2021 budget. Due to budget uncertainties resulting from the COVID 19 pandemic, these funds were not authorized for use until the current calendar year (2021).

In addition to the general funds and capital funds VMRC has pursued a number of other funding opportunities. This additional funding will have the added benefit of decreasing the per-unit cost of all activities including replenishment, as a substantial portion of the cost of both replenishment and restoration work is the cost to mobilize the equipment and personnel needed. The mobilization costs could be shared across both restoration and replenishment work decreasing the per-unit costs of both.

**FUNDING SOURCES:
Non-Federal**

AMOUNT:

General Funds Replenishment (GF)	\$2,500,000
General Funds Restoration (GF)	\$1,500,000
Capital Funds Restoration (CF)	\$10,000,000
The Nature Conservancy (TNC)	\$221,000
Non-General Funds Replenishment (NGF) Various Sources	\$150,000

FUNDING SOURCES:

AMOUNT:

Federal

NOAA Grants Restoration	\$500,000-1,600,000
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Seed Transfer:

Mobjack Bay

There are currently three areas monitored as part of the joint VMRC/VIMS annual stock assessment in the Mobjack Bay. Two of the locations, Tow Stake and Pultz Bar, are part of an existing harvest rotation with harvest areas in the York River, the third area, Browns Bay, is monitored, but is not currently in a harvest rotation. In 2015, both harvest areas had very high spat sets immediately following shell plants. It was anticipated that this would result in a future increase in market oysters and subsequent harvest. The anticipated result was not achieved and harvest from the area was disappointing. In 2019, both areas were again replanted with shell and received even higher spat sets. However,

the most recent, 2020 fall survey, indicates that both the shell volume and density of living oysters on the bottom are decreasing and not increasing as would be expected, or as is seen in other areas that have had similar recruitment events. The areas were resurveyed in January of 2021, and the results of the fall survey confirmed. Staff is open to the current SMAC suggestion to move the remaining shell, seed and market oysters from the harvest areas to other harvest areas outside of the Mobjack Bay. The areas could be opened to harvest as scheduled in the current rotation, but would not be replanted with shell until the cause of the anomalies in both shell and oyster density are clearly identified and resolved. The mid-range salinity in the area would likely make this seed suitable for transplant to most growing areas. If approved, seed transported from this area could take the place of a portion of the seed that is proposed to be transported from other areas such as the James River. Given the central location of the Mobjack, the cost to transport this seed could be lower as well. Planting the existing harvest areas in the York River would be a priority if seed from this area was removed.

Up to 20,000 bushels of seed oysters @ ~\$5.00/bu. \$100,000
(NGF) (GF replenishment)

James River

The Conservation and Replenishment Department (CRD) has moved a small amount of seed from the James River to the Potomac tributaries for many years. In addition, seed has been moved from this area or other areas when a very high spat set has occurred on recent shell plants to locations that have had poor or often get poor sets. A rotational harvest strategy has been instituted in the Potomac River tributaries for areas that have recently been planted with seed oysters. The tributaries in the rotation are the Coan, Nomini, and the Yecomico. One area has been planted annually for the last 3 years. The first (Coan) was planted in 2018, this area opened to harvest for the first time, as part of the rotation, for the 2020-2021 harvest season, and the second (Yecomico) was planted in 2019. The Nomini was planted in 2020. The CRD recommends replacing the Nomini with additional areas in either the Coan or the Yecomico and opening it to harvest early in the rotation. Based on the results from the fall dredge survey and a subsequent survey using side scanning sonar, one of the areas that was planted with seed in the Nomini in 2020 is not likely to show improved harvest returns if left un-harvested. It is suspected that this is the result of illegal harvest activity.

Initially the majority of the transported seed from the James River was harvested from the Hand Tong Seed Areas. However, the cost of harvesting and then transporting this

seed has continued to increase. As a result, the CRD has not received responses to the notices to transport and plant seed at the price that has been offered in recent years. Fortunately, seed of equal quality is able to be moved for a significantly lower price from areas that have received consistent and very good spat sets in the lower James River. This area has been re-shelled and was expanded in 2018, 2019 and again in 2020. It has continued to receive extremely high spat sets. As a result of the lower cost, and as a way of increasing productivity in low recruitment areas beyond the Potomac tributaries, staff was able to move this seed to three different areas in 2019, and 2020. As most areas had an extremely low spat set in 2018, the seed movement likely offset this when these areas were open to harvest for the 2020-2021 season and may continue to do so in future years. The CRD again intends to transport seed taken from this area of the lower James River to up to three areas that do not consistently receive high spat sets from shell planting alone. The areas recommended for planting are the Coan, area 8 and 7 in the Rappahannock, and a portion of the Pocomoke Sound several miles from the Maryland Virginia state line. The areas planted with seed would not be opened for immediate harvest. Staff would evaluate the seed plant areas prior to opening them to harvest. The cost for each bushel of seed to be harvested, transported, and planted in these areas will be at least \$6.00/bushel. Funds from Oyster Resource User Fees and replenishment GFs will be used for this project

Up to 20,000 bushels of seed oysters @ ~\$6.00/bu.

\$120,000
(NGF) (GF replenishment)

Piankatank River and Great Wicomico River

In the Piankatank River and Great Wicomico River, VMRC has managed a program to allow private industry a modest harvest of seed oysters each year. In this program, private leaseholders signed up for the amount of seed oysters that they would like to harvest from the public seed grounds, and they were required to replace two bushels of shell for each bushel of seed oysters taken. The total standing stocks of oysters in the Piankatank River and Great Wicomico had been relatively consistent for the past few years. However, in 2018, the spat set and count per bushel in the area was low with only modest improvement seen in the fall of 2019, and again in 2020. Staff recommends that no seed oysters be offered to the private industry in 2021. The seed areas will be lightly replenished to encourage spat recruitment in 2021. Staff would consider exploring the option, for further consideration of SMAC and the Commission, of opening some of these areas to a quota managed public market or seed harvest should the condition of the resource indicate this is appropriate.

Shell Planting:

Bay and Tributaries:

Shells on public beds naturally degrade over time and lose their effectiveness as a substrate for oyster larval attachment. In most of the mid-salinity areas in Virginia, the half-life of shells appears to be 3 to 4 years. Additional shell is lost and degradation intensified by the harvest and removal of market oysters. The density of living oysters and shell volume are determined from the results of the VIMS-VMRC annual hydraulic patent tong survey and this information is used to determine what areas are in the most need of shell. If the mean volume of shell observed in the fall survey does not fall below 5 liters per square meter, a reasonable degree of productivity can be maintained.

Most of the harvest areas in the Chesapeake Bay and tributaries are experiencing a period of relatively consistent and high recruitment. However, there is strong evidence to suggest that extreme weather events, such as those seen in 2018, could become more frequent, resulting in the possibility of localized high oyster mortality and low recruitment. Replenishment should continue in areas that are determined to be in need of additional substrate. This will prevent further degradation of the public ground that is opened to harvest and provide an additional buffer for localized high mortality events and low spat sets should they occur. In addition, should a good spat set occur, more substrate will be available for spat to settle on and the areas will be able to more quickly recover from harvest or unpredictable natural causes.

The majority of the replenishment specific general funds appropriation for FY 2022 will be used for adding new shell to those areas in most need of shell and/or those that have been recently opened to public oyster harvest. Some restoration General Funds will be used to maintain or expand sanctuary areas. Funds for oyster replenishment are not likely to be enough to maintain the public beds at maximum productivity, but will be used to maintain a minimum volume of shell, as observed in the fall survey, above 5 liters per square meter where possible and practical, with a goal of maintaining 10 liters per square meter or more. In Table 1 (attachment 2), there is a list of all of the areas and acreages of oyster beds that staff has determined to be in need of shell in 2021. In total, more than 1,000 acres of oyster beds need shell. The CRD will seek to plant the largest quantity of comparable shells for the lowest area dependent per-unit price. This will likely be a combination of house, reef and dredged shells.

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600 – 800 acres of oyster shell restoration
 @ 1,000 bushels/acre @ \$2.50 - \$4.50/bushel = \$2,500,000 (GF Replenishment)

\$0-\$500,000 (GF Restoration)

\$0-30,000 (NGF)

Eastern Shore:

The CRD Program and The Nature Conservancy (TNC) have consistently collaborated on Seaside replenishment and restoration efforts. Last year, for the second year in a row, TNC funds were used on areas both closed and open to harvest. The CRD will contract for shell planting for a Nature Conservancy project, assist with the site selection, and shell planting monitoring. If funding allows additional locations will be planted using General Funds for restoration.

Approximately 11 acres will be planted with shells harvested from local shell deposits or purchased from local sources.

11 acres @ 10,000 bushels of shells/acre @ ~\$2.50/bushel

\$186,000 (NGF-TNC)
 \$100,000 (GF Restoration)

Pocomoke Sound- VA MD line:

The Pocomoke Sound has seen decreased spat sets in recent years. This has resulted in declining harvests and a shift in effort to more productive areas. The VMRC has invested substantial effort in re-shelling portions of the lower Pocomoke. The 2018, 2019, and 2020 ORP included a proposal for a project intended to improve the long-term viability of this area. The areas in the upper Pocomoke, closest to the Maryland line, had no recent replenishment effort until 2018. One reason for this was concern over cross border poaching. It was thought by some that replenishment efforts would be wasted in areas that are prone to illegal harvest. As a result, these areas were in need of shell for several years and were not planted. It is generally recommended that areas in need of replenishment be either replenished or left closed to harvest. In part, the concern that any oyster resource present would be poached, and at the request of local watermen, portions of the upper Pocomoke were opened to harvest. Although, the cause is not

completely clear, spat sets have been down in the years following the decision to open these areas to harvest. In 2018, an approximate 100 to 200 foot area along the border was cleaned, with ordinary oyster dredges, and shells and live oysters were moved further into Virginia. Areas further from the borderline were also replenished and a small area was open to harvest for the 2018-2019 season. This area was again opened to harvest for the 2020-2021 season. The plan called for replanting the area that had been cleaned with large stones in a thin line to prevent cross border dredging and primarily to create a permanent poaching resistant sanctuary. Funding and permitting delays did not allow for this portion of the work to be completed in 2018 and limited staff resources and contractor availability delayed implementation in 2019. The funding uncertainty that resulted from the COVID-19 pandemic again delayed this project in 2020. Permits for this work have since been issued and it appears that there will be funding to begin a portion of this project in 2021. There may also be an opportunity to complete some of the work with other restoration partners.

7,500 tons of stone @ ~\$50.00/to \$300,000-\$500,000 (GF Restoration) (NGF)

Alternative Cultch Projects:

The supply of shell for restoration, replenishment, and aquaculture will always be limited. The demand for shells in most years tends to be higher than the supply leading to increasing prices. Over the last several years, the CRD and other restoration partners have begun using alternative substrate in certain areas. Non-harvest locations have been planted with larger sized substrate. In the Rappahannock, two small harvest areas were planted with a smaller sized material. The first planting used crushed concrete that was slightly larger than ideal. Some oysters were crushed during harvesting. The second area that was planted used a slightly smaller size. This area was open to harvest recently, and it appears that the size of the alternative substrate is no longer an issue. Not all areas are suitable for planting with stone or concrete. The bottom needs to be firmer than areas that can be planted with shell.

The CRD has identified a number of locations that could have suitable bottom for alternative cultch plantings. These areas tend to have sandier bottoms and low oyster densities. Staff has existing permits (JPAs) for several locations. The locations would be near the Deep Rock Area, two locations in the Lower Rappahannock, the Lower James River near Nansemond Ridge, and the lower Pocomoke Sound adjacent to Onancock Rock. Only a small portion of the permitted areas would be planted at any given time. In the event that issues with acquiring shell arise, these areas could be expanded as needed and as suitable for planting.

In addition to these harvest areas, a variety of funds are available for alternative cultch projects that will primarily focus on the restoration of non-harvest areas. The Piankatank, York and Great Wicomico rivers will see “large scale oyster restoration” as part of the 2014 Chesapeake Bay Agreement. VMRC-CRD has carefully selected locations in these areas for alternative substrate planting that will minimize potential user conflict. The intent is to create “new oyster reefs” that will have multiple benefits to adjacent areas, through improved water quality, increased fish habitat, and oyster larval transport to both public and private ground. Some spat on shell (SOS), or hatchery produced oysters, may be used to seed low recruitment areas if needed.

0-50 acres @250 tons/acre @ ~\$50.00/ton \$0-\$627,000 GF Replenishment)

Up to 150 acres @ 250-1000 tons/acre @ ~\$50.00/ton
Up 20 acres of SOS @ 500bu/acre @ ~\$18.00/bu. \$1,875,000-\$7,500,000

(GF Restoration) (NOAA) (CF)(NGF)

Staff recommends approval of the 2021 Oyster Replenishment and Restoration Plan as well as the associated Procurement Procedures.

The matter was before the Commission for discussion and action.

2021 Replenishment and Restoration Plan:

Associate Member Everett made a motion to approve staff recommendation. Associate Member Tankard seconded the motion. The motion passed, 8-0. Chair voted yes.

Procurement vote:

Associate Member Minor made a motion to approve staff recommendation. Associate Member Everett seconded the motion. The motion passed, 8-0. Chair voted yes.

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10. DISCUSSION: Update on the experimental shrimp fishery for the 2020, fishing year.

Christopher Davis, Fisheries Biologist, gave the briefing of the information provided in the staff's evaluation, with PowerPoint slides. Mr. Davis's comments are a part of the verbatim record.

Mr. Davis explained that beginning in 2017, the Commissioner granted special experimental gear permits to explore the viability of shrimp harvest in Virginia including looking at the efficiency of modified trawl gear, and the marketability of the product. These special experimental gear permits were issued again in 2018, 2019, and 2020.

The Commissioner granted twelve experimental permits in 2020, eight on the ocean side of Virginia Beach and four on the ocean side of the Eastern Shore. In 2020, 424 trips (424 off Virginia Beach and 0 off Eastern Shore) were taken; landing approximately 418,616 pounds of shrimp and 94,610 pounds of fish that was categorized as bycatch. One permittee on the Eastern Shore attempted two test trawls with a significantly scaled down beam trawl but was unable to get it to properly work. The remaining three permittees never contacted the lead biologist to examine fishing gear.

The average amount of shrimp harvested on a per trip basis was higher in 2020 versus 2019 despite the additional amount of issued permits and the large increase in the number of trips. Sixteen of these trips were taken with VMRC observers onboard, recording shrimp and bycatch data from 130 trawl hauls. From the sixteen observer trips, shrimp comprised 82.0% of the total catch with scrap fishes (commercial and recreational species on non-interest) making up 4.0% of the catch (Figure 3). Spot (6.8%), weakfish (3.2%), kingfish (2.6%), Atlantic croaker (0.7%), black drum (0.2%), and summer flounder (0.1%) were the top commercial and recreational species of interest caught, constituting 14% of the total catch (Figure 3). VMRC staff worked tirelessly to cover 4.5% of the 424 trips taken despite having only two personnel (Christopher Davis and Hunter Smith), having to additionally cover gill net observation trips, 14-16 hour sampling days, and the threat of the COVID-19 pandemic. Observer coverage during the 2020 experimental shrimp season met fishery level standards of 1% to 5% coverage to effectively assess the impact in Virginia nearshore coastal waters despite limited personnel.

The percent of bycatch from observer trips was greater throughout the month November when shrimp abundances were highly variable. The season was extended into the month

of January 2021 and seven fisherman in Virginia Beach continued fishing, noting continued shrimp abundances coupled with low bycatch. Overall, for the 2020 season, the ratio of the weight of bycatch compared to the weight of shrimp was 1:5, vastly improved over the 1:2 ratio observed in 2019, and 1:1.4 ratio observed in 2018 (Table 1). These ratios appear reasonable given bycatch studies in the southeast shrimp trawl fishery. The amount of bycatch varies by month in the coastal waters of North Carolina to Georgia - inversely related to shrimp abundance. In the spring, when shrimp abundance and effort is lowest bycatch is highest, but the opposite is true during the fall – shrimp abundance is highest and bycatch is lowest. The ratio of bycatch to shrimp in the southeast has been observed to be as much as 5:1 in the spring, but on an annual basis ranges from 1.3-2 pounds of bycatch for every pound of shrimp.

Staff is recommending the establishment of a regulated shrimp fishery in Virginia coastal waters on the ocean side of Virginia Beach for 2021. Staff also recommends the continuation of the experimental shrimp fishery within Virginia coastal waters on the ocean side of the Eastern shore to continue to assess the long-term viability of this fishery in the area. VMRC observers will continue to assess the impact on commercial and recreational species of interest.

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There being no further business, the meeting was adjourned at approximately 12:20 p.m..

Steven G. Bowman, Commissioner

Jamie Hogge, Recording Secretary