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Appendix V-2: Fisheries Mitigation and Monitoring Plan

Coastal Virginia Offshore Wind Commercial Project

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APPENDIX V-2 FISHERIES MITIGATION AND MONITORING PLAN
REVISION LOG

Revision Number	Date	Description	Signed

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ACRONYMS AND ABBREVIATIONS

ASMFC	Atlantic States Marine Fisheries Commission
BACI	Before, After, Control, Impact
BAG	Before, After, Gradient
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
CPUE	catch per unit effort
CTD	conductivity, temperature, and depth
CVOW	Dominion Energy Coastal Virginia Offshore Wind
Dominion Energy	Dominion Energy Virginia
FCP	Fisheries Communication Plan
FEED	Fisheries Environment for Electronic Data
FLO	Fisheries Liaison Officer
ft	foot
GPS	global positioning system
km	kilometer
Lease Area	Lease Area OCS-A 0483
LNTM	Local Notice to Mariners
m	meter
MDAT	Marine-Life Data and Analysis Team
mm	millimeter
nm	nautical mile
NOAA	National Oceanic and Atmospheric Administration
O&M	operations and maintenance
OCS	Outer Continental Shelf
Project	CVOW Commercial Project
RODA	Responsible Offshore Development Alliance
ROSA	Responsible Offshore Science Alliance
SIOW	Special Initiative on Offshore Wind
TL	total length
USCG	U.S. Coast Guard
VIMS	Virginia Institute of Marine Science
VMRC	Virginia Marine Resources Commission
VMS	Vessel Monitoring System
VTR	Vessel Trip Report
WTG	Wind Turbine Generator

V-2.1 INTRODUCTION

Virginia Electric and Power Company doing business as Dominion Energy Virginia (Dominion Energy) is the leaseholder for Outer Continental Shelf (OCS) Lease Area OCS-A 0483 (Lease Area), and is proposing to construct the Coastal Virginia Offshore Wind (CVOW) Commercial Project (the Project). As shown in Figure V-2-1, the boundary of the Lease Area is located 20.45 nautical miles (nm) (37.87 kilometers [km]) from the northwest corner to the Eastern Shore Peninsula and 23.75 nm (43.99 km) from Virginia Beach, Virginia. The Lease Area itself is 13.0 nm (24.08 km) from the westernmost to easternmost edge, 10.4 nm (19.26 km) from the northernmost to southernmost edge, and 112,799 total acres in size. The Lease Area was designated by the Bureau of Ocean Energy Management (BOEM), following a review of existing and targeted environmental studies as well as significant stakeholder engagement and input. The specific activities undertaken and considered when designating the location for Lease Area OCS-A 0483 can be reviewed on the BOEM website, BOEM Virginia Activities.

To meet the Project's nameplate capacity of 2,500 to 3,000 megawatts, Dominion Energy will construct, operate, and maintain numerous offshore installations. Dominion Energy proposes to install a total of 176 14.7-megawatt capacity wind turbine generator (WTGs), with seven locations identified as spare positions, and three Offshore Substations across up to 202 candidate locations within the Lease Area. Additional Offshore Project Components include approximately 300 miles of inter-array cables, nine offshore export cables totaling approximately 441 miles in length, and all associated scour and cable protections. As these components are located in both Virginia state (out to 3 nm from shore) and federal (3 to 200 nm from shore) waters, there are other ocean uses that may overlap with Project activities, namely, commercial and recreational fishing. The construction, operation, and maintenance of these components may have impacts on the fisheries resources on which the fishing communities rely.

As described in *Guidelines for Providing Information on Fisheries for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585* (BOEM 2019), BOEM requires that offshore wind developers characterize the existing biological, physical, and socioeconomic resources within a project site and evaluate the potential impacts of project activities to those resources, under 30 Code of Federal Regulations (CFR) 585 Subpart F. BOEM also requires that leaseholders provide strategies to avoid, minimize, and mitigate these potential impacts. Marine fisheries comprise biological, physical, and socioeconomic facets that may be subject to impacts by construction, operations, maintenance, and decommissioning of offshore wind installations, including those of the CVOW Commercial Project. Thus, this Fisheries Mitigation and Monitoring Plan aims to satisfy BOEM's monitoring guidelines by:

- Identifying and confirming fishery-important species in the Offshore Project Area,
- Establishing pre-construction baseline to which future studies can be compared to assess Project-related impacts,
- Collecting additional information to reduce uncertainty associated with baseline evaluations and/or to inform the interpretation of research results, and
- Developing an approach to quantify changes to fisheries resources associated with proposed Project operations.

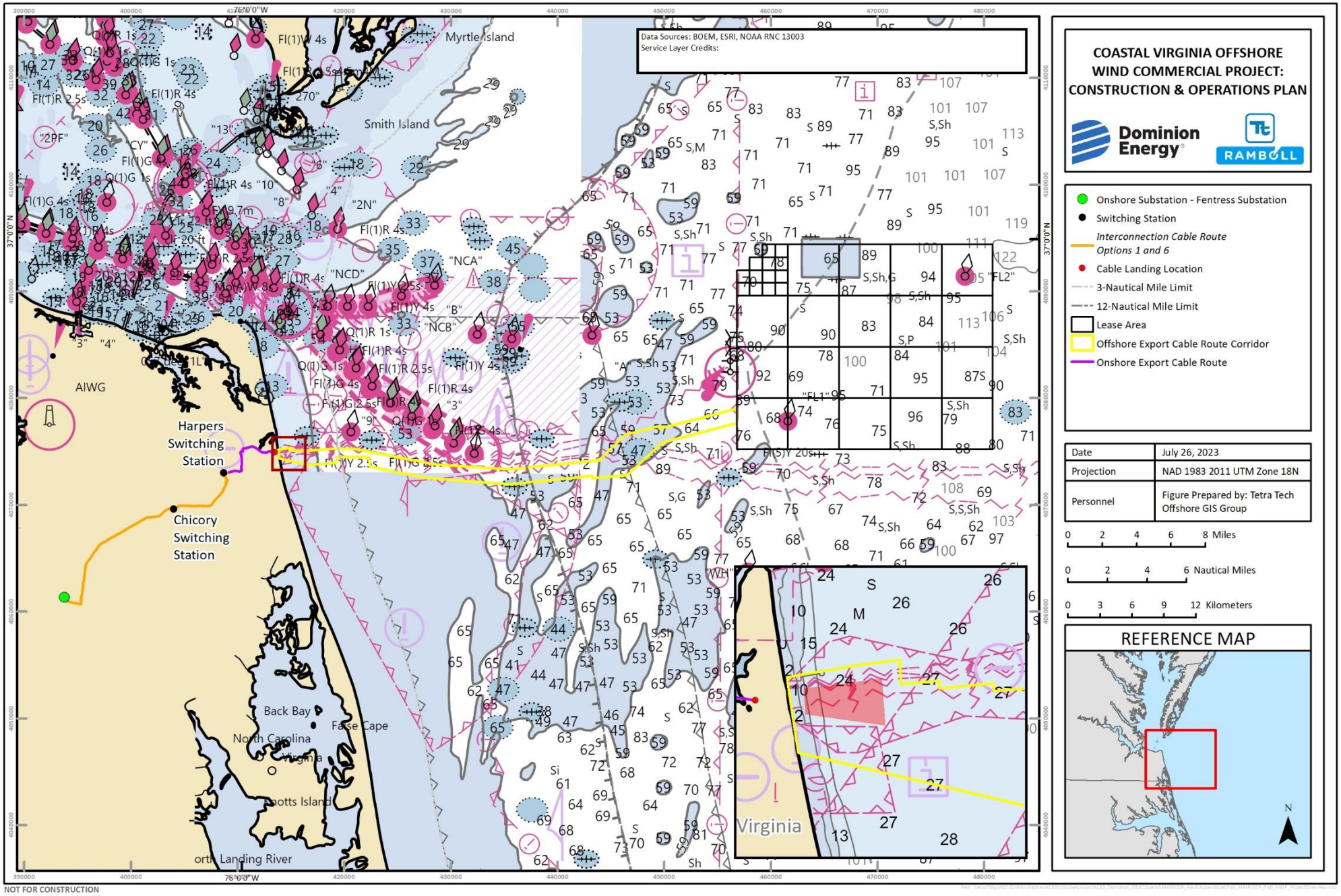

Figure V-2-1. Coastal Virginia Offshore Wind Commercial Lease Area (OCS-A-0483) and Planned Export Cable Corridor

This Fisheries Mitigation and Monitoring Plan includes the following sections:

- Fisheries communication and collaboration strategy;
- Ongoing, and planned, fisheries monitoring/studies; and
- Fisheries avoidance, minimization, and mitigation measures.

V-2.2 FISHERIES COMMUNICATION AND COLLABORATION

Dominion Energy is committed to coexistence of the CVOW Commercial Project with users of this shared ocean space, including commercial and recreational fisheries. Dominion Energy has assembled and will maintain a fisheries communications team, inclusive of Fisheries Liaison Officers (FLOs), for the duration of the Project. The Fisheries Communication Plan (FCP, Available in Construction and Operations Plan [COP] Appendix V-1) is central to the Project's fisheries engagement strategy and will be foundational to the company's efforts to develop and implement best practices and build effective relationships with the fishing community. Dominion Energy will use the FCP to guide outreach and engagement with the region's marine fisheries, while maintaining an adaptive approach to ensure the regular feedback and guidance from fisheries stakeholders is carefully considered throughout all Project phases.

The FCP provides the objectives and strategies for fisheries stakeholder engagement related to the Project. The recreational and commercial fishing activities that occur within the Lease Area are summarized to describe the specific communities that may be affected by the Project. In analyses by the NOAA Fisheries Northeast Fisheries Science Center (Kirkpatrick et al. 2017) and in investigations and outreach completed by Dominion Energy, the Lease Area has been characterized as overlapping with little commercial fishing activity. The primary commercial effort occurring in the Lease Area is pot/trap fisheries targeting whelk of family *Buccinidae* (conch[1]) and black sea bass *Centropristis striata*. Vessels using hydraulic dredges to target Atlantic surfclams *Spisula solidissima* offshore of the Lease Area may transit through it to access the fishing grounds to the east or north (NOAA Fisheries 2022a). Along the Offshore Export Cable Route Corridor, inshore of the Lease Area, the conch pot/trap fishery also exists in addition to gillnet fisheries targeting spiny dogfish *Squalus acanthias* and other species of opportunity (e.g., Spanish Mackerel *Scomberomorus maculatus*) and bottom trawls targeting shrimp and spiny dogfish. Automatic Identification System data and direct observations during seabed assessment survey operations have shown that some fishing vessels transit north/south and east/west through the Lease Area. The substantial recreational and charter fleet of Virginia's coast commonly use the Lease Area and Offshore Export Cable Route Corridor, especially artificial reef sites (such as Triangle Reef). Recreational activities are expected to increase in the Lease Area after Project construction.

With knowledge of specific, though complex fisheries interests within the Offshore Project Area, the FCP establishes communication strategies that seek to ensure effective and constructive interactions between parties. Led and facilitated by the FLO Team, this will be accomplished using the following general strategies:

[1]Whelk are locally referred to as "conch." To ensure understanding to the reader, this document uses the terms "conch" and "whelk" interchangeably as whelk species of family *Buccinidae* (channeled and knobbed whelk) in reference to that fishery.

- Current and consistent electronic and print notices about Project activities and opportunities to submit feedback (via emails, news outlets, webpage maintenance, etc.);
- Distribution of updated asset and operational awareness bulletins, with Project activities and assets depicted on nautical charts (including guidance on if/when/where fixed gear relocation may be requested);
- Regular engagement meetings and forums (virtual or in-person) designed to educate the public, share project information, and solicit community feedback;
- Engagement with the existing offshore wind communications networks among state and federal agencies and fisheries management councils;
- Establishing a 24-hour phone line to address real-time operational conflicts and/or safety issues;
- Establish specific methods for communicating with fishermen while they are at sea; and
- Issuing Local Notice to Mariners (LNTM) ahead of offshore activities, as required.

Through these principles and guidance of the FCP, Dominion Energy promotes open and ongoing communication with and among fisheries stakeholders and other users of the shared OCS. Dominion Energy prioritizes accuracy, efficiency, and transparency in these communications to primarily ensure Project awareness and mariner safety. These priorities will also aid in obtaining and sharing the diverse knowledge base of commercial and recreational fishing communities, while providing an avenue for stakeholders to voice concerns, raise questions, and provide meaningful feedback.

Dominion Energy continues to consult and collaborate with fisheries agencies and stakeholder groups for fisheries mitigation and monitoring in all phases of the Project. Through ongoing communication with NOAA Fisheries, the Virginia Marine Resources Commission (VMRC), commercial and recreational industry representatives, and BOEM, Dominion Energy has established preliminary baseline and monitoring survey plans for specifically identified fishery resources occurring in and near the Offshore Project Area, as discussed below. Dominion Energy intends to build and foster these and other collaborative relationships with fisheries agencies and representatives to best inform mitigation and monitoring efforts going forward.

V-2.3 FISHERIES MONITORING

Through the outreach activities to date associated with pre-construction high-resolution geophysical surveys, benthic surveys, and engagement with the fishing community during the development of the COP, Dominion Energy is familiar with the extensive volume of existing data within the Offshore Project Area. This data has already been incorporated into the COP and subsequent National Environmental Policy Act analysis by BOEM – examples of primary datasets incorporated into project permitting documentation include:

- National Oceanic and Atmospheric Administration (NOAA) Northeast Fisheries Science Center, Seasonal Trawl Survey, seasonal (spring/fall) bottom trawl surveys (NEFSC 2022a, b)
- NOAA Northeast Fisheries Science Center, EcoMon ichthyoplankton surveys (NOAA Fisheries 2010-2019)

- NOAA Northeast Fisheries Science Center, northeast sea scallop surveys (NEFSC 2022c)
- NOAA Northeast Fisheries Science Center, surfclam and ocean quahog surveys (NEFSC 2022d)
- Northeast Area Monitoring and Assessment Program (NEAMAP) (VIMS 2022c)
- Atlantic Marine Assessment Program for Protected Species (AMAPPS) Beam Trawl Surveys (NOAA Fisheries 2022b)
- Marine-Life Data and Analysis Team (MDAT) Marine-Life Data to Support Regional Ocean Planning and Management (Curtice et al. 2019)
- Vessel Monitoring System (VMS) data, < 4 knots, as a surrogate for fishing activity (MARCO 2020)
- NOAA Fisheries Vessel Trip Reports (VTR) with reported fishing in statistical areas overlapping Project activities in Virginia, including the CVOW Lease Area (NOAA Fisheries 2022c)
- State commercial landings from VMRC, via Atlantic Coastal Cooperative Statistics Program (ACCSP), for non-federally permitted fishing activity (ACCSP 2022)
- NOAA Fisheries Marine Recreational Information Program (MRIP) (NOAA Fisheries 2022d)
- Collaborative Fisheries Planning for Virginia's Offshore Wind Energy Area (VA DEQ 2016)
- Nearshore Marine Species Monitoring Surveys (Navy 2016, 2017)
- Endangered Atlantic Sturgeon Habitat Use in Mid-Atlantic Wind Energy Area (Navy 2022)
- Various academic/research papers from the primary and gray literature

The surveys and datasets identified above, combined with Dominion Energy's site-specific fisheries monitoring efforts, are expected to establish an adequate framework in which to characterize fisheries resources of the Offshore Project Area to assess the potential impacts of the Project on fisheries resources. Reports (excluding confidential data) from the studies will be made publicly available.

Based on industry feedback and review of corroborating fishery-dependent data, Dominion Energy has elected to prioritize site-specific fisheries monitoring efforts on the black sea bass, conch, and Atlantic surfclam resources of the Offshore Project Area. Commercial data included in the COP characterizes both black sea bass and conch pot landings from within the Lease Area in recent years. Dominion Energy acknowledges, and the VMRC and the whelk industry have confirmed, that conch harvest reporting requirements are limited in federal waters. Communications with commercial fisheries representatives revealed that fishable surfclam resources exist in areas east of the Lease Area and could exist within the Lease Area. Dominion Energy's 2020 benthic characterization report (COP Appendix D) identified the locations of surfclams collected in benthic surveys. However, in a more targeted surfclam resource survey, NOAA Fisheries did not collect any surfclams at the nearest locations to the Project Area (NOAA Fisheries 2022a).

Dominion Energy has discussed implementing surveys for each of these fishery resources with VMRC, with a mutual agreement that Dominion Energy will work with the Virginia Institute of Marine Science (VIMS), VMRC, and local fishery representatives to continue to develop and implement the studies described in this Section. These cooperating parties will collaborate to ensure updated survey timelines,

including start and completion dates of pre- and post- construction surveys and when fisheries monitoring data will be available. Post-construction monitoring will be conducted and will align with BOEM and Responsible Offshore Science Alliance (ROSA) guidelines, in consultation with VMRC and VIMS. Post construction survey plans will be reviewed by the VMRC.

In partnership with VIMS, Dominion Energy plans to execute comprehensive fishery-dependent and fishery-independent data collection programs in and around the CVOW Commercial Lease Area, discussed in more detail below. An overarching objective of fishery monitoring plans with respect to offshore wind development is to establish a methodological basis for the collection of relevant data to answer research questions and test hypotheses about the impact of the development upon affected fisheries and resources. These experiments are typically framed around a null hypothesis that the offshore wind development has no impact on the fishery/resources. This hypothesis is tested via methodological frameworks such as Before-After-Control-Impact (BACI) or Before-After-Gradient (BAG) experimental designs (Methratta 2020) and is either accepted or rejected based upon the statistical analysis of the collected data.

Consideration was made to incorporate the overarching principles and recommended elements for design and implementation of offshore wind monitoring projects described by BOEM (2019) and ROSA's *Offshore Wind Project Monitoring Framework and Guidelines* (2021). These guidelines provide the following framework of objectives, which are each addressed in the fisheries monitoring studies described here: 1) reviewing existing scientific data; 2) using standardized methods and established protocols; and 3) assessing changes to baseline biological and relevant environmental conditions. With respect to protocols and resulting data streams from the monitoring plan, ROSA recommended: 1) estimating indices of abundance and occurrence; 2) characterizing demographics of fisheries resources; 3) describing environmental conditions; and 4) depicting bottom type/benthic habitat. Through this fishery monitoring survey, Dominion Energy/VIMS anticipates being able to collect the recommended data products (1 through 4). Additionally, to assess the potential economic impacts to commercial fishing sectors resulting from offshore wind development, detailed economic data on vessel operations and fishing businesses is needed and will be collected for the CVOW Commercial Lease Area (RODA 2022).

Additional considerations will be made to ensure consistency and coordination with regional offshore wind fisheries monitoring efforts. Dominion Energy/VIMS will continue to consider the monitoring guidance offered by BOEM (2019) and ROSA (2021), as well as incorporate data collection methods, storage, and data sharing recommendations from ROSA's *Report and Recommendations on Fisheries Resource Data Production, Storage and Accessibility* (2022). This has the potential to promote stronger stakeholder engagement, encourage consistent data collection efforts, and create more universally accessible data products for assessing regional or cumulative impacts of offshore wind development on fisheries among several developers and stakeholder groups. Until the details of how a regional assessment may be implemented are available, it would be prudent to limit the site-specific fisheries characterization within the Offshore Project Area to focused fishery-specific efforts described below, then later supplement upon further evaluation (if required).

This project will collect and manage several pieces of confidential data. Non-confidential data collected or produced by VIMS and/or Dominion Energy will not be considered proprietary data and will not be withheld from the public. All materials will be consistent with VMRC and William and Mary's

confidentiality data collection policies. This includes all non-confidential reports, conclusions, and publications.

All data types described within Sections 3.1.1 and 3.2.1 (Fishery-Dependent Data Collection) are considered confidential. Confidential data collection and management procedures and protocols will be developed and submitted to William & Mary's Protection of Human Subjects Committee (PHSC)[2] for review and approval. This process will occur prior to any confidential data collection by VIMS researchers. Only researchers who have undergone human subjects research compliance training and have the appropriate and up-to-date certifications will be allowed to handle, process, or view confidential data collected and analyzed as part of this research. Confidential data will be stored in password protected files on password protected computers or an external hard drive. Confidential data will be anonymized by removing individual identifiers or by using a random alphanumeric code when individual identification is necessary (e.g., identifying multiple trip reports submitted by the same commercial fisherman). For this research project, anonymized data will still be considered confidential given that individual fishing locations, gear use, catch rates, and economic information may be uniquely identifiable. Confidential data will not be shared publicly under any circumstances. All non-anonymized confidential data will be destroyed no more than five years following the conclusion of the project. Anonymized data may be retained to inform on-going research and monitoring needs.

V-2.3.1 Black Sea Bass

Black sea bass are a fish in the Serranidae family, distributed from the Gulf of Mexico through Florida and northward along the East Coast of the United States to the Canadian Maritimes. Typically associated with structured habitats, black sea bass annually migrate southward and offshore in the fall and return to northerly, inshore habitats in the spring where they remain through the summer. Spawning varies by region and typically occurs in the late spring, when eggs hatch and develop into larvae, subsequently transitioning into juveniles that settle and inhabit nearshore areas. Most black sea bass start their life as females, and as they grow, some will switch sexes and become males (protogynous hermaphrodites). Black sea bass can live up to 10 to 12 years and can reach total lengths of 24 inches and weigh up to 9 pounds.

Black sea bass support productive commercial and recreational fisheries throughout their range and particularly in the mid-Atlantic region. Commercial fisheries of the region typically use baited and unbaited fish pots and bottom trawls to harvest black sea bass, while recreational fishermen target sea bass with hook and line gear, usually on rocky substrate or in artificial reef networks. Details on state, regional, and CVOW Commercial Lease Area-specific landings and values of the black sea bass fisheries can be found in COP Section 4.4.6 Commercial and Recreational Fishing. While all fishing activity is generally sparse in the CVOW Commercial Offshore Project Area, there has been documented black sea bass landings from within and near the Lease Area. Thus, Dominion Energy recognizes this species as an important resource upon which the Project may have impacts and was selected as a focus for this monitoring plan.

Characterization and monitoring of the black sea bass fishery in and near the Lease Area will be accomplished by performing fishery-dependent and fishery-independent components of data collection and analysis. Both components will rely on collaborative and cooperative relationships with local black sea bass

[2] https://www.wm.edu/offices/sponsoredprograms/researchcompliance/guidanceandprocedures/humansubjects/index.php

fishermen operating in and around the Lease Area. Working with fishermen will provide historical and present context of black sea bass fishing activity in the area and overall help to inform the strategy and execution of the mitigation and monitoring framework. The objective of this program is to collect pre-construction data from which baseline black sea bass fishery and resource conditions can be established.

V-2.3.1.1 Fishery-Dependent Monitoring

Fishery-dependent data will be collected from various sources to describe the black sea bass fishery operations occurring in and near the Lease Area. To the extent possible, this effort will 1) synthesize historical data from fishermen operating in or near the Lease Area; and 2) collect catch and effort data from current operations (to include a subset of haul-level trip reports), conducted during pre-construction. These complementary data streams will serve to characterize the catch, spatio-temporal, and economic conditions of the black sea bass fishery, satisfying the first guiding principle of the BOEM and ROSA's guidance (reviewing existing scientific data). Data will also help to inform the experimental design and overall strategy of the fishery-independent component of this study. Dominion Energy/VIMS will work with the black sea bass fishermen to understand the historical use of the area and develop a standardized data architecture to collect and house fishery dependent data. This information will build off the catch reporting currently available at the state and federal levels and will, ideally, be collected at the trip and haul level. Data collected will produce metrics of the black sea bass catch and fishery performance (e.g., catch per unit effort [CPUE]) in and around the Lease Area. Dominion Energy/VIMS fishery-dependent monitoring will complement fishery independent efforts. Three types of fishery-dependent data will be considered in this analysis:

- Historical state- and federal-level reported landings and fishing effort;
- Historical logbooks, chartplotter data, and/or other catch records collected independently by individual fishing operations; and
- Data on commercial catch and effort collected as part of on-going resource monitoring and assessment work related to the CVOW Commercial Project.

Historical information on catch, effort, and landings of black sea bass will be obtained from fishery managers and commercial fishery participants. Black sea bass is federally managed and commercial vessels permitted to fish for the species are required to submit vessel trip reports (VTRs). VTRs include several relevant data fields such as coordinates of gear haul backs, gear soak times, and fishing depth, which might provide complementary data on landings and effort. To supplement these data, black sea bass fishermen who operate in or near the Lease Area will be asked to provide VIMS researchers with historical logbook data, information from vessel plotters, and/or other catch records they maintain. Historical information obtained from fishery managers and commercial fishery participants will be used to assess temporal and spatial trends in catch, effort, and productivity (catch or landings per unit effort). Data analysis will include calculation of descriptive statistics (e.g., mean, standard deviation, median/other percentiles) with the data partitioned by year and/or fishing location, when possible. Simple regression models will be run to recover trends controlling for autocorrelative processes. Spatially resolved information (e.g., VTRs, chartplotter data, logbooks) will be used to construct maps. Data confidentiality to the public and Dominion Energy will be maintained throughout the study). Presently only one fixed gear black sea bass fisherman is known

to fish in and around the Lease Area, implying little information regarding historical fishing effort and catch may be able to be shared publicly due to data confidentiality.

Current fishery participants may be asked to collect supplementary trip-level data if it is determined existing data collected for management purposes lacks the level of detail needed for ongoing monitoring efforts. Supplementary data fields could include locations of multiple gear sets (latitude and longitude degrees and minutes; note that VTR collects only one location per trip), amount of gear used, and catch per gear set (either per pot or per pot string). VIMS researchers will work with commercial fishermen to create datasheets to collect supplementary trip-level data. These datasheets will then be distributed, collected, and analyzed by VIMS researchers. Supplementary trip report data, if collected, would be evaluated using descriptive data analyses and regression modeling to evaluate average catch rates and spatiotemporal trends. Trip report information is considered confidential data and will not be shared publicly. All data products using trip report data will be kept confidential.

Data elements gained from these efforts may inform fishery-independent survey design and strategy. Data may provide insight and information related to gear placements, soak times, and potential sample stratifications. The fishery-dependent data stream may also complement the fishery-independent data in assessment of the black sea bass resource, fishery monitoring, and evaluation of Project-related impacts.

V-2.3.1.2 Fishery-Independent Monitoring

The fishery-independent monitoring program is aimed at establishing the biological baseline conditions of the black sea bass resource in and near the Lease Area. This effort will be in collaboration with the black sea bass fishermen active in the area to provide the knowledge and expertise to inform the design of a black sea bass pot-based survey, regardless of vessel platform.

Though many established survey efforts to generate fishery-independent indices of abundance for black sea bass on the Atlantic coast are centered around multispecies demersal fish trawl surveys, several fish pot-based surveys exist, as this gear type has several advantages in sampling black sea bass. A fish pot-based survey may better capture species studies that are typically associated with structure and are not easily captured with other sampling gears, especially black sea bass. Fish pots are also the primary gear type used by commercial black sea bass fishermen who fish in the area. Thus, fish pots would be the most appropriate gear type for a fishery-independent study.

Other fishery-independent pot surveys use vented or ventless gear (to better characterize the demographics of the sampled population) and can be utilized with or without bait. One of the longest running examples of a pot-based survey is the Atlantic States Marine Fisheries Commission (ASMFC) Coastwide Ventless Lobster Trap Survey. This survey has been used as a model for an extension of this methodology for efforts in the Vineyard Wind and South Fork offshore wind development areas. Other examples of trap-based surveys focused on structure oriented demersal fishes will provide valuable information for the design of the proposed efforts (e.g., Borden et. al. 2013; Jensen et. al. 2018). Surveys using this approach can honor the guidance in the BOEM (2019) guidelines and ROSA (2021) recommendations and produce a suite of relevant data (e.g., indices of abundance and occurrence, demographic indices, environmental variables) as well as provide material for investigations relative to black sea bass biology (animal health, reproductive status, etc.).

Data collection and analysis for the fishery-independent survey will aim to answer the following research question: *What is the relative abundance, length frequency and demographic characteristics (age structure, reproduction and diet) of black sea bass within the Study Area before and after construction?* An effective scope of work in this phase of the study will not only provide a characterization of the fishery and resource in the area (i.e., Before), but also to establish the experimental framework and data streams to continue the study in the longer term (i.e., After) and have a robust, statistically sound design with appropriate data to assess the impact of the Project development.

V-2.3.1.2.1 Experimental Design

An overarching objective of fishery monitoring plans with respect to OSW development is to establish a methodological basis for the collection of relevant data to test hypotheses about the potential impact of the development upon affected fisheries and resources. These experiments are typically framed around a null hypothesis that states that the offshore wind development has no impact on the fishery/resources. This hypothesis is tested via methodological frameworks such as BACI or BAG experimental designs (Methratta 2020) and is either accepted or rejected based upon the statistical analysis of the collected data.

This fishery-independent survey effort will focus on the pre-construction phase of the development in the Lease Area. After careful consideration of operational attributes of the fishery and input from our industry partners, it was determined that the BAG design is the most appropriate to evaluating the potential impacts of the CVOW Commercial Project on the black sea bass fishery. With this design, the relative effect of the CVOW Commercial Project will be assessed as a function of the distance from turbine structures (Figure V-2-2).

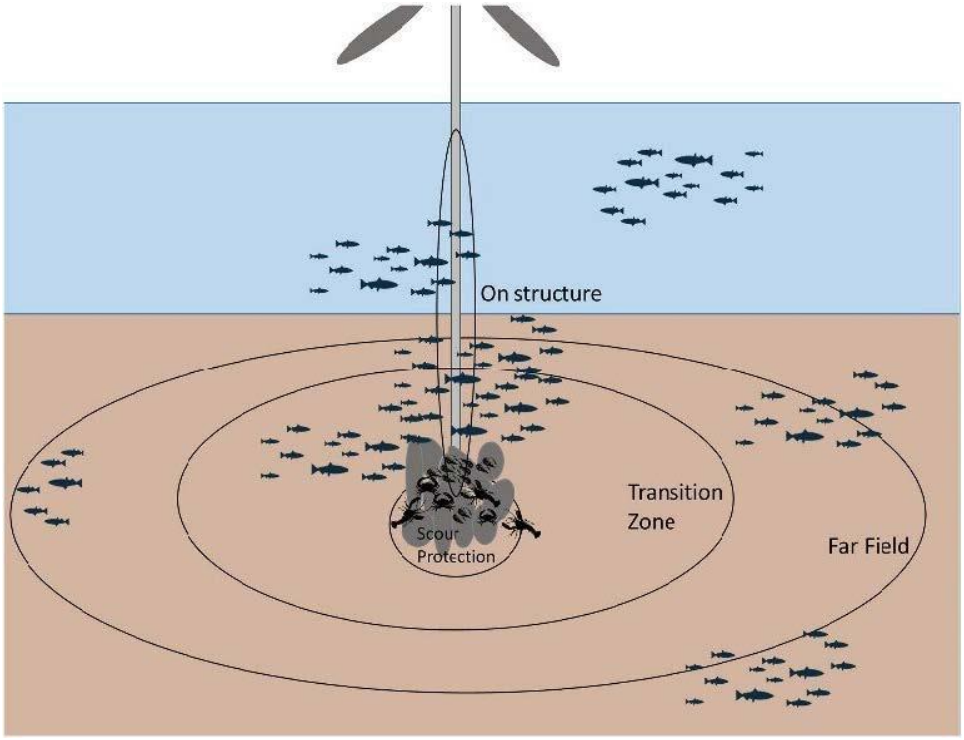

Figure V-2-2. Conceptual Diagram of Gradient Based Sampling with the Potential Spatial Impact of the Offshore Wind Development Delineation by Distance from the Proposed Structure (source: Methratta 2020)

Some elements of the proposed monitoring plan will be dependent upon existing information and data collected during the fishery-dependent component of the monitoring program. Dominion Energy/VIMS will leverage the existing knowledge of the CVOW Project Area to assist in the design of the sampling area. This knowledge will consist of the historical data relative to the black sea bass resource in the area (as reflected in CPUE from the historical and 2022 information) as well as bathymetric, benthic, and geotechnical information obtained as part of the pre-construction efforts in the CVOW Project Area. These elements are likely to be an important aspect impacting the distribution of black sea bass in the area and consideration of this data will be important to optimize the survey and meet the project objective, while also remaining scientifically and statistically robust.

As stated above, the BAG design is predicated upon evaluating the effect of an impact along a spatial gradient. For this design, it is critical to control for spatial variation and have an *a priori* knowledge of the location(s) of the impact. As such, the proposed locations of the turbines and scour protection will be used in the finalization of the sampling strata and sampling locations.

Two subareas within the CVOW Lease Area, composed of three turbines each, will be targeted throughout the study. These areas will be chosen based on examining relevant fishery, oceanographic and biological data and consultation with Dominion Energy and stakeholders. The two subareas will be stratified by depth, with one area less than 30 meters and the second area greater than 30 meters (Figure V-2-3). Each lease block within the identified sampling area will be divided into subareas (aliquots). Aliquots will be designated into one of the four distance strata from the turbine. For each sampling event, a turbine within each of the two subareas will be randomly selected, and pots will be deployed within one of the randomly chosen aliquots within each of the distance strata (Figure V-2-3). The first three distance strata will be informed by the literature and other fishery monitoring studies for black sea bass in the region (such as the ongoing studies by University of Maryland Center for Environmental Science [UMCES 2022]). The fourth distance strata will be sufficiently far from the turbine—outside of CVOW Lease Area—and function similarly to a control site where no turbine effect is anticipated.

The black sea bass fishery operates seasonally in the spring and fall with reduced effort during the summer season. BOEM (2019) and ROSA (2021) guidance encourages seasonal sampling, and this sampling plan that captures the seasonality of black sea bass presence and availability in the CVOW site. The standard soak time of pots for the VIMS survey will be approximately 48 hours. This proposed soak time has been selected to ensure the gear fishes properly during the soak (i.e., not to saturation). Additionally, the selected soak time aligns with other offshore wind black sea bass monitoring efforts (e.g., UMCES 2022), which will allow for regional integration of information. Sampling will occur once a month throughout a 24-month period.

Current fishery practices in the region allow for pots to soak for 12 to 14 days during times of traditionally high fishing effort. Black sea bass fishermen in the area traditionally use longer soak times due to the difficulty of accessing their gear at shorter intervals due to the distance of gear offshore. However, the VIMS study will use shorter soak times due to concerns of gear saturation and in support of the integration of monitoring efforts across spatial scales (ROSA 2021). Ultimately, the program will consistently follow these sampling intervals; however, some flexibility will be required as a function of vessel availability and weather constraints.

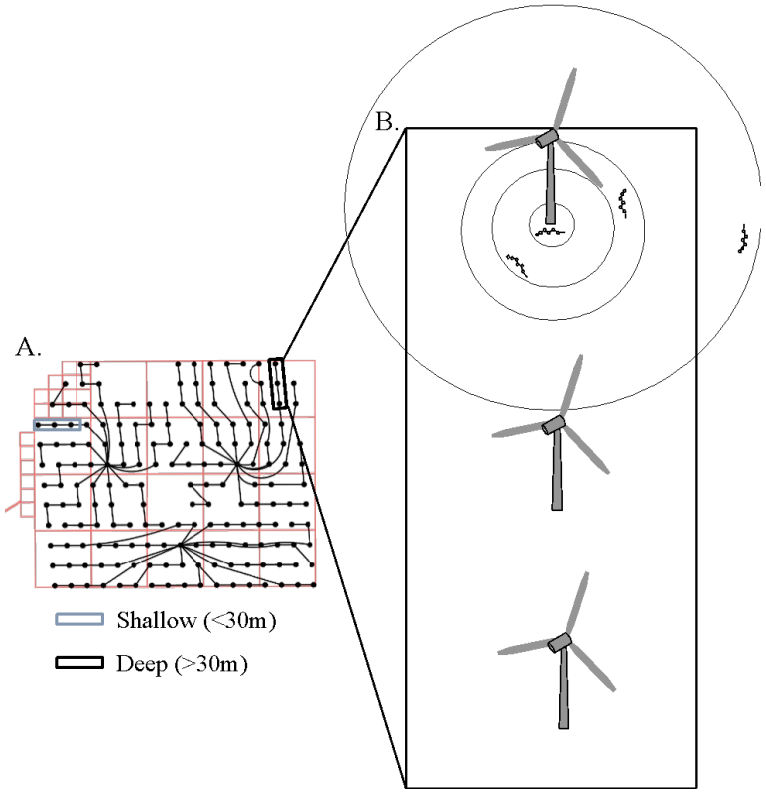

Figure V-2-3. CVOW Commercial Project Layout with Turbine and Cable Array (A) and Example of Subareas (Stratified by Depth) (B) That Would be Used for the Study

V-2.3.1.2.2 Sampling Gear

Fishery-independent monitoring will be conducted using fish pots, a common gear type in the black sea bass fishery, described in this section. Typically, the commercial fishery deploys strings (or trawls) of multiple pots along the seafloor, which are connected by groundlines. At the end of each string, there is typically a static vertical buoy line that is attached to mark the gear's position at the surface (Figure V-2-4).

Dominion Energy/VIMS plans to utilize a modification of this practice for the black sea bass survey program. These modifications are intended to mitigate the entanglement risk of a variety of nontarget species (i.e., marine mammals, sharks, and sea turtles) by using the following methods. Instead of using a vertical line with a buoy for gear marking, an acoustic-release mechanism will be used to retrieve the gear once on-station. Furthermore, as a secondary method of retrieval, the section of rope between the anchor and the first pot in the string will consist of an elongated section of sinking ground line (Figure V-2-4). Should the acoustic-release mechanism fail, this section of line will facilitate gear retrieval with a grappling hook which has been identified as a less expensive alternative to acoustic release on-demand gear (NEFSC 2022). The top two fathoms of the sinking ground line will be marked in a yellow and black marking scheme using paint or woven tracers. Global positioning system (GPS) locations will be used to mark gear. VIMS will set up a webpage that provides notice to mariners about the general location of gear, coordinated through Dominion Energy's FLO. Dominion Energy will also share information about gear sampling locations and timing on the CVOW Commercial Project website, under their "Commercial Project Mariner

Updates" (consistent with updates described in Appendix V-1, Fisheries Communication Plan). During year two of this Project, VIMS intend to test other on-demand fishing systems as they are available. These fishing methods eliminate the use of vertical lines and should provide equal levels of mitigation.

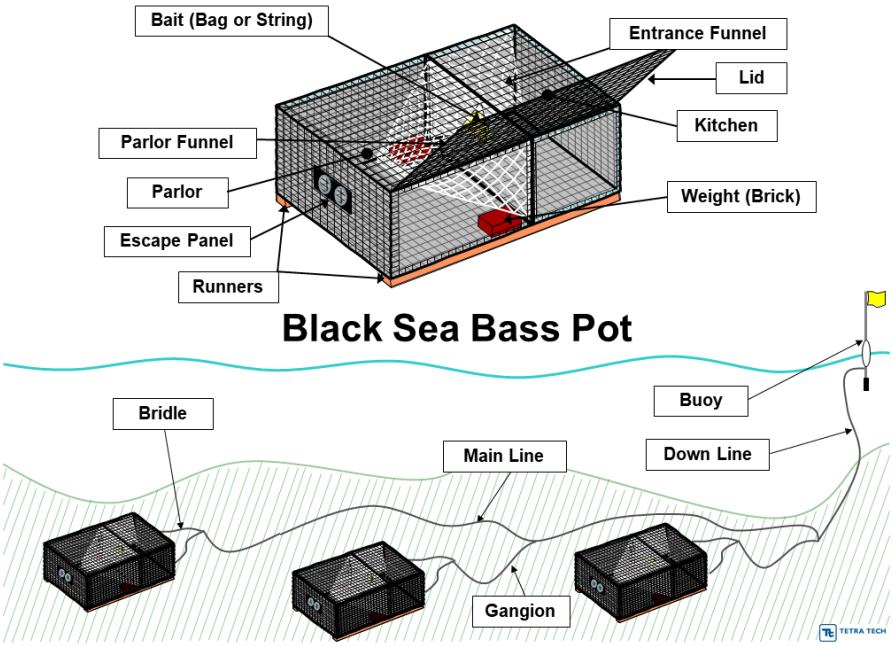

Figure V-2-4. Conceptual Diagram of Typical Black Sea Bass Pots Being Fished as "Strings" (no surface buoy lines will be used in this study)

Pots will be constructed to be consistent with regional efforts with respect to design elements of the gear (i.e., trap material, volume, entrance funnels, escape vent configuration) and soak time. Each string will consist of six pots with approximately 10 fathoms spacing between the pots and a 30-fathom anchor line on both ends for a total approximate length of 110 fathoms. In case gear is lost, an extra pot-string will be kept in reserve onboard for replacement. In an effort to characterize both the underlying population demographics of the sampled black sea bass resource and the catches of the commercial fishery, this survey will set a combination of ventless and vented (consistent with current regulatory requirements) pots randomly placed within a string. Baited or un-baited pots will soak for approximately 48 hours. Soak time will remain consistent (as practicable) throughout the survey program. During sampling effort periods (described in Section 3.1.2.1 Experimental Design), gear will remain in the water after the initial set. Strings will therefore be tended twice per sampling effort: once for setting and once for retrieval.

Using the fish pots as sampling platforms themselves, Dominion Energy/VIMS will utilize the deployment of the pots to capture additional data. Temperature sensors/data loggers will be deployed, attached directly to the fish pots. Star-Oddi sensors will be used to record temperature for the sampling and the ability to specify sampling intervals. GoPro cameras will be placed on a subset of the initial pot deployment to explore how soak duration influences catch. Modifications to soak duration can be made if video footage indicates that soak periods influence catch (i.e., priority effects). GoPro video cameras will also be used to assist with classifying the habitat and record additional video footage of fish. The video recording from the GoPro

camera will be analyzed to provide another estimate of the relative abundance of black sea bass. The Star-Oddi sensors and GoPro video cameras will be instrumental in acquiring ROSA recommended data products 3 and 4 (describing environmental conditions; and depicting bottom type/benthic habitat).

V-2.3.1.2.3 Catch Sampling/Data Management/Data Analysis

Data collected will contribute to characterization of the relative abundance, length frequency, and demographics of the black sea bass resources in and near the Lease Area along the sampled distance interval. Sampling methods and anticipated data products are consistent with the recommendations in ROSA's Fisheries Data Report (2022). Data analysis for the pre-construction monitoring period will focus on estimating seasonal trends and variability in abundance, size frequency, and demographics (age structure, reproduction. and diet). Establishing pre-construction baselines for these metrics will then allow evaluation of impacts when post-construction monitoring programs commence. To allow for maximum comparability with other surveys, our field sampling protocols will follow examples from the South Carolina Department of Natural Resources Reef Fish Survey in the southeast United States, as well as ventless trap surveys conducted in the northeast as a part of the ASMFC survey that focuses on American lobster *Homarus americanus*.

Sampling of the catch will be conducted by scientific personnel on board a VIMS or VIMS-contracted research vessel. For each pot, the entire catch will be kept separate and placed in traditional fish baskets. All specimens collected will be weighed (aggregate weight by species/size class), measured, and returned to the water, except those subsampled for additional processing. Each black sea bass will be measured for total length (TL) in millimeters (mm) from the tip of the snout to the end of the caudal fin (not including the filament on the dorsal end of the caudal fin). Additionally, the reproductive stage of fish sampled from the pots will be recorded via external visual observations to investigate seasonality in spawning. Depending on the total number of individuals (or other non-target organisms) in the trap, a subsample may be measured to increase survey efficiency. A representative subsample of black sea bass will be removed from the catch for full processing in the laboratory. The representative subsample will be euthanized and brought back to the laboratory in coolers. Full sample processing in the laboratory will include collecting information on each fish's length, weight, sex, and maturity stage (via histology). Stomach samples and aging structure (otolith and scale) will be removed and stored for later processing.

All other species will be sampled and will include both vertebrates and invertebrates. This could include teleost/elasmobranch fishes, crabs, lobster, conch, and echinoderms. All fishes will be counted and measured (TL) to the nearest mm by species. Non-fish species will, at a minimum, be identified to the lowest practicable taxa and enumerated and measured to the appropriate length metric for their respective species group.

Haul level catch data (e.g., each pot uniquely identified) will be entered into a custom VIMS data acquisition program: Fisheries Environment for Electronic Data (FEED). Length measurements will be recorded using an electronic measuring board integrated with the FEED program that allows for automatic recording of length measurements. Station level information will also be entered into FEED using an integrated GPS input. Station level data (e.g., string) includes location, haul time, water depth, weather and comments relative to the quality of the haul will be recorded and stored in the associated Microsoft Access database created for the Project. Upon completion of the sampling trip, all collected biological and environmental

data from the numerous data streams will be processed through a quality assurance/quality control protocol and archived at VIMS for future data analysis.

V-2.3.1.2.4 Timeline

This survey program began in July 2023 and will continue for approximately 2 years. These elements provide a general progression and highlight how the information from the various phases are related and dependent upon each other. As stated above, Dominion Energy/VIMS endeavor to provide a framework and resulting data that starts to answer the broad question related to the interaction of the CVOW Commercial Project with the black sea bass resource and fishery that has traditionally operated within the Project Area. The concurrent seasonality of this survey with the typical fishery operations will provide data that is consistent with existing BOEM and ROSA guidance for seasonality of fisheries monitoring plans in and around offshore wind development sites. With this data, Dominion Energy/VIMS will develop a scientifically sound pre-construction baseline for the black sea bass resource in the Lease Area and provide a basis for studies that can evaluate future changes to these biological conditions. Dominion Energy has committed to a 3-year black sea bass study between years 2 and 4 of operations.

V-2.3.2 Conch

Two species of Busycon whelks (family Busyconidae, also known as "conch"), channeled whelk (*Busycotypus canaliculatus*) and knobbed whelk (*Busycon carica*), support commercial fisheries along the Atlantic Coast of the United States from Georgia to Massachusetts. Most commercial conch operations targeting these species occurs in the mid-Atlantic and New England regions (Davis and Sisson 1988; Edwards and Harasewych 1988). While conch have historically been landed in these regions, participation and effort have recently increased due to diminishing opportunities in other fisheries and an increase in market demand (Davis and Sisson 1988; Power et al. 2009; Angell 2018). Commercial landings and ex-vessel value data for the conch fishery in Virginia is presented in the COP Section 4.4.6 Commercial and Recreational Fisheries.

Conch fisheries are not federally managed and state-by-state management and regulatory measures, such as reporting, vary and have historically been inconsistent (Askin and Fisher 2021). Thus, the available reported conch commercial landings likely represent underestimated values. While there is increasing effort to better understand the data-poor conch fishery resources of the Atlantic coast, there remains limited knowledge of the biology and ecology of the species, translating to considerable uncertainty in the health of stocks. Some recent research on both channeled and knobbed whelks has described highly regional or even water-body specific variability in genetic structure, growth rates, and maturity rates (Askin et al. 2022; Askin and Fisher 2021; Fisher and Rudders 2017; Fisher 2015; Wilcox et al. 2021). Population-level estimates for regions of the mid-Atlantic are not regularly conducted. Attempts have been made in Massachusetts and Rhode Island to evaluate candidate stock assessment models for conch fisheries; however, the results can only be applied to respective regions where specific data is available (Nelson et. al. 2018; Angell 2020). These uncertainties and large fluctuations in recorded landings over the past decades have raised concerns regarding the long-term sustainability of the resource (Peemoeller and Stevens 2013; Fisher and Rudders 2017; Angell 2018; Nelson et al. 2018). Consequently, there remains many challenges

for—and an overall lack of—coordinated, regional management efforts, despite a known offshore conch resource accessed by fishermen across the region (Askin and Fisher 2021).

Dominion Energy recognizes that development of the Project may overlap with traditional conch fishing grounds, and that impacts to the fishery may occur. As such, this monitoring program presents an opportunity to focus effort on better understanding these species. Such efforts would provide an opportunity to both characterize the conch fishery and resource in these areas, and assess the impacts of offshore wind development on the dependent fishing communities.

Pre-construction characterization of the conch resource and fishery in the Lease Area will be accomplished by performing fishery dependent and fishery independent components of data collection and analysis. Both components will rely on partnerships and collaboration with commercial conch fishermen, who can provide data and information on fishery activity in the area (including locations, seasons, gear, landings, etc.), local ecological knowledge, survey design support, and other unique information and support. This valuable collaboration will be critical in characterizing the data poor conch fishery and in establishing a meaningful monitoring program to analyze impacts of Project development. The objective of this program is to collect pre-construction data from which baseline conch (*Busycon spp.*) fishery and resource conditions can be established, consistent with BOEM and ROSA guidelines.

V-2.3.2.1 Fishery-Dependent Monitoring

Fishery-dependent data will be collected from various sources to describe the conch fishery operations occurring in and near the Lease Area. To the extent possible, this effort will 1) synthesize historical data from fishermen operating in the Project Area (pending agreements); and 2) collect catch and effort data (to include a subset of haul-level trip reports) from operations conducted during available seasons (pending agreements). These complementary data streams will serve to characterize the catch, spatio-temporal, and economic conditions of the conch fishery, satisfying the first guiding principle of the BOEM and ROSA's guidance (reviewing existing scientific data). Data will also help to inform the experimental design and overall strategy of the fishery independent component of this study. Dominion Energy/VIMS will work with conch fishermen to understand the historical use of the area and develop a standardized data architecture to collect and house fishery dependent data. This information will build off the catch reporting currently available at the state and federal levels and will, ideally, be collected at the trip and haul level. Data collected will produce metrics of the conch catch and fishery performance (e.g., CPUE) in and around the Lease Area. Dominion Energy/VIMS envision this element being continued through the monitoring plan to complement fishery independent efforts. Three types of fishery-dependent data will be considered in this analysis:

- Historical state- and federal-level reported landings and fishing effort;
- Historical logbooks, chartplotter data, and/or other catch records collected independently by individual fishing operations; and
- Data on commercial catch and effort collected as part of on-going resource monitoring and assessment work related to the CVOW Commercial Project.

Historical information on catch, effort, and landings of conch will be obtained from fishery managers and commercial fishery participants. VMRC requires individuals landing conch harvested in Virginia territorial

waters to submit harvest reports (trip tickets) indicating landings and fishing effort. Federal agencies also maintain historical landings timeseries that may be relevant and will be explored. Harvest and landings reports collected by fishery managers, while useful in characterizing broad historical trends, are subject to several potential limitations, including limited spatial resolution (all offshore areas are reported together) and potential errors or inaccuracies in reporting. To supplement these data, conch fishermen who operate in the CVOW Project Area may be asked to provide VIMS researchers with historical logbook data, information from vessel chartplotters, and/or other catch records they maintain. Historical information obtained from fishery managers and commercial fishery participants will be used to assess temporal and spatial trends in catch, effort, and productivity (catch or landings per unit effort). Data analysis will include calculation of descriptive statistics (e.g., mean, standard deviation, median/other percentiles) with the data partitioned by year and/or fishing location, as possible. Simple regression models will be run to recover trends controlling for autocorrelative processes. Spatially resolved information (e.g., chartplotter data, logbooks) will be used to construct maps displaying the distribution of the conch fleet-level fishing effort and catch in and around the Lease Area. Data will remain confidential to the public and Dominion Energy throughout the study.

A data workshop will be held during the winter or spring of 2024, during which fishery participants will be invited and asked to come with data they are comfortable sharing and existing data from fishery managers will be presented. This half-day event will be used to assess the suite of existing data sources for data quality and potential use in characterizing pre-construction biological and fishery conditions. The workshop will also be used to recruit individuals to participate in fishery-dependent data collection and discuss ongoing CVOW Commercial Project resource monitoring efforts.

In addition to historical fishery information, current conch fishery participants will also be asked to fill out trip reports that collect information on catch, fishing effort, and supplementary trip-level data to enable a comprehensive evaluation of the economic impacts resulting from site development. Data fields are expected to include information on location of gear sets (latitude and longitude degrees and minutes), amount of gear used, and catch per gear set (either per pot or per pot string), trip-level expenses (e.g., ice, fuel, food, supplies), and landings (e.g., weight in pounds, dealer, price). Data sheets or other data recording mechanisms to collect this information will be created by VIMS researchers in coordination with VMRC staff and provided to participating commercial fishermen. Once filled out, data sheets/recorders will be returned to VIMS researchers and input into spreadsheets. Trip report data will be evaluated using descriptive data analyses and regression modeling to evaluate average catch rates and spatiotemporal trends. Evaluation of trip-level economic data will include descriptive analyses and regression modeling. Additionally, economic data will be used for causal inference modeling in assessing impacts after site construction. Trip report data collection will be initiated in 2023 to provide a robust dataset for use in experimental design of fishery-independent data collection efforts. Additionally, it is anticipated that collection of such data will continue during construction and operational phases of the CVOW Commercial Project to provide a consistent and complementary stream of data that can be used to monitor and assess fishery impacts. Trip report information is considered confidential data and will not be shared publicly. All data products using trip report data will be kept confidential.

V-2.3.2.2 Fishery-Independent Monitoring

The fishery-independent monitoring program is aimed at establishing the biological baseline conditions of the whelk resource in and near the Lease Area. This effort will be in collaboration with partnering conch fishermen active in the area to provide the knowledge, expertise, and survey design support to conduct a conch pot survey. To our knowledge, there have been no time-series of conch abundance based solely on the gear used by the fishery, so this study will be the first of its kind in the region. Examples of pot-based surveys do exist that provide collateral conch information. Limited information exists regarding the population status and biology of the conch (channeled and knobbed whelk) resources of the mid-Atlantic. Abundance estimates of conch do not exist for offshore areas of Virginia, such as in or near the Lease Area, despite known occurrence of fishing pressure. This conch survey program will provide data to assess the baseline conditions of conch resources within or near the Lease Area. These data collected for this program may also serve to fill data gaps in conch population estimates that can contribute to future management of the fishery within the CVOW Project Area and throughout the region.

Dominion Energy/VIMS has drawn from other examples of pot-based surveys of the Atlantic coast to develop experimental protocols, though these other programs focus primarily on finfish or lobster. One of the longest running examples of a pot-based survey is the ASMFC Coastwide Ventless Lobster Trap Survey (ASMFC 2015). This survey has been used as a model for an extension of this methodology for efforts in the Vineyard Wind and South Fork offshore wind development areas. Other examples of trap-based surveys will provide valuable information for the design of the proposed efforts (e.g., Jensen et. al. 2018). Pot-based studies have traditionally focused on species that are associated with structure or are not well-captured by other sampling gears. Surveys using this approach are consistent with BOEM guidelines and ROSA recommendations and produce a suite of relevant data (e.g., indices of abundance and occurrence, demographic indices, environmental variables) as well as provide material for investigations relative to whelk biology (animal health, reproductive status, etc.).

Data collection and analysis for the fishery-independent survey will aim to answer the following research question: *What is the relative abundance, length frequency and demographic characteristics (age structure and reproduction) of conch within the Study Area before and after construction?* An effective scope of work in this phase of the study will not only provide a characterization of the fishery and resource in the area (i.e., Before), but also to establish the experimental framework and data streams to continue the study in the longer term (i.e., After) and have a robust, statistically sound design with appropriate data to assess the impact of the Project development.

V-2.3.2.2.1 Experimental Design

An overarching objective of fishery monitoring plans with respect to OSW development is to establish a methodological basis for the collection of relevant data to test hypotheses about the impact of the Project on affected fisheries and resources. These experiments are typically framed around a null hypothesis that the offshore wind development has no impact on the fishery/resources. This hypothesis is tested via methodological frameworks such as BACI or BAG experimental designs (Methratta 2020) and is either accepted or rejected based upon the statistical analysis of the collected data.

This fishery-independent survey effort will focus on the pre-construction phase of the development in the Lease Area. After careful consideration of operational attributes of the fishery and input from our industry partners, it was determined that the BAG design is the most appropriate to evaluating the potential impacts of the CVOW Commercial Project on the conch fishery. With this design, the relative effect of the CVOW development will be assessed as a function of the distance from turbine structures (Figure V-2-5).

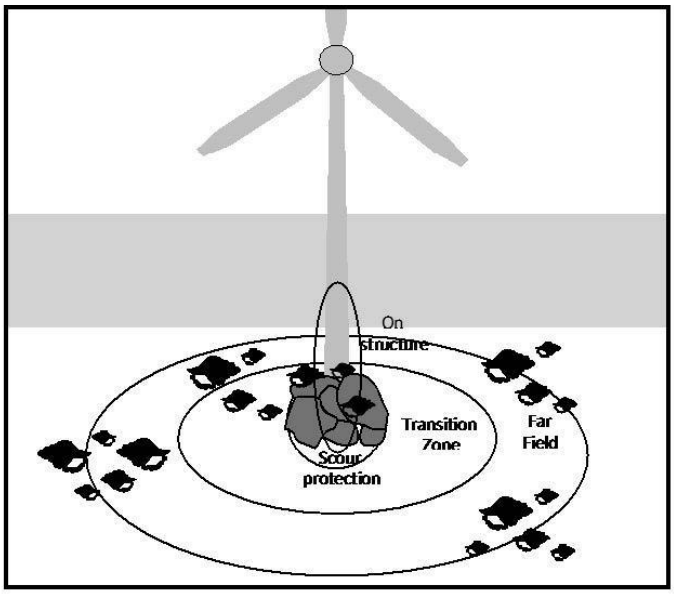

Figure V-2-5. Conceptual Diagram of Gradient Based Sampling with the Potential Spatial Impact of the OSW Development Delineated by Distance from the Proposed Structure (source: Methratta 2020)

Some elements of the proposed monitoring plan will be dependent upon existing information and data collected during the first phase of the project. Dominion Energy/VIMS will leverage the existing knowledge of the CVOW Commercial Project to assist in the design of the sampling area. This knowledge will consist of the historical data relative to the conch resource in the area (as reflected in CPUE from the historical and 2023-2024 fishery dependent information) as well as bathymetric, benthic, and geotechnical information obtained as part of the pre-construction efforts in the Project Area. These elements are likely to be an important aspect impacting the distribution of conch in the area and consideration of this data will be important to optimize the survey and meet the project objective, while also remaining scientifically and statistically robust.

As stated above, the BAG design is predicated upon evaluating the effect of an impact along a spatial gradient. For this design, it is critical to control for spatial variation and have an *a priori* knowledge of the location(s) of the impact. As such, the proposed locations of the turbines and scour protection will be used in the finalization of the sampling strata and sampling locations.

Two subareas within the Lease Area, composed of three turbines each, will be targeted throughout the study. These areas will be chosen based on examining relevant fishery, oceanographic and biological data and consultation with Dominion Energy and stakeholders. The two subareas will be stratified by depth, with one area less than 30 meters and the second area greater than 30 meters (Figure V-2-6). Each lease block within the identified sampling area will be divided into subareas (aliquots). Aliquots will be designated into one of the four distance strata from the turbine. For each sampling event, one turbine within

each of the two subareas will be randomly selected, and pots will be deployed within one of the randomly chosen aliquots within each of the distance strata (Figure V-2-6). The first three distance strata will be informed by the literature. The fourth distance strata will be sufficiently far from the turbine (outside of Lease Area) and function similarly to a control site where no turbine effect is anticipated.

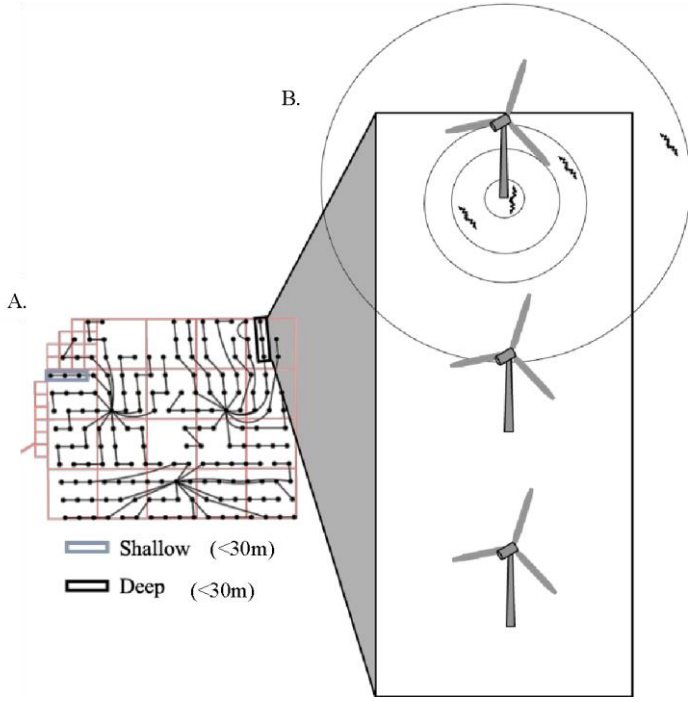

Figure V-2-6. CVOW Commercial Project Layout, with Example Enlarged Subarea (stratified by depth) Used for the Study

The conch fishery operates seasonally in the winter and early spring months within the Lease Area with reduced effort in the summer months. BOEM (2019) and ROSA (2021) guidance encourages seasonal sampling, and the conch survey program captures the seasonality of conch presence and availability in the Lease Area. Following current fishery practices, gear deployment and sampling will occur at roughly 3-day intervals. If differences in soak times occur, this can be analytically addressed in the data analysis stage of the Project. Sampling will occur once a month with two vessels. Ultimately, the survey program will consistently follow these sampling intervals; however, some flexibility will be required as a function of vessel availability and weather constraints.

V-2.3.2.2.2 Sampling Gear

Fishery-independent monitoring will be conducted with commercial-style conch pots, a common gear type in conch fisheries of the region. Typically, this fishery deploys single weighted pots along the seafloor, each with a buoy line to mark the pot position at the surface (Figure V-2-7). These pots can also be deployed in strings of multiple pots along the seafloor, which are connected by groundlines and have a single vertical buoy line (Figure V-2-7). Pots are deployed and left at the fishing location and are hauled at intervals (approximately 3 days), then re-baited and set again.

Dominion Energy/VIMS plans to utilize a modification of this practice for the conch survey program. These modifications are intended to mitigate the entanglement risk of a variety of nontarget species (i.e., marine mammals, sharks, and sea turtles) by using the following methods. Survey conch pots will be deployed in strings to optimize sampling capabilities and eliminate vertical lines in the water, thereby minimizing entanglement risk of non-target species (e.g., marine mammals, sharks, sea turtles). Each string will contain up to 7 pots, with 25 fathoms spacing between the pots; however, final details will be determined by discussions with fishermen to ensure appropriate location-specific setup.

Deployed strings will have a pot with a Guardian Ropeless System or equivalent, acoustic release, mounted temperature sensor and GoPro device. Guardian Ropeless Systems provides gear that mounts a net directly to a pot, which contains a traditional buoy line (coiled on the pot) eliminating the need for vertical lines in the water column. The acoustic release works in tandem with the ropeless system by running the release line through the net, to the cam release at the top of the acoustic device, holding the buoy line in place. When retrieving the gear an acoustic signal is sent from a transducer to the acoustic release, which prompts the device to free the release line, allowing the buoy line to uncoil and float to the surface. The combination of this gear allows sampling, while minimizing the risk of marine mammal entanglement.

Sinking groundlines will have colored markings (yellow and black marking scheme using paint or woven tracer). GPS locations will be used to mark gear (recovered via timed or acoustic release mechanism, with grappling as a secondary method of retrieval should the acoustic release fail). VIMS will set up a webpage that provides notice to mariners about the general location of gear. In case of lost gear, spare strings of pots will be available in reserve for replacement. Dominion Energy will also share information about gear sampling locations and timing on the CVOW Commercial Project website, under their “Commercial Project Mariner Updates” (consistent with updates described in Appendix V-1, Fisheries Communication Plan).

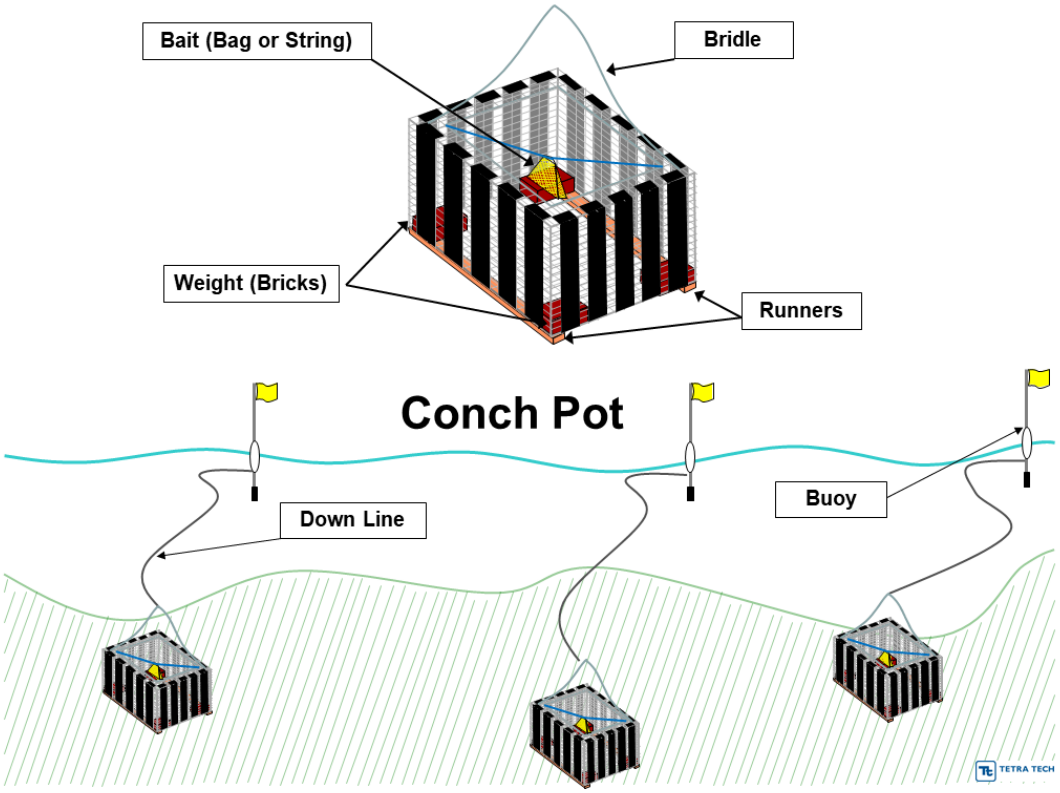

Figure V-2-7. Conceptual *D*iagram of *T*ypical *C*onch *P*ots Being Fished in "Singles" (no surface buoy line will be used in this study).

Deployed strings will have a pot with mounted temperature sensors and GoPro device. Star-Oddi sensors will be used to record temperature for long duration sampling and at specific sampling intervals. GoPro video cameras will also be used in subsequent deployments to assist with classifying habitat and record additional video footage of nearby fauna. The Star-Oddi sensors and GoPro video cameras will be instrumental in acquiring ROSA recommended data products 3 and 4 (describing environmental conditions; and depicting bottom type/benthic habitat).

V-2.3.2.2.3 Catch Sampling/Data Management/Data Analysis

Data collected will contribute to characterization of the conch resources along the sampled distance interval from turbines in the Lease Area. Data analysis will focus on estimating seasonal trends and variability in abundance, size frequency, and demographics (age structure, and reproduction). Establishing pre-construction baselines for these metrics will then allow evaluation of impacts when post-construction monitoring programs commence.

Sampling of catch will be conducted by scientific personnel on board two VIMS contracted commercial fishing vessels, operating simultaneously. The catch of each pot will be kept separate and sampled accordingly. Each individual conch captured will be sampled for shell dimensions, though appropriate subsampling (e.g., up to 30 individuals, etc.) of conch may be necessary in the case of high catches to optimize survey efficiency. Multiple shell dimension measurements will be taken, as a standardized conch

measurement metric is undetermined by researchers or management. Measurements will include total shell length (spire apex to edge of siphonal canal) and shell width (maximum straight-line distance measured across shell perpendicular to shell length with opercular opening flat on surface) in millimeters. Measurements will allow for the determination of the size frequency of the entire catch by expanding the catch at each length by the fraction of the total sampled. A representative subsample of the animals from each pot will be retained and returned to the laboratory for processing. Biological samples will be extracted for further investigation of age (statoliths), maturity and reproduction (tissue samples, penis length or nidamental gland weight), and population connectivity and genetic studies (tissues). Other species collected from conch pots will be counted and measured. Species could include fishes, crabs, lobsters, and echinoderms. All fishes will be identified to the lowest practicable taxa, and TL will be measured to the nearest mm. Non-fish species will be identified to the lowest practicable taxa, enumerated, and measured to the standard-length metric for that species group.

Haul level catch data (e.g., each pot uniquely identified) will be entered into our custom data acquisition program: FEED. Shell dimension measurements will be recorded using an electronic measuring board integrated with the FEED program that allows for automatic recording of length measurements. Station level information (e.g., per string of pots) will also be entered into FEED using an integrated GPS input. Station level data will include location, haul time, water depth, weather, and comments relative to the quality of the haul will be recorded and stored in the associated Microsoft Access database created for the project. Upon completion of the sampling trip, all collected biological and environmental data from the numerous data streams will be processed through a quality assurance/quality control protocol and archived at VIMS for future data analysis.

Deployed strings at the CVOW sites will have a pot with mounted temperature sensors and GoPro device. Temperature sensors that record temperatures for long duration sampling at specified sampling intervals will be affixed to representative pots. Video footage will provide a visual record of gear performance and operational characteristics of whelk pots fished in strings. These images will provide a basis for any technical or operational modifications as the study progresses. This sampling strategy will not only generate data with respect to whelk abundance, but also will provide information about the biological and physical environment. GoPro video cameras will also be used in subsequent deployments to assist with classifying the habitat and record additional video footage of fish. The temperature sensors and GoPro video cameras will be instrumental in acquiring ROSA recommended data products 3 and 4 (describing environmental conditions; and depicting bottom type/benthic habitat). Additionally, VIMS will explore comparison of relative abundance estimates derived from the pot survey data and video analysis data.

Numerous analytical approaches have been employed in the examination of data collected to estimate the impact of offshore wind development on living resources (Methratta 2020). The BAG design provides considerable flexibility with respect to analytical approaches and the final choice of statistical models will be based upon the relationship between the response and covariates of interest with the assumption of the underlying functional form guiding the statistical approach. The decision regarding data analysis will be informed by a thorough evaluation of a suite of statistical approaches to construct a robust model to describe the underlying process.

V-2.3.2.2.4 Timeline

The conch pot survey is slated to commence in Fall 2023 and continue for up to 2 years, prior to and during construction. These elements provide a general progression and highlight how the information from the various phases are related and dependent upon each other. As stated above, Dominion Energy/VIMS intend to provide a framework and resulting data that starts to answer the broad question related to the impact of the Project on the conch resource and fishery that has traditionally operated within the Project Area and surrounding waters. Dominion Energy has committed to a 3-year conch study between years 2 and 4 of operations.

V-2.3.3 Surfclam

Dominion Energy has partnered with researchers at VIMS, VMRC, and Rutgers University to establish a comprehensive fishery-independent monitoring program for the Atlantic surfclam fishery resource. Using the ROSA guidelines and in collaboration with fishing industry members, the program will collect baseline information relevant to the fishery in the Lease Area as well as establish the foundation for a potential future fishery monitoring program to evaluate potential impacts on the Atlantic surfclam resource and directed commercial fishery in the Lease Area (ROSA 2021).

From a regional perspective, the Atlantic surfclam fishery has been identified as one of the most exposed to impacts from offshore wind energy development (Borsetti et al. 2023; Stromp et al. 2023a; Stromp et al. 2023b; Kirkpatrick et al. 2017). Several of the wind lease areas in the Mid-Atlantic region have substantial overlap with active surfclam fishing grounds (Benjamin et al., 2019; DePiper, 2014). These vulnerabilities underscore the need to include a survey of surfclams in a comprehensive fishery monitoring plan, especially where potential overlap exists between fishing activity and wind development. However, as discussed in the COP, there is currently no documented commercial surfclam fishing within the Project Area, but starting in 2021 exploratory fishing for surfclams was conducted within the Lease Area and waters further offshore to evaluate the potential future use of that resource (Surfside Foods, personal communication October 2021). However, in the most recent federal surfclam resource survey, NOAA Fisheries did not collect any surfclams at the nearest locations to the Project (NOAA Fisheries 2022a). The major surfclam fishery ports of Atlantic City, New Jersey, and New Bedford, Massachusetts, have high exposure because they rank among the most valuable surfclam landing ports in the United States based on total revenue derived from the fishery, outside of the Project Area.

This sampling framework will collect one year of pre-construction data from within the Lease Area with a focus on the following research question: *What is the overall abundance and population structure of surfclams within the CVOW Lease Area and adjacent control areas?* This framework will seek to establish baseline resource conditions by estimating Atlantic surfclam abundance, spatial distribution, and population structure. This baseline will then be used to assess subsequent changes as a function of the construction and operation of the site. BOEM (2019) and ROSA (2021) guidance were considered in the development of the experimental framework for this survey program and Dominion Energy/VIMS anticipates collecting the recommended data products from those publications.

V-2.3.3.1 Experimental Design

Comprehensive baseline pre-construction data will be collected within the Study Area (Lease Area) and at a control site outside the Lease Area, by performing a dredge survey, allowing for comparison between sites via a student's t-test. This study design allows for an initial resource assessment, but the experimental setup also allows for a BACI design if sampling continues after lease development. Standardized survey tows utilizing the novel dredge will be made onboard the *F/V Joey D*, a 99-ft (30-m) clam fishing vessel built in 2020. The novel dredge has been custom designed for research sampling and contains a variety of specifications that allow for optimal survey operations (see Section 3.3.1.2 Sampling Gear).

The Study Area and control site will each be sampled at 20 stations (one tow per station) for a total of 40 stations). This is a much higher sample density than is occupied by the federal clam survey and should provide a comprehensive estimate of the clam biomass within the Study Area and control areas (Powell et al. 2017). Developer provided turbine locations will be used to simulate wind farm infrastructure. Station selection and subsequent tows will be selected in locations to ensure that before and after samples could be compared and collection would not be impaired by infrastructure.

Each dredge tow will sample the bottom for 45 seconds at a vessel speed of 1.5 knots. Sensors on the dredge will be used to estimate bottom contact engagement, and the location (latitude/longitude) of the beginning and end of each tow will be recorded. The tow start/end locations, and the dredge width will be used to calculate the area of bottom that was sampled for a given tow. Any tows that are retrieved with a full dredge will be discarded and the tow repeated for a shorter duration as a way to optimize tow duration, since a full dredge will not allow the gear to continue fishing.

At each station a Peterson grab sample and CastAway conductivity, temperature, and depth (CTD) cast will be made. The Peterson grab will be deployed from the fishing vessel to sample benthic macro-epifauna and macro-infauna. Grab samples will be brought onboard and bottom type and sediment in sample will be noted. Samples will be sieved through a 2-mm screen and remaining target organisms (those larger than 2 mm) will be measured. These grab samples will provide an opportunity to understand distribution, size, and age of the under-2-year-old surfclams within the Lease Area. CTD casts will provide profiles to depths of up to 100 m. Casts will record information on location of cast, conductivity (salinity), temperature, and depth.

V-2.3.3.2 Sampling Gear

Some fishing industry participants and fisheries scientists have concerns that various wind farm infrastructure (turbine foundations, substation foundations, scour protection, inter-array cables, export cables, etc.) in the region may limit or restrict the capabilities of commercial clam fishing and federal stock assessment survey vessel operations within a wind farm once construction has begun (Borsetti et al. 2023; Methratta et al. 2020). With this concern in mind, a novel sampling dredge has been designed through an industry-science collaborative process to facilitate clam surveys within offshore wind lease areas. This dredge was designed with reduced bar spacing that allows for the sampling of a wider size range of clams relative to a standard commercial clam dredge. A significant advantage of this novel dredge over a lined commercial dredge is that it does not clog with sediment and yields cleaner and easier to process catch. Thus, survey tows would be much shorter than typical commercial tows. Shorter tows will reduce the likelihood of the vessel needing to maneuver around a wind turbine foundation or other project component

for a given survey tow – facilitating data comparability between pre-construction and post-construction surveys. In addition, the dredge will be fished using a moderately sized vessel that can safely maneuver within a wind farm.

The novel dredge has been used to survey within some offshore wind lease areas in New Jersey. It is anticipated that the dredge and the above standard methods will be used in other fishery monitoring plans in the future, thereby ensuring the regional integration of information completed by this and other surveys. Work has been completed in New Jersey to calibrate the novel dredge against the NOAA Northeast Fisheries Science Center clam survey dredge, facilitating inclusion of data collected in offshore wind-related surveys with existing, long-term data collected by the federal survey.

V-2.3.3.3 Catch Sampling/Data Management/Data Analysis

The catch from each tow will be sorted and deposited in bushel baskets to measure the volume of the entire clam catch for each tow. Volumetric subsamples (at least one bushel) of the catch from each tow will be taken and all animals in the bushel subsample will be counted and measured. The counts from the volumetric subsample will be scaled up using the total catch volume to estimate total number of clams for a given tow. All surfclams in the subsample will be counted, measured, and weighed. Shells from the subsample will be retained and returned to the laboratory for aging. These protocols follow those used in the federal clam survey. It is common to catch horseshoe crabs, scallops, goosefish (market name monkfish) and whelk (market name conch) in clam dredges. Thus, all other animals in each of the subsamples will be identified to species (or lowest practical taxonomic level) and counted.

Clams processed in the lab will be thawed, shucked, and shells will be sectioned, sanded, polished for aging. Ages of surfclams can be reliably determined from annular rings laid down in the shell (Jones et al. 1978) and age information is an important part of the federal survey process (Chute et al., 2016). Individual age and length data for clams sampled will be used to determine age frequency in the population within the Study Area and in control areas. If sampling continues after construction age frequencies could also then be compared. Individual clam weight and length will be used to calculate condition index (dry tissue weight divided by shell length) to evaluate the overall condition of the clams within the Study Area and in control areas before and after construction. A subset of tissue samples will be preserved for DNA analysis. To better understand how these clams can exist in this southern region, and whether they may be indicative of a more permanent recovery of that area of the stock, biological samples should be taken to evaluate if they appear to be from a single cohort and whether they may be genetically distinct from the remainder of the stock.

V-2.3.3.4 Timeline

The surfclam sampling program was initiated in June 2023. These elements provide a general progression and highlight how the information from the various phases are related and dependent upon each other. As stated above, Dominion Energy/VIMS endeavors to provide a framework and resulting data that begins to answer the broad question related to the potential for interaction of the CVOW Commercial Project with the Atlantic surfclam resource and fishery that historically operated within or offshore of the Lease Area, but in recent decades has largely shifted northward and further offshore due to changing environmental conditions and other factors (Timbs et al. 2019). Dominion Energy has committed to a post-construction

surfclam study to be conducted between years 2 and 3 of operations to augment surveys being conducted by federal agencies.

V-2.3.4 Visual Surveys

In support of its existing offshore wind project, the two-turbine CVOW Pilot Project, Dominion Energy completes surveys for various marine resources, including annual foundation monitoring surveys to detect and record the types and extents of marine growth above and below the waterline on the surface of each monopile and on associated scour protection layers. This work started in fall of 2020, with follow-up surveys conducted in 2021 and 2022. Annual reports have been provided to BOEM (Inspire Environmental 2020; Aceton-Terrasond 2021), intended to inform BOEM's permitting work and guidance for monitoring plans at larger scale wind projects proposed in U.S. offshore waters, such as the CVOW Commercial Project. The monitoring includes digital still/video camera imaging using an ROV of the north, south, east, and west centerlines along the vertical structure of the monopile, and horizontally across the scour protection.

Visual surveys of this type are an important component of understanding the potential impacts of the structure offered by the foundation and scour protection to the fish and benthic community; particularly the composition of fish aggregations associated with the Project and surrounding areas. Dominion Energy anticipates a similar level of post-construction monitoring associated with a subset of monopile foundations following the completion of the CVOW Commercial Project, with specific monitoring plans forthcoming, pending completion of permitting and environmental analysis for the Project.

V-2.4 FISHERIES AVOIDANCE, MINIMIZATION, AND MITIGATION

In the COP, Dominion Energy proposed several fisheries-specific avoidance, minimization, and mitigation measures as a means to offset the potential impact-producing factors described in the COP, Section 4.4.6.3. Such measures include turbine layout, cable routing/burial, avoidance of existing artificial reefs, and consideration of benthic habitat features within the Offshore Project Area. Additionally, sound marine operational planning will avoid and/or minimize spatial and temporal overlaps with fishing activities. For situations where fisheries impacts cannot be avoided and compensatory mitigation is warranted, Dominion Energy will implement a Fisheries Compensatory Mitigation Plan, currently in-development.

In addition, Dominion Energy plans to continue actively engaging fishing communities, state and federal agencies, and other non-governmental organizations throughout the life of the Project to implement an adaptive mitigation approach that provides flexible and protective mitigation measures, as the Project advances through construction, operations, and decommissioning. Fisheries avoidance, minimization, and mitigation measures are summarized in Table V-2 1 below.

Table V-2 1. Summary of Fisheries-Specific Impacts for Project Stages, and Associated Avoidance, Minimization, and Mitigation Measures

Potential Impact	Project Stage(s)	Avoidance, Minimization, or Mitigation	
Potential for fishing vessel navigation hazards and access to fishing grounds within, and transit through, the Offshore Project Area	Project Design	Avoidance	Uniform spacing within a grid-layout.
	Construction, Decommissioning	Minimization	For the safety of both mariners and Project technicians, Dominion Energy will request the U.S. Coast Guard (USCG) establish safety zones around construction or decommissioning activities as applicable (expected to align with safety zones established for other offshore wind projects, per 33 CFR, §147). Dominion Energy will notify all mariners via Local Notice to Mariners (LNTM) of the presence and location of partially installed structures, and request the structures be charted at the earliest opportunity.
	Operations & Maintenance (O&M)	Minimization	Dominion Energy will ensure that the operational WTGs and Offshore Substations comply with USCG safety zones when offshore service vessels/crew transfer vessels are present and/or WTG technicians are aboard Project components, to ensure safe working conditions and safe vessel operation.
			Dominion Energy will ensure that the operational wind turbine generators and Offshore Substations include adequate marking and lighting in accordance with USCG approved measures to ensure safe vessel operation.
Potential for encroachment on existing designated artificial reef area within the 'fish haven' on the NOAA Nautical Chart	Project Design	Avoidance	Preferred siting of WTGs will result in avoidance of the "Triangle Reefs" fish haven area, as well as spare areas in the northwestern and northeastern corners of the Lease Area. In the event that WTGs need to be shifted due to constraints at the preferred locations, preference would first be given to the spare locations in the northeastern and northwestern corners of the Lease Area, respectively, when possible. Any WTGs within the fish haven area would be sited to avoid the items associated with the artificial reef, as well as other biological or cultural resources identified during geophysical surveys (see COP Sections 2.1.1 and 3.2.).
Potential for loss of sand ridge benthic features	Project Design	Avoidance, Minimization	NOAA Fisheries expressed concern of placement of specific WTGs and inter-array/export cables within portions of the Lease Area with sand ridge benthic features. Dominion Energy worked with NOAA Fisheries, through BOEM, to re-locate a subset of WTG positions to spare positions, thereby avoiding and minimizing those impacts to the extent possible, through the habitat minimization alternative – "Alternative C", described in the Draft Environmental Impact Assessment for the Project.
Potential for temporary displacement of fishing activity	Construction, Decommissioning	Avoidance	Dominion Energy will utilize existing fishing location information from available data, including direct communications with fishermen and offshore observations, to avoid placing WTGs over known fishing areas where practicable (e.g., Triangle Reef/Wrecks, specific locations indicated by black seabass fishermen).
			Closures would be temporary and limited to discrete segments of the Offshore Project Components that would have restricted access while construction/decommissioning is active. Operational planning will consider known fisheries uses to avoid spatial and temporal overlaps.

Potential Impact	Project Stage(s)	Avoidance, Minimization, or Mitigation	
		Minimization	Dominion Energy will work with fishermen and the head of marine construction operations to review operational planning and schedules in order to identity any areas where fishing operations may be temporarily displaced. Dominion Energy will also work with the USCG and make notices of area closures via safety zones publicly available through local notices to mariners (LNTM) posted to Dominion Energy's website and social media.
			Dominion Energy will work with affected fishermen to minimize any potential impact. Dominion Energy remains committed to coexistence with the commercial and recreational fishing industries.
		Mitigation	Dominion Energy would implement a compensation program for lost income for commercial and for-hire recreational fishermen and other eligible fishing interests for construction and operations consistent with BOEM's draft guidance for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR 585 or as modified in response to public comment. A Fisheries Compensatory Mitigation Plan is currently in-development.
Potential for temporary disturbance to local commercial fish species	Construction, Decommissioning	Mitigation	Dominion Energy is planning to utilize underwater noise mitigation (e.g., bubble curtain or equivalent), as required by NMFS and BOEM, to mitigate temporary impacts of pile-driving noise on marine species.
Potential for increase in Project-related vessel traffic	Construction, Decommissioning	Mitigation	Dominion Energy will ensure that all Project-related vessels follow appropriate navigational routes and other USCG "rules of the road," and communicate to other mariners via LNTM and/or radio communications to mitigate risks to the commercial and recreational fishing industries as well as other mariners. As necessary, an Offshore Fisheries Liaison Representative may be deployed on Project-related vessels.
Potential for risk of gear entanglements on partially installed structures	Construction, Decommissioning	Minimization	All temporary base, tower, and construction and installation components preceding the final structure completion will be marked with quick flashing yellow marine lights energized at a 5-nm range visible from all directions in the horizontal plane. Dominion Energy will work with the USCG and NOAA to ensure partially built components are charted as soon as practicable. In addition, the Fisheries Communications Plan (Appendix V-1) developed for the Project, combined with the direct outreach activities anticipated during construction, will provide the fishing community with advance notice, prior to formal LNTM, describing the extent and duration of construction activities and locations of all fixed structures within the Offshore Project Area, including partially installed structures within the safety zone. The Fisheries Communication Plan designates direct points of contact (Fisheries Liaison Officers) for the fisheries related communications or concerns.
		Mitigation	Fishing gear damage or loss claim procedure, through direct-reimbursement, per Dominion Energy policy, outlined in COP Appendix V-1 – Fisheries Communication Plan.

Potential Impact	Project Stage(s)	Avoidance, Minimization, or Mitigation	
Potential for loss of access to traditional fishing grounds, or temporary displacement of fishing activity during maintenance activities	O&M	Avoidance	Dominion Energy will continue to coordinate with existing commercial and for-hire recreational fishermen that utilize the Offshore Project Area (largely using fixed gear [pots/traps and gillnets]) and emerging fisheries to ensure they can deploy and recover their gear safely during operations and maintenance.
Potential for modification of habitat and displacement of target commercial species		Mitigation	Dominion Energy is in the process of establishing partnerships with local and regional experts from institutions, including VIMS to facilitate preparation of pre- and post-construction monitoring plans, driven by the stakeholders' interests, and built upon existing data.
Potential for increased Project-related vessel traffic		Mitigation	Dominion Energy would continue to ensure that all Project-related vessels follow appropriate navigational routes and other USCG "rules of the road," communicate via USCG LNTM, issue regular mariner updates and/or direct offshore radio communications to help mitigate risks to the commercial and recreational fishing industry as well as other mariners. As necessary, an Offshore Fisheries Liaison Representative may be deployed on Project-related vessels during certain maintenance operations.
Potential for impacts to marine radar/navigation instruments due to the presence of WTGs		Mitigation	Dominion Energy would leverage its experience on this topic with the CVOW Pilot Project and would work with the USCG and the local fishing community to refine site-specific controls or settings that may help to mitigate potential interference of marine radar associated with the presence of Offshore Project Components.
Potential for natural or mechanically induced events to disrupt cover or burial of subsurface cables, leaving exposed and vulnerable for interaction with fishing gear		Minimization	The Fisheries Communication Plan describes engagement and communication strategies for Project activities and designates direct points of contact (Fisheries Liaison Officers) for the fisheries related communications or concerns.
		Mitigation	Dominion Energy will conduct post-installation cable surveys to verify both cable location and buried depth. Post-lay surveys will be conducted from a vessel using a remotely operated vehicle or burial assessment sled. Results of this analysis will determine the need for additional cable protection (which will be indicated on NOAA Charts as 'point obstructions'). Survey activities and results will be communicated to the fishing industries. Once deployed, cables will be monitored through Distributed Temperature Sensing equipment, which provides a real-time monitoring of temperature along the Offshore Export Cable Route Corridor and alert Dominion Energy should the temperature change, signaling potential scouring of material and cable exposure.
Potential for revenue losses to commercial fishermen		Mitigation	Dominion Energy would implement a compensation program for lost income for commercial and for-hire recreational fishermen and other eligible fishing interests for construction and operations consistent with BOEM's draft guidance for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR 585 or as modified in response to public comment. A Fisheries Compensation Plan is currently in development.

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