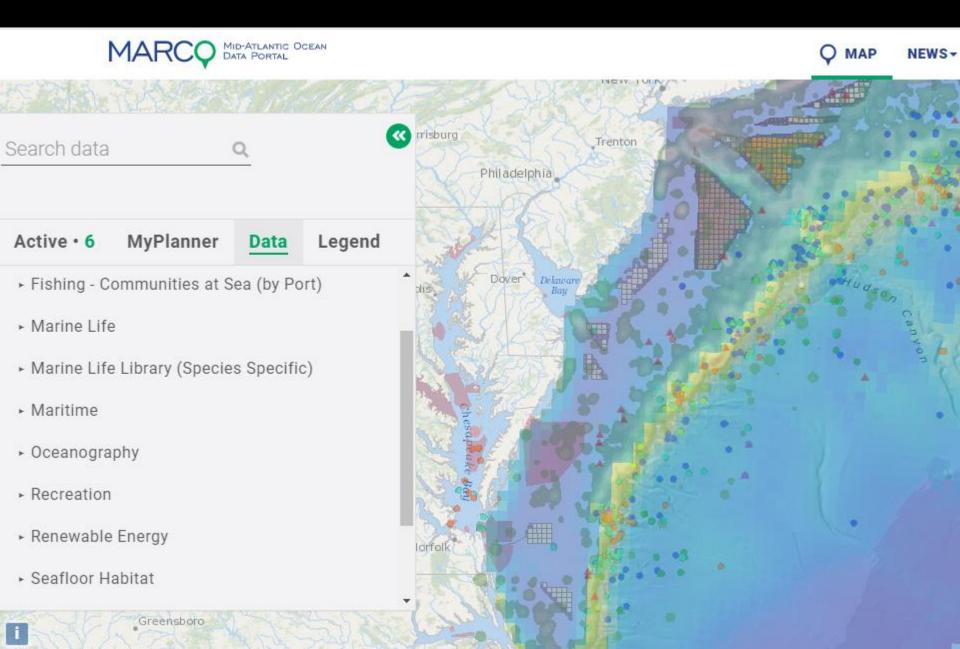
Creating a Virginia Ocean Plan



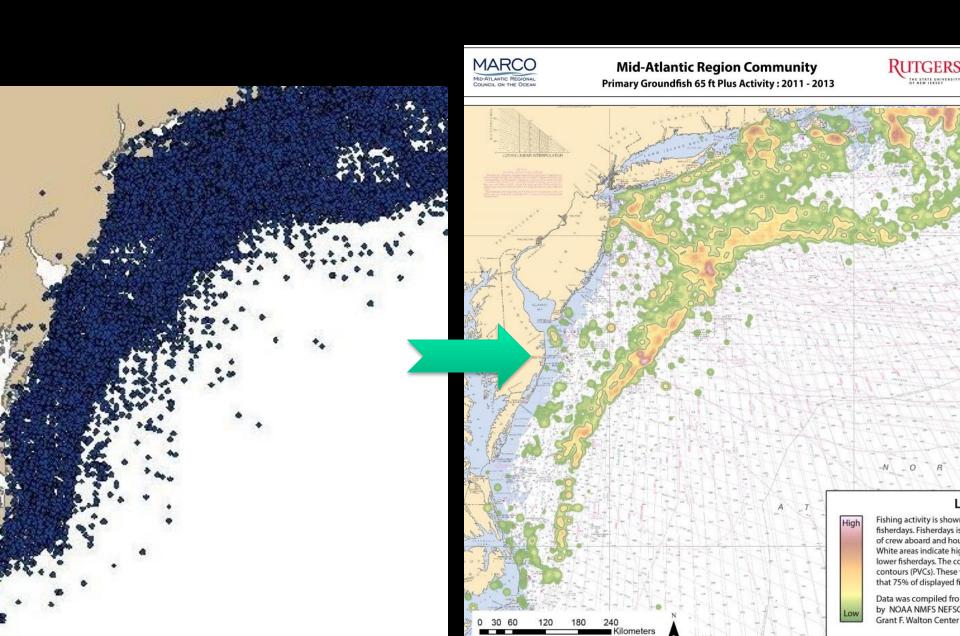




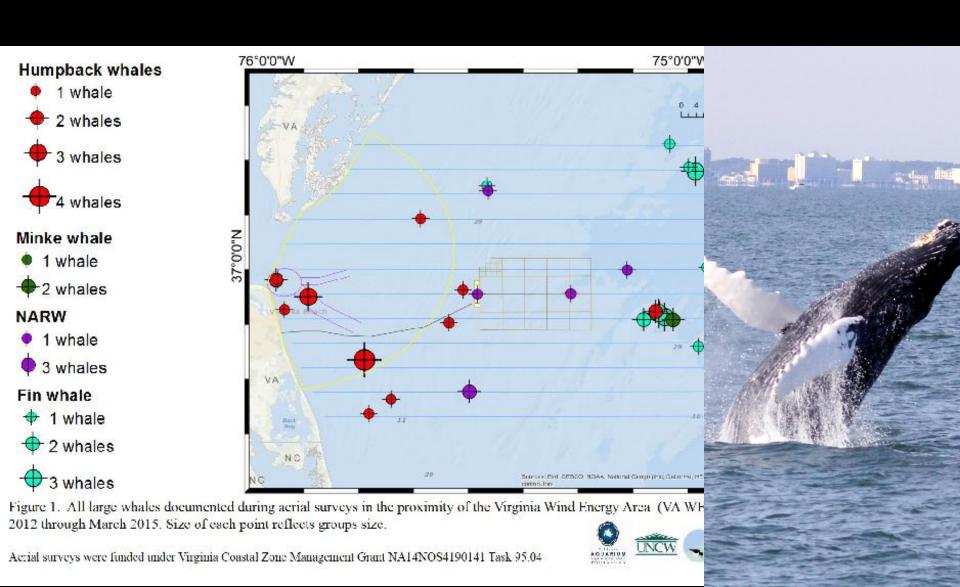
MARCO Ocean Data Portal Provides Basis



Vetted "Communities at Sea" Fishing Maps



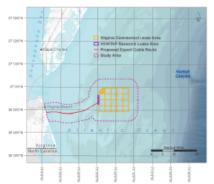
2012-15 Whale Data and PAM Grid: Grants to VA Aquarium



2014 Fisheries Planning for Virginia's Wind Energy Area

Collaborative Fisheries Planning for Virginia's Offshore Wind Energy Area Photo of folding wered restigating stind form in Sweden, Distance between turbinge in Vinginia would be greater than show

To prepare for future development of wind energy facilities off the coast of Virginia, the Bureau of Ocean Energy Management (BOEM), Virginia Department of Mines, Minerals, and Energy (DMME), and Virginia Coastal Zone Management (VA CZM) Program are working with the recreational and commercial fishing communities to share. information through a collaborative process. Our objectives include developing fine-scale. maps of commercial and recreational fishing areas; identifying recommendations to mitigate use conflicts between fishermen and wind. energy development; and developing a planfor communicating with fishermen about wind development activities.



Value for Participating Fishermen

- Your participation will provide regular communication to let you know what to expect. as the wind energy projects progress.
- You can inform the project team of the best. ways to communicate with all fishermen under various dircumstances, such as notifications about temporary closures or other messages. that need to be communicated during construction and operation
- Your fishing data and other information can. help with decisions about some aspects of design, construction, and operation of the commercial wind energy project infrastructure, and construction timing, to reduce conflict with the fishing community during the development of wind energy facilities.

Virginia's Wind Energy Area

Virginia's designated offshore commercial wind

Portal

energy area is 24 n of Virginia Beach. Teidhnology Advan Research Lease An megawatt o œan s transmission cable fisheries data in an commercial (yellow sought, collected, conflicts with offsh This area is approx

	Lease		
65' to 130'		2016-2018: Site assessment activities	
	construc	1 18: Submission of ction and operations pla	
	2019: B environi includin for publ	OEM begins mental review of the plan g multiple opportunities lic comments arliest start of ction	
Fisheries Data Description	Primary Data Source	For More Information	
"Communities at Sea" heat maps showing commercial fishing effort linked to fishermen's home ports	NOAA VTR and NOAA vessel permit database	portal.midatlanticocean.org	
Locations of general and dominant use for recreational fishing	Participatory mapping (P-GIS) workshops	www.coastalgems.org	

NOAA VTR, Vessel Monitoring

System, and seafood dealer

reports

Tentative Timeline for Commercial

Report expected to be avail-

able in summer 2015.

Turbine Blade Average Height Above Sea Level *Utilizing Current Technology and Assuming Calm Seas*

For more information, please contact.

Virginia Cocata (Zono Managoment Program, Ilau a McKay (Lau a McKay®). For gorta in Virginia Boach, Hampton, or Newgort News, Todd Janeaki (tripneakiñ/liveu edu), For gortar (amorrison@a-ngdc.org), Rec cational Fahing Contact, Joff Doom (off-cloom2@gmail.com

Rick Robins (licha alb abins/flymail.com), Bu cau of Ocean Energy Vanagement, http://www.broom.gov/Renewable-Energy/













Mapping Tool

MARCO's Ocean Data

Virginia CZM's Coastal GEMS Portal

NOAA/BOEM fishery

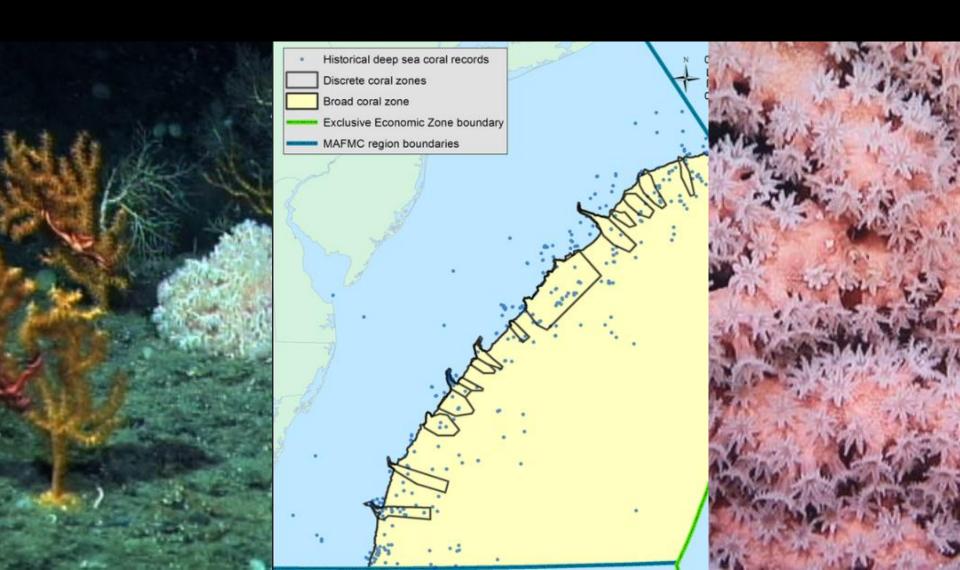
exposure analysis



Estimated value of fish commercially

harvested from wind energy areas

2016 Mid-A Fisheries Management Council Protects 38,000 sq. mi. of Corals



2016 (Dec) Mid-Atlantic Ocean Action Plan Approved by Obama Administration



2018 Trump EO 13840 revokes 2010 Obama EO on Regional Ocean Planning

midatlanticocean.org/ocean-planning/mid-atlantic-committee-on-the-ocean/

Hotmail VLC M Gmail Virginia Coastal Zo... O Mid-Atlantic Ocean... Imported From IE My VCU Health - D... myVRS - Home O Ocean

MID-ATLANTIC REGIONAL COUNCIL ON THE OCEAN

ABOUT V SHARED REGIONAL PRIORITIES V OCEAN PLANNING V DATA PORTAL V NEWS

OCEAN PLANNING

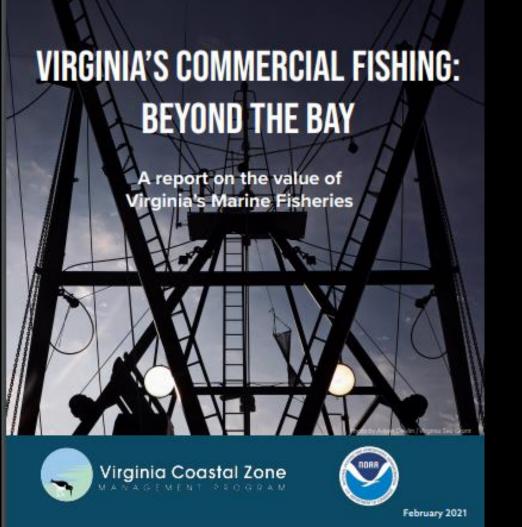
Mid-Atlantic Committee on the Ocean

MACO is a committee established by MARCO to foster collaboration among states, federal agencies, the Mid-Atlantic Fishery Management Council (MAFMC), and federally recognized tribes, and to engage stakeholders. The purpose of MACO is to enhance the vitality of the region's ocean ecosystem and economy through increased communication and collaboration.



MARCO creates "MACO" the Mid-Atlantic Committee on the Ocean to re-engage federal agencies, tribes and fishery management council

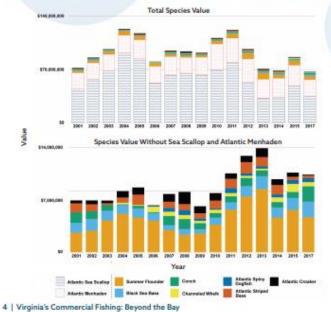
FY 2018 CZM Grant to VCU in Support of GLDs for Federal Consistency Purposes



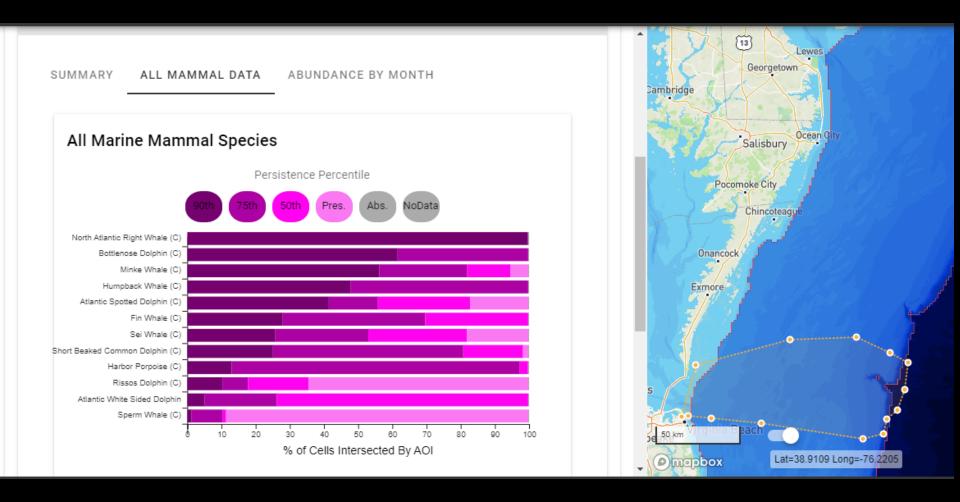
THE VALUE OF COMMERCIALLY HARVESTED FISH LANDED IN VIRGINIA

Watermen travel from just a few miles offshore to hundreds of miles to New England to fish before heading back to their home ports in Virginia. This section summarizes landing information on some of Virginia's most important commercial species caught beyond the Chesapeake Bay, from the mean low water (MLW) mark to 200 nautical miles offshore in the Atlantic Ocean. These data were derived from both the Virginia Marine Resources Commission and NOAA landings, removing those values associated with the Chesapeake Bay to arrive at the value of species caught in the Atlantic. The graphs below show the combined value of some of Virginia's most commercially important species caught in the Atlantic Ocean from 2001-2015, and 2017. The second graph shows the same data as the first, but removing sea scallop and Atlantic menhaden to show data for other species in greater detail.

THE VALUE OF VIRGINIA'S MOST COMMERCIALLY IMPORTANT ATLANTIC-CAUGHT SPECIES

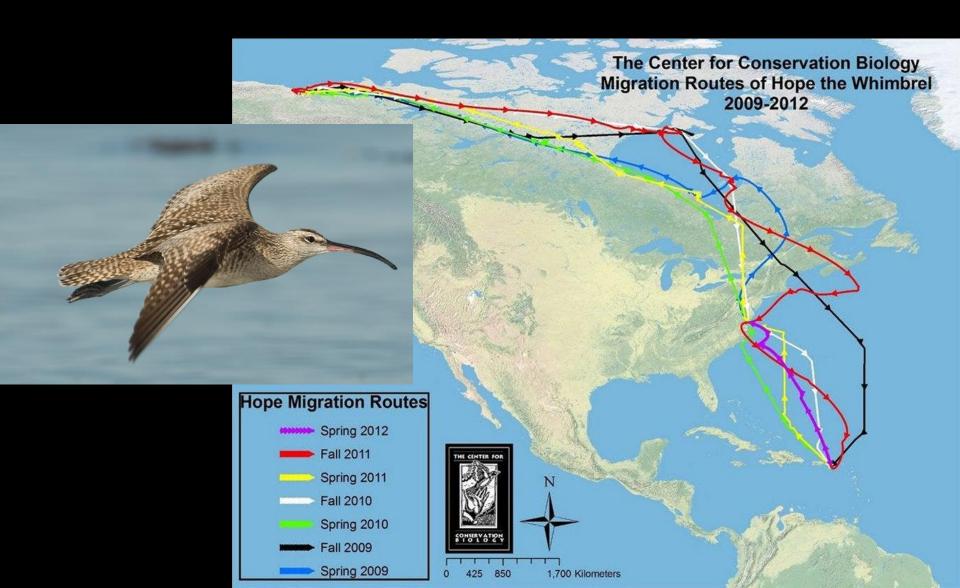


2019-20 CZM Grant to TNC for Wind Siting Tool

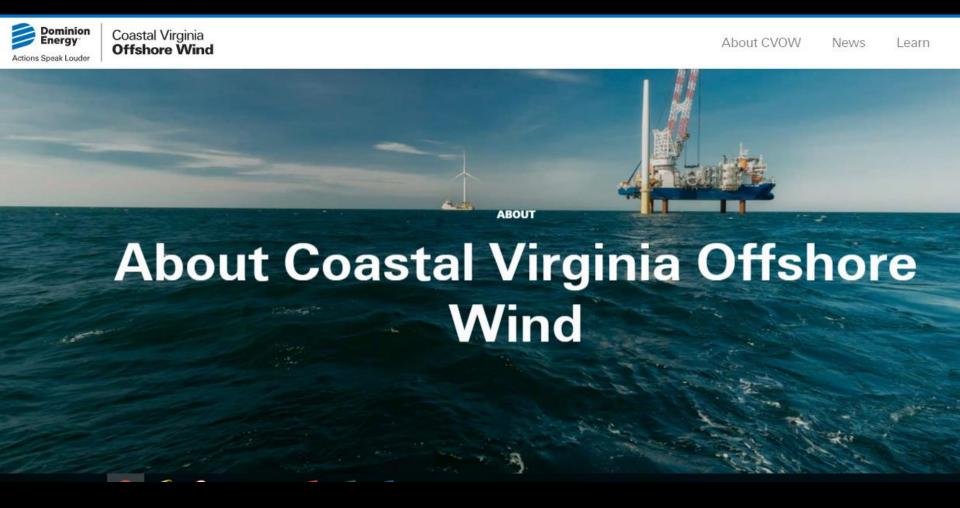


Created a tool that allows you to draw a polygon and receive reports of marine life relative abundance in that area.

2019 CZM Grant to CCB for Analyzing Whimbrel Migration Data



2020 Dominion Installs First Two Turbines 2024-26 Construction Begins for 2600 MW



2021-25 Will Be 3rd Section 309 5-Year CZM Ocean Strategy: VA Ocean Plan

Oct 21 meeting (state agencies & contractors)

- Review plan elements
- Establish structure
 - Set up work groups?
 - Set meeting schedule
- Review year 1 grants
 - CPC \$60k
 - VCU \$44k
 - DWR \$50k
 - MARCO \$29k
 - Total = \$183k



Policy Elements:

- Additional area for more turbines
- Marine Mammal/Sea Turtle Conservation
- Ocean acidification
- Offshore aquaculture areas
- Others?