Dataset Information
Title: Public Access in Coastal Virginia, 2024-10-29 to 2025-03-31

Alternative URL:
https://coastalscience.noaa.gov/science-areas/social-science/ecosystem-service-valuation/

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Description:

This dataset contains data on paid and public water access infrastructure (boat landings, piers, marinas, etc.) in the 29 counties and 19 independent cities of coastal Virginia area. Coastal environments provide numerous ecosystem services including provision of seafood for consumption and commercial use, outdoor recreation, and continuity of cultural practices. Access to these services is determined by the availability of infrastructure that allows people to enter the water and engage in marine activities. Such infrastructure includes docks, boat landings (ramps), marinas, and piers. These types of structures are referred to here as 'water access infrastructure' (WAI).

Paid WAI are structures that are privately owned, but available to the public for a fee. Public WAI are structures that are available to the public (without need of special permission) and are owned, operated, and/or maintained by a government entity. Paid and public WAI were originally gathered from the Virginia Institute of Marina Science's Shoreline & Tidal Marsh Inventory (VIMS Inventory). The VIMS Inventory covered 2007-2019, but has been updated to account for all paid/public WAI in the study area as of March 2025. The original VIMS Inventory had a relatively small number of WAI classifications. A new typology of WAI was defined and structures were reclassified into this typology. Shoreline information in the original VIMS Inventory has also been reclassified to account for shoreline that is suitable for paid/public WAI. Lastly, a combination of landscape and demographic features were used to filter out census block group areas that could not feasibly contain paid and/or public WAI.

Date of Collection

Start Date: 2024-10-29
End Date: 2025-03-31

Time period of Data

Start Date: 2007-01-01
End Date: 2025-03-31

Keywords
Sea Areas, Water Bodies, Marine Protected Areas:

- Chesapeake Bay, Potomac River, Rappahannock River, Piankatank River, York River, James River

NCCOS Keywords:

- Social science
- Ecosystem Valuation
- Atlantic Ocean
- Virginia
- Geospatial
- Derived Data Product

Contributor(s):

- Jeffrey Beauvais - Conceptualization, Methodology, Data Curation, Formal Analysis, Writing – Original Draft Preparation, Writing – Review & Editing
- Aleia Fobia - Supervision, Writing – Original Draft Preparation, Writing – Review & Editing

Funding:

- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, National Centers for Coastal Ocean Science
    - Identifier: https://ror.org/05ba43f71

Geospatial Metadata
Geographic Coverage: United States, Virginia
Geographic Unit: Census block groups

Geographic Bounding Box:
Northern Boundary (-90.0 to 90.0): 39.0578
Southern Boundary (-90.0 to 90.0): 36.5507
Western Boundary (-180.0 to 180.0): 77.9536
Eastern Boundary (-180.0 to 180.0): 75.1664

File Information
Data Type: Shapefiles, tabular

Data Sources:

- Center for Coastal Resources Management. 2019. Virginia Shoreline Inventory Database. Center for Coastal Resources Management, Virginia Institute of Marine Science, College of William and Mary. Accessed 11/20/2024. http://www.vims.edu/ccrm/research/inventory/index.php
- United States Department of Transportation Bureau of Transportation Statistics. Military Bases. Accessed 2/27/2025. https://data-usdot.opendata.arcgis.com/datasets/usdot::military-bases/explore?location=36.830333%2C-76.094314%2C10.27
- Virginia Department of Conservation and Recreation. Conservation Lands Database. Accessed 3/19/2025. https://www.dcr.virginia.gov/natural-heritage/cldownload
- Virginia Department of Conservation and Recreation. Virginia Outdoors Plan 2024 Mapper. https://www.dcr.virginia.gov/recreational-planning/vopmapper

Total File Size: 0.242 GB total, 31 files in 5 folders (unzipped), 0.0993 GB (zipped)
Data File Format(s):

- Comma-separated value (.CSV)
- ShapeFile .SHP (and ancillary files .CPG, .DBF, .PRJ, .SBN, .SBX, .SHX)

Data File Compression: zip
Data File Resolution: Polygons
Software Used: ArcGIS Pro version 3.4.0, R version 4.4.2
GIS Projection: NAD 1983 UTM Zone 18N

Data Files:

- Spatial
  - Boundaries_VA_CBGs_FullStudyArea.shp
  - LUBC_VIMS_EditsStepFinal.shp
  - VIMS_WAI_Final_PaidPublic.shp
- Tabular
  - Boundaries_VA_CBGs_FullStudyArea.csv
  - LUBC_VIMS_EditsStepFinal.csv
  - VIMS_WAI_Final_PaidPublic.csv

Documentation Files:

- “VA Access Detailed Methods.docx”
  - This document provides a complete, detailed description of the methodology used to generate this data set.
- “Split WAI.xlsx”
  - This Excel sheet provides a complete description of all manual edits made to the “VIMS_WAI_Final_PaidPublic” layer due to census block group boundary issues.
- “Data_Dictionary.xlsx”

    - This Excel sheet provides a complete description of all columns in the three csv data files. Please note these csv files are identical to the attribute table for the identically named shapefiles.
- "R_Scripts"
    - This folder contains the R script used to do the filtering steps in the creation of the data set and create data frames that could be used in future analyses.

Data Types (Parameter Information)
List of major parameters included in this accession:

Parameter: Paid and public water access infrastructure
Property Type: Measured
Units: Individual structures
Observation Category: Secondary data, satellite imagery
Sampling Instrument: Secondary data analysis
Sampling and Analyzing Method: This project involved secondary data analysis.

Parameter: Shoreline
Property Type: Measured
Units: Shoreline segments across the Virginia coast
Observation Category: Secondary data, satellite imagery
Sampling Instrument: Secondary data analysis
Sampling and Analyzing Method: This project involved secondary data analysis.

Document Information

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