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Technical Report

College of William and Mary
Virginia Institute of Marine Science
School of Marine Science
Wetlands Program
Gloucester Point, Virginia 23062

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Thomas A. Barnard, Editor
Harold Burrell, Artwork

The Virginia Wetland's Act:

**"... shall preserve
and prevent the
despoliation and
destruction of
wetlands..."**

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Coastal Resources and the Permit Process: Definitions and Jurisdictions

Julie G. Bradshaw

This paper reviews the jurisdictions of the various regulatory agencies and the definitions of terms relating to wetlands and other coastal resources in Virginia. The procedure for processing of permits for activities involving coastal resources is outlined.

Regulatory Authority

Activities on Virginia's shoreline are controlled by a number of federal and state laws. The laws create overlapping jurisdictions for the various regulatory agencies.

State/local

Pertinent laws of the Commonwealth of Virginia include the Tidal Wetlands Act (Title 28.2, Chapter 13) and the Coastal Primary Sand Dune Protection Act (Title 28.2, Chapter 14). The Commonwealth's ownership of subaqueous land is established in Title 62.1, Chapter 1 of the Virginia Code. The Virginia Marine Resources Commission (VMRC) is the regulating authority for the coastal resources included in these laws. Localities (i.e., counties, cities, and towns) which desire to regulate their own tidal wetlands or sand dunes have the option of adopting prescribed zoning ordinances and forming citizen Wetlands Boards. VMRC retains an oversight and appellate role for localities which have adopted these coastal resource ordinances.

Federal

Federal laws include Section 404 of the Clean Water Act of 1977 (33 U.S.C. 1251) which addresses dredge and fill operations in wetlands and Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. 403) which addresses activities affecting navigation. The U.S. Army Corps of Engineers is assigned as the primary federal agency with regulatory authority for these laws. The Corps jurisdiction established by these laws includes waters of the U.S. and their adjacent wetlands.

(continued)

Section 401 of the Clean Water Act is a water quality certification which is required for activities within waters of the U.S. This certification process has been delegated to the Department of Environmental Quality, Water Division, and is known as the Virginia Water Protection Permit. It insures that Virginia Water Quality standards will not be contravened by the permitted activity.

Tidal datums

mean low water (MLW)-the average elevation of low water observed over a specific 19 year period

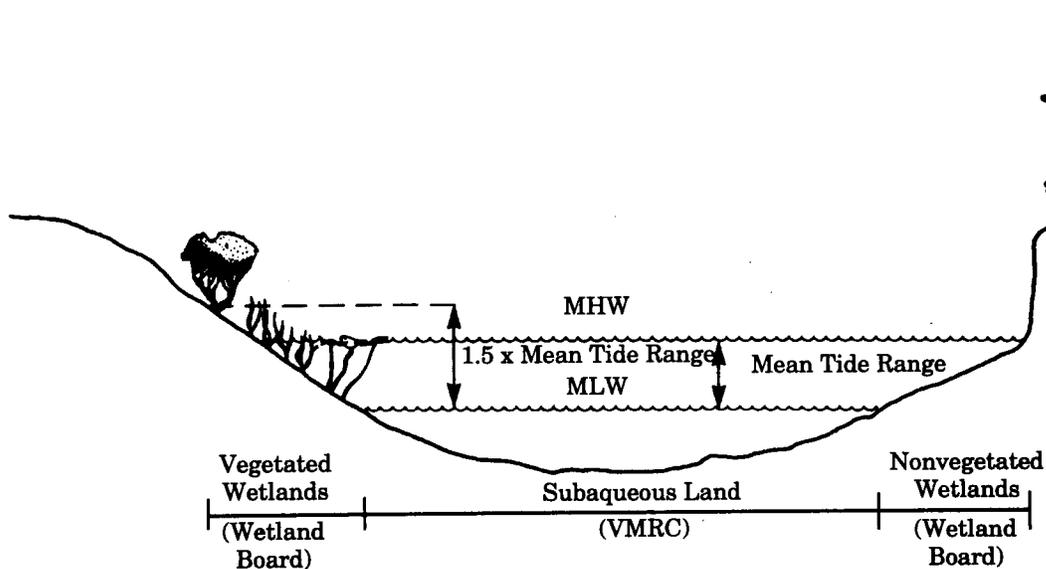
mean high water (MHW)-the average elevation of high water observed over a specific 19 year period

mean tide range-the difference in elevation between MLW and MHW

mean sea level-the average of hourly water elevations observed over a specific 19 year period

Notes: The National Oceanic and Atmospheric Administration's National Ocean Service keeps tidal datum records at a network of gage stations along the coast. The specific 19 year period used for calculating MLW and MHW, called the Metonic cycle or the National Tidal Datum Epoch, incorporates a number of the astronomical cycles which cause variations in tide levels.

The **National Geodetic Vertical Datum (NGVD)** is a fixed reference based on the earth's shape and the distance between the earth's surface and the center of the earth. NGVD is the datum for land elevations on USGS topographic maps. NGVD was formerly known as the Sea Level Datum of 1929. The name was changed because of confusion with the tidal datum Mean Sea Level (defined above). Relationships between NGVD and local tidal datums are variable and are published in conjunction with the tidal bench mark data by the National Ocean Service.



State/local definitions

vegetated wetlands are those lands which satisfy these criteria:

- between MLW and an elevation above MLW equal to 1.5 times the mean tide range
- contiguous to MLW
- vegetated with any of the listed wetland plant species (Appendix A)

nonvegetated wetlands are those lands which satisfy these criteria:

- between MLW and MHW
- contiguous to MLW
- not otherwise considered vegetated wetlands

Subtidal land or **subtidal bottom** refers to the area channelward or seaward of MLW, without regard to political subdivision or land ownership.

Subaqueous land or **subaqueous beds** refer to ungranted beds of the bays, rivers, creeks and

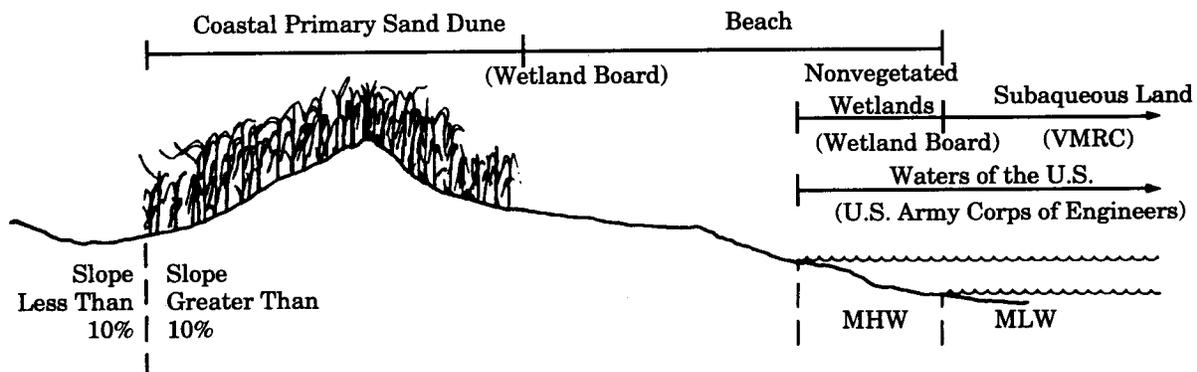
shores of the sea which are owned by the Commonwealth. This includes the beds of tidal and nontidal water bodies. Because property ownership in Virginia extends channelward to MLW in tidal areas, subaqueous land is the land channelward of MLW, with some exceptions:

Potomac River

The Potomac River is owned by the State of Maryland and the District of Columbia. The boundary between Maryland and Virginia is generally at MLW on the Virginia side of the river, except where embayments, creeks and inlets occur, at which the boundary line is from headland-to-headland. Therefore, VMRC often may not have jurisdiction over subtidal land on the Potomac River.

Manmade canals

VMRC does not currently exert jurisdiction over subtidal land in manmade canals. However, the Commonwealth's Tidal Wetlands Act does apply to vegetated and nonvegetated wetlands within manmade canals.



coastal primary sand dunes are those lands which have the following characteristics:

- mound of unconsolidated sandy soil
- contiguous to MHW
- landward and lateral limits marked by a change in grade from 10% or greater to less than 10%
- vegetated with any of the listed dune plant species (Appendix B)
- applies only to Counties of Accomack, Lancaster, Mathews, Northampton, Northumberland, and Cities of Hampton, Norfolk, and Virginia Beach.

beaches are those lands which meet the following criteria:

- the shoreline zone of unconsolidated sandy material
- extends from MLW landward to a marked change in material composition or in physiographic form (e.g., dune, bluff, marsh)

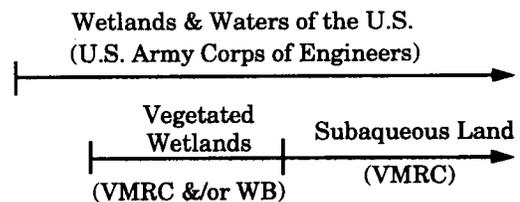
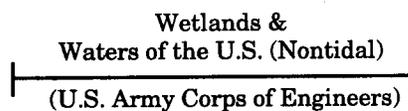
- if no such marked change occurs, then the landward limit of the beach is defined by a line of woody vegetation or the nearest impermeable manmade structure.

Federal definitions

The federal definition of **wetlands** is based on three parameters: soil, hydrology, and vegetation. Specifically, wetlands are: "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

The federal definition includes both tidal and nontidal wetlands.

In tidal areas, wetlands under federal jurisdiction may encompass a broader area than the state/local jurisdiction (i.e., federal wetlands may extend to elevations greater than 1.5 times the mean tide range above MLW).



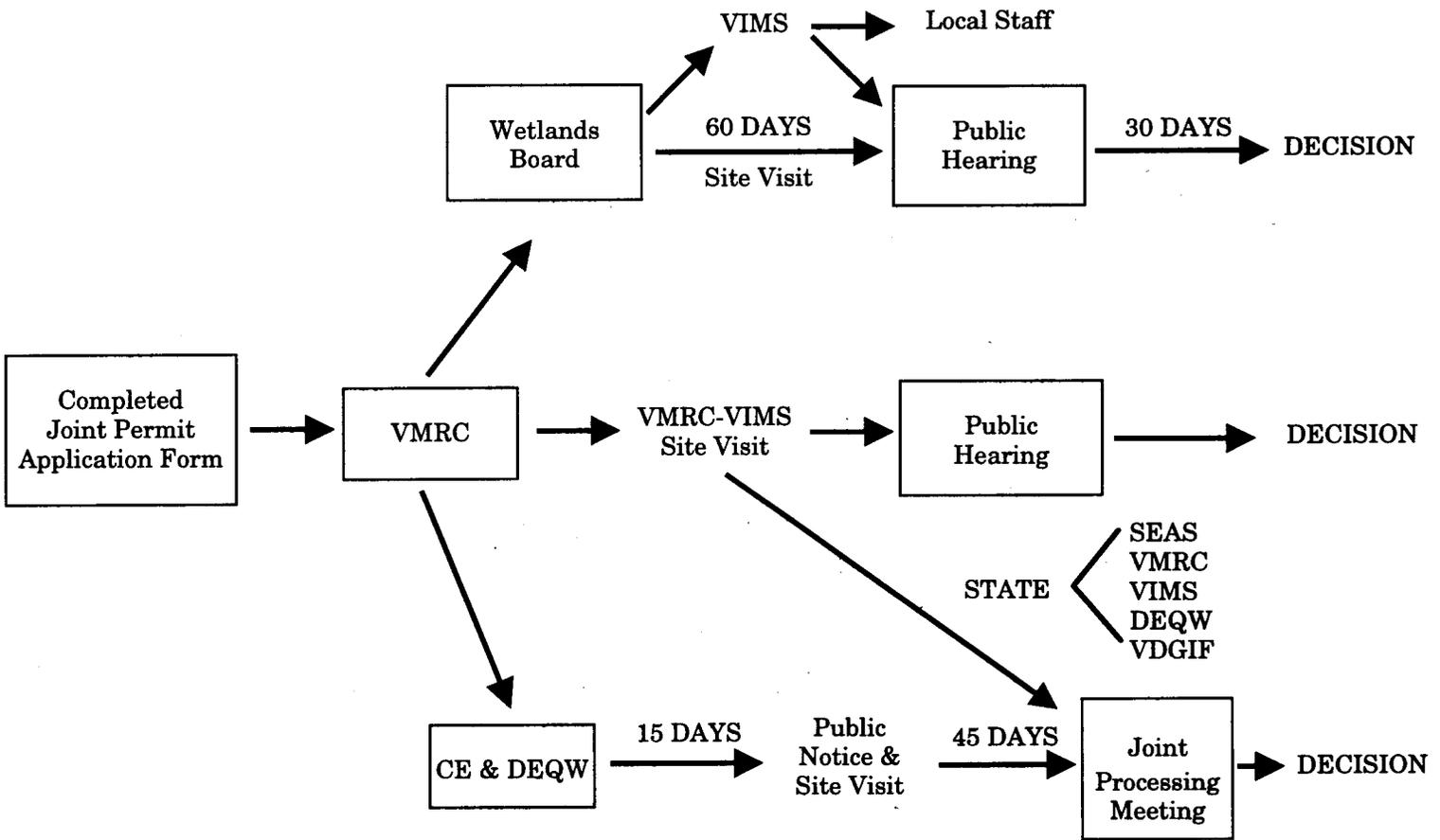
Permit Process

U.S. Army Corps of Engineers, Virginia Marine Resources Commission, and/or local wetlands board permits may be required for activities in Virginia's wetlands, subaqueous beds, sand dunes, and beaches. Activities which may require permits include, but are not limited to, dredging, filling, and construction of bulkheads, riprap revetments, groins, jetties, boat ramps, and piers. Submission of the Joint Per-

mit Application initiates the permit process. Applications are processed independently by each agency.

The VIMS involvement in the permit process is strictly advisory. VIMS provides technical and scientific advice to the Commonwealth's regulatory agencies. Advice generally involves estimation of marine environmental impacts and recommendation of alternatives or modifications to minimize these impacts.

Virginia's Shoreline Permit Process



KEY

- VDGIF - Virginia Department of Game and Inland Fisheries
- VMRC - Virginia Marine Resources Commission
- VIMS - Virginia Institute of Marine Science
- DEQW - Dept. of Environmental Quality, Water Division
- SEAS - Shoreline Erosion Advisory Service
- EPA - Environmental Protection Agency
- FWS - Fish and Wildlife Service
- NMFS - National Marine Fisheries Service
- CE - Corps of Engineers

- FEDERAL <
 - CE
 - EPA
 - FWS
 - NMFS

Appendix A

List of wetlands plant species in Virginia's Tidal Wetlands Act

saltmarsh cordgrass	(<i>Spartina alterniflora</i>)
saltmeadow hay	(<i>Spartina patens</i>)
saltgrass	(<i>Distichlis spicata</i>)
black needlerush	(<i>Juncus roemerianus</i>)
saltwort	(<i>Salicornia</i> sp.)
sea lavender	(<i>Limonium</i> sp.)
marsh elder	(<i>Iva frutescens</i>)
groundsel bush	(<i>Baccharis halimifolia</i>)
wax myrtle	(<i>Myrica</i> sp.)
sea oxeye	(<i>Borrchia frutescens</i>)
arrow arum	(<i>Peltandra virginica</i>)
pickerelweed	(<i>Pontederia cordata</i>)
big cordgrass	(<i>Spartina cynosuroides</i>)
rice cutgrass	(<i>Leersia oryzoides</i>)
wildrice	(<i>Zizania aquatica</i>)
bulrush	(<i>Scirpus validus</i>)
spikerush	(<i>Eleocharis</i> sp.)
sea rocket	(<i>Cakile edentula</i>)
southern wildrice	(<i>Zizaniopsis miliacea</i>)
cattails	(<i>Typha</i> spp.)
three-squares	(<i>Scirpus</i> spp.)
buttonbush	(<i>Cephalanthus occidentalis</i>)
bald cypress	(<i>Taxodium distichum</i>)
black gum	(<i>Nyssa sylvatica</i>)
tupelo	(<i>Nyssa aquatica</i>)
dock	(<i>Rumex</i> sp.)
yellow pond lily	(<i>Nuphar</i> sp.)
marsh fleabane	(<i>Pluchea purpurascens</i>)
royal fern	(<i>Osmunda regalis</i>)
marsh hibiscus	(<i>Hibiscus moscheutos</i>)
beggar's tick	(<i>Bidens</i> sp.)
smartweed	(<i>Polygonum</i> sp.)
arrowhead	(<i>Sagittaria</i> spp.)
sweet flag	(<i>Acorus calamus</i>)
water hemp	(<i>Amaranthus cannabinus</i>)
reed grass	(<i>Phragmites communis</i> , now called <i>P. australis</i>)
switch grass	(<i>Panicum virgatum</i>)

Appendix B

List of dune plant species in Virginia's Coastal Primary Sand Dune Protection Act

American beach grass	<i>(Ammophila breviligulata)</i>
beach heather	<i>(Hudsonia tomentosa)</i>
dune bean	<i>(Strophostyles umbellata var paludigena)</i>
dusty miller	<i>(Artemisia stelleriana)</i>
saltmeadow hay	<i>(Spartina patens)</i>
seabeach sandwort	<i>(Arenaria peploides)</i>
sea oats	<i>(Uniola paniculata)</i>
sea rocket	<i>(Cakile edentula)</i>
seaside goldenrod	<i>(Solidago sempervirens)</i>
short dune grass	<i>(Panicum amarum)</i>

Contacts

U.S. Army Corps of Engineers	
Norfolk District	(804) 441-7656
Northern Neck Field Office (Lively)	(804) 462-7891
Northern Virginia Field Office (Dumfries)	(703) 221-6967
Richmond Field Office (Ashland)	(804) 752-7464
Eastern Shore Field Office (Accomac)	(804) 787-3133
U.S. Fish and Wildlife Service, Gloucester field office	(804) 693-6694
Virginia Marine Resources Commission (Newport News)	(804) 247-2252
Shoreline Erosion Advisory Service	
Suffolk Field Office	(804) 925-2468
Tappahannock Field Office	(804) 443-6752
Dept. of Environmental Quality, Water Division (Richmond)	(804) 367-9763
Virginia Dept. of Game and Inland Fisheries (Richmond)	(804) 367-1000
Virginia Dept. of Health (Richmond)	(804) 786-7937
Virginia Institute of Marine Science (Gloucester Point) Wetlands Advisory Program	(804) 642-7380



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