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Beneficial Use of Dredged Material: Role of State Permitting Programs and Regulations



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About the Authors



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About the Virginia Coastal Policy Center

The Virginia Coastal Policy Center (VCPC) at the College of William & Mary Law School provides science-based legal and policy analysis of ecological issues affecting the state’s coastal resources, by offering education and advice to a host of Virginia’s decision-makers, from government officials and legal scholars to non-profit and business leaders.

With two nationally prominent science partners – the Virginia Institute of Marine Science and Virginia Sea Grant – VCPC works with scientists, local and state political figures, community leaders, the military, and others to integrate the latest science with legal and policy analysis to solve coastal resource management issues. VCPC activities are inherently interdisciplinary, drawing on scientific, economic, public policy, sociological, and other expertise from within the University and across the country. With access to internationally recognized scientists at VIMS, to Sea Grant’s national network of legal and science scholars, and to elected and appointed officials across the nation, VCPC engages in a host of information exchanges and collaborative partnerships.

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questions, or suggestions.

VCPC grounds its pedagogical goals in the law school’s philosophy of the citizen lawyer. VCPC students’ highly diverse interactions beyond the borders of the legal community provide the framework for their efforts in solving the complex coastal resource management issues that currently face Virginia and the nation.

I. INTRODUCTION

A. Beneficial Use of Dredged Materials

Dredging is a crucial process for ensuring the quality and efficient use of Virginia's waterways. The Virginia Department of Environmental Quality (DEQ) defines "dredging" as "excavation in which material is removed or relocated from beneath surface waters."¹ Dredging operations help increase or maintain the depths of Virginia's navigation channels, making them safe for boat traffic.² In addition, dredging can reduce harmful exposure for fish, plants, and people by preventing and eliminating contaminants.³ Such dredging operations result in a large amount of dredged material being excavated from the bottoms of Virginia waters. Many confined disposal facilities for dredged material are close to or have already reached full capacity.⁴ In the interest of environmental conservation and reuse, several creative ideas for how dredged materials may be used beneficially have been developed. These beneficial use projects can further enhance the value of Virginia dredging operations and support efforts to make shoreline properties more resilient.

The Environmental Protection Agency (EPA) has identified a number of possible beneficial uses for dredged material.⁵ These potential uses include, among other things, wildlife habitat restoration and development, beach nourishment for beaches subject to erosion, and managing solid waste landfills.⁶ Beneficial uses for dredged material may also include the creation of living shorelines or marsh restoration projects. In its 2007 Beneficial Use Planning Manual, EPA emphasized that there must be a "shift from the common perspective of dredged material as a waste product to one in which this material is viewed as a valuable resource that can provide multiple benefits to society."⁷ Despite the many positive uses for dredged material, it can be complicated to obtain the regulatory permission to store and use the material in Virginia. Several permits and other legal requirements are necessary, and the system is not clearly designed to handle a beneficial use project with dredged material other than the traditional, immediate use of sandy material for beach replenishment projects.

The Virginia General Assembly recently took a step toward changing the regulatory framework as it relates to dredging and the beneficial use of dredged material. On March 23, 2018, Governor Ralph Northam signed House Bill 1096 into law, which states that "the Marine Resources Commission ... shall adopt regulations to establish and implement a fast-track

¹ Virginia Water Protection Permit Program Regulation, 9 VA. ADMIN. CODE § 25-210-10 (2018).

² See Nat'l Oceanic & Atmospheric Admin., *What is Dredging?*, NAT'L OCEAN SERVICES, (June 25, 2018), <https://oceanservice.noaa.gov/facts/dredging.html>.

³ See *id.*

⁴ See, e.g., CITY OF VA. BEACH, BEACHES & WATERWAYS ADVISORY COMM'N, *Neighborhood Dredging Program*, App. C (Jan. 2012), <https://www.vbgov.com/government/departments/public-works/coastal/Documents/Neighborhood%20Dredging/bwac-final-dredge-report-2-7-12.pdf>.

⁵ See ENVTL. PROTECTION AGENCY, *Identifying, Planning, and Financing Beneficial Use Projects Using Dredged Material*, *Beneficial Use Planning Manual* (Oct. 2007), https://www.epa.gov/sites/production/files/2015-08/documents/identifying_planning_and_financing_beneficial_use_projects.pdf.

⁶ See *id.* at 9.

⁷ *Id.*

permitting program that authorizes the selection and use of appropriate sites in Tidewater Virginia ... for the disposal of material dredged in such region”⁸ The application of this legislation and its permitting implications is the subject of the regulatory research and analysis in this memorandum.

B. United States Army Corps of Engineers (USACE) Jurisdiction

Under Clean Water Act section 404, the United States Army Corps of Engineers (USACE) has regulatory and permitting authority over discharging dredge and fill materials into navigable waters in Virginia.⁹ It is prohibited for anyone to engage in such activities without either a general or individual permit from the USACE. In Virginia, permitting determinations are typically made through a Joint Permit Application, during which the Virginia Marine Resources Commission (VMRC), USACE, DEQ, local wetlands boards, and any other relevant agencies have an opportunity to review dredging projects as necessary.¹⁰ However, in October 2017, the USACE announced that it cannot dredge all channels and maintain the channel markers in areas like Mathews County, Virginia.¹¹ USACE no longer has adequate funding to maintain all of its dredging operations in tidal Virginia.¹² If the dredging is to continue, much of the responsibility will likely fall on state and local authorities to approve and perform the operations. As a response to the USACE announcement, the Virginia General Assembly passed legislation directing VMRC to create an expedited permitting process for the selection and use of sites appropriate for the disposal of dredged material.¹³

C. Virginia Marine Resources Commission (VMRC) Jurisdiction

Under House Bill 1096, VMRC has been tasked with creating an expedited permitting process, under its existing authority, for the use of dredged material in shoreline management projects in coastal Virginia.¹⁴ VMRC has authority to permit and regulate Virginia state wetland areas and state-owned subaqueous beds.¹⁵ It does not have authority in upland and non-tidal wetland regions, and generally is not involved in the storage of dredged material in these areas.

The expedited process being developed by VMRC will attempt to accelerate the permitting review process for dredging and the use of dredged material for shoreline management and resiliency purposes. This type of multi-step project will require a wide range of permits and approvals, given the varying concerns at each point in the process: dredging, transportation,

⁸ H.B. 1096, CHAPTER 449, GEN. ASSEMB. (Va. 2018).

⁹ See Federal Water Pollution Control Act (Clean Water Act) § 404, 33 U.S.C. § 1344 (1987).

¹⁰ See U.S. Army Corps of Engineers, Regulatory Branch - Joint Permit Application, <https://www.nao.usace.army.mil/Missions/Regulatory/JPA.aspx>.

¹¹ See Josh Reyes, *Small Dredging Projects Often Overlooked*, DAILY PRESS, (Dec. 29, 2017), <https://www.dailypress.com/news/gloucester-county/dp-nws-evg-mathews-dredging-waterways-20171127-story.html>.

¹² See *id.*

¹³ See H.B. 1096, CHAPTER 449, GEN. ASSEMB. (Va. 2018).

¹⁴ *Id.*

¹⁵ 4 VA. ADMIN. CODE § 20 (Agency Summary).

storage, and placement. Permitting requirements will need to be considered for each of these separate steps, some of which will occur outside of VMRC’s jurisdiction.

Any expedited permitting process will need to establish a system to identify acceptable shoreline areas in which to place the dredged material. The VMRC subaqueous guidelines state that “[f]ill material may only be placed on submerged land for shoreline stabilization and/or wetland enhancement when the project can be shown to have positive aquatic resource benefits.”¹⁶ This standard could be used as a reference by DEQ if it finds that it needs to supplement its standards to address placement of dredged material for beneficial use in non-tidal wetlands and other surface waters.

Because dredging and dredged material placement programs will likely occur in non-tidal wetland zones and other Virginia surface waters—and thus outside VMRC’s authority—these projects will probably implicate several other Virginia state permitting programs. This paper discusses potential permitting obstacles and what, if anything, can be done to keep the dredging and shoreline management projects on an expedited track.

II. ANALYSIS OF NON-VMRC STATE PERMITTING PROGRAMS

Beneficial use projects that utilize dredged material will involve several steps: dredging operations, storage of the dredged material,¹⁷ and placement of the dredged material for shoreline resiliency or restoration purposes.¹⁸ Each of these steps implicate different state permitting programs and regulations. Determining which permit programs are applicable will depend on the activity’s impact on the surrounding environment, based on factors such as water quality, and land erosion and degradation. This paper will focus primarily on three questions:

1. Which Virginia permitting programs may apply to the storage of dredged material on an upland site?
2. Which Virginia permitting programs may apply to the placement of dredged material along a shoreline or other waterway as part of a resiliency or restoration project?
3. Can any of the identified permitting programs be expedited to make dredged material beneficial use projects more efficient and effective?

¹⁶ VA. MARINE RES. COMM’N, SUBAQUEOUS GUIDELINES, SEC. III(G) (2005).

¹⁷ In 2015, the USACE released an Engineering and Design Manual about Dredging and Dredged Material Management. This manual provides guidance on planning, designing, constructing, operating, and managing dredged material placement areas for both short- and long-term placement. *See, e.g.*, U.S. ARMY CORPS OF ENGINEERS, DREDGING AND DREDGED MATERIAL MANAGEMENT, ENGINEERING MANUAL, EM 1110-2-5025 (July 31, 2015), https://www.publications.usace.army.mil/portals/76/publications/engineermanuals/em_1110-2-5025.pdf; City of Va. Beach, Beaches and Waterways Advisory Comm’n, Neighborhood Dredging Program Report (January 2012) (identifying and analyzing potential storage sites for dredged material as part of a community dredging program).

¹⁸ For example, VMRC regulations create criteria for the placement of dredged material along beaches in Virginia. *See* 4 VA. ADMIN. CODE §§ 20-400-10, *et seq.*

Below is a discussion of the potentially relevant permitting programs administered by DEQ and other state agencies,¹⁹ followed by several recommendations for policy and further areas of inquiry. The figure below identifies the jurisdictional boundaries associated with the agencies mentioned above – USACE and VMRC – as well as the agencies and programs discussed below. This figure is a useful reference to determine which program is applicable given the location of a dredged material disposal site and the location of the associated beneficial use project. As shown in the chart, depending on the locations of the site and project more than one program may apply.

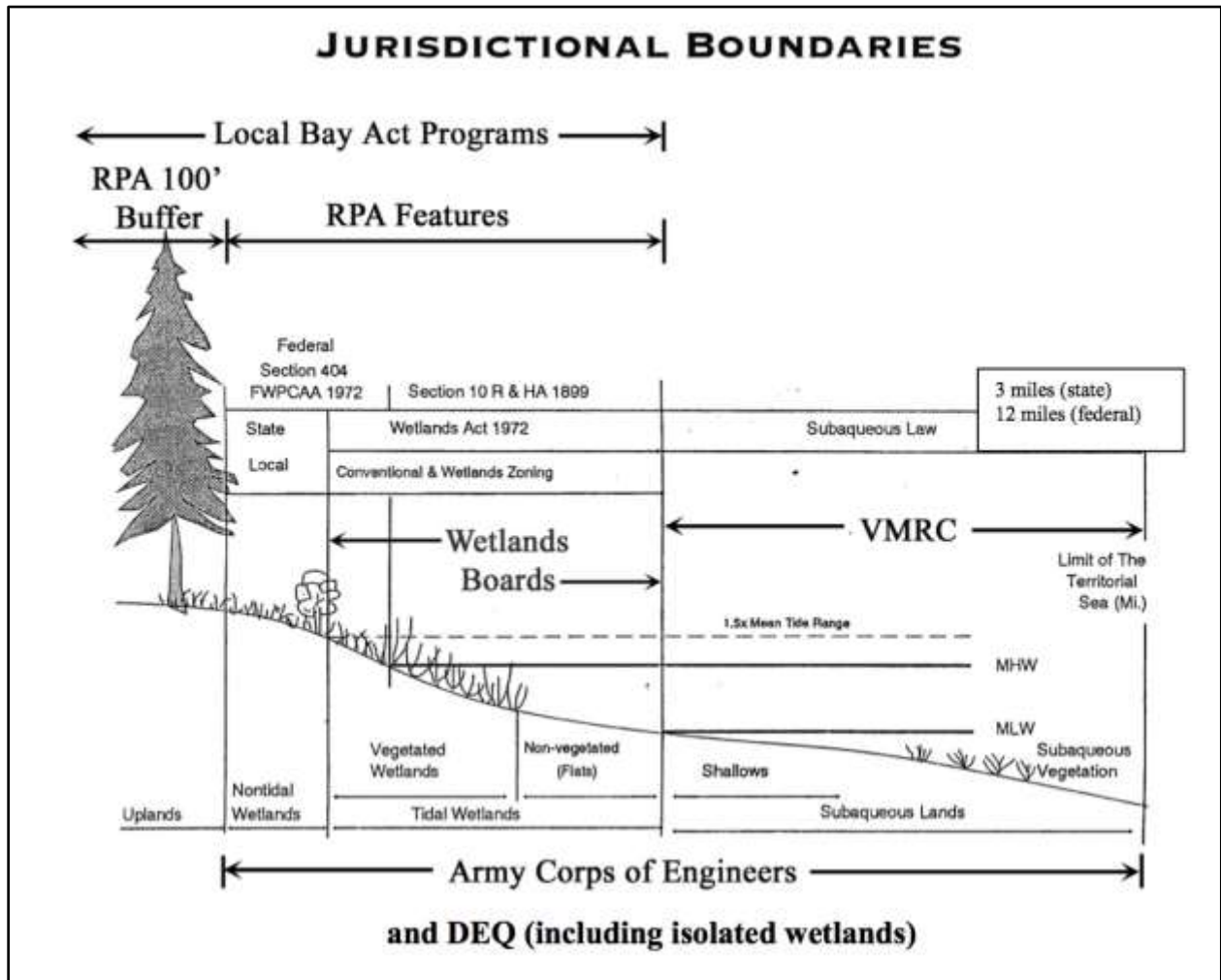


Figure 1. Potential Agencies that must Review a General Permit Application²⁰

¹⁹ Programs administered by VMRC and USACE are largely outside the scope of this memorandum and will not be covered here.

²⁰ VA. MARINE RES. COMM'N, TIDEWATER JOINT PERMIT APPLICATION (JPA) FOR PROJECTS INVOLVING TIDAL WATERS, TIDAL WETLANDS, AND/OR DUNES AND BEACHES IN VIRGINIA 24 (2017), <http://www.nao.usace.army.mil/Portals/31/docs/regulatory/commonreq/Updated%20fillable%20Tidewater%20JPA%20May%202017.pdf?ver=2017-05-12-085429-590>.

III. VIRGINIA DEQ PERMITTING PROGRAMS

A. Virginia Water Protection (VWP) Permit Program

The VWP permit program, administered by DEQ, covers surface water withdrawal projects, and impacts to surface waters and non-tidal wetlands from activities such as excavation, filling, and dredging. Surface waters include any water that is not groundwater, such as open water, streams, and non-tidal wetlands.²¹ The VMRC has jurisdiction over tidal wetlands, and the remaining non-tidal wetlands are under the regulatory jurisdiction of DEQ and fall within the VWP program.²²

Without a VWP permit, it is unlawful for any person to “dredge, fill, or discharge any pollutant into, or adjacent to surface waters.”²³ In addition, certain regulatory and permit requirements apply specifically to Virginia non-tidal wetlands. Without a VWP permit, it is unlawful to conduct the following activities in a wetland: “(a) New activities to cause draining that significantly alters or degrades existing wetland acreage or functions; (b) Filling or dumping; (c) Permanent flooding or impounding; or (d) New activities that cause significant alteration or degradation of existing wetland acreage or functions.”²⁴ There are a few exceptions.²⁵ For example, a VWP permit is not required for discharges of dredged material or fill into state waters, excluding wetlands, which are addressed under a USACE permit for which no § 401 Water Quality Certificate is required.²⁶

As stated above, the beneficial use of dredged material will likely require three main steps: dredging, storing, and placing dredged material. Generally, dredging activities in or near a non-tidal wetland will require a VWP permit because such activities impact Virginia’s surface waters. Storing dredged material in or adjacent to a non-tidal wetland is also likely to require a VWP permit, because the material will be considered “fill” under DEQ regulation and there is no clear exemption for fill that is temporary in nature. “Fill” is defined broadly and includes, but is not limited to “rock, sand, earth, and man-made materials and debris.”²⁷ Without a permit, filling in or adjacent to a non-tidal wetland or surface waters is prohibited, and storing dredged material in such areas is likely to be considered filling as well.²⁸ Therefore, the storage will likely require a permit. If the storage site is an upland area, DEQ will assess the return flow of water from the site, and analyze how that flow will impact the non-tidal wetland or surface water. If the placement of the dredged material involved filling surface waters or non-tidal waters in a way that significantly

²¹ 9 VA. ADMIN. CODE § 25-210-10(B) (2018).

²² *See id.* (defining non-tidal wetlands as “those wetlands other than tidal wetlands that are inundated or saturated by surface water 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”).

²³ *Id.* § 25-210-50.

²⁴ VA. CODE ANN. § 62.1-44.15:20(A)(2) (2018).

²⁵ *See* 9 VA. ADMIN. CODE § 25-210-60 (2018).

²⁶ *See id.*

²⁷ *See id.* § 25-210-10.

²⁸ *See id.*

impairs state waters or fish and wildlife resources, which will likely be the case, the placement of dredged material onto shorelines to improve resiliency will also need a VWP permit.²⁹ More specifically, it is unlawful to fill, dump, or otherwise significantly alter a non-tidal wetland area,³⁰ which means dredged material cannot be placed in that area without a permit.

When reviewing a VWP permit application, DEQ's central consideration is the impact of the proposed activity on any non-tidal wetland or surface water.³¹ The agency will assess the purpose and need of the proposed activity, potential alternatives, and the ability to avoid or minimize impacts on the wetland.³² This analysis is project-specific, and an applicant must show that dredging or filling in or near a wetland is necessary and appropriate, which is a high standard to meet. The potential positive effect of a beneficial use project is built in to DEQ's analysis, but the activity will still be considered an impact on a non-tidal wetland which must be justified in order to gain permit approval. Given the importance of protecting and maintaining wetlands, DEQ will likely be hesitant to approve a permit to dredge, store, or place dredged material in or near a non-tidal wetland.

In sum, each step of the dredged material shoreline management process will likely require a VWP permit if the activity occurs in or adjacent to surface water or non-tidal wetlands. The most important consideration under the VWP program is the impact of a dredging operation or material placement on the surrounding area and water quality. As with most of the relevant permits, whether or not the VWP program is applicable will depend on the location of the specific operations.

The Virginia Coastal Geospatial and Educational Mapping System (GEMS)³³ is a comprehensive inventory of Virginia's coastal resources, including non-tidal wetlands. Although the wetlands dataset³⁴ within the interactive tool is not intended for regulatory purposes, Coastal GEMS can be used to identify, among other things, the location of non-tidal wetlands within Virginia's coastal zone.

B. Virginia Erosion and Stormwater Management Program (VESMP)

DEQ is the lead agency overseeing Virginia's Stormwater Management Program (VSMP), and Virginia's Erosion and Sediment Control Program (VESMP). Virginia is currently in the process of consolidating its stormwater management and erosion and sediment control programs. Pursuant to House Bill 1774, enactment clause 2, the effective date for the Virginia Erosion and Stormwater Management Act (VESMA) was delayed to "July 1, 2018, or 30 days after the adoption by the

²⁹ See VA. CODE ANN. § 62.1-44.15:21(A) (2018).

³⁰ *Id.* § 62.1-44.15:20(A)(2).

³¹ Telephone Interview with David L. Davis, Director, Office of Wetlands & Stream Protection, Dep't of Env'tl. Quality (Nov. 19, 2018).

³² See 9 VA. ADMIN. CODE § 25-210-80 (2016).

³³ *Virginia Coastal Geospatial and Educational Mapping System (GEMS)*, VA. DEP'T OF ENVTL. QUALITY <https://www.deq.virginia.gov/Programs/CoastalZoneManagement/CoastalGEMS-GeospatialData.aspx> (last visited July 16, 2019).

³⁴ The data source for the wetlands location and classification within Coastal GEMS is the USFWS National Wetlands Inventory (2004).

State Water Control Board [SWCB] of the regulations required . . . , whichever occurs later.”³⁵ Any locality operating a municipal separate storm sewer system (MS4) or localities that administered a Virginia Stormwater Management Program (VSMP) as of July 1, 2017 will be required to adopt and administer a Virginia Erosion and Stormwater Management Program (VESMP).³⁶ Any non-MS4 localities for which the DEQ administered a VSMP as of July 1, 2017 shall choose from three possible options.³⁷ The first option allows the locality to adopt a VESMP “that regulates any land-disturbing activity that (i) disturbs 10,000 square feet or more or (ii) disturbs 2,500 square feet or more in an area of a locality designated as a Chesapeake Bay Preservation Area.”³⁸ The second option is the same as the first, but the DEQ shall review and make recommendations on the erosion and stormwater management plans’ compliance with the program’s water quality and water quantity criteria.³⁹ For the final option, the locality shall continue to administer its Virginia Erosion and Sediment Control Program (VESCP) that regulates the same land disturbing activity as set forth in the first two options, and DEQ will administer a separate VSMP for the locality.⁴⁰

The VESMP regulates “soil erosion and sediment deposition and the management of the quality and quantity of runoff resulting from land-disturbing activities to prevent the unreasonable degradation of properties, stream channels, waters, and other natural resources.”⁴¹ The VESMP should include “local ordinances, rules . . . policies and guidelines, technical materials, and requirements for plan review, inspection, and evaluation”⁴² Accordingly, a “VESMP authority” can be the State Water Control Board “or a locality approved by the Board.”⁴³

The VESMP authority must approve any regulated land-disturbing activity that occurs.⁴⁴ The VESMA defines a “land-disturbing activity” or “land disturbance” as a “man-made change to the land surface that potentially changes its runoff characteristics, including construction activity such as the clearing, grading, excavation”⁴⁵ Virginia Code § 62.1-44.15:27 specifies that a VESMP must regulate a land-disturbing activity that either “disturbs 10,000 square feet or more” or “disturbs 2,500 square feet or more in an area of a locality designated as a Chesapeake Bay Preservation Area”⁴⁶

³⁵ H.B. 1774, GEN. ASSEMB. (Va. 2017).

³⁶ VA. CODE ANN. § 62.1-44.15:27(A) (2018).

³⁷ *Id.* § 62.1-44.15:27(B).

³⁸ *Id.* § 62.1-44.15:27(B)(1).

³⁹ *Id.* § 62.1-44.15:27(B)(2).

⁴⁰ *Id.* § 62.1-44.15:27(B)(3).

⁴¹ *Id.* § 62.1-44.15:24.

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.* § 62.1-44.15:27(L) (“The VESMP authority responsible for regulating the land-disturbing activity shall require compliance with its applicable ordinances and the conditions of its land-disturbance approval and plan specifications.”).

⁴⁵ *Id.* § 62.1-44.15:24.

⁴⁶ *Id.* § 62.1-44.15:27.

As noted previously, DEQ is also the lead agency implementing VESCP, which covers soil erosion, sedimentation, and non-agricultural runoff from regulated land-disturbing activities.⁴⁷ A network of local government programs oversees most private projects that involve land-disturbing activities, and DEQ oversees state and federal projects.⁴⁸ Currently, land-disturbing activities that occur on privately-owned land must be conducted pursuant to VESCP plans that have been approved by localities.⁴⁹ Private property owners must submit an erosion and sediment control plan to the pertinent locality, and are responsible for the erosion and sediment control plan implementation.⁵⁰ DEQ regulates land-disturbing activities on state and federal lands.⁵¹

In addition to obtaining approval of a project plan, applicants must identify a “responsible land disturber” before land-disturbing activity can occur. The applicant must receive authorization from the locality before commencing the activity.⁵² The VESCP defines a “land-disturbing activity” as “any man-made change to the land surface that may result in soil erosion or has the potential to change its runoff characteristics, including the clearing, grading, excavating, transporting, and filling of land.”⁵³ This language is substantially similar to that of the VESMP.⁵⁴ Reading this definition broadly, it appears that storage of dredged materials might constitute a land-disturbance, as storing dredged materials on a land surface “may result in soil erosion or . . . change its runoff characteristics.”⁵⁵ Additionally, the beneficial use of dredged material to restore shorelines may also qualify as a land disturbance under the same reasoning if the project changes the land’s runoff characteristics.⁵⁶ The language “transporting . . . of land,” and “filling of land,” in the definition as examples of land disturbance suggest that the storage or use of dredged materials on uplands and shorelines would likely qualify as land-disturbing activities.⁵⁷ If these activities do constitute land-disturbing activities, the applicant must receive approval from the locality or DEQ before storing dredged materials or using dredged materials for beneficial use projects. Importantly, however, and as mentioned above, the land-disturbing activity does not

⁴⁷ *Erosion and Sediment Control*, VA. DEP’T OF ENVTL. QUALITY, <https://www.deq.virginia.gov/Programs/Water/StormwaterManagement/ErosionandSedimentControl.aspx> (last visited May 28, 2019).

⁴⁸ *Id.*; see also *Local Program Role*, VA. DEP’T OF ENVTL. QUALITY, <https://www.deq.virginia.gov/Programs/Water/StormwaterManagement/ErosionandSedimentControl/LocalProgramRole.aspx> (last visited May 28, 2019).

⁴⁹ *Id.* Once the SWCB has adopted revised regulations, the consolidated VESCP and VSMP will result in one plan that will be required to be submitted to either the locality or DEQ.

⁵⁰ *Id.*

⁵¹ See *Local Program Role*, VA. DEP’T OF ENVTL. QUALITY.

⁵² VA. CODE ANN. § 62.1-44.15:51 (2016) (defining “applicant” as “any person submitting an erosion and sediment control plan for approval in order to obtain authorization for land-disturbing activities to commence”); *Local Program Role*, VA. DEP’T ENVTL. QUALITY, <https://www.deq.virginia.gov/Programs/Water/StormwaterManagement/ErosionandSedimentControl/LocalProgramRole.aspx>.

⁵³ See VA. CODE ANN. § 62.1-44.15:51 (2016).

⁵⁴ See *id.* § 62.1-44.15:24 (defining land-disturbance as a “man-made change to the land surface that may result in soil erosion or has the potential to change its runoff characteristics, including *construction activity* such as the clearing, grading, excavating, or filling of land.”) (emphasis added).

⁵⁵ *Id.* §§ 62.1-44.15:24 & -44.15:51.

⁵⁶ See § 62.1-44.15:51.

⁵⁷ *Id.*

require regulation unless it “disturbs 10,000 square feet or more” or “disturbs 2,500 square feet or more in an area of a locality designated as a Chesapeake Bay Preservation Area”⁵⁸

C. Chesapeake Bay Preservation Act (CBPA)

The Virginia General Assembly enacted the Chesapeake Bay Preservation Act in 1988 as part of Virginia’s efforts to combat non-point source pollution.⁵⁹ The DEQ administers the CBPA with the goal of improving water quality through effective land management and land use planning.⁶⁰ Through the Act, the Virginia General Assembly has delegated authority to the State Water Control Board to pass regulations establishing criteria for localities to implement local programs.⁶¹ The CBPA states that it is a “cooperative state-local program,” and directs local governments in Tidewater localities to take the initiative in planning and implementing the CBPA.⁶² The CBPA also directs the State Water Control Board to provide technical and financial assistance to Tidewater local governments for implementing their programs.⁶³ Localities implement their local programs using “local comprehensive plans, zoning ordinances, and subdivision ordinances”⁶⁴ Although the CBPA’s requirements are limited to localities in “Tidewater Virginia,”⁶⁵ other localities may voluntarily choose to use the CBPA’s criteria to protect their water quality.⁶⁶

Overall, the lands that constitute Chesapeake Bay Preservation Areas are those that are likely to directly impact water quality.⁶⁷ There are two types of land protected under the CBPA: Resource Protection Areas (RPAs) and Resource Management Areas (RMAs).⁶⁸ RPAs contribute to the health and protection of water quality and RMAs have the potential to hurt water quality without adequate management.⁶⁹ Localities have the authority to delineate Chesapeake Bay Preservation Areas.⁷⁰ Besides the RPAs and RMAs, localities may also designate Intensely Developed Areas (IDAs) “as an overlay of Chesapeake Bay Preservation Areas within their jurisdictions.”⁷¹ IDAs serve as areas of redevelopment in areas where development is concentrated.⁷² All development and redevelopment in Chesapeake Bay Preservation Areas must meet the general requirements for development under the CBPA, which are called “General

⁵⁸ *Id.* § 62.1-44.15:27.

⁵⁹ *Chesapeake Bay Preservation Act*, VA. DEP’T OF ENVTL. QUALITY, <http://www.deq.virginia.gov/Programs/Water/ChesapeakeBay/ChesapeakeBayPreservationAct.aspx> (last visited May 29, 2019); VA. CODE ANN. § 62.1-44.15:72 (2016); 9 VA. ADMIN. CODE § 25-830 et seq. (2013).

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² VA. CODE ANN. § 62.1-44.15:67 (2013).

⁶³ *Id.* § 62.1-44.15:69.

⁶⁴ *Id.* § 62.1-44.15:67.

⁶⁵ *Id.* § 62.1-44.15:68 (listing certain localities to define the phrase “Tidewater Virginia”).

⁶⁶ *Id.*; 9 VA. ADMIN. CODE § 25-830-10 (2013).

⁶⁷ VA. CODE ANN. § 62.1-44.15:67.

⁶⁸ 9 VA. ADMIN. CODE § 25-830-40.

⁶⁹ *Id.* §§ 25-830-80 & 25-830-90.

⁷⁰ VA. CODE ANN. § 62.1-44.15:72 (2015).

⁷¹ 9 VA. ADMIN. CODE § 25-830-100 (2013).

⁷² *Id.*

Performance Criteria.”⁷³ These criteria include preserving indigenous vegetation, and minimizing land disturbance and impervious cover, as well as other criteria identified in the regulations.⁷⁴

The most important lands that are protected under the CBPA are RPAs, which are defined as “lands adjacent to water bodies with perennial flow that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation to the quality of state waters.”⁷⁵ The regulations establish that RPAs are composed of “tidal wetlands; non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow; tidal shores”; and other lands that local governments decide are necessary to protect the quality of state waters.⁷⁶ Additionally, RPAs shall include a 100-foot wide buffer area on the landward side of all of the above described lands, and for any water body with perennial flow, the buffer area includes both banks.⁷⁷ The buffer area is needed to slow runoff, prevent erosion, and filter nonpoint source pollution from runoff before reaching state waters.⁷⁸ The regulations allow for some encroachments into the buffer areas, but when such uses cease, the buffer areas must be reestablished to the original 100-foot width.⁷⁹

RPAs are subject to the General Performance Criteria, as well as additional Development Criteria.⁸⁰ Under the CBPA, any use, development, or re-development of areas within RPAs must meet certain criteria to be allowed.⁸¹ The Development Criteria greatly limit the type and extent of developments that may occur in RPAs, mostly to protect the important functions of the buffer areas.⁸² As part of their review of proposed development in RPAs, local governments assess and sometimes readjust the specific boundaries of the property in the Chesapeake Bay Preservation Area when determining whether the proposed activity can be allowed.⁸³ For any land disturbances in RPAs, “[a] water quality impact assessment shall be required ...”⁸⁴ For purposes of the CBPA, a land disturbance is “a land-disturbing activity including clearing, grading, or excavation that results in a land disturbance equal to or greater than 2,500 square feet and less than one acre in all areas of jurisdictions designated as subject to the regulations adopted pursuant to the Chesapeake Bay Preservation provisions of this chapter.”⁸⁵

RMAs are lands that, if improperly used or developed, may cause significant harm to water quality.⁸⁶ The regulations state that RMAs should be designated contiguous to the entire inland

⁷³ *Id.* § 25-830-120 *et seq.*

⁷⁴ *Id.*

⁷⁵ *Id.* § 25-830-40.

⁷⁶ *Id.* § 25-830-80.

⁷⁷ *Id.*

⁷⁸ *Id.* § 25-830-140(3).

⁷⁹ *Id.*

⁸⁰ *Id.* § 25-830-140(3).

⁸¹ *Id.*

⁸² *Id.*

⁸³ *Id.* § 25-830-110.

⁸⁴ *Id.* § 25-830-140(6).

⁸⁵ VA. CODE ANN. § 62.1-44.15:24 (2018); *see also* 9 VA. ADMIN. CODE §§ 25-830-130 (2013); 25-870-51 & 25-870-103 (delineating the requirements for land-disturbing activities).

⁸⁶ 9 VA. ADMIN. CODE § 25-830-90 (2013).

boundary of RPAs and should include land types such as floodplains, nontidal wetlands outside of RPAs, and highly erodible or permeable soils.⁸⁷ RMAs should encompass an area “large enough to provide significant water quality protection through the employment” of the General Performance Criteria.⁸⁸

Although RPAs and the corresponding 100-foot buffer areas must be maintained, “shoreline erosion control projects” may modify the buffer area.⁸⁹ These “shoreline erosion control projects” might include the beneficial use of dredged material for shoreline maintenance, since the purpose of this use is to protect the land from erosion.⁹⁰ However, these beneficial use projects likely fall under the CBPA definition of a land disturbance, as the language of “clearing, grading, or excavation” is inclusive, not exclusive.⁹¹ Given that the goal of some of these beneficial use projects may not be “erosion control,” some beneficial use projects might not fall within the erosion control projects exception. Thus, the language regarding the shoreline erosion control projects would need to be expanded to more specifically include resiliency projects using dredged materials. The regulations state that these erosion control projects may remove “trees and woody vegetation,” employ “necessary control techniques,” and establish “appropriate vegetation [] to protect or stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements.”⁹² If this provision included the use of dredged material for a beneficial purpose such as restoring uplands and beaches within these types of erosion control projects, the provision would help to expedite beneficial use projects.⁹³

However, storing dredged material in a RPA or a corresponding buffer area might trigger a land disturbance—if not under the CBPA definition then under the VESC or VESMP—and the applicable local approvals and permits would be required.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.* § 25-830-140(5).

⁹⁰ *See id.*

⁹¹ VA. CODE ANN. § 62.1-44.15:24 (2018).

⁹² 9 VA. ADMIN. CODE § 25-830-140(5)(a)(4) (2013).

⁹³ However, “[t]he General Performance Criteria apply to *any development* occurring within a Chesapeake Bay Preservation Area, *including exempted activities . . .*” *Resource Protection Areas: Permitted Development Activities: Guidance on the Chesapeake Bay Preservation Area Designation and Management Regulations*, Va. Dep’t Conservation & Recreation (emphasis added) (last revised June 21, 2010), <https://www.deq.virginia.gov/Portals/0/DEQ/Water/ChesapeakeBay/CBPA/CBPA%20Guidance/Resource%20Protection%20Areas%20-%20Permitted%20Development%20Activities.pdf?ver=2017-09-27-150911-477>. (DEQ now administers the CBPA program, but has not updated the DCR guidance.)

IV. OTHER VIRGINIA PERMITTING PROGRAMS

A. Department of Mines, Minerals and Energy: Mineral Mining Permit Program

Because dredging to improve navigation and safety entails the extraction of earth material from the bottomlands of waterways, it is possible that dredging activities may implicate mining permitting regulations, but it is unlikely.

In Virginia, it is unlawful for any operator to engage in any mining operation without having first obtained a permit from the Virginia Department of Mines, Minerals and Energy (DMME) to engage in such operation. Within the DMME, the Division of Mineral Mining has authority to issue permits regarding the mining of minerals in the State.⁹⁴ In Title 45.1, Chapter 16 (Permits for Certain Mining Operations) of the Code of Virginia, “mining” means “breaking or disturbing of the surface soil or rock in order to facilitate or accomplish the extraction or removal of minerals; any activity constituting all or part of a process for the extraction or removal of minerals so as to make them suitable for commercial, industrial, or construction use”⁹⁵ In the same chapter, “[m]ineral[s]” are “[o]re, rock, and any other solid homogeneous crystalline chemical element or compound that results from the inorganic processes of nature other than coal.”⁹⁶

For several reasons, it is unlikely that dredging and placing dredged material on land would be subject to DMME permitting regulations. First, it is unclear if dredged material is uniformly considered “mineral,” or if the mineral status of dredged material will depend on the specific composition of the material in individual cases.⁹⁷ Second, dredging in a waterway is not done for the purpose of extracting minerals, but rather for the purpose of improving navigability and safety,⁹⁸ and thus would fall outside the statutory definition of “mining.”⁹⁹ Lastly, it is not clear that storing piles of dredged material would fall under the DMME definitions of “spoil,” “refuse,”

⁹⁴ See generally 4 VA. ADMIN. CODE § 25 (prefatory Agency Summary).

⁹⁵ VA. CODE ANN. § 45.1-180(a) (1984).

⁹⁶ *Id.* § 45.1-180(l).

⁹⁷ In a 2010 advisory opinion, the Virginia Attorney General stated that sand deposits dredged from a riverbed were subject to tax assessment in the same way as minerals mined in the traditional way. Va. Att’y. Gen., Op. No. 10-006, 2010 WL 2432866, at *1-2, *2 n.7 (Va. A.G. Apr. 26, 2010); see *id.* n.7 (noting that for tax assessment purposes there is no “distinction regarding the method for mining or extraction of minerals”). The Attorney General argued that the dredged sand constituted a “mineral” subject to property tax assessment because the sand was going to be extracted for a commercial purpose. *Id.* at *2.

⁹⁸ See, e.g., City of Va. Beach, *ISSUE: What is Dredging, and Why Does the City Do It?*, VA. BEACH, <https://www.vbgov.com/government/departments/communications-office/fact-or-fiction/Pages/Dredging.aspx> (last visited Mar. 5, 2019); Nat’l Oceanic & Atmospheric Admin., *supra* notes 2-3 and accompanying text.

⁹⁹ See VA. CODE ANN. § 45.1-180(a). In addition, “dredging” is defined separately in SWCB regulations concerning mitigation for tidal dredging projects: “[D]redging means a form of excavation in which material is removed or relocated from beneath surface waters,” and “‘excavation’ means ditching, dredging, or mechanized removal of earth, soil or rock.” 9 VA. ADMIN. CODE § 25-770-10 (2004).

or “overburden.” Material can be “spoil,”¹⁰⁰ “refuse,”¹⁰¹ or “overburden”¹⁰² if it is obtained pursuant to mining, for the purpose of obtaining minerals. Dredged material is merely a byproduct of the dredging process, the purpose of which is not to obtain minerals.¹⁰³

Where the purpose of dredging remains to improve navigability and safety, it is difficult to see dredging regulated as mining, even if the dredged materials incidentally contain “minerals.” However, the assumption that dredging comprehends a purpose other than collecting minerals for commercial use leads to an important consideration: would dredging for purposes of supplying material for a beneficial use project bring the dredging under the ambit of the mining laws and regulations? Put another way, is a beneficial use project a commercial use, or does a beneficial use project implicate a commercial use, under the mining laws and regulations?¹⁰⁴

Dredging and storing dredged material on land likely fall outside of DMME regulatory authority and therefore will not require DMME permits. However, the ultimate answer to DMME permitting in a given case may hinge on how beneficial use projects such as shoreline restoration are treated under the law.

B. Virginia Waste Management Board: Solid Waste Permitting Program

The Virginia Solid Waste program (VSWP) is administered by DEQ and the Virginia Waste Management Board pursuant to the Virginia Waste Management Act (VWMA).¹⁰⁵ The program has authority to regulate waste management activities, which includes the management of dredged material.¹⁰⁶ However, the program has exempted uncontaminated dredged material from solid waste regulation.¹⁰⁷

According to the Solid Waste Interpretive Guidance, “[d]redged natural bottom sediment and bottom vegetation that is not contaminated with waste constituents is considered soil and is therefore conditionally exempt from the requirements for management as a solid waste.”¹⁰⁸ The guidance explains that if dredged material is properly managed by the USACE, VMRC, and DEQ

¹⁰⁰ VA. CODE ANN. § 45.1-180(d) (“Any overburden or other material removed from its natural state in the process of mining.”).

¹⁰¹ *Id.* § 45.1-180(n) (“All waste soil, rock, mineral tailings, slimes and other material directly connected with the mine, cleaning and preparation of substances mined including all waste material deposited in the permit area from other sources.”).

¹⁰² *Id.* § 45.1-180(c) (“All of the earth and other material which lie above a natural deposit of minerals, ores, rock or other solid matter and also other materials after removal from their natural deposit in the process of mining.”).

¹⁰³ See City of Va. Beach, *supra* note 98.

¹⁰⁴ In the 2010 Attorney General opinion, the intended commercial use of the sand was a key step in concluding that the dredged sand was a “mineral” that could be taxed. See Va. Att’y. Gen., *supra* note 97.

¹⁰⁵ See VA. CODE ANN. § 10.1-1400, *et seq.*

¹⁰⁶ See, e.g., 9 VA. ADMIN. CODE § 20-81-660 (2016).

¹⁰⁷ See VA. DEP’T OF ENVTL. QUALITY, *Solid Waste Interpretive Guidance Statement, Management of Dredged Material, LPR-SW-09-2001* (2011),

https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\440\GDoc_DEQ_2621_v1.pdf.

¹⁰⁸ *Id.* at 1.

programs, regulating the material under the VWMA “imposes unnecessary and duplicative regulatory burdens upon persons engaged in dredging activities.”¹⁰⁹ The Solid Waste Management regulations define “contaminated soil” as “a soil that, as a result of a release or human usage, has absorbed or adsorbed physical, chemical, or radiological substances at concentrations above those consistent with nearby undisturbed soil or natural earth materials.”¹¹⁰ In addition, an applicant seeking a solid waste classification exemption must also conduct and submit information and results of contamination testing.¹¹¹ Specific thresholds for what is considered “contaminated” may apply depending on the contaminants found during testing.¹¹²

Generally, VSWP will not allow contaminated dredged material to be disposed of anywhere other than a solid waste management facility (SWMF).¹¹³ If the dredged material is not contaminated, and thus does not qualify as solid waste, it would be exempt from the SWMF storage requirement.¹¹⁴ However, even if the material is not subject to this VSWP regulation, the storage of dredged material may still require a permit under VWP or CBPA—the question of whether the storage triggers those schemes’ permitting requirements is an inquiry separate from VSWP regulation.¹¹⁵ In addition, “[d]isposal of *any* dredged material into state waters ... including wetlands, can be considered a point source discharge of wastewater subject to regulation under [the Clean Water Act] and is therefore considered to be excluded from definition as a solid waste. This activity should be allowed without involvement from the Waste Division provided the disposal is properly done in accordance with the standards of those sections of the CWA.”¹¹⁶

C. Virginia Department of Transportation (VDOT) Land Use Permitting Program

The storing of dredged materials will likely require trucks carrying the dredged materials to enter and exit a storage site to load and unload dredged materials, potentially implicating

¹⁰⁹ *Id.*

¹¹⁰ 9 VA. ADMIN. CODE § 20-81-10 (2019).

¹¹¹ *See id.* § 20-81-760(2).

¹¹² *See, e.g., id.* § 20-81-630 (disposal of material containing PCBs); *id.* § 20-81-660 (disposal of material that contains, and only contains, petroleum products).

¹¹³ *See* VA. DEP’T OF ENVTL. QUALITY, *supra* note 107, at 3. At the time this guidance was issued, the Waste Division did allow for an exception: contaminated dredged *sediment* would not be subject to the SWMF storage requirement, provided that “the contaminated dredged sediment [was] properly managed in accordance with the regulatory programs of [USACE, VMRC, and the State Water Control Board], and ... that no open dump, hazard, or public nuisance [was] created.” *Id.* at 2-3. Given that USACE’s management of dredging projects and spoils has diminished over the past few years, this exception may have been weakened, if it still exists at all.

¹¹⁴ *See id.*

¹¹⁵ *See* VA. MARINE RES. COMM’N., *supra* note 16. Although they are separate inquiries, at least one provision from the VWP permitting requirements indicates that contamination is a consideration applicable not to VSWP alone. *See* 9 VA. ADMIN. CODE § 25-210-80(B)(1)(k) (2016) (“Materials assessment. Upon request by the board, the applicant shall provide evidence or certification that the material is free from toxic contaminants prior to disposal or that the dredging activity will not cause or contribute to a violation of water quality standards during dredging. The applicant may be required to conduct grain size and composition analyses, tests for specific parameters or chemical constituents, or elutriate tests on the dredge material.”).

¹¹⁶ VA. DEP’T ENVTL. QUALITY, *supra* note 107, at 2 (emphasis added).

VDOT's permit requirements for establishing entrances that affect a highway.¹¹⁷ VDOT balances private property interests with the public interest in an efficient and safe highway system.¹¹⁸ Proposed highway entrances create potential conflict points that affect the safe traffic flow on the highway.¹¹⁹ "Highway," "street," and "road" all have the same definition: "a public way for purposes of vehicular travel, including the entire area within the right-of-way, that is part of the systems of state highways."¹²⁰ Public ways that are classified as a "principal arterial, minor arterial, collector, or local street," are subject to VDOT access management regulations.¹²¹

VDOT must provide a permit before an entrance to a parcel affecting a highway can be established.¹²² VDOT is not required to allow the most convenient access to a parcel.¹²³ Also, if localities have established entrance standards more stringent than VDOT's, then those more stringent standards will be applicable.¹²⁴

Commercial entrances are those that serve land uses generating "more than 50 vehicular trips per day or the trip generation equivalent of more than five individual private residences or lots for individual private residences"¹²⁵ Low volume commercial entrances are any entrances other than private entrances that serve "five or fewer individual residences or lots for individual residences on a privately owned and maintained road or land uses that generate 50 or fewer vehicular trips per day"¹²⁶ Private entrances are those that serve "up to two private residences and is used for the exclusive benefit of the occupants or an entrance that allows agricultural operations to obtain access to fields or an entrance to civil and communication infrastructure facilities that generate 10 or fewer trips per day such as cell towers, pump stations, and stormwater management basins."¹²⁷

From the above definitions, dredged material storage sites would likely fall under the low volume commercial entrance definition, though this will ultimately depend on the number of trucks entering and exiting the site every day. Assuming a low volume commercial entrance, certain regulations come into play. The design and construction of a low volume commercial entrance shall comply with the VDOT Road Design Manual design standards, as well as the "stopping or intersection sight distance provision" of the Virginia Administrative Code.¹²⁸ Additional design

¹¹⁷ 24 VA. ADMIN. CODE § 30-73-20 (2014).

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.* § 30-73-10; *see id.* ("Right-of-way" means that property within the systems of state highways that is open or may be opened for public travel or use or both in the Commonwealth. This definition includes those public rights-of-way in which the Commonwealth has a prescriptive easement for maintenance and public travel"; "Systems of state highways" means all highways, streets, and roads under the ownership, the control, or the jurisdiction of VDOT, including but not limited to, the primary, secondary, and interstate highways.").

¹²¹ *Id.* § 30-73-30(A).

¹²² *Id.* § 30-73-60(A).

¹²³ *Id.* § 30-73-60(B).

¹²⁴ *Id.* § 30-73-60(C).

¹²⁵ *Id.* § 30-73-10.

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.* § 30-73-70(A); *see also id.* § 30-73-80(A).

and construction considerations, including but not limited to accommodating for pedestrians, cyclists, and transit users, where applicable, and determining the need for curbs, gutters, and other features, are also required.¹²⁹ Importantly, the entrance must not compromise the safety of the abutting highway.¹³⁰ Further, “[t]he tenure of a commercial entrance to any highway is conditional. Reconstruction, relocation, commercial entrance consolidation, or upgrading, or a combination of these, may be required” when any one of a number of conditions are met.¹³¹ The entrance may be closed “if the necessary changes are not made.”¹³²

Overall, if a new entrance is needed on a highway for a storage site, a permit from VDOT will be required. When determining locations for the storage of dredged materials, evaluating how many trucks will be entering and exiting the site everyday will be imperative because this figure dictates the operative type of commercial entrance, and therefore which design, construction, and upkeep standards will be at play.

D. Local Zoning Ordinances

The purpose of zoning is, among other things, “to . . . encourage the most appropriate use of the land.”¹³³ Zoning regulations strive to promote community health and safety through restricting the use of property within a specific zoning area.¹³⁴ Additionally, it allows local governments the ability to plan for the future development of their localities, including new transportation systems, highways and community facilities.¹³⁵ Land use planning, such as zoning, is exclusively performed by local government.¹³⁶

When determining which sites would be suitable to store dredged material, reviewing the local zoning ordinances is imperative to ensure compliance with local land use regulations.¹³⁷ Zoning ordinances take into consideration the “existing use and character of property; . . . the suitability of property for various uses; . . . [and] the conservation of properties and their values and the encouragement of the most appropriate use of land throughout the locality.”¹³⁸ When

¹²⁹ See *id.* § 30-73-70(A)(1)-(7).

¹³⁰ See *id.* § 30-73-70(B)(1)-(3). The permit applicant must demonstrate as much, or offer measures to mitigate the degradation of highway safety caused by the proposed entrance. See *id.*

¹³¹ *Id.* § 30-73-110(A). These conditions, including changes in the traffic flow in and out of the entrance, changes in the commercial activity at the site serviced by the entrance, or degradation of safety, apply to low volume commercial entrances and commercial entrances alike. *Id.* § 30-73-110(A)-(D).

¹³² *Id.* § 30-73-110(A).

¹³³ *City of Richmond v. Bd. of Supervisors*, 101 S.E.2d 641, 646 (Va. 1958). Virginia Code § 15.2-2280 is the key enabling statute setting out the scope of localities’ zoning power. See VA. CODE ANN. § 15.2-2280 (1997).

¹³⁴ See Greg Kamptner, *The Albemarle County Land Use Law Handbook*, Albemarle Cty. Att’y’s Off. (Feb. 2018) at 3-100,

https://www.albemarle.org/upload/images/Forms_Center/Departments/County_Attorney/Forms/LULH_Consolidated.pdf (providing “an in-depth survey of Virginia’s planning, zoning, and subdivision laws”).

¹³⁵ *Id.* at 3-200.

¹³⁶ *Id.* at 3-520; see also VA. CODE ANN. § 15.2-2280 et seq. (1997).

¹³⁷ *Id.*

¹³⁸ John W. Farrel, *Planning and Zoning Law in Virginia*, MCCANDLISH & LILLARD, PC (2015) at 1365, <http://mccandlishlawyers.com/wp-content/uploads/2016/02/2015-Planning-and-Zoning-Law-in-Virginia.pdf>.

determining zoning classifications, localities consider the compatibility of uses in certain areas of the community.¹³⁹ Therefore, attention should be given to how the storage of dredged materials fits into the use classifications within the local zoning ordinance.

V. RECOMMENDATIONS

A. Improved Coordination Between Agencies

The permitting process could surely be expedited if more coordination existed between the participating state agencies. Because different permit programs are administered by different state agencies and apply in different locations, many permit applications will require approval from multiple agencies under multiple programs. Coordination between these agencies would help expedite the permitting process, particularly if they could agree on a common set of standards for an applicant to meet. There is overlap between the different programs and many of them use similar criteria for analyzing permit applications. For example, both VMRC and the VWP program focus on the impact of filling in wetlands. One potential solution would be a joint permit application-type process, in which a consolidated permit is submitted to one agency. This could be similar in nature to the existing Joint Permit Application used by the USACE, VWP, and VMRC for permitting project involving water, wetlands, and dune/beach resources; but would be broader in scope.

B. Increased Public Education and Resources About the Process

If more public education and resources are made available for potential applicants, that may help speed up the permitting process. Increased resources would likely make the process easier to understand and less intimidating for the public and specifically for parties considering a resiliency or restoration project using dredged material. More publicly available information may also raise awareness within state agencies and within the general public about the beneficial uses of dredged material. More awareness hopefully will lead to more beneficial use projects by private and state actors.

C. Specific or Expanded Language in Regulations

Specific language in the pertinent programs exempting beneficial use of dredged material from “land-disturbing activities” would allow for expedited regulatory approvals. For example, expanding the language of what a “shoreline erosion control project” includes to ensure that broader resiliency projects fit within this exemption would clarify the existing language. Any such language would need to be tailored according to the desired scope of beneficial use projects to be exempted.

¹³⁹ See Hampton Roads Small Bus. Dev. Ctr., *Hampton Roads Zoning Guide*, <http://www.hrsbdc.org/starting-a-business/hampton-roads-zoning-guide/>.

D. Permit by Rule Format

An expedited regulatory program for upland storage and use of dredged material could be fashioned as a Permit by Rule (PBR) or General Permit program for permitting dredged material placement programs. Under this type of program, if an applicant meets all of the specific permit criteria laid out, the applicant will receive the permit.¹⁴⁰ This scheme restricts regulatory discretion and could speed up the permitting process. There are existing criteria used by the relevant agencies in assessing a dredging permit application. It may be possible to aggregate these standards into a single document of permit requirements, which could provide a blueprint for applicants seeking permit approval from several agencies for a beneficial use project with dredged material. A determination would need to be made to determine which agency would administer such an approach.

For example, when considering a storage site for the dredged material, a PBR permit program could follow VMRC's guidelines for approving a dredged material disposal location. According to the VMRC subaqueous guidelines on filling and dredged material placement, dredged material must be placed in a disposal area that is acceptable to the reviewing body.¹⁴¹ In making the decision, several factors may be considered, including, but not limited to: "(1) Encroachment into natural drainage ways; (2) Chemical nature of the dredged material and its potential for polluting adjacent or nearby underground water supplies; (3) Encroachment over underground utilities, i.e., water lines and sewer facilities; (4) Value of the site to the natural environment; (5) Proximity to populated areas; (6) Anticipated use of the material or disposal site after dredged material is placed and consolidated."¹⁴²

This PBR format would require all of the relevant agencies agreeing to form one permitting program for beneficial use of dredged material projects. Given how extensive and separate the current programs are, this would require a legislative directive.

E. Use of a Pilot Program to Identify Barriers to Permit Approval

It may be useful to begin a pilot project, which would go through the process of obtaining permits for a project involving dredging and beneficial use of dredged material. The first test project, which would be seeking approval for a beneficial use project with dredged material, would apply for all of the necessary permits from VMRC, DEQ, VDOT, and any other implicated state agencies. Hopefully, this initial project would identify any holdups or barriers to permit approval by experiencing the process first hand and keeping a record of obstacles the project encountered. It may also trigger regulatory requirements that were not previously considered, and thus make clear which regulatory programs apply and which do not. In addition, a pilot program may raise public awareness of the importance of beneficial use projects and encourage coordination between the different state agencies.

¹⁴⁰ See, e.g., Small Renewable Energy Projects (Solar) Permit by Rule, 9 VA. ADMIN. CODE §§ 15-60-10 *et seq.*

¹⁴¹ VA. MARINE RES. COMM'N, *supra* note 16.

¹⁴² *Id.*

F. Areas for Further Research

In addition to these Virginia state programs, several federal programs may be applicable to storing and using dredged material, such as the Endangered Species Act, the National Environmental Policy Act, the Resource Conservation and Recovery Act, the Clean Water Act, and the Department of the Interior's Cultural Resources Use permits. Additional research could be conducted to fully consider the potential impact of such federal programs.