# REPORT OF THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION

# SCIENCE AND EDUCATION CENTER WIDEWATER STATE PARK

TO THE CHAIRS OF THE HOUSE APPROPRIATIONS COMMITTEE AND SENATE FINANCE AND APPROPRIATIONS COMMITTEE



COMMONWEALTH OF VIRGINIA RICHMOND November 1, 2021



Prepared by the Department of Conservation and Recreation, In collaboration with Friends of Widewater State Park; Stafford County Public Schools; and Regional Partners in Education, Science, and Tourism

September 29, 2021



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#### I. PREFACE

This report has been prepared in accordance with the requirements of the 2020 Virginia Acts of the General Assembly, Item 374, H.2. that directs "The Department of Conservation and Recreation collaborate with Stafford County Public Schools, the Friends of Widewater State Park and other interested stakeholders regarding the Science and Environmental Center at Widewater State Park planned to be constructed as part of Phase III in order to ensure the facility is adequate to meet the needs of the community, curriculum collaboration opportunities with local schools, and other needs; determine whether any design changes would further community environmental education goals; determine the availability of any grant, charitable or co-funding opportunities with Stafford County and/or Virginia higher educational institutions; determine the feasibility and costs of any design changes or the necessity of any Master Plan changes; and produce recommendations, if any, relating to such objectives."

Widewater State Park is located in Northern Stafford County. The park opened on November 8, 2018, as the 38th of 41 Virginia State Parks. The Virginia Department of Conservation and Recreation (DCR) acquired the property for Widewater State Park from Dominion Resources, Inc. (now Dominion Energy) in 2006. The current master plan for Widewater State Park was developed and approved in 2014. Master Plans developed by the Department of Conservation and Recreation are directed through legislation of the Virginia General Assembly. The plans are reviewed on ten-year cycles. Master plan development includes the establishment of an advisory committee, public input meeting and comment periods, approval of the Governor-appointed Board of Conservation and Recreation, and a review period for members of the Virginia General Assembly. The next Master plan for Widewater is scheduled for 2024.

Typically, there are 3 phases of development in the master plan. At Widewater State Park, Phase 1 development was divided into Phase 1A and Phase 1B due to funding constraints. Phase 1A was completed in 2018. Phase 1B is substantially funded, and construction began in the summer of 2021. Highlights of Phase 2 of the Widewater Master Plan include two additional picnic areas, with shelters and a fishing pier. Also, additional trails are included, especially a trunk line trail to provide connections to all areas of the park due to the dissection of parcels by Brent Point Road. Phase 3 of the Master Plan includes cabins, a campground, and the associated support infrastructure. The development of the Environmental Education Center is listed in phase 3 of the Widewater master plan.

It should be noted that time limitations and conditions stemming from the onset and continual existence of the COVID 19 pandemic impacted the completion of this study

#### II. METHODS

Virginia State Parks staff met with stakeholders and leaders from the region's professional science and education disciplines. Representatives invited to provide input included Stafford County Schools Science Coordinators, Stafford County School Board, Virginia Department of Education, University of Mary Washington, Chesapeake Bay Governor's School, Tri-County Soil and Water Conservation District Education Coordinator, Stafford County Tourism, Widewater State Park Friends Group, DCR Natural Heritage (NOVA Steward), Mallows Bay National Marine Sanctuary, Virginia State Park staff and local state elected officials. The invitation to provide input was through in-person and online meetings, and surveys.

\*A complete list of invitees can be found in Appendix B.

A facilitated meeting was held, and follow-up input was solicited, which is provided in the summary below. In addition, a survey was sent to participants following the comment period to rank the suggestions and ideas gathered from the meetings to help provide a focus for future planning and development of the center.

The building has not yet been designed, so no design changes were discussed. Instead, consideration was given to design needs, and input was sought on who would be using the facility and what spaces would best facilitate that use. Stakeholders were asked to evaluate and make suggestions to the following:

- 1. Who are the potential users;
- 2. What activities would they engage in;
- 3. What spaces should be included in the design of the Education Center;
- 4. Other desired design features of the Education Center;
- 5. Potential collaborators/partners in the development of the Education Center; and
- 6. Potential funding sources and opportunities.

#### III. FINDINGS

Stakeholders suggested the following users would include: Schools K-12 grades (middle tied to STEM including physics), The Nature Conservancy, Stafford Co. Parks and Rec, general meeting facility, Governors School, VA Tech, University of Mary Washington - Higher Ed Institutions, YMCA power scholars, summer camps, scouting groups, master naturalists, individual researchers, home schools, Native American Communities, Archeologists, overnight guests, Potomac River Keepers, private schools, NOVAC, Bay Experience, other Commonwealth agencies, Non-Profits, and NOAA.

Activities these users would be interested in include: Problem/place-based/project-based learning including; Classroom, wet labs, hands-on, technology hub, water studies, native species study, real-time connections with schools, independent work, teacher-led, partnerships, presentations - private

and public, river seining, boating activities on the river, observing wetlands, model careers in outdoor education and STEM, volunteering, Meaningful Watershed Educational Experience (MWEE), physics of flight (Langley experiments), birding or wildlife observation, Leave No Trace or Outdoors 101, lectures, and cultural and natural studies via exhibits.

Potential spaces needed to facilitate use could include: Storage for borrowing equipment, E-vehicle charging station, office, wet lab, conference/presentation room, multimedia, interpretative trails, display tanks, docks, birding observation blinds, solar-wind power, quarters for interns and outreach students, bunkhouse, history and cultural displays, astronomy, ample bus parking, amphitheater, outdoor classroom, equipment wash bay, wetlands viewing platform, greenhouse, citizen scientist stations, Chronolog, building resilience designed into structure, for example, the Chesapeake Bay Foundation's Brock Environmental Center, rain collection features, facilities and boats to travel on water to Crows Nest and remote study locations, Langley flight display, versatile multi-use spaces and furniture, focus on accessibility, water access, floating dock, and wildlife observation blinds.

Further potential design features for the facility considered and proposed by the group included: ability to host multiple groups at one time, borrowed equipment and tables for groups, so they do not need to bring their own resources, tactile features and displays- visually impaired features, ample parking, high-speed connection, convertible indoor/outdoor space ex. garage doors, backup power, eating facilities for groups, picnic shelter, observatory, walking campus - designed to facilitate younger or ADA needs closer to facility and older students opportunities further away, dark sky lighting, live displays, partner organization storage space, office space- consideration for same with visiting staff collaborators, research library, net-zero facility, floors that can accommodate large water tanks, climate-controlled storage, transportation options.

Potential collaborations were discussed amongst the group; possible partnerships include: Tricounty Soil and Water Conservation District, NOAA, Mallows Bay, Chesapeake Bay Foundation, Living Classroom, Natural Heritage, NASA-Langley, Quantico Marine Base, Patawomeck Tribe, Parks and Rec, Public works, Federal Contractors, Dominion Energy - Envirothon, Potomac River Keepers, Virginia DOE, Higher Ed, DOF, The Nature Conservancy, Friends of Rappahannock, UMW Teacher College, Tech Cooperative Extension, Community Colleges, DEQ, Birding clubs, Bluebird Society, Tree Fred, Master Naturalists and Gardeners, Learn and Serve Program, Home School Co-ops, Scout Programs, Private Schools, Astronomy Clubs, Downtown Greens, Senior Citizen Groups, Smithsonian Museum of Natural History, Maryland DNR, Northern Virginia Astronomy Club (NOVAC), VMRC, and VIMS.

**Possible funding sources and grant opportunities were reviewed.** Dominion Energy, local business sponsorships, friends groups, Cyberbytes Foundation- regional tech support, partnering universities, and community fundraising organizations were identified as potential partners for operational funding in part. No immediate grant opportunities were identified. However, further exploration and

outreach within the education community continues in that effort. Presently partnerships exist with Stafford County Public Schools in onsite education at Widewater State Park that can be investigated further for potential cooperative funding.

#### IV. CONCLUSIONS/RECOMMENDATIONS

Through this collaborative effort, the partners envisioned that a Science and Education Center that would best suit the region's needs is not the typical Visitor or Discovery Center developed in Virginia State Parks. The uses described for the education center and the desire for it to be a green building, both in its construction and operation, indicate that further project review needs to be considered.

The location of the facility also needs further review. Although a general location was specified in the 2014 Widewater Master Plan, reasons for relocating the center were offered. The suggestions provide significant merit that convey the impression that alternative locations should be considered. The greatest concern was that the construction of the building at the planned location would negatively impact the resources that are to be studied.

It should be stated and recognized that collaboration among Stafford County School personnel, the Virginia Department of Education, and other stakeholders on curriculum planning is currently underway and continuing. The ongoing effort is to have a well-developed programs and educational agendas to meet student needs when the facility is completed and ready for use. In the interim, partnerships and educational opportunities at Widewater will continue utilizing the resources currently available.

As previously stated, there is not an existing design for the Science and Education Center (SEC). However, the project's expanded recommended scope and potential relocation require that the master plan be reviewed and updated. DCR recommends that a master plan review be initiated to study new proposals for the development of the SEC. The proposals from stakeholders significantly alter the scope of the project and the funding and staffing level for a facility such as this. It is important to fully consider the needs and recommendations of the partners who have taken a strong interest in the role that the education center and the natural resources at Widewater State Park can provide to the region. Implementing a review of the master plan will allow our partners further opportunity for input that will best meet programming needs. The review will also allow partners to discuss concerns related to siting the facility, specific impacts to the study areas, accessibility and footprint for development, then make recommendations for other locations.

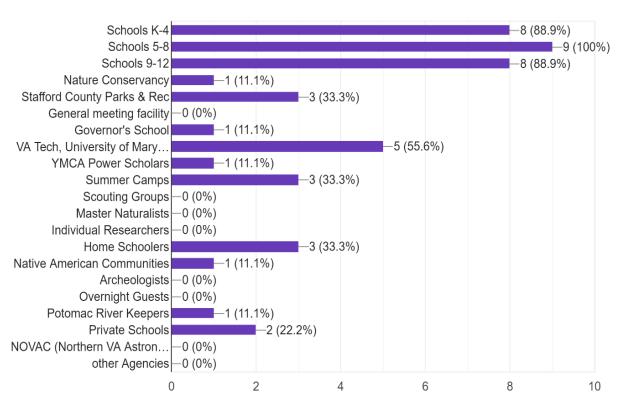
#### V. APPENDICES

#### **APPENDIX A - SURVEY RESULTS**

#### **User Group Survey Ranking**

If we needed to focus on developing the center for a few user groups who should we concentrate on? Please select your top 5 user groups to focus on.

9 responses



#### **User Group Survey Comments**

Are there any groups that you think we are missing?

Local historic societies, especially if there is a local African American historical society.

Day use visitors.

Not that I can think of

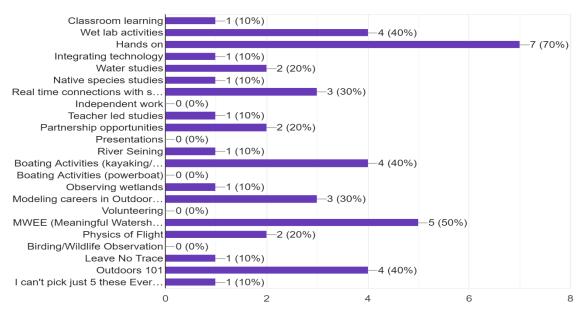
Smithsonian Museum of Natural History, Bay Experience

Day use visitors

I can't pick just 5 these Everything on this list is Important and needed

#### **Activities Survey Rankings**

Which of the following activities do you think are the most important? Please select your top 5. 10 responses



#### **Activities Survey Comments:**

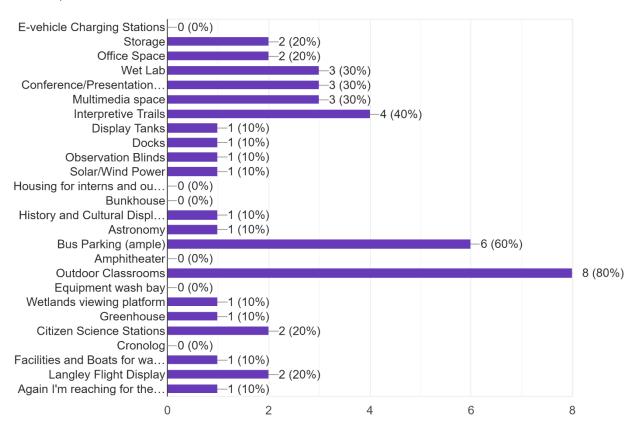
Are there any important activities we are missing?

N/A

I would like to add that I think a lot of these I'm sure we are and in time we will find them.

#### **Design Features Survey Rankings**

What are the spaces you feel are most important to include in the design? Please select your top 5. 10 responses



#### **Design Feature Survey Comments**

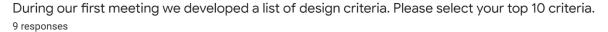
Are there any spaces that we are missing or you would like to suggest ideas for?

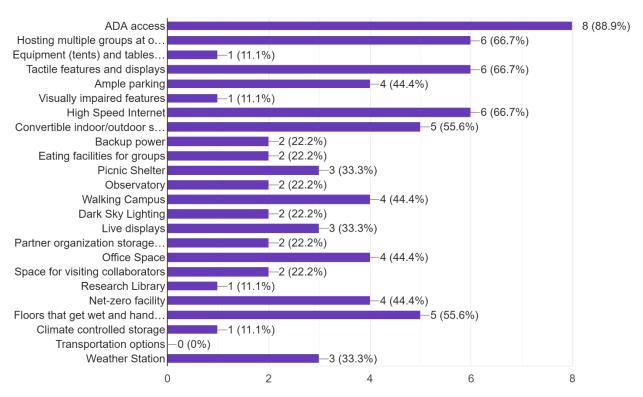
Adequate and accessible restroom facilities

N/A

Need flexible spaces that can be used for presentations, meetings, lab experiences I'm sure there are

#### **Design Criteria Survey Rankings**





#### **Design Criteria Survey Comments**

Are there other design criteria we should add to the list?

- 1. N/A
- 2. Flexible space design is important
- 3. I'm reaching for the stars not just the moon. We need to make this the most amazing center possible and be the lead in groundbreaking outdoor studies in the state.

Everything in this list is important, this facility has the opportunity be something remarkable and putting limits on it at this point in the game is like saying we'll settle for whatever we can get. That's why I can't pick just 5 or 10.

I believe with the right Investors and Partners this project has the potential to be on the cutting edge of future studies for all our school systems, Public, Private, Home school, Higher Ed and private researchers. Not only for ecological studies but for so many others as well. Let's not settle at this point let's make this AMAZING and let's push the limits and them push some more!!

Yes, it will take time energy and thousands of hours of work on our part. BUT, the world as we know it is pushing the limits around us every day for bigger and better things. Let's be on the leading edge of research and growth and show everyone we care about our community, our schools, our children and the land around us. And we want to teach future generations how to preserve it.

The Friends group wants to see this Park succeed and grow into something wonderful and this is just one of the many ways we can do so. Let's push past the old school thinking of yesteryear and be the guide into the future of something more wonderful then we could ever dream of.

As my people say: We have not inherited this earth from our Ancestors; we have borrowed it from our children.

Meaning... We have no right to misuse the earth because we are accountable to the new generations after us therefore we must protect it nourish it and respect it.

### APPENDIX B - LIST OF INVITES FOR PARTICIPATION

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Scott Surovell	State Senator	district36@senate.virginia.gov
Candi Mundon King	State Delegate	DelCMundonKing@house.virginia.gov
Michael Pratte	Stafford County Schools Science Coordinator	prattemj@staffordschools.net
	Stafford County Schools Superintendent	vacant
Kerlin Doss	Stafford County Physics and Science Lead	
Konrad Heller	Lead Science Teacher Stafford County Schools	
Myra Thayer	DOE Science Specialist	
	Stafford County School Board open invite	
Anne Petersen	DOE Science Coordinator	anne.petersen@doe.virginia.gov
Dr. Pamela Grothe	UMW Assistant Professor Environmental Sci.	pgrothe@umw.edu
Mariya Hudick	Tri-County Soil and Water Education Coordinator	mariya.hudick@tccswcd.org
Lisa Logan	Stafford County Tourism Manager	tourism@staffordcountyva.gov
Phil Hornung	Park Volunteer/Friends of Widewater	phornung1@verizon.net
Pres. Darlene Griffis	Friends of Widewater	widewater.friends@gmail.com
Paul (Sammy) Orlando	Mallows Bay National Marine Sanctuary	paul.orlando@noaa.gov
Paul Anderson	Widewater Park Manager	paul.anderson@dcr.virginia.gov
Ken Benson	Potomac District Manager	ken.benson@dcr.virginia.gov
Sammy Zambon	Eastern Visitor Experience Specialist	sammy.zambon@dcr.virginia.gov
Joanna Arrighi	Potomac District Resource Manager	joanna.arrighi@dcr.virginia.gov
Jamie Leeuwrik	Widewater Chief Ranger Visitor Experience	jamie.leeuwrik@dcr.virginia.gov
Mike Lott	Crow's Nest Property Manager	michael.lott@dcr.virginia.gov