

REPORT OF THE BOARD OF CONSERVATION AND RECREATION

# Natural Area Preserve and State Park Acquisition and Improvements Report

TO THE GOVERNOR AND THE CHAIRMEN OF THE SENATE FINANCE COMMITTEE  
AND THE CHAIRMAN OF THE HOUSE APPROPRIATIONS COMMITTEE



COMMONWEALTH OF VIRGINIA

RICHMOND

NOVEMBER 2018

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**COMMONWEALTH of VIRGINIA**  
DEPARTMENT OF CONSERVATION AND RECREATION

November 1, 2018

The Honorable Ralph S. Northam  
Governor of Virginia

The Honorable Thomas K. Norment, Jr.  
Co-Chair, Senate Finance Committee

The Honorable Emmett W. Hanger, Jr.  
Co-Chair, Senate Finance Committee

The Honorable Chris S. Jones  
Chair, House Appropriations Committee

Dear Governor Northam, Senator Norment, Senator Hanger and Delegate Jones:

I am pleased to provide this report, **Natural Area Preserve and State Park Acquisition and Improvements Report**, on behalf of the Department of Conservation and Recreation (DCR) and the Board of Conservation and Recreation (BCR).

This report is presented in accordance with requirements enacted under Chapter 2 of the 2018 Virginia Acts of Assembly, Item 363 in which the Board of Conservation and Recreation is directed to develop a report which evaluates the relative priority of improvements for all properties that have not yet been fully developed as State Parks or Natural Area Preserves, and to ensure such development is undertaken with consideration of: i.) priority on development in areas with limited access to state and regional outdoor recreation facilities; ii.) the relative operational costs and staffing needs for any new areas compared to operating and staffing needs at existing state parks and natural areas; iii.) focus on in-holdings and parcels contiguous to existing state parks and natural area preserves; and iv.) any other such criteria as may deemed appropriate.

If you have any questions regarding this report or require any additional information, please do not hesitate to contact me.

Respectfully submitted,

  
W. Bruce Wingo

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*State Parks • Soil and Water Conservation • Outdoor Recreation Planning  
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation*

## Executive Summary

The Board of Conservation and Recreation, in accordance with Item 363 in Chapter 2 of the 2018 Virginia Acts of Assembly, seeks to develop a strategy and recommendations to guide future park and natural area land acquisitions and development. To that end, and in keeping with the Department of Conservation and Recreation’s mission to “conserve, protect, and enjoy Virginia’s natural and cultural treasures,” the report contained herein provides a snapshot of those parks and natural area preserves identified as most suitable for land acquisition and development. This report recommends targeted capital improvements and operational support for “land banked” parks and natural area preserves in keeping with the priorities outlined by the General Assembly. The proposed acquisitions and improvements would enhance access to outdoor recreational facilities for citizens throughout the Commonwealth. Proposed property acquisitions reflect parcels identified as immediately beneficial for acquisition, subject to the stated priorities of the General Assembly and additional relevant criteria identified by the Board of Conservation and Recreation.

As a matter of practice, directed by the *Code of Virginia* § 10.1-200.1, the Department of Conservation and Recreation’s construction of parks is governed by a master planning process that is used to develop properties in a manner consistent with public demand while also blending the system’s needs with the natural landscape of the property. Due to the “land banked” status of many of the properties identified in this report, several of the properties identified do not have a current master plan in place. In those instances, the Board of Conservation and Recreation and Department of Conservation and Recreation staff have worked collaboratively to identify necessary infrastructure to open these properties to the public. The cost estimates provided in this report would ensure public access as well as allowing for proper management of sensitive natural and cultural resources on the identified properties.

The state park and natural area preserve acquisitions and improvements contained in this report represent a prioritized list of under-developed properties, evaluated based on the following guiding principles:

1. Priority on development of parks and natural area preserves in areas with limited access to state and regional outdoor recreation facilities, and enhancement of public access opportunities on existing properties in such areas.
2. Relative operational costs and staffing needs for any new areas compared to operating and staffing needs at existing state parks and natural area preserves.
3. Acquisitions of in-holdings and critical parcels that are adjacent to existing state parks and natural area preserves and enhance the resilience of the existing property.
4. The value of land acquisitions in protecting significant natural, cultural, recreational, and historical resources.
5. Potential revenue generation stemming from land acquisition and capital improvements.
6. Local and regional demand, as determined by the Virginia Outdoors Demand Survey.

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## 1 Legal Framework and Authority

Pursuant to Title 10.1 of the *Code of Virginia*, the Department of Conservation and Recreation (DCR) is authorized by the General Assembly to operate 37 state parks and 63 natural area preserves on behalf of the citizens of the Commonwealth. Specifically, § 10.1-201(A) authorizes the Department of Conservation and Recreation to acquire “areas, properties, lands, or any estate or interest therein, of scenic beauty, recreational utility, historical interest, biological significance or any other unusual features which ... should be acquired, preserved, and maintained for the use, observation, education, health and pleasure of the people of Virginia.”

Section 10.1-214 directs the establishment of “[a] state system of natural area preserves ... called the Virginia Natural Area Preserves System.” This section further establishes that “[o]nce dedicated, a natural area preserve shall be managed in a manner consistent with continued preservation of the natural heritage resources it supports.”

Lastly, § 10.1-201 states that “[a]ny acquisition shall be within the limits of any appropriation made by the General Assembly for the purchase of such properties ...”

## 2 Historic Development and Use of State Parks and Natural Area Preserves

The state park system offers various forms of outdoor recreation to include camping and cabins, trails, boating and fishing, swimming, interpretive programs, outdoor adventures, natural and cultural history programs, event venues, and picnic shelters. The natural area preserve system allows DCR biologists to target specific natural areas where conservation activities should occur, to manage the habitat of rare species and exemplary natural communities on public and privately owned lands, and to provide appropriate public access to these natural treasures.

Historically, state parks and natural area preserves have enjoyed overwhelming support from both chambers of the General Assembly and Virginia voters, with capital general obligation bonds issued in 1992 (\$95.4 million) and 2002 (\$119 million). Voters approved the bond referendums with 67 percent in favor of the 1992 referendum and 69 percent in favor of the 2002 referendum.

Virginia is among the top destinations on the Eastern Seaboard in terms of outdoor recreation and tourism spending. Past investments have paid big dividends for the Commonwealth. The 2017 Virginia Outdoors Demand Survey found that 93% of respondents viewed access to outdoor recreation areas as either “important” or “very important”. Out of 104 options in this survey, the No. 1 outdoor recreation activity participated in was access to natural areas and the most identified need was access to natural areas. The exceptional quality of life enjoyed in Virginia is in part thanks to its dynamic state park and natural area systems. The health and well-being of citizens, the environment and the economy all benefit from past investments.

Historic referendums combined with appropriations over the past few decades from the General Assembly allowed the Department of Conservation and Recreation to acquire certain parcels of property with high conservation and recreational value for the development of future state parks and natural area preserves. Many of these acquired properties often lacked infrastructure to support public access, or consisted of limited acreage at the time of acquisition that precluded development of infrastructure. Such properties are considered “land banked” until developed appropriately and made fully accessible to the public. This report will address the status of those particular properties, as well as parcels and in-holdings targeted for future acquisition that will enable additional public access.

### 3 Funding and Economic Impact

Funding for state parks and natural areas has allowed for the renovation and restoration of aging infrastructure and enabled the acquisition and development of new parks and natural area preserves. Without this funding, Virginia would not enjoy its reputation for having one of America’s finest State Park Systems and Natural Heritage Programs. These systems support:

- 10 million annual visits.
- \$239.4 million in annual direct economic impact.
- Associated economic activity resulting in 3,598 jobs.
- Generation of \$1.11 in taxes, for every \$1 of general tax revenue provided to state parks.
- Over \$50 million in matching grants resulting from bond funds.

Research has shown that proximity to parks and natural areas increases the real estate value of adjacent properties, provides quality of life recreational opportunities that attract employers, and promotes home sales. Parks and natural areas are also a focal point for civic and community pride, provide educational opportunities for schools, and create jobs, often in rural areas.

### 4 Proposed Development of Land Banked State Parks

The state park development proposals contained in this report represent a prioritized list for parks across the Commonwealth. For the purposes of this section, the focus is solely on the land acquisition, infrastructure, equipment, and operational funding needed to support development and enhance resilience of land banked state parks. The proposed property acquisition, capital, operational, and equipment needs of the Division of State Parks included in the following pages have been selected and evaluated based on the following factors:

1. The value of the land in protecting significant natural, scenic, cultural, and historical resources and in some cases providing buffers to state parks to enhance resilience;
2. Potential revenue generation by adding the property to the existing park site;
3. Ensuring the acquisitions are in congruency with previous capital outlay requests for parks; and
4. In agreement with Virginia Outdoors Demand Survey assessing the need for future recreational development.

#### Ten Year Investment Priorities (State Parks)

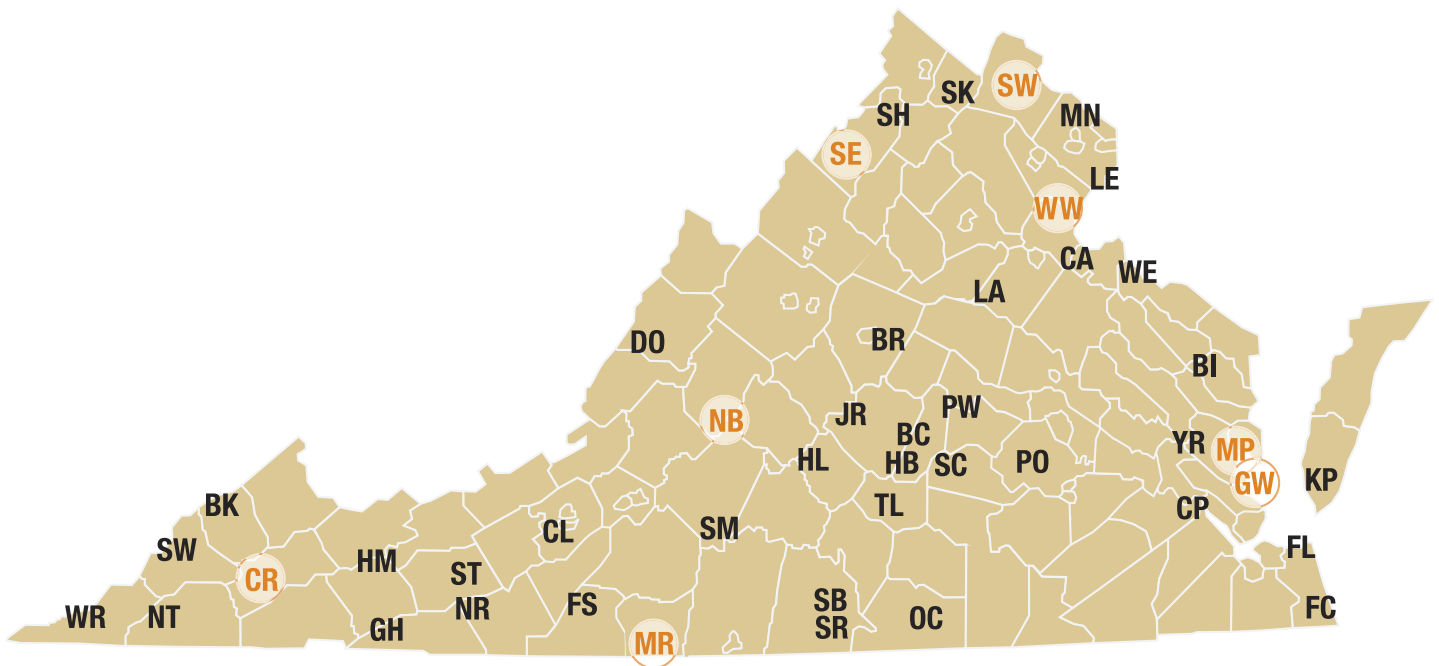
Development/Infrastructure	\$218.2 million
One-Time Start-up Equipment	\$4.0 million
Additional Annual Staffing and Operation	\$9.7 million
State Park Land Acquisitions	\$26.12 million
<b>Total Cost</b>	<b>\$258.0 million</b>

## Summary of Costs

Clinch River	Tazewell, Russell, Scott and Wise Counties	\$64.8 million
Gateway to Werowocomoco	Gloucester County	\$19.4 million
Mayo River	Henry County	\$40.1 million
Middle Peninsula	Gloucester County	\$12.1 million
Natural Bridge	Rockbridge County	\$44.7 million
Seven Bends	Shenandoah County	\$9.9 million
Sweet Run	Loudoun County	\$15.4 million
Widewater	Stafford County	\$24.7 million

## Proposed Improvements — Land Banked State Parks

Land Banked State Parks	Infrastructure Improvements	Start-Up Equipment	Operational Funding
<b>CR</b> - Clinch River	\$61,886,100	\$929,194	\$1,983,200
<b>GW</b> - Gateway to Werowocomoco	\$18,602,400	\$243,500	\$531,356
<b>MR</b> - Mayo River	\$37,751,740	\$873,500	\$1,512,053
<b>MP</b> - Middle Peninsula	\$11,947,580	\$53,500	\$83,262
<b>NB</b> - Natural Bridge	\$41,589,060	\$698,494	\$2,411,571
<b>SE</b> - Seven Bends	\$8,802,560	\$371,678	\$699,259
<b>SW</b> - Sweet Run	\$14,347,860	\$321,200	\$764,311
<b>WW</b> - Widewater	\$23,263,200	\$500,000	\$965,036



## 4.1 Clinch River

- In 2005, the General Assembly requested DCR to conduct a feasibility study on creating a state park within the Clinch River Valley.
- The Clinch River Valley is one of six biodiversity hotspots in the United States and supports one of the world’s most significant concentrations of fish and freshwater mussels known on earth.
- This park acquisition and development effort includes several different partners: the Clinch River Valley Initiative (CRVI), The Nature Conservancy (TNC), Friends of Southwest Virginia, and numerous other state agencies who have collaborated with the state park effort.
- The park will have three (3) main anchor properties across four (4) counties; Tazewell, Russell, Wise, and Scott, as well as numerous river access points that will be acquired or managed with regional partners.
- The 2015 GA authorized \$2.5 million for planning and initial acquisition. In FY19, an additional \$2.5 million in funding was authorized in capital pool project funding.



Development and Infrastructure*	Sugar Hill Unit		Hunter’s Ford Unit		Artrip Bent Unit	
TOTAL - \$61,886,100	\$31,753,340		\$14,078,760		\$16,054,000	
Start –up Equipment Needs	Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.					
TOTAL - \$929,194						
Annual Operations Funding	Sugar Hill Unit		Hunter’s Ford Unit		Artrip Bent Unit	
TOTAL - \$1,983,200	Staffing	\$662,267	Staffing	\$222,422	Staffing	\$222,422
					Wages	\$479,404
					Services	\$91,700
					Materials	\$209,228
					Utilities	\$86,278
					Equipment supplies	\$9,430

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate Clinch River State Park per fiscal year (FY) at full Phase 3 development.

\* The development, establishment, and required approval of a State Park Master Plan as per the *Code of Virginia*, § 10.200.1 has not been performed for this land banked property. As such, please note that the numbers above are estimated based on current stakeholder input and public access concerns, while allowing for proper management of sensitive natural and cultural resources on the identified properties.



## 4.2 Gateway to Werowocomoco

- The Gateway to Werowocomoco is one of two parcels in Gloucester County that are presently in “land banked” status. It is alternately referred to as the Timberneck Unit, and covers approximately 645 acres. It is located approximately 7 miles from the nearby “Rosewell Unit” (identified as Middle Peninsula State Park in this report) parcel. The park is located on the York River in the southwest portion of Gloucester County.
- The Timberneck Unit is slated for Phase I development that includes facilities for day use, campground, interpretive elements, car top boat launch and support infrastructure. This development is occurring through a mitigation program with Dominion Energy for the Surry-Skiffe’s Creek Power Project.
- Indian tribes from Virginia are providing critical input into the development of the interpretive aspect of the park, to educate the public on the Native American culture and tribes found in Virginia. Tribal leaders are also working with the Department of Conservation and Recreation to identify an appropriate permanent name of the park.
- Shoreline and historical protection is a part of both this unit and the nearby Rosewell Unit. The Catlett Islands, a Virginia Institute of Marine Science Chesapeake Bay National Estuarine Research Reserve System protected property, is located next to the Timberneck Unit.



Development and Infrastructure	Timberneck Unit	
TOTAL - \$18,602,400	\$18,602,400	
Start –up Equipment Needs	Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
TOTAL - \$243,500		
Annual Operations Funding		
TOTAL - \$531,356	Staffing	\$424,356
	Non-Personnel Operating	\$107,000

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate the Timberneck Unit per fiscal year (FY) at full Phase 3 development.

## 4.3 Mayo River

- The Commonwealth of Virginia purchased land to create a new state park in the Horsepasture area of Henry County (near the Mayo River) in August 2009.
- The original purchase price was \$1.4 million and consisted of approximately 332 acres located in Henry County, Virginia. Currently, the acreage of Mayo River State Park stands at 399 acres.
- Since 2009, the property has remained in “land banked” status until funding can be obtained to open and develop the property as Mayo River State Park.
- As mitigation for the 2014 Dan River coal ash spill, Duke Energy has agreed to purchase two tracts totaling 216 acres to add to the existing 399 acres. Once the transfer is complete, the total acreage for the park will be 615 acres. The Piedmont Land Trust is serving as the agent for Duke Energy during the land transaction/transfer.



Development and Infrastructure *	Phase I, II, & III Development	
TOTAL - \$37,751,740		
Start –up Equipment Needs	Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
TOTAL - \$873,500		
Annual Operations Funding		
TOTAL - \$1,512,053	Staffing	\$888,633
	Staff Support	\$130,000
	Wages	\$179,404
	Services	\$95,700
	Materials	\$105,228
	Utilities	\$102,287
	Equipment supplies	\$10,801

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate Mayo River State Park per fiscal year (FY) at full Phase 3 development.

\* The development, establishment, and required approval of a State Park Master Plan as per the *Code of Virginia*, § 10.200.1 has not been performed for this land banked property. As such, please note that the numbers above are estimated based on current stakeholder input and public access concerns, while allowing for proper management of sensitive natural and cultural resources on the identified properties.

## 4.4 Middle Peninsula

- The Rosewell Unit, at 431 acres, is one of two land banked parcels located in Gloucester County. It is located approximately 7 miles away from the Gateway to Werowocomoco. The park is located on the York River in the southwest portion of Gloucester County.
- Given the geographic proximity between the Rosewell Unit and Timberneck Unit, the Department of Conservation and Recreation would be able to operate this site and the Gateway to Werowocomoco within the same management area.
- A local support group, Friends of the Park, are forming to support the park and encourage the development of day use elements at the Rosewell site, which has been a DCR holding since 2006.
- Shoreline and historical protection is a part of both this unit and the nearby Timberneck Unit (identified as the Gateway to Werowocomoco in this report). The Historic Rosewell Ruins are located adjacent to the Rosewell Unit.



<b>Development and Infrastructure</b>	<b>Rosewell Unit</b>	
TOTAL - \$11,947,580	\$11,947,580	
<b>Start –up Equipment Needs</b>	Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
TOTAL - \$53,500		
<b>Annual Operations Funding</b>		
TOTAL - \$83,262	Staffing	\$32,942
	Non-Personnel Operating	\$50,320

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate the Rosewell Unit per fiscal year (FY) at full Phase 3 development.

## 4.5 Natural Bridge

- Once owned by Thomas Jefferson and listed on the National Register of Historic Places, the 215-foot tall Natural Bridge is a limestone gorge carved out by Cedar Creek.
- Under a signed Memorandum of Agreement authorized by the Virginia General Assembly during the 2016 session, the Natural Bridge and surrounding 1,534 acres was placed under management of the Department of Conservation and Recreation on September 24, 2016, becoming the 37th Virginia State Park. In 2017, Natural Bridge received over 186,000 visits from across the country.
- The Virginia Conservation Legacy Fund (VCLF) still owns the property until the \$9.1 million loan VCLF received from the Virginia Resources Authority is paid in full, at which time ownership will be transferred to the Commonwealth. At this time, approximately \$6 million in debt service remains on the loan.
- The Memorandum of Agreement allows for utilization of a portion of net revenues collected by DCR for satisfaction of the debt service obligated to Virginia Conservation Legacy Fund loan.
- During the 2016 session, \$120,000 and two FTE's were authorized by the General Assembly. Additional staffing and operational funding is currently provided by park revenues.



<b>Development and Infrastructure</b>	Phase I, II, & III Development	
TOTAL - \$41,589,060		
<b>Start –up Equipment Needs</b>	Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
TOTAL - \$698,494		
<b>Annual Operations Funding</b>		
TOTAL - \$2,411,571	Staffing	\$685,605
	Staff Support	\$100,000
	Wages	\$544,043
	Services	\$323,041
	Materials	\$630,813
	Utilities	\$88,106
	Equipment supplies	\$39,963

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate Natural Bridge State Park per fiscal year (FY) at full Phase 3 development.

## 4.6 Seven Bends Recreation Area

- The park’s 1,066 acres were acquired through donation and purchase in 2005.
- General Assembly funding was received for the development of a “state recreation area” in FY15 in the amount of \$2.24 million that is being utilized for the removal of several dilapidated buildings, construction of parking areas, picnic areas, river access facilities, and other basic day use facilities.
- Until a new bridge over the river is constructed, further development of this park is not feasible. Bridge construction costs are not reflected or included in this report.
- The park sat vacant until 2017, when operational funding was received for initial development of a state recreational area. One full-time staff member and several wage employees are on-site now, developing the park and preparing it for opening to the public.
- The master plan for this park is being revisited due to access issues.
- There is a very active Friends of Seven Bends citizen support organization at the location whose members have developed 3.1 miles of hiking trails in anticipation of the park opening.



<b>Development and Infrastructure</b>	Phase I, II, & III Development	
TOTAL - \$8,802,560		
<b>Start –up Equipment Needs</b>	Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
TOTAL - \$371,678.00		
<b>Annual Operations Funding</b>		
TOTAL - \$699,259	Staffing	\$423,301
	Staff Support	\$60,000
	Wages	\$75,997
	Services	\$33,046
	Materials	\$73,452
	Utilities	\$29,259
	Equipment supplies	\$4,204

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate Seven Bends State Park per fiscal year (FY) at full Phase 3 development.

## 4.7 Sweet Run

- The Bob and Dee Leggett Foundation donated 604 acres of land in northwest Loudoun County near Harpers Ferry, to the Potomac Conservancy, who donated the property to the Department of Conservation and Recreation in June 2015.
- In October 2018, the Loudoun County Board of Supervisors authorized acquisition of 280 acres adjacent to the park. The county intends to donate this parcel to the Commonwealth. The property contains a well-maintained historic home, education center, rustic cabins, a small modern home, and picnic shelter.
- The 280-acre property deed does not have as many restrictions as the original 604 acres and therefore can be developed with traditional state park offerings. With this additional acreage, the Department of Conservation and Recreation can now begin the master planning process required by the Code of Virginia.
- The park's rolling hills support forest land, open native plant meadows and several streams. It borders National Park Service property and is a short hike from the Appalachian Trail. Deed restrictions on the property permit foot traffic trails, primitive camping, environmental education, and research only.
- The park property is currently managed by the Blue Ridge Center for Environmental Stewardship, a nonprofit conservation organization, through an MOU with the Department of Conservation and Recreation. No DCR staff is assigned to the operation of the park at this time.



Development and Infrastructure *		Phase I, II, & III Development	
TOTAL - \$14,347,860			
Start –up Equipment Needs		Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
TOTAL - \$321,200			
Annual Operations Funding			
TOTAL - \$764,311		Staffing	\$473,301
		Staff Support	\$35,290
		Wages	\$174,500
		Services	\$29,500
		Materials	\$32,670
		Utilities	\$49,800
		Equipment supplies	\$4,540

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate Sweet Run State Park per fiscal year (FY) at full Phase 3 development.

\* The development, establishment, and required approval of a State Park Master Plan as per the *Code of Virginia*, § 10.200.1 has not been performed for this land banked property. As such, please note that the numbers above are estimated based on current stakeholder input and public access concerns, while allowing for proper management of sensitive natural and cultural resources on the identified properties.

## 4.8 Widewater

- Acquired from Dominion Resources in 2006 with a goal of providing water access and an outdoor education hub for Stafford County.
- The park is located on the Widewater peninsula bounded by the Potomac River and Aquia Creek.
- The park includes approximately 1,100 acres in five separate parcels with water frontage on the river and creek. An additional 212 acres on Aquia Creek will be added to the park in the Fall 2018.
- Phase 1 development is partially complete with a visitor center, picnic facilities and water access ready for public opening in the Fall 2018. Construction of the Potomac River Motorized Boat Ramp complex, trails, and additional picnic facilities will complete phase 1 in 2020.
- Future master plan development will provide a park maintenance facility, camping and cabins, trails, fishing pier, picnic areas, and outdoor educational facilities.



<b>Development and Infrastructure</b>	Phase I, II, & III Development	
TOTAL - \$23,263,200		
<b>Start –up Equipment Needs</b>	Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
TOTAL - \$500,000		
<b>Annual Operations Funding</b>		
TOTAL - \$965,036	Staffing	\$292,304
	Staff Support	\$40,000
	Wages	\$375,950
	Services	\$39,774
	Materials	\$84,738
	Utilities	\$45,740
	Equipment supplies	\$86,530

Staffing (salary and benefits) and operating expenses, equipment, and supplies to operate Widewater State Park per fiscal year (FY) at full Phase 3 development.

## 5 State Park Inholding and Adjacent Land Acquisitions - \$22.1 Million

The proposed state park land acquisitions contained in this section represent a prioritized list for parks across the Commonwealth. In order to prioritize these properties from over 100 properties identified in a 2016 report of inholdings and adjacent land to state parks, a variety of criteria were utilized. These properties have been identified as being immediately beneficial for acquisition. In addition to the previously identified prioritization considerations, these additions were also evaluated with consideration to the following factors:

1. The value of the land in protecting significant natural, cultural, and historical resources and in some cases providing buffers to state parks to enhance resilience.
2. The benefit of the additional land in future development plans for the site.
3. Potential revenue generation by adding the property to the existing park site.
4. Ensuring the acquisitions are in congruency with previous capital outlay requests for parks.
5. In agreement with Virginia Outdoors Demand Survey assessing the need for future recreational development.

State Park	Jurisdiction(s)	Proposed Acreage
Caledon State Park	King George	455.0
Fairy Stone State Park	Patrick	112.42
High Bridge Trail State Park	Cumberland, Nottoway, & Prince Edward	243.0
Hungry Mother State Park	Smyth	627.28
James River State Park	Buckingham	484.0
Lake Anna State Park	Spotsylvania	81.0
New River Trail State Park	Grayson, Carroll, Wythe, Pulaski, & City of Galax	658.9
Sailor's Creek Battlefield State Park	Prince Edward	1.0
Shenandoah River State Park	Warren	121.0
Southwest Virginia Museum SP	Wise	2.0
Staunton River State Park	Halifax	131.35
Westmoreland State Park	Westmoreland	2.0
Wilderness Road State Park	Lee	241.39
York River State Park	York	402.9

**Statewide Total:** **3,793.33 Acres**

- The total acquisition cost assumes an average cost per acre of \$6,190 per acre, with the understanding that per-acre costs will vary depending on the geographic location of the tracts under consideration and current market conditions. Actual acquisition costs will be determined at the time of sale by an appraisal that meets certain standards set by the Code of Virginia and the Department of General Services. Please note that these acquisitions can be funded through a variety of sources including federal and state grants, the Virginia Land Conservation Foundation, mitigation agreements, donations, or fee simple purchases.



## 6 Proposed Land Acquisitions and Improvements for Natural Area Preserves

- Acquisition of additional tracts at 13 of Virginia’s 63 Natural Area Preserves across the state.
- Consistent with being the most sought out public outdoor recreation activity statewide, and with two-thirds of Virginians considering natural area protection very important, much of DCR’s focus is on expanding existing natural areas to:
  - Strengthen protection of natural communities and rare species habitat;
  - Add public access improvements and expand opportunities to visit natural areas;
  - Improve preserve management efficiency in light of expanding pressures from invasive species, a changing climate and encroaching development;
  - Retain the ability to use management actions such as prescribed burning, protect water recharge areas, and fill key resource protection gaps.

### Natural Area Land Acquisition - \$23.4 Million

Additions to 13 of 63 Natural Area Preserves	County	Proposed Acreage
The Cedars Natural Area Preserve	Lee County	2,000
Unthanks Cave Natural Area Preserve	Lee County	150
Pinnacle Natural Area Preserve	Russell County	300
Bald Knob Natural Area Preserve	Franklin County	30
Buffalo Mountain Natural Area Preserve	Floyd County	3,000
Difficult Creek Natural Area Preserve	Halifax County	150
Poor Mountain Natural Area Preserve	Roanoke	150
Deep Run Ponds Natural Area Preserve	Rockingham County	100
Crow’s Nest Natural Area Preserve	Stafford County	100
Hickory Hollow Natural Area Preserve	Lancaster County	100
South Quay Sandhills Natural Area Preserve	Suffolk	300
Pickett’s Harbor Natural Area Preserve	Northampton County	400
Magothy Bay Natural Area Preserve	Northampton County	150
<b>Statewide Total</b>		<b>6,930 acres</b>

- The total acquisition cost assumes an average cost per acre of \$3,376 per acre of undeveloped tracts, with the understanding that per-acre costs will vary depending on the geographic location of the tracts under consideration and current market conditions. Actual acquisition costs will be determined at the time of sale by an appraisal that meets certain standards set by the Code of Virginia and the Department of General Services. Please note that these acquisitions can be funded through a variety of sources including federal and state grants, the Virginia Land Conservation Foundation, mitigation agreements, donations, or fee simple purchases.

## Natural Area Access Improvements - \$1.7 Million

The 2017 Virginia Outdoors Demand Survey ranked visiting natural areas as the No. 1 most sought out and No. 1 most needed outdoor recreation activity statewide. DCR has identified \$1.7 million in capital needs to improve public access at 14 existing natural area preserves, five of which would establish new public access facilities in the Southwest, Shenandoah Valley, Southeast and Eastern Shore regions. The types of access improvements include:

- New, improved or enlarged parking areas
- New, improved and expanded hiking trails
- Information kiosks
- Interpretive signage
- Longleaf Pine interpretive trails (Chub Sandhill and South Quay Sandhills)
- An ADA handicap accessible-compliant fishing platform (Pinnacle)
- Swinging bridge renovation (Pinnacle and Goshen Pass)
- New observation deck on a restored fire tower (Channels)

### Ten Year Investment Priorities (Natural Area Preserves)

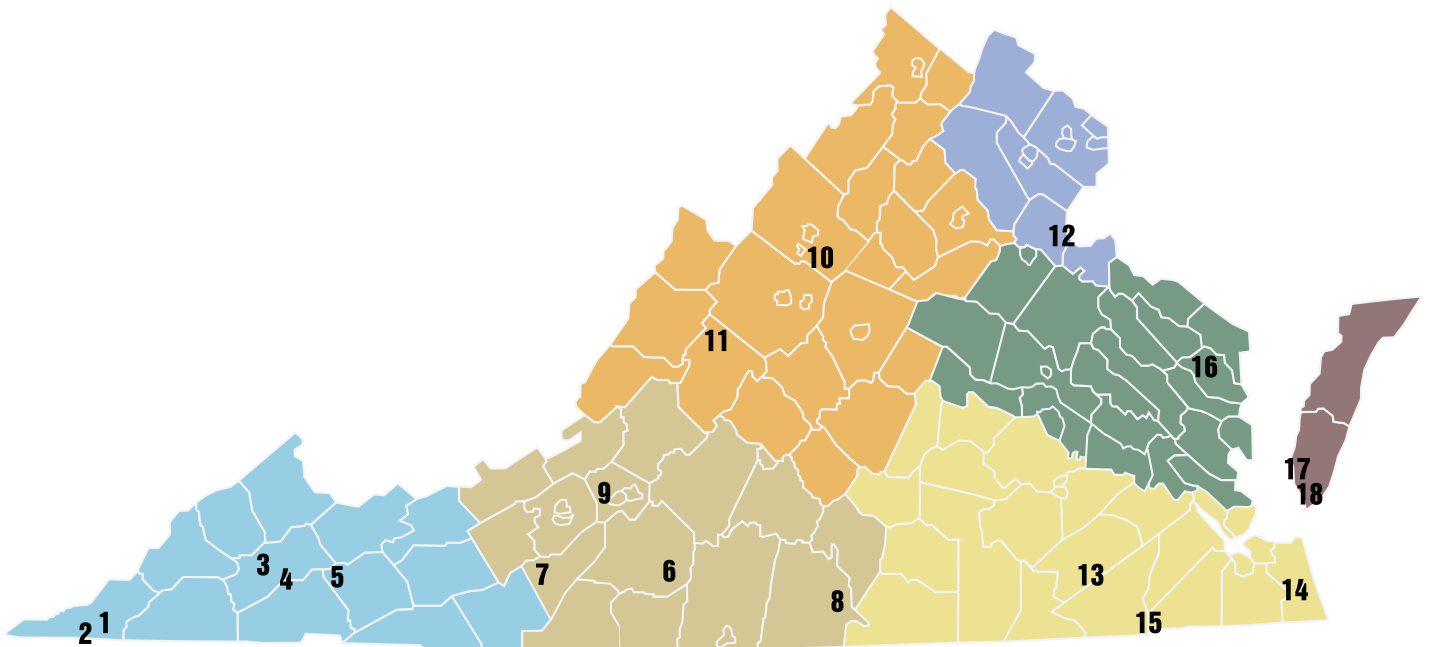
Access Facilities/Infrastructure	\$1.7 million
One-Time Start-up Equipment	\$590,000
Annual Staffing and Operation	\$1.0 million
Natural Area Land Acquisition	\$23.4 million
<b>Total Cost</b>	<b>\$26.7 million</b>

### Summary of Costs

Southwest Region	\$6.05 million
Mountain Region	\$13.54 million
Shenandoah Valley Region	\$1.02 million
Northern Region	\$1.18 million
Chesapeake Bay Region	\$680,000
Southeast Region	\$1.31 million
Eastern Shore Region	\$2.97 million

## Proposed Improvements and Acquisitions - Natural Areas

			Current Access Facilities	Access Improvements	Land Acquisition	New Staffing
Southwest	1	<b>The Cedars</b>	No	Yes	Yes	Yes
	2	<b>Unthanks Cave</b>	No	No	Yes	No
	3	<b>Pinnacle</b>	Yes	Yes	Yes	Yes
	4	<b>Channels</b>	Yes	Yes	No	Yes
	5	<b>Redrock Mountain</b>	No	Yes	No	No
Mountain	6	<b>Bald Knob</b>	Yes	No	Yes	No
	7	<b>Buffalo Mountain</b>	Yes	Yes	Yes	Yes
	8	<b>Difficult Creek</b>	Yes	No	Yes	No
	9	<b>Poor Mountain</b>	Yes	Yes	Yes	Yes
Shenandoah Valley	10	<b>Deep Run Ponds</b>	No	Yes	Yes	Yes
	11	<b>Goshen Pass</b>	Yes	Yes	No	No
Northern	12	<b>Crow's Nest</b>	Yes	Yes	Yes	Yes
Southeast	13	<b>Chub Sandhill</b>	Yes	Yes	No	Yes
	14	<b>North Landing River</b>	Yes	Yes	No	Yes
	15	<b>South Quay Sandhills</b>	No	Yes	Yes	Yes
Chesapeake Bay	16	<b>Hickory Hollow</b>	Yes	Yes	Yes	Yes
Eastern Shore	17	<b>Pickett's Harbor</b>	No	Yes	Yes	Yes
	18	<b>Magothy Bay</b>	Yes	No	Yes	No



## 6.1 Natural Area Preserves - Southwest Region

- The Clinch River Valley supports one of the world’s most significant concentrations of natural heritage resources in the form of threatened and endangered fish and mussels of the Clinch and Powell watersheds, globally rare plants and natural communities in and around the Cedars Natural Area Preserve.
- Preserve acquisition in Southwest Virginia will protect additional habitats for rare species, improve water quality, increase DCR’s management efficiencies and provide opportunities to expand public access.
- This preserve acquisition and access development effort includes several different partners: the Clinch River Valley Initiative (CRVI) and The Nature Conservancy (TNC), and numerous other state and federal agencies collaborating with DCR’s Division of Natural Heritage.
- Preserve acquisition in Southwest Virginia will complement current efforts to purchase land and develop facilities for the new Clinch River State Park.
- Proposed operational funding would hire two Stewardship Technicians and one wage Stewardship intern. These positions would provide invasive species control, supervise volunteer labor, and provide a site presence for future public access facilities.

<b>Land Acquisition (Additions to existing preserves)</b>	<b>TOTAL - \$5,050,000</b>
The Cedars	\$4,000,000
Unthanks Cave	\$300,000
Pinnacle	\$750,000
<b>Access Development and Infrastructure</b>	<b>TOTAL - \$700,000</b>
The Cedars <i>(parking, kiosk, trail)</i>	\$70,000
Pinnacle <i>(fishing platform, rehab bridge)</i>	\$200,000
Channels <i>(firetower conversion to observation deck)</i>	\$350,000
Redrock Mountain <i>(parking, kiosk, trail)</i>	\$80,000
<b>Start-up Equipment Needs</b>	<b>TOTAL - \$90,000</b>
Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
<b>Annual Operating Needs</b>	<b>TOTAL - \$212,000</b>
<b>Staffing</b>	<b>Sub-total - \$160,000</b>
The Cedars	\$65,000
Pinnacle	\$65,000
Channels	\$30,000
<b>Non-Personnel Operating</b>	<b>Sub-total - \$52,000</b>

Staffing (salary, benefits & agency support)

Non-personnel operating expenses (gasoline, travel, vehicle maintenance, office leases, equipment and supplies and materials to manage resources and public access at expanded Southwest Region Natural Area Preserves per fiscal year (FY)).



Big Falls on Big Cedar Creek at Pinnacle Natural Area Preserve in Russell County.



Summit view from Middle Knob at Channels Natural Area Preserve in Russell County.

## 6.2 Natural Area Preserves - Mountain Region

- Natural Area Preserves in the Mountain Region of Virginia support some of the most significant terrestrial biodiversity in the state, including high-elevation rock outcrops and lower elevation habitats for rare plants including Smooth Coneflower, Piratebush and Piedmont Fameflower.
- Preserve acquisition in the Mountain Region will protect additional habitats for rare species, increase DCR’s management efficiencies and provide opportunities to expand public access.
- Preserve acquisition and access development in the Mountain Region will significantly increase DCR’s hiking trail offerings in Floyd County and City of Roanoke.
- Preserve acquisition efforts will complement current efforts to protect land and viewsheds along and near the Blue Ridge Parkway.
- Proposed operational funding would hire one Stewardship Technician and one wage Stewardship intern. These positions would provide invasive species control, habitat restoration, supervise volunteer labor, and provide a site presence for future public access facilities.

<b>Land Acquisition (Additions to existing preserves)</b>	<b>TOTAL - \$13,125,000</b>
Bald Knob	\$300,000
Buffalo Mountain	\$12,000,000
Difficult Creek	\$450,000
Poor Mountain	\$375,000
<b>Access Development and Infrastructure</b>	<b>TOTAL - \$240,000</b>
Buffalo Mountain ( <i>parking, kiosk, trails</i> )	\$145,000
Poor Mountain ( <i>parking, kiosk, trail</i> )	\$95,000
<b>Start-up Equipment Needs</b>	<b>TOTAL - \$90,000</b>
Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
<b>Annual Operating Needs</b>	<b>TOTAL - \$125,000</b>
<b>Staffing</b>	<b>Sub-total - \$95,000</b>
Buffalo Mountain	\$65,000
Poor Mountain	\$30,000
<b>Non-Personnel Operating</b>	<b>Sub-total - \$30,000</b>

Staffing (salary, benefits & agency support)

Non-personnel operating expenses (gasoline, travel, vehicle maintenance, office leases, equipment and supplies and materials to manage resources and public access at expanded Mountain Region Natural Area Preserves per fiscal year (FY).



Buffalo Mountain Natural Area Preserve parking area, kiosk and trailhead.



View from summit of Buffalo Mountain in Floyd County.

## 6.3 Natural Area Preserves - Shenandoah Valley Region

- Natural Area Preserves in the Shenandoah Valley Region of Virginia protect significant and highly variable habitats including diverse sinkhole ponds supporting endangered species, caves with high diversity of subterranean animals, and rocky mountain slopes with old-age chestnut oak forests protecting water quality and scenic vistas along the Maury River.
- Preserve acquisition efforts will complement current efforts to protect scenic viewsheds west of Skyline Drive and to conserve additional sinkhole ponds and lands flanking Shenandoah National Park near the town of Grottoes.
- New access development in this part of Virginia will allow DCR to develop its first natural area preserve public access facility in the Shenandoah Valley at Deep Run Ponds Natural Area Preserve.
- Proposed operational funding would hire one Shenandoah Valley Operations Steward and one Shenandoah Valley Stewardship Technician. These positions would provide invasive species control, habitat restoration, supervise volunteer labor, and provide a site presence and planning assistance for future public access facilities. The Operations Steward would also serve a law enforcement role, ensuring visitor safety on preserves in the Great Valley of Virginia.

<b>Land Acquisition (Additions to existing preserves)</b>	<b>TOTAL - \$400,000</b>
Deep Run Ponds	\$400,000
<b>Access Development and Infrastructure</b>	<b>TOTAL - \$270,000</b>
Deep Run Ponds ( <i>parking, kiosk, trail</i> )	\$95,000
Goshen Pass ( <i>re-hab trails and re-build swinging/suspension bridge</i> )	\$175,000
<b>Start-up Equipment Needs</b>	<b>TOTAL - \$160,000</b>
Vehicles, tractors, mowers, furnishings, power tools, hand tools, etc.	
<b>Annual Operating Needs</b>	<b>TOTAL - \$190,000</b>
<b>Staffing</b>	<b>Sub-total - \$150,000</b>
Deep Run Ponds	\$150,000
<b>Non-Personnel Operating</b>	<b>Sub-total - \$40,000</b>

Staffing (salary, benefits & agency support)

Non-personnel operating expenses (gasoline, travel, vehicle maintenance, office leases, equipment and supplies and materials to manage resources and public access at expanded Shenandoah Valley Region Natural Area Preserves per fiscal year (FY).





Shenandoah Valley Sinkhole Pond at Deep Run Ponds Natural Area Preserve.



Maury River at Goshen Pass Natural Area Preserve in Rockbridge County.

## 6.4 Natural Area Preserves - Northern Region

- Natural Area Preserves in the Northern Region of Virginia protect significant habitats including extensive old age coastal plain forests at Crow’s Nest, diabase woodlands, quartzite ridgelines and prime nesting habitat for bald eagles along the Tidal Potomac River.
- Preserve acquisition efforts will focus on adding key parcels at Crow’s Nest to buffer the exceptional great blue heron rookery and protect it from development.
- Addition of tracts at Crow’s Nest would allow expansion of the current hiking trail system at this well-known natural area in northern Virginia.
- Proposed operational funding would hire a Northern Region Stewardship Technician who would serve as a consistent site presence and in a resource protection role at Crow’s Nest Natural Area Preserve in Stafford County. The Stewardship Technician would also assist in providing invasive species control and access facilities maintenance at other dedicated natural area preserves in the Northern Region.

<b>Land Acquisition (Additions to existing preserves)</b>	<b>TOTAL - \$1,000,000</b>
Crow’s Nest	\$1,000,000
<b>Access Development and Infrastructure</b>	<b>TOTAL - \$50,000</b>
Crow’s Nest ( <i>add 2-miles hiking trails</i> )	\$50,000
<b>Start-up Equipment Needs</b>	<b>TOTAL - \$45,000</b>
Vehicles, tractors, mowers, office furnishings, power tools, hand tools, etc	
<b>Annual Operating Needs</b>	<b>TOTAL - \$85,000</b>
<b>Staffing</b>	<b>Sub-total - \$65,000</b>
Crow’s Nest	\$65,000
<b>Non-Personnel Operating</b>	<b>Sub-total - \$20,000</b>

Staffing (salary, benefits & agency support)

Non-personnel operating expenses (gasoline, travel, vehicle maintenance, office leases, equipment and supplies and materials to manage resources and public access at expanded Northern Region Natural Area Preserves per fiscal year (FY).



Tidal Freshwater Marsh along Accokeek Creek at Crow's Nest Natural Area Preserve.



Accessible hand-carry boat launch at Crow's Nest Natural Area Preserve.

## 6.5 Natural Area Preserves - Chesapeake Bay Region

- Natural Area Preserves in the Chesapeake Bay Region of Virginia protect significant coastal habitats including wetland forests and extensive sandy shorelines that provide habitat for colonial nesting birds and an endangered insect, the Northeastern Beach Tiger Beetle.
- Preserve acquisition efforts will focus on adding a key parcel at Hickory Hollow to further protect the existing preserve and its exceptional coastal plain basic seepage swamp forest.
- Additional land at Hickory Hollow will allow expansion of the current hiking trail system at this well-known natural area on Virginia’s Northern Neck.
- Proposed operational funding would provide for a Chesapeake Bay Stewardship Technician, providing a consistent site presence and resource protection at public-access preserves in the Chesapeake Bay Region, with a focus on four preserves on the Northern Neck: Bush Mill Stream, Dameron Marsh, Hughlett Point and Hickory Hollow.

<b>Land Acquisition (Additions to existing preserves)</b>	<b>TOTAL - \$500,000</b>
Hickory Hollow	\$500,000
<b>Access Development and Infrastructure</b>	<b>TOTAL - \$50,000</b>
Hickory Hollow <i>(re-hab and add 1-mile to existing hiking trail system)</i>	\$50,000
<b>Start-up Equipment Needs</b>	<b>TOTAL - \$45,000</b>
Vehicles, tractors, mowers, office furnishings, power tools, hand tools, etc	
<b>Annual Operating Needs</b>	<b>TOTAL - \$85,000</b>
<b>Staffing</b>	<b>Sub-total - \$65,000</b>
Hickory Hollow	\$65,000
<b>Non-Personnel Operating</b>	<b>Sub-total - \$20,000</b>

Staffing (salary, benefits & agency support)

Non-personnel operating expenses (gasoline, travel, vehicle maintenance, office leases, equipment and supplies and materials to manage resources and public access at expanded Chesapeake Bay Region Natural Area Preserves per fiscal year (FY).



Cabin Swamp – a basic coastal plain seepage swamp at Hickory Hollow Natural Area Preserve.



Local volunteers assist DCR stewards with repairs to the boardwalk at New Point Comfort Natural Area Preserve in Mathews County.

## 6.6 Natural Area Preserves - Southeast Region

- The Southeast Region of Virginia protects significant southeastern coastal plain habitats, from old-age cypress-tupelo forests to sandy uplands supporting the last remnants of fire-maintained longleaf pine woodlands and savannas in the state. Extensive wetland complexes in Virginia Beach and Chesapeake provide habitat for a great number of rare plants, as well as public access opportunities along the North Landing River.
- Preserve acquisition efforts will focus on adding a key parcel at South Quay Sandhills to expand longleaf pine restoration and add a unique-to-Virginia public access experience for visitors.
- An additional public access expansion at Chub Sandhill will expand the current hiking trail network and add interpretive information about the fire-maintained longleaf pine ecosystem.
- Proposed operational funding would add three stewardship positions, including an Operations Steward with law enforcement authority. All of these positions would focus on provision of public access, resource protection, and habitat restoration. The Operations Steward would also serve in a law enforcement capacity, allowing DCR to re-open North Landing River Natural Area Preserve.

<b>Land Acquisition (Additions to existing preserves)</b>	<b>TOTAL - \$600,000</b>
South Quay Sandhills	\$600,000
<b>Access Development and Infrastructure</b>	<b>TOTAL - \$320,000</b>
Chub Sandhill ( <i>parking, kiosk, trail</i> )	\$85,000
North Landing River ( <i>rehab, improve and re-open existing access facilities</i> )	\$150,000
South Quay Sandhills ( <i>parking, kiosk, interpretive trail on longleaf pine restoration</i> )	\$85,000
<b>Start-up Equipment Needs</b>	<b>TOTAL - \$45,000</b>
Vehicles, tractors, mowers, office furnishings, power tools, hand tools, etc.	
<b>Annual Operating Needs</b>	<b>TOTAL - \$225,000</b>
<b>Staffing</b>	<b>Sub-total - \$180,000</b>
Chub Sandhill	\$30,000
North Landing River	\$85,000
South Quay Sandhills	\$65,000
<b>Non-Personnel Operating</b>	<b>Sub-total - \$45,000</b>

Staffing (salary, benefits and agency support)

Non-personnel operating expenses (gasoline, travel, vehicle maintenance, office leases, equipment and supplies, and materials to manage resources and public access at expanded Southeast Region Natural Area Preserves per fiscal year (FY)).



Hand-carry boat launch at North Landing River Natural Area Preserve.



Prescribed burning to restore longleaf pine woodlands and savannas on Southeast Region Natural Area Preserves.

## 6.7 Natural Area Preserves - Eastern Shore Region

- The Eastern Shore of Virginia supports remarkable coastal habitats ranging from astounding bayside sand dune complexes with maritime forest communities and pristine Chesapeake Bay shorelines to remote seaside barrier islands supporting among the world’s most important shorebird nesting sites.
- The southern tip of the Virginia Eastern Shore provides critical habitat for migratory songbirds on their long trip south every Fall, when millions of species such as warblers, tanagers and vireos stop to replenish energy supplies before heading across the Chesapeake Bay and onward, to overwinter in Central and South America.
- Preserve acquisition efforts will focus on adding a large key parcel adjacent to Pickett’s Harbor on the bayside to expand DCR’s migratory songbird habitat restoration work and add another Eastern Shore public access experience for visitors. Additional land acquisition at Magothy Bay will further expand the existing songbird habitat restoration project at this seaside natural area.
- Proposed operational funding would provide for an Eastern Shore Stewardship Technician. This position would provide a consistent site presence, habitat restoration, and resource protection at the four existing publically accessible preserves in the region: Savage Neck Dunes, Cape Charles, Magothy Bay and Mutton Hunk Fen.

<b>Land Acquisition (Additions to existing preserves)</b>	<b>TOTAL - \$2,750,000</b>
Pickett’s Harbor	\$2,000,000
Magothy Bay	\$750,000
<b>Access Development and Infrastructure</b>	<b>TOTAL - \$85,000</b>
Pickett’s Harbor ( <i>parking, kiosk, trail</i> )	\$85,000
<b>Start-up Equipment Needs</b>	<b>TOTAL - \$45,000</b>
Vehicles, tractors, mowers, office furnishings, power tools, hand tools, etc.	
<b>Annual Operating Needs</b>	<b>TOTAL - \$87,500</b>
<b>Staffing</b>	<b>Sub-total - \$65,000</b>
Pickett’s Harbor	\$65,000
<b>Non-Personnel Operating</b>	<b>Sub-total - \$22,500</b>

Staffing (salary, benefits & agency support)

Non-personnel operating expenses (gasoline, travel, vehicle maintenance, office leases, equipment and supplies and materials to manage resources and public access at expanded Eastern Shore Region Natural Area Preserves per fiscal year (FY).





Birdwatching within the Magothy Bay Natural Area Preserve songbird habitat restoration area.



Hiking in the Maritime Dune Woodland at Savage Neck Dunes Natural Area Preserve.

## 7 Recommendations and Conclusion

The Board of Conservation and Recreation recognizes that developing the natural area preserve and state park system in Virginia requires a strategic approach, making the best use of taxpayer dollars. As reflected in this report, we have taken a conservative approach that identifies a very limited set of land banked properties and infrastructure enhancements. Consistent with the stated priorities of the General Assembly, the Board of Conservation and Recreation utilized the following criteria in making its recommendations below.

- Priority on development of parks and natural area preserves in areas with limited access to state and regional outdoor recreation facilities, and enhancement of public access opportunities on existing properties in such areas.
- Relative operational costs and staffing needs for any new areas compared to operating and staffing needs at existing state parks and natural area preserves.
- Acquisitions of in-holdings and critical parcels that are adjacent to existing state park and natural area preserves and enhance the resilience of the existing property.
- The value of land acquisitions in protecting significant natural, cultural, recreational and historical resources.
- Potential revenue generation stemming from land acquisition and capital improvements.
- Local and regional demand, as determined by the Virginia Outdoors Plan Survey.

In conclusion, the Board of Conservation and Recreation offers the following recommendations:

**Recommendation 1** – Consider further development of public access facilities, infrastructure improvements, and increased operational funding needed to provide public access at the Gateway to Werowocomoco (Timberneck Unit), Seven Bends, Sweet Run, and Widewater sites. These parks are presently under development or open in a limited capacity, and are primed for immediate public access enhancements. Estimated costs of this recommendation include:

- Additional Annual Operating Costs: \$3.0 million
- Start-Up Equipment Costs: \$1.4 million
- Public Access Infrastructure Development: \$65.0 million

**Note:** Additional development at Seven Bends State Park will not be able to proceed until a new bridge is constructed in order to allow safe access to the site. The cost of construction for a new bridge is not reflected in this report.

**Recommendation 2** – Consider public access facilities, infrastructure improvements, and increased operational funding to enhance public access to the state’s natural area preserve system at the following sites: The Cedars, Pinnacle, The Channels, Redrock Mountain, Buffalo Mountain, Poor Mountain, Deep Run Ponds, Goshen Pass, Hickory Hollow, Crow’s Nest, Chub Sandhill, North Landing River, South Quay Sandhills, and Pickett’s Harbor. This would provide public access to five natural area preserves that currently lack any public access infrastructure, and enhance facilities at nine additional preserves. Estimated costs of this recommendation include:

- Public Access Infrastructure Development: \$1.7 million
- Annual Operating Costs: \$1 million
- Start-Up Equipment Costs: \$590,000

**Recommendation 3** – Consider further development of the Clinch River, Mayo River, Natural Bridge, and Middle Peninsula (Rosewell Unit) sites in the near future. The completion of land acquisitions will be necessary at Clinch River State Park and Mayo River State Park prior to development of public access facilities, infrastructure improvements, and the appropriation of operational funding. Natural Bridge State Park will not come into possession by the Department of Conservation and Recreation until the Virginia Conservation Legacy Fund loan is paid in full. These parks are all presently in some form of the land acquisition phase and not yet owned in full by the Department of Conservation and Recreation, but will have need of funding for public access facilities, infrastructure, and operational costs in the near future. Estimated costs of this recommendation include:

- Additional Annual Operating Costs: \$6.0 million
- Start-Up Equipment Costs: \$2.6 million
- Public Access Infrastructure Development: \$153.2 million

**Recommendation 4** – Consider the acquisition of additional acreage at the following natural area preserves: The Cedars, Unthanks Cave, Pinnacle, Bald Knob, Buffalo Mountain, Difficult Creek, Poor Mountain, Deep Run Ponds, Crow’s Nest, Hickory Hollow, South Quay Sandhills, Pickett’s Harbor, and Magothy Bay. The additional acreage has been identified as immediately beneficial for acquisition, are adjacent to existing natural area preserves, enhance the resilience of the existing property, protect significant natural resources, are in high demand areas for outdoor recreation, and come with relatively low operational cost and staffing needs. Estimated costs of this recommendation include:

- Land Acquisition at Natural Area Preserves: \$23.4 million

**Note:** The total acquisition cost for natural area preserves assumes an average cost per acre of \$3,376 per acre, with the understanding that per-acre costs will vary depending on the geographic location of the tracts under consideration and current market conditions. Actual acquisition costs will be determined at the time of sale by an appraisal that meets certain standards set by the Code of Virginia and the Department of General Services. Please note that these acquisitions can be funded through a variety of sources including federal and state grants, the Virginia Land Conservation Foundation, mitigation agreements, donations, or fee simple purchases.

**Recommendation 5** – Consider the acquisition of additional acreage at the following state parks: Caledon, Fairy Stone, High Bridge Trail, Hungry Mother, James River, Lake Anna, Mason Neck, New River Trail, Sailor’s Creek Battlefield, Shenandoah River, Southwest Virginia Museum, Staunton River, Westmoreland, Wilderness Road, and York River. These targeted acquisitions at 15 parks have been narrowed from a list of more than 100 parcels, and the additional acreage has been identified as being immediately beneficial to the state park system. These parcels are within the same management areas and frequently adjacent to existing state parks, enhance the resilience of the existing properties, protect significant natural and cultural resources, have the potential to enhance revenue, and are generally located in high demand and low-availability areas for outdoor recreation opportunities. Estimated costs of this recommendation include:

- Land Acquisition at State Parks: \$22.1 million

**Note:** The total acquisition cost for state parks assumes an average cost per acre of \$6,190 per acre, with the understanding that per-acre costs will vary depending on the geographic location of the tracts under consideration and current market conditions. Actual acquisition costs will be determined at the time of sale by an appraisal that meets certain standards set by the Code of Virginia and the Department of General Services. Please note that these acquisitions can be funded through a variety of sources including federal and state grants, the Virginia Land Conservation Foundation, mitigation agreements, donations, or fee simple purchases.