



Natural Bridge State Park
6477 South Lee Highway (United States Route 11)
Natural Bridge, VA 24578

Natural Bridge State Park

MASTER PLAN EXECUTIVE SUMMARY

2021



Department of Conservation and Recreation
Division of Planning and Recreation Resources
600 East Main Street, 24th Floor
Richmond, Virginia 23219

NATURAL BRIDGE STATE PARK

Master Plan Executive Summary December 2021

Virginia Department of Conservation and Recreation

The Department of Conservation and Recreation (DCR) is the state's lead natural resource conservation agency. DCR protects what Virginians care about - natural habitat, parks, clean water, dams, open space and access to the outdoors.

What We Do

DCR enables and encourages all people to enjoy and benefit from Virginia's natural and cultural resources.

What We Value

DCR values diversity of nature, culture and communities to ensure a sustainable and equitable future for recreational access and a healthy environment for all Virginians to enjoy.

Park Purpose Statement

The purpose of Natural Bridge State Park is:

“To protect one of Virginia's unique natural features, the Natural Bridge; connect visitors to our storied past; demonstrate ecologically sound management; offer a range of outdoor recreation opportunities; and work across sectors to promote this premier destination.”

Introduction

Natural Bridge, located in Rockbridge County south of Lexington, Virginia, was privately owned for more than 200 years and a desired travel destination since the 18th-century. In 2014 the property was subdivided; citizens of the community then organized to keep the site as a public destination. Virginia Conservation Legacy Fund (VCLF) using a loan from the Virginia Resources Authority purchased the property in order to protect it. Once the loan is repaid, a portion of the land acquired will be donated as a state park; while the hotel and caverns area will be retained and managed by private partners. Natural Bridge was officially declared a State Park on September 24, 2016, when DCR took over management of approximately 1,500 acres. It provides access to the bridge and the surrounding property, including the unique environment along Cedar Creek.

State Park Master Plan Process

This executive summary of the master plan for Natural Bridge State Park (NBSP) was developed in accordance with [Article XI Conservation of the Constitution of Virginia](#) and the Code Section for state park master planning set forth in [§10.1-200.1 of the Code of Virginia](#) and Chapter IV of the Virginia Capital Outlay Manual. The master plan guides the future of the park’s development and management.

The Master Plan process took approximately five years, including a series of advisory committee and public input meetings. The advisory committee, comprised of area residents, adjacent landowners, government officials, outdoor recreation user groups, and local businesses, helped craft the publically accepted park purpose statement, goals and proposed facilities.

During the planning process, which included a design charrette, committee members expressed major concerns for the long-term viability of the bridge as both a natural form and base for a federal highway. The Virginia Department of Transportation (VDOT) conducted a thorough study and recommended ultimately relocating the highway, although the bridge is stable and could still be used in the interim. An extensive study of alignment alternatives was then conducted, which informed the placement and phasing of park facilities. The final steps are: a public review at the Board of Conservation and Recreation, a 30 day review by the General Assembly, adoption by the Director of DCR, and online posting of the NBSP Executive Summary.

Existing Conditions

The NBSP park property is bisected by State Route 130 and US Route 11, a bypass route for Interstate 81 during high traffic or emergency incidents. The population growth in the area is stable. Douthat State Park is the closest state park is over 45-minutes away, and there is no other state park within an hour’s drive of NBSP. The [2018 Virginia Outdoors Survey](#), identified the most needed outdoor recreation opportunities near NBSP in Region 6 – Central Shenandoah – as access to natural and historic areas, parks and trails.

Land and Water Conservation Fund

There were no federal Land and Water Conservation Funds (LWCF) used to acquire or develop Natural Bridge State Park; thus there are no Section 6(f) restrictions on the property. When the property is finally transferred to the state as a park, there may be deed restrictions.

Attendance, Economic Impact and Park Revenues

The table below depicts total park attendance during the period from 2016 through 2020.

Park Visitation – Natural Bridge State Park (Calendar Year¹)

2016 ²	2017	2018	2019	2020
45,869	182,558	172,713	188,677	182,212

In 2020, the park had only day use visitors. NBSP visitation is becoming increasingly popular both for local students and residents, as well as ‘out of town’ visitors. With this level of visitation, it is estimated that the park had an economic impact on the local economy in 2020 of

¹ Note that the calendar year ends 6 months after the fiscal year.

² Calendar year attendance was from September to December, 2016

approximately \$6.9 million generating approximately 95 jobs³.

Special Conditions and Partnerships

NBSP has several affiliations and partnerships that help provide high-quality visitor experiences.

National Park Service Affiliated Site: When Natural Bridge was designated a state park it became the 37th Virginia State Park and the 25th National Park Service (NPS) Affiliated site.

“The Affiliated Areas comprise a variety of locations in the United States and Canada that preserve significant properties outside the National Park System. ... All draw on technical or financial aid from the National Park Service.”⁴

Being a NPS affiliate facilitates technical support from Shenandoah National Park, including staff to the master plan advisory committee and an increase in dialog on common issues.

Natural Bridge Historic Hotel and Conference Center (private): The Hotel has long been associated with the Natural Bridge, although each organization operates independently, but continue to rely upon each other. The Caverns at Natural Bridge (owned by American Conservation Legacy Fund (ACLF)) offer additional education opportunities and usually partner with the park when school groups visit for educational field trips. At this time, the hotel management is responsible for water and sewer treatment and charges the park for these services. Electricity is provided by a private power grid owned and operated by hotel management.

Lexington-Rockbridge Tourism: Park Staff work closely with Lexington-Rockbridge Regional Tourism. The Tourism office has a welcome desk in the lobby of the Visitor Center, which is beneficial to the park and is staffed by their travel counselors.

United States Postal Service: Housed in a basement office of the Visitor Center is the Natural Bridge Post Office. The Postal Service rents the space from the hotel management. . The Post Office’s water, sewer and power are not separated from the park’s visitor center.

Existing Facilities

The largest existing park facility is the approximately 50,000 square foot visitor center building (previously referred to as the Rockbridge Center), which serves as the gateway to the Bridge. The building is also used for park offices, visitor services, retail sales, and education programs. The third floor and partial basement that are underutilized. In front is a 200-car parking lot that provides access to the park.

Along the trail to the Bridge is the Cedar Creek Pavilion that houses a small trail store, restrooms, covered patio with tables and chairs, and a small upstairs apartment. Other buildings on site are the sewage treatment plant [managed by hotel management], museum building [to be torn down eventually], two residences, skating rink building and an old dairy barn. There are about eight miles of trails throughout the park. The recently developed Blue Ridge Trailhead has limited parking and portable toilet. A macadamized trail along the Cedar Creek provides access to the Bridge, fishing areas, Lace Falls, Saltpeter Cave, and the Monacan interpretive area. A Children’s Discovery Area provides opportunities for free play along Golf Course Road.

³ Reported in the Virginia State Parks Economic Impact Report 2020

⁴ The National Parks: Index 2012-2016, page 118

Resource Management Plan

The park resource management plan consolidates all known resource information and establishes the park's Desired Future Conditions. The plan identifies the physical, abiotic, and biotic characteristics of the park, along with historic and archaeological resources, and the legal constraints and limitations of the property. The plan defines management objectives and action recommendations that guide resource management over time. The resource inventory determines what development the property can carry, without developing over 15 percent of the total acreage. The full resource management plan has not been completed.

NBSP is mostly undeveloped, except for approximately 10 acres around the visitor center and the Bridge. The remaining property consists of altered landscapes of open fields and secondary growth, four vegetative community ecosystems and two significant communities: Appalachian Sugar Maple - Chinquapin Oak - Eastern Red Cedar Forest and Southern Appalachian Limestone Rich Cove Forest.

The Natural Bridge State Park boundaries intersects the Natural Bridge Conservation Site, the Natural Bridge East Slopes Conservation Site, the Natural Bridge West Slopes Conservation Site and the Natural Bridge Slopes South. These conservation sites indicate a landscape that supports key habitats and natural heritage resources and are given a significance ranking based on the rarity, quality, and number of element occurrences they contain: on a scale of 1-5, 1 being most significant. The Natural Bridge Conservation Site has been given a biodiversity ranking of B2, which represents a site of very high biodiversity, the Natural Bridge Slopes West and the Natural Bridges Slopes South have a biodiversity ranking of B3 (high biodiversity significance) and the Natural Bridge Slopes East has a biodiversity ranking of B4 (moderate biodiversity significance).

The park is host to a large number of rare plant and animal species, including several rare and endangered cave, groundwater, and spring species. The park has a thriving population of the Alleghany Woodrat (*Neotoma magister*). Invasive exotic plants abound throughout the park with two particularly problematic species: Autumn-olive and Tree of Heaven.

The park contains four dams – two on Cedar Creek and two that create small ponds. Studies have made recommendations to repair each of the dams.

Cultural resource management is primarily focused on existing facilities and the history of the Bridge. The park has two historic listings within its boundaries. The Natural Bridge is listed as a Virginia Landmarks Register (VLR), a National Register of Historic Places (NRHP) and a National Historic Landmark. The Natural Bridge Historic District, which is a larger area around the bridge, received VLR and NRHP listings.

Visitor Experience Plan

The visitor experience plan (VEP) is a conceptual plan that identifies the stories for interpretation and education, while addressing all the elements affecting the visitor experience. The VEP includes the following major stories: Natural Bridge as a National Historic Landmark, often dubbed one of the seven natural wonders of the world; Monacan Exhibit; Dark Skies; Caves and Karst Lands; and natural resources of the park and nearby areas.

Business Plan

The purpose of the business plan is to develop realistic annual expectations of revenue and expenditure at NBSP, including operations, and development of the park's resources. The park's revenues and expenses have met the initial business plan's projections. Current revenue and

expenditure trends can be anticipated to continue into the near future. A revised business plan will be developed by in 2022.

Site Planning Factors

The following contributing factors help guide the park development and phasing.

Connectivity

This master plan places value on connecting NBSP to other resources in the community. The park is not far from multiple tourist recreation routes, state public lands, a variety of trails for different users, and federal recreation lands and areas. Several historic attractions, universities and local attractions exist in Lexington, Buena Vista and Glasgow. The Natural Bridge State Park Regional Connectivity Map is an attachment to the full Master Plan document.

Americans With Disabilities Act (ADA)

To the greatest extent possible, Virginia State Parks strive to meet the requirements of the Americans with Disabilities Act (ADA) standards for onsite and building development.

Land Acquisition/Viewshed Protection

Additional land acquisition is recommended to enhance park offerings, establish connective trail easements/corridors, buffer the park from inappropriate development and/or protect valued viewsheds. Future land acquisitions or conservation easements will only be negotiated with willing property owners. In working cooperatively with neighboring landowners, the park will be enhanced and protected over time.

Environmental/Design Guidance

New facilities and improvements are sited to minimize impact to the park, and in keeping with the management goals of the Desired Future Conditions, the Park Visitor Experience Plan and local state and federal development guidelines. These include best management practices requirements of the Department of Environmental Quality and limiting development on slopes greater than 20%. Design and construction of new facilities will consider existing natural and historic resources; with careful siting to minimize visual impacts. As an International Dark-Sky Association (IDA) site the park will follow all recommended IDA guidelines.

Building and site design and construction will implement green energy standards to the greatest extent possible. A development setback guideline of 100 feet from the shoreline has been established for trails and other water dependent facilities. Overuse and crowded conditions will require management and development considerations to protect the resources and the quality of the park experience.

Master Plan and Map description

The master plan map proposes locations for facilities within full build out of the park. See attached Master Plan Map with proposed items in red. Proposed park facility development includes day-use, overnight and trail facilities. New and renovated facilities are prioritized in our phased development plan based on three guiding principles -- Phase I -Protect the Bridge, Phase II - Celebrate the Bridge in community and Phase III – Experience the Bridge – it’s a Park.

Phased Development Plan

Completion of all of the projects in this master plan list will represent total park build-out and covers an approximately 30-year timeframe. The phasing costs are based on 2021 cost estimates.

Phase I includes basic infrastructure and renovations. Phase II will focus on developing facilities that enhance the visitor experience with some overnight facilities. The final phase will focus on enhancing activities for visitors.

The VDOT Natural Bridge Study recommended realignment of Route 11 off the Bridge. Park renovations and construction should not begin in affected areas before the realignment of Route 11 near Golf Course Road and crossing Cedar Creek downstream of the Bridge.

- NBSP Phase I - Protect the Bridge (VDOT) - Upgrade drainage/develop alternatives for Route 11.
- Renovate Rockbridge Center (RBC) – as discovery center with meeting facilities, exhibit and retail space, administration and snack bar. Convert of underutilized spaces and complete utility renovation/replacement.
- Renovate Cedar Creek Pavilion and staff residence.
- Develop a Maintenance Area with shop and storage facility near the renovated barn.
- Construct restrooms and picnic area with small shelter at Blue Ridge Trailhead.
- Create detailed site design plan to upgrade parking and access sequence; including upgrades to vehicular circulation to and through the park. Include - a stronger front door appearance, removal of museum building, re-work parking and add an attractive trail connection to the Bridge.
- Upgrade dams: remove lower, high hazard dam; lower Turner Pond dam; repair Cedar Creek dam.
- Develop trailhead access at Buck Hill to include parking

The total cost for Phase I is \$43,517,125

NBSP Phase II – Celebrate the Bridge in community

- Construct a new more park like visitor center entrance facade sequence.
- Remove Wax Museum and concrete amphitheater near Monacan Village.
- Construct additional parking for up to 250 cars and RVs and upgrade satellite parking.
- Construct an attractive trail to connect to the Bridge and provide shuttle or other ADA access to the Bridge.
- Construct new Staff Residence and demolish temporary staff residence
- Develop a small shelter on north side of Golf Course Road, as well as a large shelter with catering kitchen, picnic facilities, restrooms and parking.
- On the south of Golf Course Road create a trailhead and discovery area with parking, restrooms and a group camp.
- Construct a campground [non- RV] with yurts south of Route 130.
- Add shelter to Blue Ridge Trailhead.
- Develop a mountain bike area on the north side of Route 130.

The total cost for Phase II is \$14,173,920

NBSP Phase III – Experience the Bridge – It’s a Park

- Provide picnic area near mountain bike area on the north side of Route 130 in the park; include restrooms and water.
- Add a contact station at Golf Course Road and one along Route 11 near Buck Hill Road.
- Develop primitive camping with designated sites and a vault toilet above Blue Ridge Trailhead.

The total cost for Phase III is \$4,868,370

The total cost to bring Natural Bridge State Park to its desired condition is \$62,559,415.

Staffing and Operations

Staffing and operational costs for the new Natural Bridge State Park are based on fiscal year 2021 budget projections. Each development phase has specific staffing needs and operational costs. In addition, each phase will have one-time expenses for vehicles and other equipment associated with new staff and facility operations.

Staffing and operational costs at Natural Bridge State Park are presently budgeted at \$1,606,432 annually, including salaries for 9 staff positions. With the current facilities and operational requirements, two additional positions are needed along with \$140,034 in additional funding. In order for the park to operate effectively and efficiently, the park must be provided the projected staffing and operating costs identified for the three development phases. The total budget for Natural Bridge at full build out is projected to be \$2,071,258 with 13 staff positions.

Natural Bridge State Park – Operating and Staffing					
EXISTING (FY21)	STAFFING MATRIX*	PHASE 1	PHASE 2	PHASE 3	FULL BUILD OUT
STAFFING					PARK STAFFING
Park Manager					Park Manager
Asst. Park Manager					Asst. Park Manager
Chief Ranger					Chief Ranger
Chief Ranger - Visitor Experience					Chief Ranger - Visitor Experience
Park Ranger (3)	Park Ranger (2)		Park Ranger		Park Ranger (6)
Business Manager					Business Manager
Office Manager					Office Manager
		Food Service Manager			Food Service Manager
SALARY TOTAL					SALARY TOTAL
\$529,632	\$140,034	\$70,017	\$70,017		\$739,683
WAGE TOTAL					WAGE TOTAL
\$421,000		\$25,910	\$27,243	\$27,487	\$501,636
OTPS TOTAL					OTPS TOTAL
\$655,800		\$81,564	\$19,291	\$9,263	\$756,918
TOTAL BUDGET					TOTAL BUDGET
(FY21 dollars)					(FY21 dollars)
\$1,606,432	\$177,491	\$107,474	\$116,551	\$36,750	\$2,071,258

NOTE – All costs (salary, wage, OTPS (Other than Personnel Services)) are based on FY21 budget projections.

* The state park staffing matrix identifies the staffing complement of a park based on size and resources, number and type of facilities, as well as types of programming and activities. The staffing complement will be re-evaluated with the addition of new facilities.



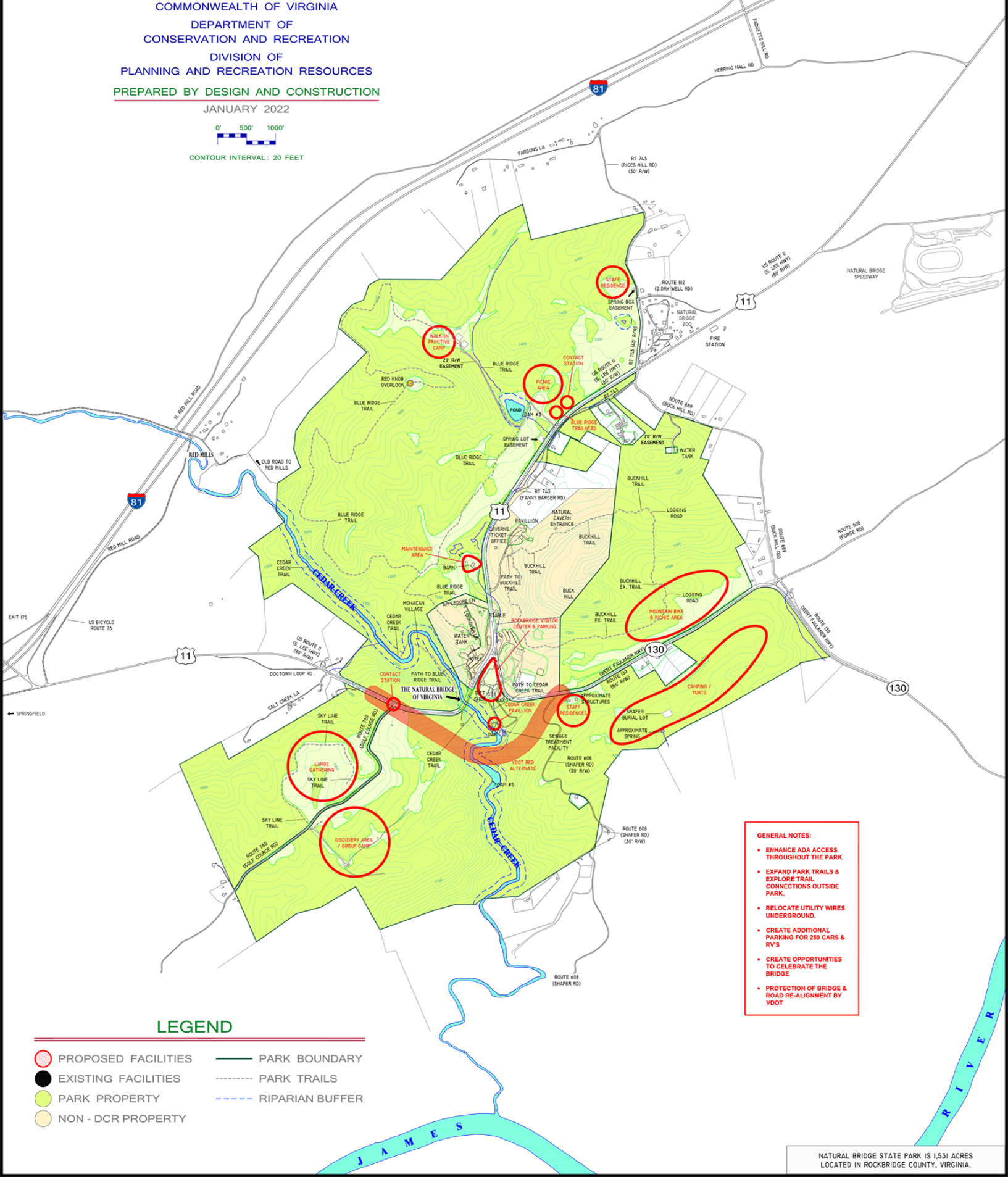
MASTER PLAN FOR NATURAL BRIDGE STATE PARK

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF
CONSERVATION AND RECREATION
DIVISION OF
PLANNING AND RECREATION RESOURCES
PREPARED BY DESIGN AND CONSTRUCTION

JANUARY 2022

0' 500' 1000'

CONTOUR INTERVAL : 20 FEET



LEGEND

- PROPOSED FACILITIES
- EXISTING FACILITIES
- PARK PROPERTY
- NON - DCR PROPERTY
- PARK BOUNDARY
- - - PARK TRAILS
- - - RIPARIAN BUFFER

- GENERAL NOTES:**
- ENHANCE ADA ACCESS THROUGHOUT THE PARK.
 - EXPAND PARK TRAILS & EXPLORE TRAIL CONNECTIONS OUTSIDE PARK.
 - RELOCATE UTILITY WIRES UNDERGROUND.
 - CREATE ADDITIONAL PARKING FOR 250 CARS & RV'S
 - CREATE OPPORTUNITIES TO CELEBRATE THE BRIDGE
 - PROTECTION OF BRIDGE & ROAD RE-ALIGNMENT BY VDOT