

Virginia Department of Conservation and Recreation

# CLINCH RIVER STATE PARK COMPREHENSIVE MASTER PLAN

April 2023





CLINCH RIVER STATE PARK COMPREHENSIVE MASTER PLAN

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Virginia Department of Conservation and Recreation

Reviewed by the Board of Conservation and  
Recreation on June 30, 2023

Adopted:

A handwritten signature in black ink, appearing to read "Matthew S. Wells", written over a horizontal line.

9-6-2023

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Matthew S. Wells, Director, Department of Conservation and Recreation

Date

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## EXECUTIVE SUMMARY

Clinch River State Park is the first blueway state park in Virginia, envisioned as a “string of pearls” of park anchor properties and recreational support sites along the Clinch River from the town of Tazewell to the Tennessee state line, 140 miles downstream. The region is rich in the cultural history of indigenous peoples and European-descendant settlers, and the river is one of the most biodiverse rivers in all of North America. It is home to 46 different species of mussels and over 100 species of fish. Rare and endangered species abound here, with the river sustaining 48 imperiled and vulnerable animal species. Rare plants, mammals, and birds also thrive along the river’s edge. This state park will conserve these natural, scenic, history, and cultural resources, and provide recreational and educational opportunities for the public to engage with and appreciate them for generations to come.

The Virginia Department of Conservation and Recreation (DCR) currently owns several properties that form units of the Clinch River State Park, including two anchor units, the Artrip Bent Unit, 232 acres of undeveloped land in Russell County, and the Sugar Hill Unit, 408 acres in Wise County adjacent to the town of St. Paul and open to the public with hiking trails, picnic shelter, and over 2 miles of river frontage. There are three smaller river access units between the two anchor properties, the Artrip launch site, the Carbo launch site, and the Old Castlewood launch site.

### PURPOSE OF THE COMPREHENSIVE MASTER PLAN

The purpose of this comprehensive master plan is to create a framework document for the development and operation of the Clinch River State Park. This report defines the park’s purpose, goals, and objections and provides direction for the construction, expansion, and operation of the park over the next 30 years. The comprehensive master plan also develops a framework for the acquisition and development of future sites along the Clinch River. Site development plans and operational recommendations based on market studies, public input, and a business plan developed for the park.

This comprehensive master plan is in accordance with §10.1-200.1 of the *Code of Virginia*, which requires all state parks to adopt a master plan, following certain standards. Per code mandate, maps and narratives were prepared from the park units, showing existing natural, physical, cultural, and historic attributes. The park purpose statement and goals and objectives were defined and a development plan was created, showing facility types and locations on site, and operational and construction cost projections are included. As required by code, the plan was developed in stages, inviting input from an Advisory Committee and the general public at key intervals from the initial development of the purpose statement through the park development plan. As well as meeting state code standards, this comprehensive master plan includes an additional market study and business operations plan.

### CLINCH RIVER STATE PARK PURPOSE STATEMENT AND GOALS

The process for developing the comprehensive master plan included the development of a park purpose statement and goals and objectives. These were developed with input from DCR staff, stakeholder members of the Advisory Committee, and the general public. The purpose statement, goals, and objectives serve as the guiding force for the creation of the comprehensive master plan.

## CLINCH RIVER STATE PARK PURPOSE STATEMENT

*“Clinch River State Park is envisioned as a string of pearls along the ecologically significant Clinch River, providing opportunities for all for recreation and education that connects visitors to the environmental and cultural significance of the river and the region, conserving and enhancing sensitive resources, and fostering connections within and between adjacent communities.”*

## CLINCH RIVER STATE PARK GOALS

- Goal 1.0 – Protect, conserve, and enhance the natural, scenic, cultural, and historic resources of the park.
- Goal 2.0 – Create a welcoming and safe experience for all.
- Goal 3.0 – Provide a range of overnight and day use opportunities and facilities for visitors to the park.
- Goal 4.0 – Provide facilities and programs for environmental, cultural, and historical education and interpretation.
- Goal 5.0 – Work across sectors to provide mutually beneficial efforts to enhance the Clinch River and the surrounding region.
- Goal 6.0 – Administer and manage the park in a professional and transparent manner which fosters the public’s trust.

## COMMUNITY INPUT

Public involvement in the design and development of a state park master plan is essential. As required in the state code, the community was invited to participate in the development of the comprehensive master plan at key stages in the process. An Advisory Committee was assembled of 30 members representing 20 organizations in the Clinch River region, encompassing a wide range of perspectives and representing the general public. The Advisory Committee was involved at every stage of the master planning process, meeting three times to review and share ideas about park goals, programming, site design, and overall park master plan framework.

Several opportunities were made available to the general public throughout the process to provide opinions regarding the needs and design of Clinch River State Park, including an online program needs survey, a virtual public meeting in December 2021, an in-person meeting in February 2022, and online comment periods for 30 days following each public meeting. More than 150 members of the public shared their input, including 170 respondents to the survey, more than 40 attendees at the meetings, and over 40 comments submitted online.

The public is strongly supportive of the development and expansion of Clinch River State Park. The park’s creation was from a grassroots effort, and public support remains high. There were several themes that arose during the community input process, which are outlined below.

- **Environmentally Sensitive Design:** The public consensus was that the site should be developed in an environmentally sensitive way that prioritizes natural resource conservation and enhancements, access to the Clinch River, and the natural beauty, solitude, and views of the site. Amenities that have a heavy impact on the site or other people’s peaceful enjoyment of the site

were not felt to be appropriate, like a pool or ATV trails. There was also concern that the construction and usage of the park not degrade the site's value, either through harm or disturbance of rare or sensitive environmental areas in construction or the park being "loved to death" with a quantity of visitors higher than the site's capacity.

- **Inclusive Variety of Recreational Opportunities:** The public is interested in a park that serves a wide variety of users, including day-use visitors, overnight visitors, and area residents. They are looking for a wide variety of recreational opportunities for people with differing interests and abilities, with emphasis on ADA accessible features, water access, trails, and overnight facilities.
- **Integrate with the Surrounding Community:** There is strong support for the park to integrate with the surrounding communities. The public sees the park as an opportunity to generate more visitation to the area, which would provide economic support to the surrounding area and businesses. Participants hope the park will encourage and support economic development and local businesses.

## DEVELOPMENT PLAN

Clinch River State Park is unique as the first blueway state park in Virginia. The park will ultimately consist of a series of sites stretching 140 miles along the Clinch River. This situation requires an alternative master plan strategy than the standard site-specific park design and operation model in place in existing state parks. The plan for the blueway state park considers the development of existing park units, while also planning for the acquisition and develop of future properties. Some large properties, or anchor units, will operate similarly to standard state parks, with the types of amenities and services commonly seen in state parks. Other smaller, support properties will function as a chain of pearls supporting the Clinch River experience. A framework plan outlines the future acquisition and development of sites along the Clinch River, providing general locations, types of properties, services at the sites, and potential operational strategies. Specific site master plans were developed for the two anchor units currently part of the park, the Artrip Bent and Sugar Hill units. The plans show the types, quantities, and locations of amenities, facilities, and infrastructure on the tracts.

## FRAMEWORK PLAN

The park will offer a variety of experiences along the river, with a series of facilities to support day and overnight trips from the town of Tazewell 140 miles to the Tennessee state line. Clinch River State Park provides consistent and standardized river access and support facilities through a network of river access and amenity sites. Some of the sites are owned by DCR and others owned by other agencies or public entities and managed in partnership with DCR to create the Clinch River experience. Large properties with diverse recreational offerings will serve as anchor properties for this river-based state park, with smaller sites providing water access, visitor day-use support, and overnight paddler camping opportunities.

The Comprehensive Master Plan includes mapping of the entire 140 mile length, showing existing access facilities and identifying general locations of potential new facilities to fill in service gaps and provide amenities to facilitate multi-day paddles. The potential site access locations are recommendations based on generalized float times and previous DCR river site analysis. Site investigation will be required to select potential parcels and determine suitability.

Different types of facilities are proposed along the length, serving the needs of day use paddlers, overnight paddlers, and visitors to the region. Overnight paddler camping sites, or Level 1 sites, are spaced a maximum of 11 river miles apart, or a 5.5-11 hour float time, with day use support facilities, or Level 2 sites, accessible to the paddlers spaced approximately every 3 miles, or a 1.5-3 hour float time. Anchor properties are located along or near the river, serving as hubs for visitor orientation and providing a set of expanded services and experience opportunities.

The characteristics, purpose, and amenity standards of each type of site development type are outlined below.

### **Anchor Properties**

*(250+ acres, located as opportunities arise to share a unique experience or aspect of the Clinch River)*

Anchor properties serve as hubs for the Clinch River State Park. They are large properties developed to offer a range of recreational opportunities and services for day and overnight visitors. Their locations should be site opportunity-based, show-casing a unique physical, ecological, or cultural experience or aspect of the Clinch River. Standard recreational amenities would include visitor contact and information stations, a variety of overnight facility types, water access with canoe/kayak launches, picnic facilities, trails, and vehicular access and camping. Optional amenities might include event spaces, gift shop, camp store, or a playground.

### **Level 1: Overnight River Support Site**

*(2-10 acres, 11 river miles maximum spacing)*

Level 1 sites are developed to facilitate and serve the needs of visitors on overnight paddle trips, providing water access and overnight camping facilities, as well as providing interim resting points for day-users. Sites may be accessible by the public from only the river, but if the opportunity is available, vehicular access should also be provided, creating a river put-in/take-out point. Depending on the site's size, public use levels, and features, additional amenities beyond those related to overnight camping could be installed, like interpretive signage, trails, or picnic shelters. The sites can be developed and managed by DCR or in partnership with another agency or public entity.

### **Level 2: Day-Use River Support Site**

*0.5-5 acres, 3 river mile maximum from another support site*

Level 2 facilities are developed to serve as interim rest and support locations for paddlers on the Clinch. Sites would include take-out facilities, picnic sites, and restroom facilities at a minimum, with additional day-use amenities provided as appropriate. The primary user group is paddlers, so sites may be accessible by the public from only the river. If the opportunity is available, vehicular access should also be provided, creating a river put-in/take-out point. The sites can be developed and managed by DCR or in partnership with another agency or public entity.

## **SITE MASTER PLANS**

Site master plans were developed for the two anchor properties currently within Clinch River State Park, the Artrip Bent Unit, 234 acres in Russell County, and the Sugar Hill Unit, 462 acres in Wise County. The site master plans show the different types of amenities and their locations on each site. The site master

plans were developed based on the characteristics of the site, as well as a market study of the region and anticipated visitors, and input from the Advisory Committee and public. An analysis of the physical, environmental, cultural, and historical qualities of the site, using survey data, Geographic Information Systems (GIS) mapping data, and observations made during site visits, resulted in an opportunities and constraints map for each unit. The site master plans respond to each site's features and capacity, creating a layout that enhances the unique character of each unit. The market analysis finds there is strong market potential for camping and improved accommodations based on service market characteristics and similar service provider analysis. The projected annual visitation to the Clinch River State would be between 25,000-32,000 visitors, including day and overnight use. The amenity types and quantities included in the site master plans were refined to match the projections from the market study.

### **Atrip Bent Unit**

The character of the Atrip Bent Unit is planned as remote, rural, and scenic, matching the preliminary analysis of the site. The development of the property is planned to promote and enhance this character for visitors, creating lower visual and site impact opportunities for day-use and overnight-visitors to explore and experience the site. There will be a walk-in camping, tent pad camping, and yurts available, as well as hiking trails and interpretive sites. Views within the site and to the surrounding area are maintained, with most of the existing pasture being converted to managed native meadow.

The following features are planned elements of the park's development:

- Walk-in tent camping sites (8)
- Tent camping pad sites (13)
- Yurts (4)
- Hiking trails
- Interpretive areas
- Historic sites
- Bathhouses (2)
- Vault Toilet
- Picnic shelters (2)
- Comfort stations (2)
- Contact station
- Ranger residence
- Maintenance facility
- Roads and parking
- Signage: entry, wayfinding, interpretive
- Managed native meadows
- Re-established wetlands
- Managed successional forest
- Mature forest

### **Sugar Hill Unit**

The Sugar Hill Unit is planned as active and accessible, with development clustered to avoid sensitive environmental areas. This matches the preliminary analysis of the site. The property is planned as the key regional hub for this section of the Clinch River State Park, with a visitors center, multiple types of overnight facilities including RV sites and cabins, river access, and a variety of other recreational opportunities for day and overnight visitors, like trails, picnic facilities, and playgrounds.

The unit's development offers a wide array of services and recreational opportunities, while conserving the ecological and natural features of the site. Most of the site's mature forest will be preserved, as will the views down the south slope of the site across the managed meadow. Access to additional views on the sites will be created through road and trail connections.

The following features are planned elements of the Sugar Hill Unit's development:



- Paddle-in tent camping sites (5)
- Walk-in tent camping sites (4)
- Tent camping pad sites (23)
- Group camping sites (2)
- RV camping sites (35)
- Yurts (4)
- Cabins (15)
- 6-Bedroom lodge (1)
- Hiking trails
- Mountain biking trails
- Accessible trails
- Canoe/kayak launch
- Visitor Center (with gift shop, offices, and meeting space)
- Camp store
- Playground
- Interpretive areas
- Historic sites
- Comfort stations (1)
- Bathhouses (4)
- Vault toilets (2)
- Picnic area
- Picnic shelter (1)
- Multi-purpose shelter
- Signage: entry, wayfinding, interpretive
- Contact station
- Ranger residence
- Maintenance facility
- Roads and parking
- Truck and trailer parking
- Managed native meadow
- Mature forest

## PHASED DEVELOPMENT PLAN

The development of Clinch River State Park will occur over approximately 30 years in a phased approach that supports the ability to launch two separate but linked park units in a thoughtful and strategic manner. The current strategy is to develop the park in four primary phases:

- **Acquisition Phase** (current)
- **Development Phase 1** - initial park infrastructure and activation of day-use areas at Sugar Hill Unit, basic infrastructure at Artrip Bent Unit. Any development at the Artrip Bent Unit will not begin until all acquisition work at this site is complete.
- **Development Phase 2** - initial overnight accommodations at Sugar Hill Unit, expanded day-use area development at Artrip Bent Unit.
- **Development Phase 3** – expansion of overnight accommodations and day-use areas at Sugar Hill Unit, overnight accommodations at Artrip Bent Unit.

These development phases do not have specific timelines associated with them as they will largely be pursued as capital funding is available. Note that Phase 1 is solely the development of basic infrastructure and that which supports day-use of the park. Overnight accommodations are projected to be developed in Phases 2 and 3.

Below is a more detailed description of the planned improvements and estimate of probable construction cost for each.

<p style="text-align: center;"><b><u>Phase 1</u></b></p> <ul style="list-style-type: none"> <li>• <u>Sugar Hill Unit:</u> Entrance road, utilities, Contact Station, Visitor Center, maintenance shop, trails, boat launch, picnic shelters (2), staff residence.</li> </ul> <p><b>Cost: \$23,660,000</b></p> <ul style="list-style-type: none"> <li>• <u>Artrip Bent Unit:</u> Entrance road, payment station, maintenance yard, staff residence.</li> </ul> <p><b>Cost: \$9,170,000</b></p>	<p style="text-align: center;"><b><u>Phase 2</u></b></p> <ul style="list-style-type: none"> <li>• <u>Sugar Hill Unit:</u> Variety of camping types (30-37 sites), yurts (4), picnic shelter (1).</li> </ul> <p><b>Cost: \$6,540,000</b></p> <ul style="list-style-type: none"> <li>• <u>Artrip Bent Unit:</u> Contact Station, picnic shelters (2), comfort stations (2), utilities, trails.</li> </ul> <p><b>Cost: \$3,200,000</b></p>	<p style="text-align: center;"><b><u>Phase 3</u></b></p> <ul style="list-style-type: none"> <li>• <u>Sugar Hill Unit:</u> RV campground (20-25 sites), cabins (12-15), lodges, group campsite, final utility needs.</li> </ul> <p><b>Cost: \$19,380,000</b></p> <ul style="list-style-type: none"> <li>• <u>Artrip Bent Unit:</u> Campgrounds (18-22 sites), yurts (4), bathhouses (2), final utility needs.</li> </ul> <p><b>Cost: \$5,370,000</b></p>
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<b>TOTAL ESTIMATE OF PROBABLE CONSTRUCTION COST, ALL PHASES *</b>	
Artrip Bent Unit	\$17,740,000
Sugar Hill Unit	\$49,580,000
<b>TOTAL</b>	<b>\$67,320,000</b>

*\*Note: This estimate is given in 2023 dollars. If any part of construction is done in subsequent years, costs may no longer be accurate. Cost include labor, materials, overhead, sitework & mobilization, A/E fees, and contingency, and are at an order of magnitude.*

In the near term, there are four top capital development priorities that have been identified, to increase visitor services and create the opportunity for an overnight float between the two anchor units.

**TOP CLINCH RIVER STATE PARK CAPITAL DEVELOPMENT PRIORITIES**

1. Conduct acquisitions on existing anchor properties.
2. Phase 1 development of Sugar Hill and Artrip Bent Unit anchor properties.
3. Develop river support sites between Artrip Bent and Sugar Hill units.
4. Installing branded and consistent signage at all existing river access points between Artrip Bent and Sugar Hill, where necessary.

## STAGE ONE

The state park master planning process is described in §10.1-200.1 of the *Code of Virginia*. The code states that a map indicating, at a minimum, boundaries, inholding, adjacent property holdings, and other features such as slopes, water resources, soil conditions and types, natural resources, and cultural and historic resources, be prepared. A park purpose statement and goals and objectives are also to be developed.

In preparing the Clinch River State Park Comprehensive Master Plan, meetings were held with park staff and an advisory group comprised of citizens, elected regional officials, non-profit representatives, and other key area stakeholders. The park purpose statement and goals and objectives were developed by the advisory committee and then were presented to the public at an advertised public meeting. Park resource maps and planning and operational documents were developed and discussed at the advisory committee meeting and the public meetings.

### I. INTRODUCTION

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#### PURPOSE OF THE REPORT

The purpose of this master plan is to create a framework document for the development and operation of Clinch River State Park. This report defines the park's purpose, goals, and objectives and provides direction for the construction, expansion, and operation of the park over the next 30 years. This report should be periodically revisited and updated to reflect the changing needs and conditions that affect its use and value to the citizens of the Commonwealth.

This report evaluates and develops site plans for DCR's current acquired properties, the Artrip Bent Unit in Russell County and the Sugar Hill Unit in Wise County. The report also develops a framework for site acquisition and development of future units along the Clinch River to create the first blueway state park in Virginia. Site development plans and operational recommendations are based on market studies and a business plan developed for the park.

#### BACKGROUND

##### PARK BACKGROUND

The effort to establish a state park in the Clinch River Valley began with a group of citizens in 2005. In 2010, several community members, non-profits and state agencies established the Clinch River Valley Initiative. The initiative is a four-tiered approach and established an action group that focused on the development of a state park sited within Wise, Russell, Scott and/or Tazewell County to provide public recreation and education on the Clinch River as one of those tiers. The creation and development of Clinch River State Park will significantly raise awareness of the river's ecological diversity, increase public use and enjoyment, have a positive economic impact on the region, and improve the local quality of life. In the 2015 General Assembly session, authorization for park pre-planning was provided. The 2016 session of the General Assembly approved development of the Clinch River State Park by the VA Department of

Conservation and Recreation, and appropriated monies for land acquisition. This state park is the first blueway state park in Virginia.

Acquisition of two anchor properties and three day-use boat launches is complete. The Artrip Bent Unit was purchased by DCR in 2018 and consists of approximately 232 acres in Russell County (currently undeveloped). The Sugar Hill Unit consists of three property acquisitions where purchase was completed from 2019 – 2021 and contains 408 acres in Wise County. The Sugar Hill Unit currently has nearly 8 miles of hiking trails, a picnic shelter, over 2 miles of river frontage, and significant cultural and historic attributes. The property contains remnants of an 18th-century French settlement. This area, marked by standing chimneys, was once called St. Marie on the Clinch. Later owners farmed the land, and in the 1930s, created a maple syrup and sugar operation known as Sugar Hill. Virginia State Parks opened the Sugar Hill Unit to the public in the fall of 2019 for hiking, biking, wildlife watching, and bank fishing. The public boat launch in the community of Artrip was officially opened in the summer of 2021 and is available for boat access to the Clinch River.

## **HISTORICAL AND ENVIRONMENTAL CONTEXT**

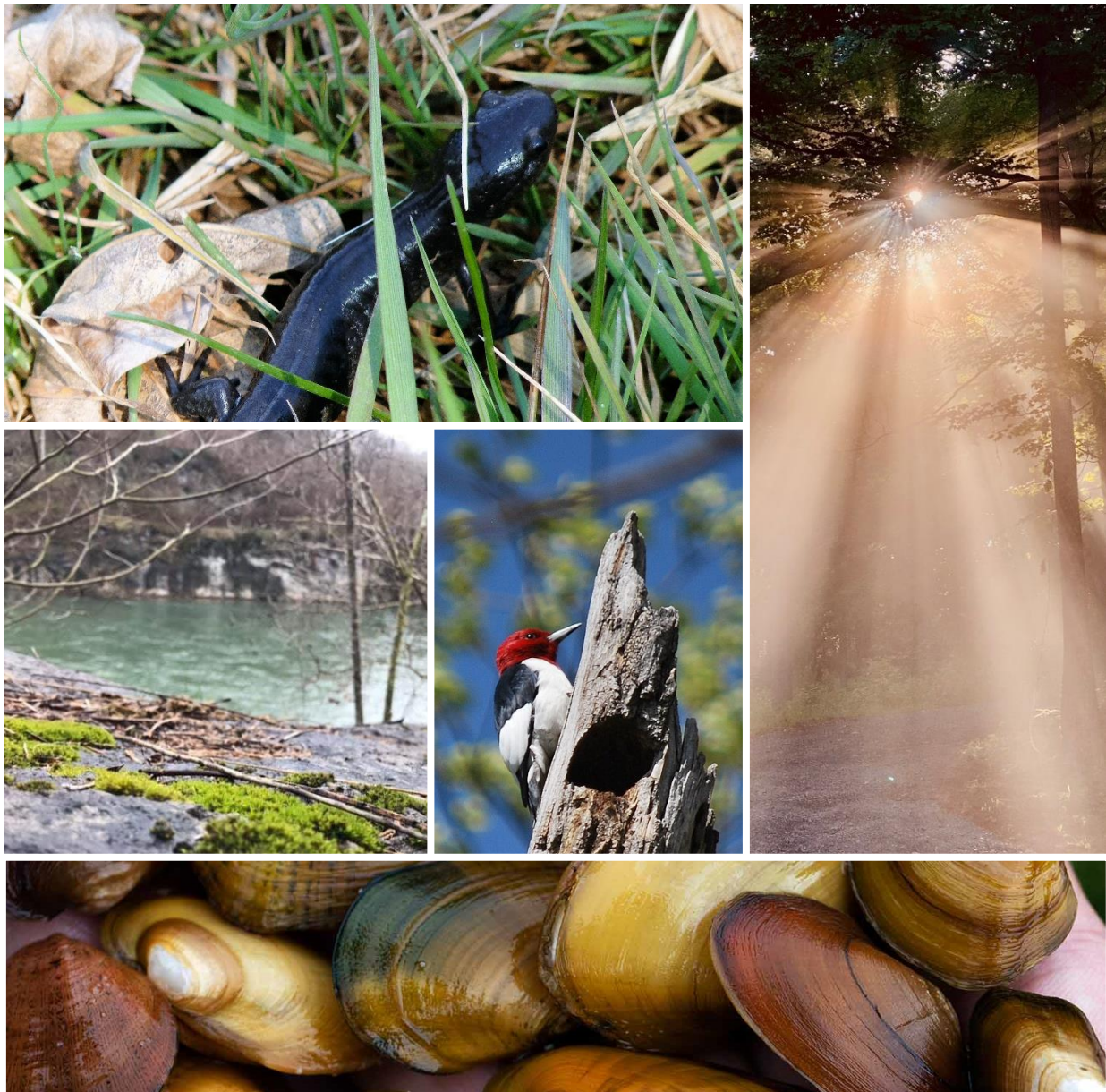
### **Historical Context**

The Clinch River valley and surrounding areas were once predominately inhabited by the Cherokee and Shawnee tribes who used it for hunting grounds and settlements. The lands were eventually explored by the Europeans starting in the mid 1670's, including Daniel Boone, who lived around Castlewood for a time and traveled the river to reach points further west. Several forts were built along the river from 1774 onward, and it was in this time period that Europeans, mostly Scotch-Irish, English, and German immigrants, began settling the area. There was conflict between the colonists and indigenous residents during this period. Settlement focused along the waterways and upland mountain ridges, as pioneers constructed simple log dwellings and established small farms, with Russell County forming in 1786 and Wise County forming in 1856. In contrast to the vast plantations of the Tidewater region of the state, the economy of the Appalachian region was largely subsistence based and supplemented by livestock and wood for market commodities. Agricultural prosperity allowed the expansion of modest log dwellings into larger I-houses, which merged the vernacular traditions of the immigrant settlers with classically-inspired forms of the high styles. The early waterways and wagon roads of the county were trumped by the construction of two railroads during the nineteenth and early twentieth centuries. In 1895 the Interstate Railroad company began construction of a train track following the Clinch River, with construction completed in approximately 1900. The Craigen Tunnel is part of this line and is about 900' long passing underneath the Sugar Hill property. The train tracks and tunnel are still in use, now operated by Norfolk and Southern Railroad.

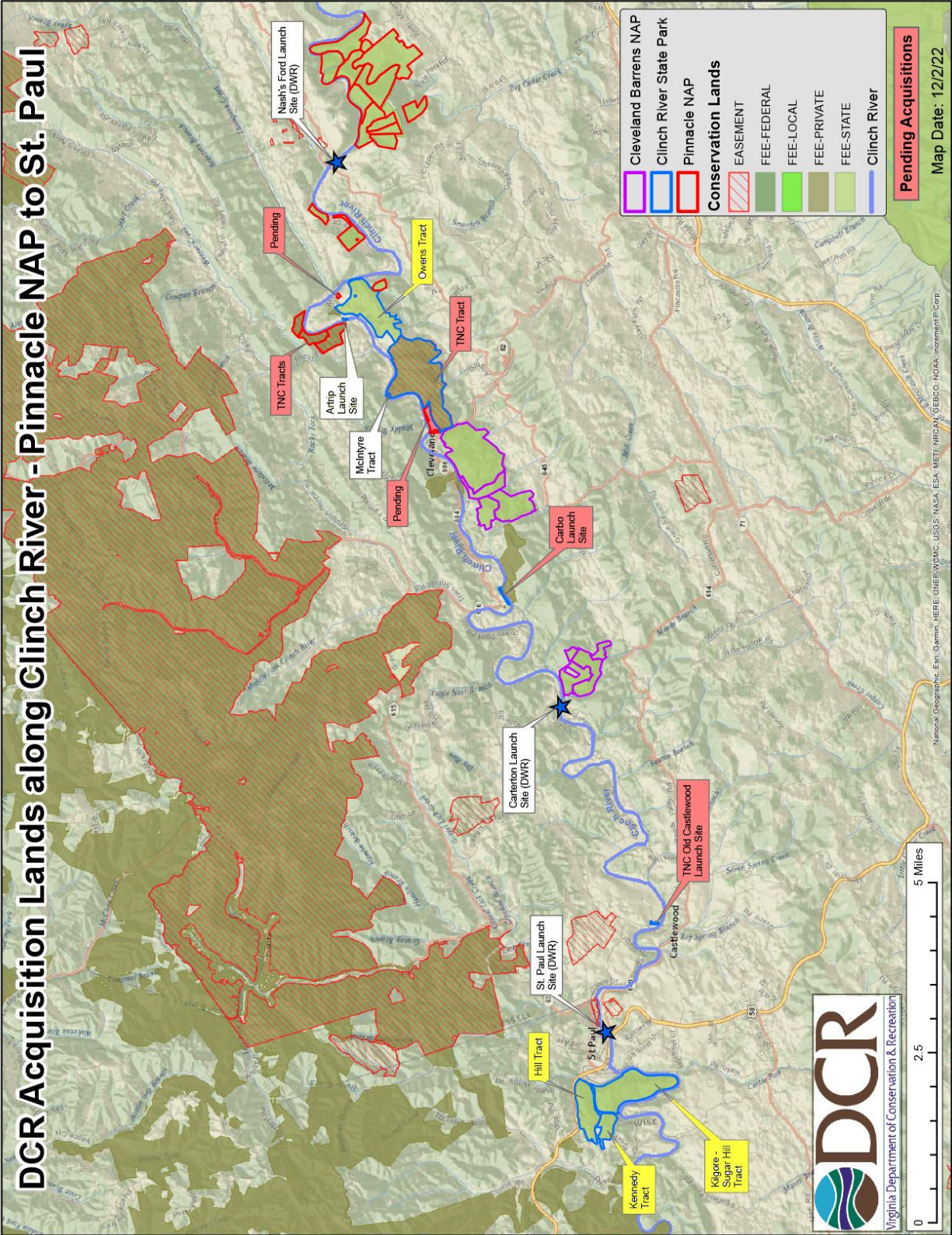
The subsequent lumber and coal mining industries, as well as access to the larger market economy, brought a surge of industrial prosperity at the turn of the century. Company towns soon swelled within the hollows and valleys, bringing another large influx of immigrant workers from such regions as Italy, Yugoslavia, and Hungary. Growth continued to flourish into the 1930s, and in some regions the 1950s, at which time the bulk of the mining and lumber companies shut down, leaving Russell and Wise counties to their early agricultural roots.

**Environmental Context**

The Clinch River is one of the most biodiverse rivers in all of North America. It is home to 46 species of mussels, which is more than any other river in the world, and over 100 species of fish. Rare and endangered species abound here, with the river sustaining 48 imperiled and vulnerable animal species, including 29 varieties of rare freshwater mussels and 19 species of fish. Rare plants, mammals, and birds also thrive along the river's edge. The Clinch River is only one of two ecologically intact (undammed) headwaters of the Tennessee River System. Due to the high ecological quality of the river and concentration of rare and endangered species, the Nature Conservancy has listed the Clinch River and its watershed as one of the "Last Great Places".



*The Clinch River is one of the most biodiverse rivers in North America, rare and endangered plants and animals thrive in its waters and along its banks.*



## MISSION STATEMENTS, GOALS, AND OBJECTIVES

### CONSTITUTION OF VIRGINIA, ARTICLE XI-SECTION 1

*“To the end that the people have clean air, pure water, and the use and enjoyment for recreation of adequate public lands, waters, and other natural resources, it shall be the policy of the Commonwealth to conserve, develop, and utilize its natural resources, its public lands, and historic sites and buildings. Further, it shall be the commonwealth’s policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth.”*

### DEPARTMENT OF CONSERVATION AND RECREATION MISSION STATEMENT

*“Conserve, protect, enhance, and advocate wise use of the Commonwealth’s unique natural, historical, recreational, scenic, and cultural resources.”*

### VIRGINIA STATE PARK MISSION STATEMENT

*“To conserve the natural, scenic, historic, and cultural resources of the Commonwealth and provide recreational and education opportunities consistent with the good stewardship of these lands, waters, and facilities that leave them unimpaired for future generations.”*

### CLINCH RIVER STATE PARK PURPOSE STATEMENT

*“Clinch River State Park is envisioned as a string of pearls along the ecologically significant Clinch River, providing opportunities for all for recreation and education that connects visitors to the environmental and cultural significance of the river and the region, conserving and enhancing sensitive resources, and fostering connections within and between adjacent communities.”*

### CLINCH RIVER STATE PARK GOALS AND OBJECTIVES

**Goal 1.0 – Protect, conserve, and enhance the natural, scenic, cultural, and historic resources of the park.**

- Objective 1.1 – Develop and manage the park, its resources, and facilities in an environmentally sensitive manner as a best practice and educational opportunity.
- Objective 1.2 – Protect, promote, and interpret the cultural and historic resources on site and in the region.
- Objective 1.3 – Develop and implement a Natural and Cultural Resources Management Plan.
- Objective 1.4 – Preserve and protect endangered and threatened species and habitat through direct action and partnerships.
- Objective 1.5 – Develop and manage the park to strengthen regional sense of place.
- Objective 1.6 – Evaluate and develop units at an appropriate level for the site quality and environmental sensitivities.

**Goal 2.0 – Create a welcoming and safe experience for all.**

- Objective 2.1 – Develop and operate the park in a manner that respects and embraces the culture of the region and the visitor.
- Objective 2.2 – Develop and implement a Visitor Experience Plan.
- Objective 2.3 – Provide a range of high-quality recreation opportunities for a variety of users, regardless of income, background, and ability.
- Objective 2.4 – Serve as a hub of access and information for regional recreation resources and provide visitors clear interpretation, orientation, and wayfinding in and to the park and at partnership-managed locations.
- Objective 2.5 – Anticipate the needs of the changing community and structure programs and facilities accordingly.

### **Goal 3.0 – Provide a range of overnight and day use opportunities and facilities for visitors to the park.**

- Objective 3.1 – Design and manage recreational activities to minimize impacts on natural and cultural resources to preserve the experience for future visitors.
- Objective 3.2 – Provide a spectrum of high-quality recreation opportunities and supporting infrastructure for single-day and multi-day park users that encourages repeat visitation to the park.
- Objective 3.3 – Provide a variety of types and lengths of river float opportunities directly and in partnership.
- Objective 3.4 – Provide opportunities for dispersed recreation experiences by providing access to the river and the system of conservation lands.

### **Goal 4.0 – Provide facilities and programs for environmental, cultural, and historical education and interpretation.**

- Objective 4.1 – Provide a variety of inclusive educational formats for all learning capabilities and levels.
- Objective 4.2 – Teach environmental awareness and stewardship.
- Objective 4.3 – Educate park visitors and the wider community about the value of the environmental, cultural, and historical resources within the region and how to act to sustain and conserve these resources.
- Objective 4.4 – Provide educational opportunities for safe and environmentally-appropriate water and land-based recreation, directly or in partnership.
- Objective 4.5 – Provide site-appropriate education and interpretation at each Clinch River State Park Unit.
- Objective 4.6 – Develop partnerships with local organizations to promote educational opportunities.
- Objective 4.7 – Engage diverse groups with programming and cultural interpretation on site.
- Objective 4.8 – Plan programs and access in a manner that promotes understanding and protection of plant and animal seasonal cycles.



**Goal 5.0 – Work across sectors to provide mutually beneficial efforts to enhance the Clinch River and the surrounding region.**

- Objective 5.1 – Work in partnership to manage, connect, and conserve ecological and cultural resources in the park and the region.
- Objective 5.2 – Participate in partnership and collaboration to further the shared goals and objectives of regional organizations.
- Objective 5.3 – Participate in local, regional, and state planning efforts, related to recreational opportunities and access as well as other shared interests.
- Objective 5.4 – Collaborate with local and regional tourism on park-oriented efforts.

**Goal 6.0 – Administer and manage the park in a professional and transparent manner which fosters the public’s trust.**

- Objective 6.1 – Ensure the park has adequate staffing and operations to support safe and meaningful visitor experiences and to protect and conserve resources.
- Objective 6.2 – Acquire additional land from willing sellers that meets the needs and objectives of the park as opportunities arise.
- Objective 6.3 – Develop and implement a Business Management Plan.
- Objective 6.4– Provide appropriate levels of staff with the necessary skills to achieve the park’s goals and objectives and provide the necessary training to reach those goals.
- Objective 6.5 – Assure proper care and maintenance of park facilities and infrastructure.
- Objective 6.6 – Upgrade and provide state of the art digital communications and informational access to enhance the visitor’s experience throughout the park.



*The Artrip Bent Unit has several old log structures.*

## II. SITE CONDITIONS AND OPPORTUNITIES & CONSTRAINTS

Site evaluations are based on the Environmental Desktop Review existing conditions report, Geographic Information Systems (GIS) mapping data, and observations made during site visits on August 30<sup>th</sup>, 2021 and September 1<sup>st</sup> 2021. This existing conditions evaluation summarizes the opportunities and constraints of each site and references the site conditions that most affected the assessment. For a full assessment of existing conditions, including soils, cultural resources, and environmental resources refer to the Environmental Desktop Review Summary for the Clinch River project, dated 7/6/21.

### RUSSELL COUNTY – ARTRIP BENT UNIT

There are five DCR acquisition sites in Russell County, the Artrip Bent Unit (234 acres), the McIntyre Unit (1 acre), Artrip Launch Site (1 acre), the Carbo Launch Site (2 acres), and the Old Castlewood Launch Site (1 acre). This report focuses on the Artrip Bent Unit due to its size and road frontage, which leads to greater development potential. The McIntyre Unit is a small parcel on the banks of the Clinch River and has no current road access.

The character of the Artrip Bent Unit is rural and remote with great scenic beauty. The site’s opportunities center around the panoramic views of the property and surrounding forested mountains and small farms as well as the historic features on the site. Access of the site is the greatest challenge, both its distance from primary roads and vehicular access onto the site, and the steep topography limits potential development.

Russell County: Artrip Bent Unit Opportunity/Constraint Summary

Character: rural, remote, scenic

Primary Opportunities: good views, historic features

Primary Constraints: site access, steep slopes

### EXISTING CONDITIONS

#### **Views**

The site has excellent views from north to west of the surrounding ridgelines, as well as views of the property itself. The ridgeline to the northwest is the primary view from the site. This ridgeline is a protected conservation area, preserving the viewshed from property. There are two higher ridges on the site, one 150’ above the existing farm road and the other 250’ above the existing farm road, providing more expansive views and sight of the Clinch River. There are potentially 360-degree views from the top of these ridges, though some selective clearing may be required. Most of the site is open pastureland, though the highest ridge is forested as are the sloping edges of the site.

#### **Access**

The Artrip Bent Unit is a rural site, three miles from the nearest town, Cleveland, VA, via an un-striped county road, Artrip Road. The site is approximately 10 miles from the Town of Lebanon (approximately 20

minute drive), and 17 miles (approximately 30 minute drive) from the town of St. Paul, VA. Vehicular access onto the site is difficult. The existing one-lane gravel road access to Artrip Road at the north end of the site is very steep with sharp curves and has an unprotected crossing of an active rail line, owned by Norfolk Southern Railway Company. Widening this road to accommodate park visitor traffic would require significant excavation and stabilization, as well as creating a safe railroad crossing. The site has road frontage to the northeast without the railroad barrier. There is no existing vehicular access route at this frontage and there is steep terrain, but a connection may be feasible. There is a historic access route to an old schoolhouse on the adjacent parcel to the northeast of the site, but this property is privately owned. Developing a safe primary public access road to the site is essential for future development and use of the property.

Existing farm roads facilitate ATV and hiking access within the site and there is evidence of older farm roads that could be redeveloped to provide hiking access to the ridgetops. Additional hiking trails will need to be constructed to provide full access to the site.

The Artrip Bent Unit has no direct access to the Clinch River, but the Artrip Launch Site managed by DCR is approximately 500 ft. from the property via Atrip Rd. There are no sidewalks or shoulders on Atrip Rd. and there are several blind curves, presenting a barrier to connecting the two sites.

Based on available data, there is no public water or sewer in the area and these needs would have to be met with wells and septic systems.

### **Cultural and Historic Points of Interest**

There are several points of interest on the Artrip Bent Unit. Several historic structures, including log barns and cabins, are still standing. They are in deteriorating condition, but may be able to be salvaged. Other structures are no longer present. Historical record indicates that there was a block house on the property. There are still remnants of the foundation present from the dressed stones in the vicinity. There is a private family cemetery located on site. There is an old schoolhouse within 100' of the property line on the adjacent parcel to the northeast. The parcel with the schoolhouse is privately owned. There are opportunities for interpretation and potentially preservation of these cultural history sites.

It is recommended that a Phase I cultural resources survey be conducted to identify and assess the archeological resources within the site and historic structures within and nearby the site. The results of this survey will inform the development and interpretation of the site.

### **Hydrology/Jurisdictional Areas**

There are two ponds located on site. The eastern smaller pond appears to have been constructed and does not currently contain water. The pond in the west central area of the site is a natural depression and the water level fluctuates with natural conditions. There are several other depressions or sinkholes on the property, consistent with the region's karst topography. An active spring has been reported on the property, but its condition and location have not been confirmed. Because of these features, formal delineation as required by the US Army Corp of Engineers is recommended.

The site is located in a horseshoe bend of the Clinch River, and the river is directly east and west of the site, though the site is separated from direct access to the river by roads, railways, and private property. The site is completely out of the flood plain and no wetlands have been identified on site. This reduces potential constraints on development.

### **Topography**

The site ranges in elevation from approximately 1570 ft. to 2200 ft. A majority of the site is a series of plateaus between the elevations of 1700 ft. and 1900 ft., with steep slopes ranging from 150' to 300' separating the site from the adjacent Clinch River. There are two ridges at the southern end of the site, with high points of approximately 2085 ft. and 2195 ft. The aspect of the site is predominately northwestern. A significant portion of the site has critical slopes of 25% or steeper. Potential development and programming of these areas is limited. There are some pockets of the site that have slopes of 10% or less that are more suitable to a wide range of development and programming.

### **Land Cover and Environment**

The site was operated as a family farm and cattle ranch prior to purchase by DCR and most of the site has been cleared for agricultural use. There are small stands of trees in the fields and the steep edges of the site remain forested. The site is currently leased for cattle operations, which keeps the pasture clear of tree and shrub growth. The cleared land facilitates easier development. The quality of the existing plant communities has not been evaluated. No federal or state rare or endangered species have previously been identified on site, but an environmental assessment should be conducted to determine if any ecologically sensitive areas exist. Given the unit's agricultural history and extensive clearing, environmental programming on site would likely focus on meadow and old field successional growth for the next several decades, rather than forest ecologies. This is an opportunity for education about the cultural history of the region, a variety of habitats, successional ecology, and reforestation practices.

It is recommended that a full Natural Resource Inventory and Assessment be conducted to identify and map the characteristics and condition of the natural communities on site. This will provide a more complete and accurate understanding of the site conditions and inform the development and programming of the land.

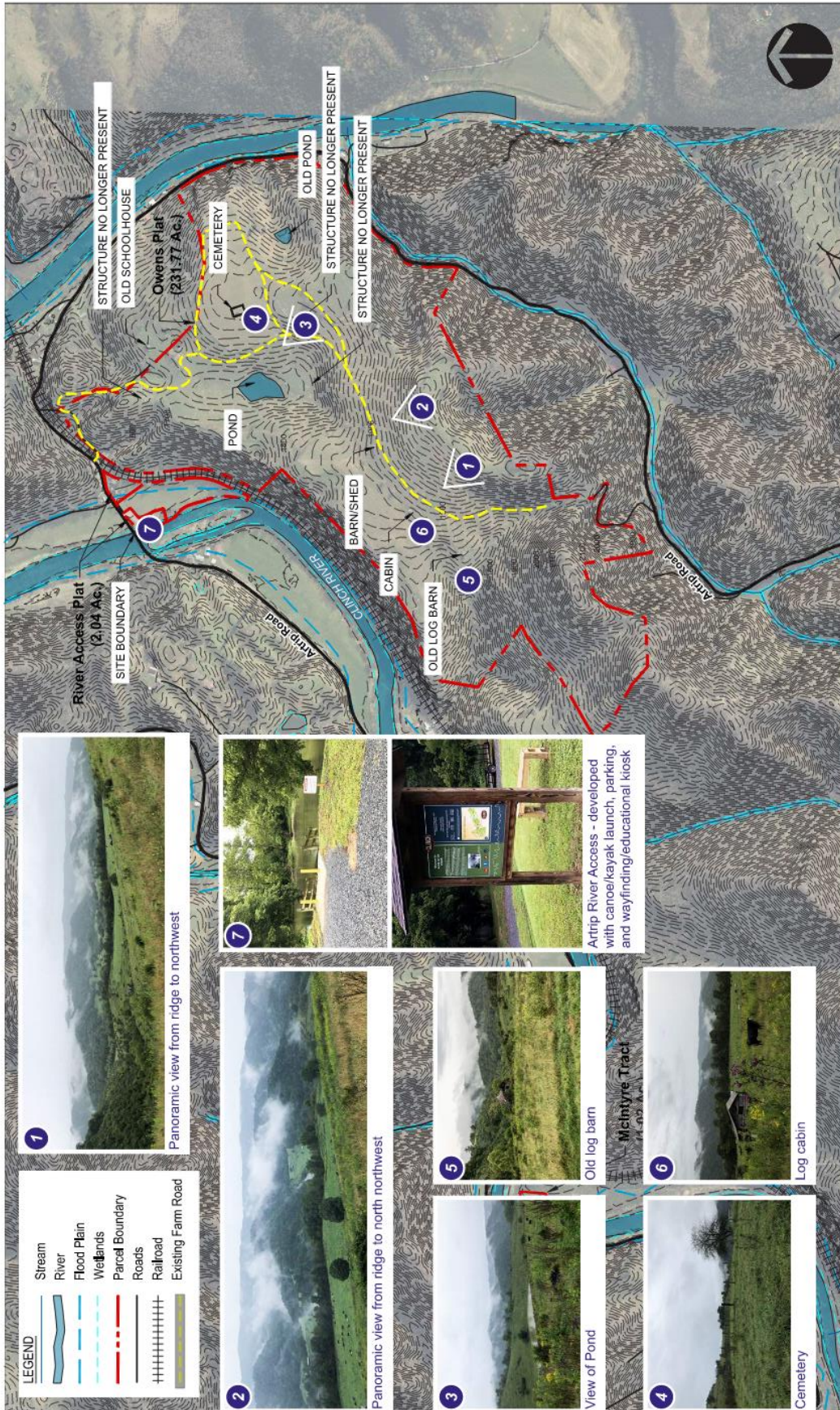
## **SITE INVENTORY AND OPPORTUNITIES & CONSTRAINTS MAPPING**

The site inventory map shows the boundary of the site and hydrological, topographical, and infrastructure features of the site and the surrounding area. The aerial imagery provides information about land cover and land use. The map also includes a photo inventory of key views and unique features on the site to convey the character and conditions of the site.

The opportunities and constraints map highlights key characteristics and conditions that will affect the potential development and use of the Atrip site. The analysis diagram shows existing vehicular and water access, areas with high and low development potential based on slopes, ridgetops and areas with good views, forested land cover, water features, and points of potential historical interest, including old barn structures and locations of previous development.

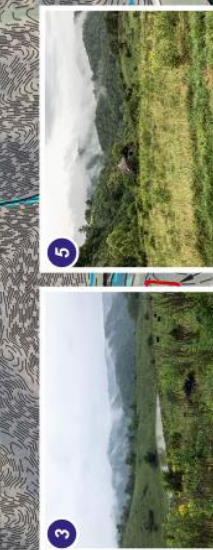
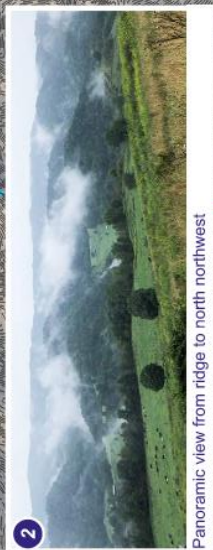
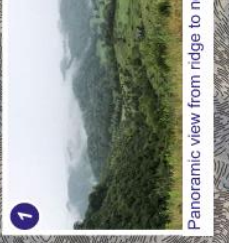
The inventory and opportunities and constraints mapping and analysis informs the potential for development on the Artrip site, including type, quantity, and location. This analysis leads directly into the final site master plans.

All maps are provided in a larger format in the Appendix.



**LEGEND**

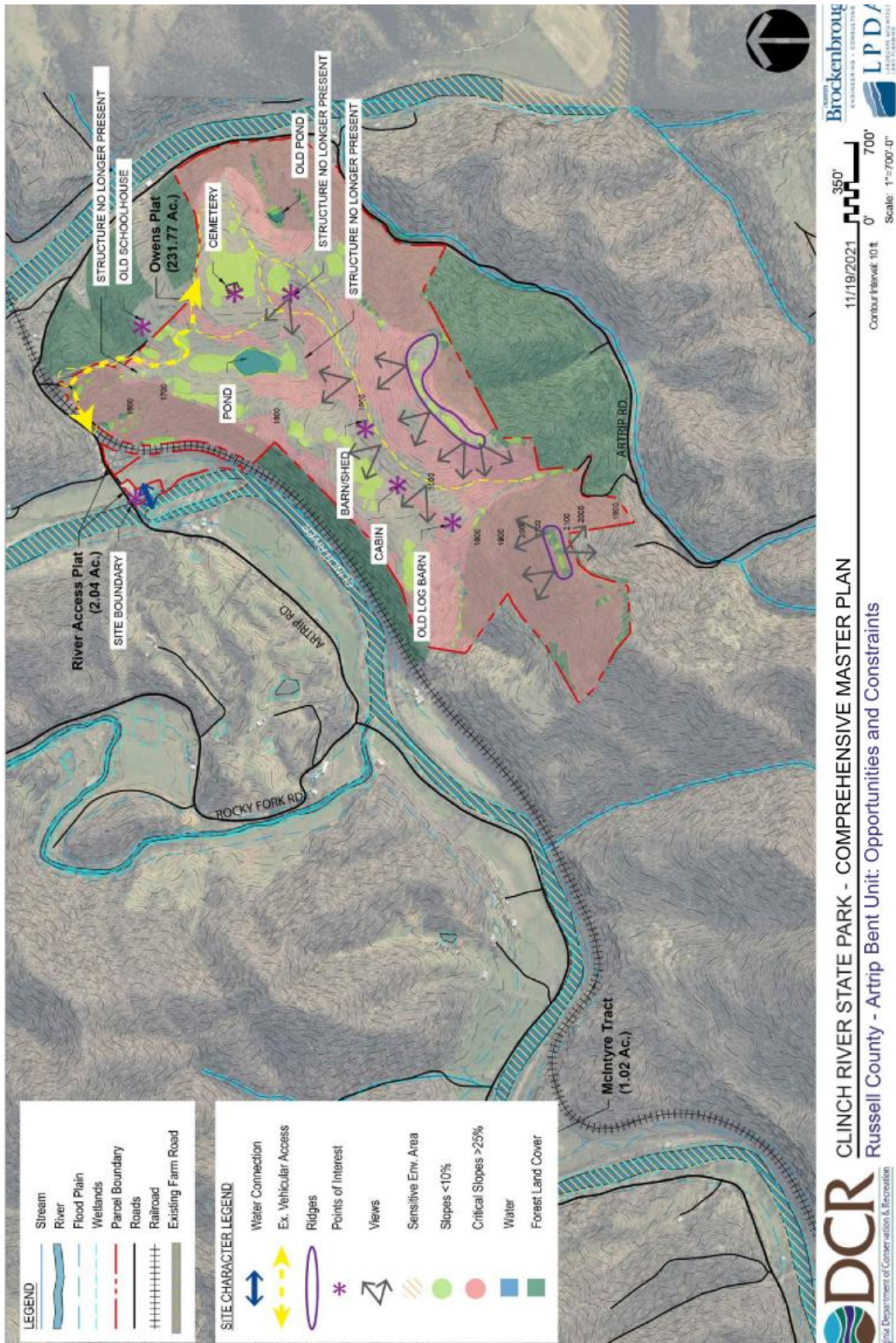
- Stream
- River
- Flood Plain
- Wetlands
- Parcel Boundary
- Roads
- Railroad
- Existing Farm Road



11/19/2021  
 350'  
 0' 700'  
 Scale: 1"=700'-0"

Brockenbrough  
 ENGINEERING - CONSULTING  
 LPDA  
 LAND PLANNING DESIGN ARCHITECTURE

CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN  
 Russell County - Artrip Bent Unit: Existing Conditions Photo Inventory



CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN  
 Russell County - Artrip Bent Unit: Opportunities and Constraints

## WISE COUNTY – SUGAR HILL UNIT

There are three contiguous units at the Sugar Hill site, the Kennedy plat (56 acres), DCR Hill plat (136 acres), and Kilgore plat (270 acres), totaling 462 acres and referred to as the Sugar Hill Unit. This site is currently open for public use with nine miles of hiking trails, a picnic shelter and information facilities, two miles of river frontage, and the remnants of an 18th century French settlement.

The Sugar Hill Unit is adjacent to the town of St. Paul and currently does not have public vehicular access and is only accessible by foot. The unit’s location creates a character of active use and accessibility, tempered with appreciation of the sensitive environmental areas on and along the property. The unit’s proximity to the regional hub of St. Paul and major highways is one of its primary opportunities, as well as its views, access to the Clinch River, and historic cultural sites. Sensitive environmental areas and extensive sections of steep slopes are the greatest challenges for the unit’s development.

### Wise County: Sugar Hill Unit Opportunity/Constraint Summary

Character: accessible, active, environmentally sensitive

Primary Opportunities: good views, proximity to St. Paul and main roads, river access, historic features

Primary Constraints: sensitive environments, steep slopes

## EXISTING CONDITIONS

### **Views**

The site has excellent views of rolling hills from the crest of the Kilgore Plat to the south across an open meadow, with views opening and changing based on the tree line as the visitor progresses down the slope. There is a high ridge at the north end of the property that provides views of St. Paul and the surrounding area to the south and east.

### **Access**

The site is within close proximity to St. Paul, VA, a regional population center and a tourism and recreation hub. The park currently does not have public vehicular access and is only accessible by foot. A non-public one-lane service road for maintenance and emergencies, Burton’s Ford Road, is on the west side of the property. Developing a shared drive as the primary public access to the state park would be challenging. The site does have direct road frontage onto Burton’s Ford Rd., which could be developed as the primary public access to the site and connected to the existing site driveway. The site also has road frontage to the north to US Highway 58, a divided four-lane highway. There is evidence of a logging road previously accessing Hwy. 58 along this frontage, which may be able to be developed as the primary visitor vehicular access to the site.

Pedestrian access is currently available on the west side of the property, with visitors parking in a lot owned by the town of St. Paul and walking over a concrete low water dam onto the property. The town parking lot is free and no park entrance fees are collected. This access point will need to be managed to align with the park’s overall access and fee plan.

The site has a one-lane crushed stone road from the Burton's Ford Rd. shared-drive access along a ridge to the Kilgore Plat, where there is currently a State Park maintenance shed. There is a network of rustic maintenance roads through the site.

There is a 9-mile network of existing developed hiking trails on the site, mostly located on the Kilgore plat, which extends into the horseshoe of the Clinch River. An active rail line, owned by Norfolk Southern Railway Company, separates the plats and creates barriers to future connectivity. The railroad passes through a tunnel approximately 850' long in the middle of the site, which facilitates pedestrian and vehicular connections at grade through this area with no safety conflicts.

The site has extensive river access, with 2 miles of frontage on the Clinch River and several easy water access points.

Based on available data, there is no public water or sewer in the area and these needs would have to be met with wells and septic systems. However, just east of the site, across the Clinch River, there are fire hydrants indicated on the GIS data which indicates that there is probably a public waterline at this location.

### **Cultural and Historic Points of Interest**

The site has several features of cultural historic importance including a brick chimney from an 18<sup>th</sup> Century French settlement, Bickley cemetery, other grave sites, and the remnants of an apple orchard. There are opportunities for historic interpretation and education around these elements.

It is recommended that a Phase I cultural resources survey be conducted to identify and assess the archeological resources within the site and historic structures within and nearby the site.

### **Hydrology/Jurisdictional Areas**

The Clinch River forms a horseshoe bend around the Sugar Hill site providing extensive direct and visual water access. There is also a creek on site, parallel to the railroad as it bisects the property. Portions of the property along the Clinch River are within the flood plain, which restricts the type of development that can occur in those areas, and a potential wetland has been identified where the existing forest road connects to Hwy. 58. There are also numerous small streams and wetlands observed in the northern portion of the site. Because of these features, formal delineation as required by the US Army Corp of Engineers is recommended.

### **Topography**

The site ranges in elevation from approximately 1550 ft. to 1850 ft. above sea level. The site is primarily a series of ridges and valleys with one broad sloping ridge at the southern end of the site. Most of the site has critical slopes of 25% or greater. There are a few areas of slopes with 10% or less, most of which occur on the southern sloping ridge. The area around the habitable cabin in the northeast of the property also has some smaller areas of slopes of 10% or less. The contiguous areas of non-critical slopes will foster clustered development. Programming is possible on the steep slopes, but options will be more limited. The sensitive environmental areas are all located on steep slopes, which further restricts the type of development that should occur there. The broad sloping ridge at the southern end of the site has a southerly aspect, which when combined its slope of less than 25% increases its favorability for development and programming.



### **Land Cover and Environment**

Most of the Sugar Hill site is forested with areas of open meadow on the southern end. The forest includes some very high quality and uncommon habitats that supports rare and endangered species and sensitive ecologies, as identified in DCR's natural heritage database. These sensitive natural areas will need to be treated with respect when programming and offer opportunities for habitat conservation, research, and education. The section of Clinch River adjacent to the site is also a sensitive environment with rare and endangered species habitat, and while offering opportunities for habitat conservation, research, and education, care will be required when programming river access to preserve the integrity of the sensitive resource.

It is recommended that a full Natural Resource Inventory and Assessment be conducted to identify and map the characteristics and condition of the natural communities on site. This will provide a more complete and accurate understanding of the site conditions and inform the development and programming of the land.

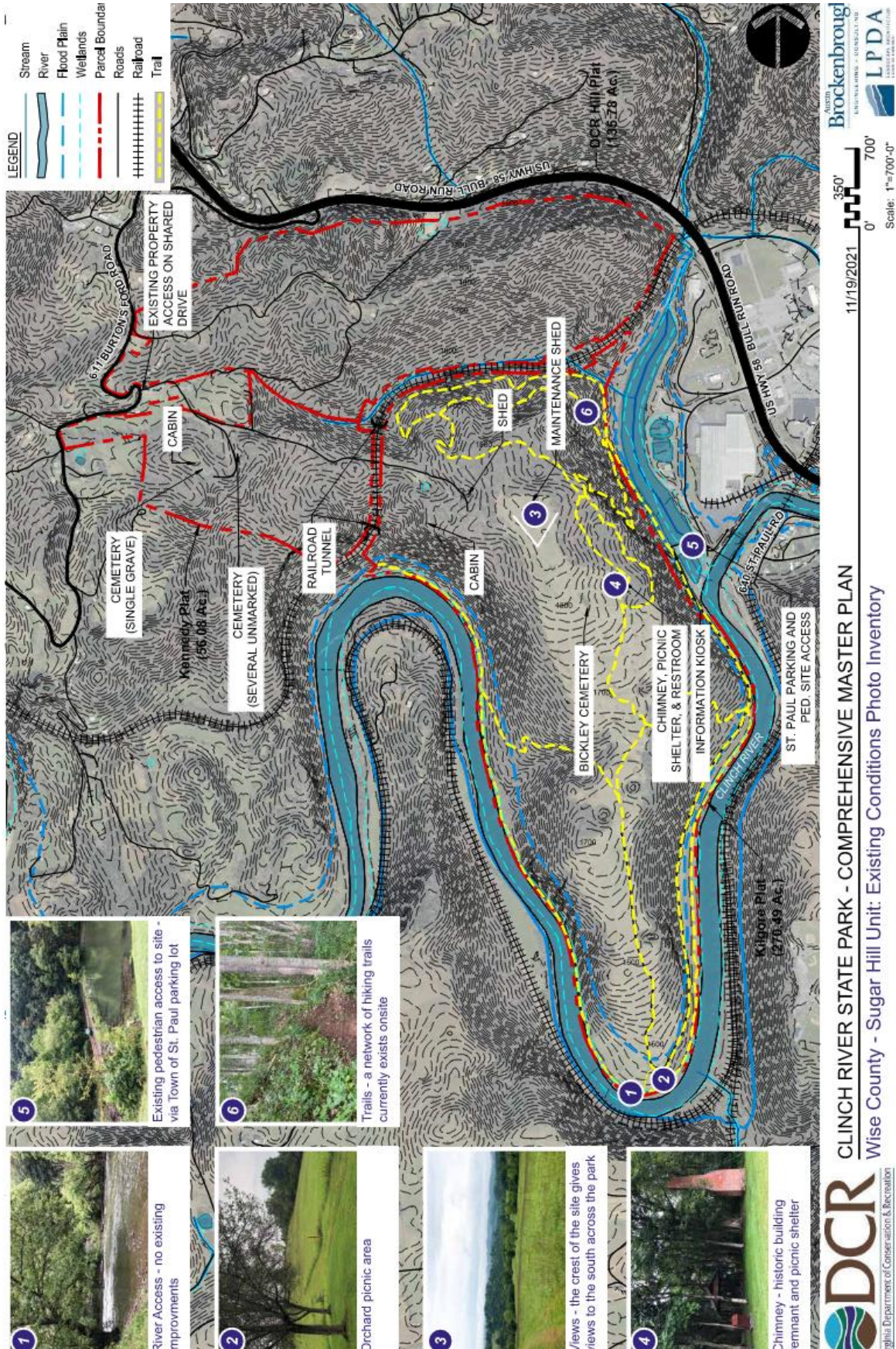
### **SITE INVENTORY AND OPPORTUNITIES & CONSTRAINTS MAPPING**

The site inventory map shows the boundary of the site and hydrological, topographical, and infrastructure features of the site and the surrounding area. This includes the existing park amenities and infrastructure like trails, picnic amenities, maintenance facilities. The aerial imagery provides information about land cover and land use. The map also includes a photo inventory of key views and unique features on the site to convey the character and conditions of the site.

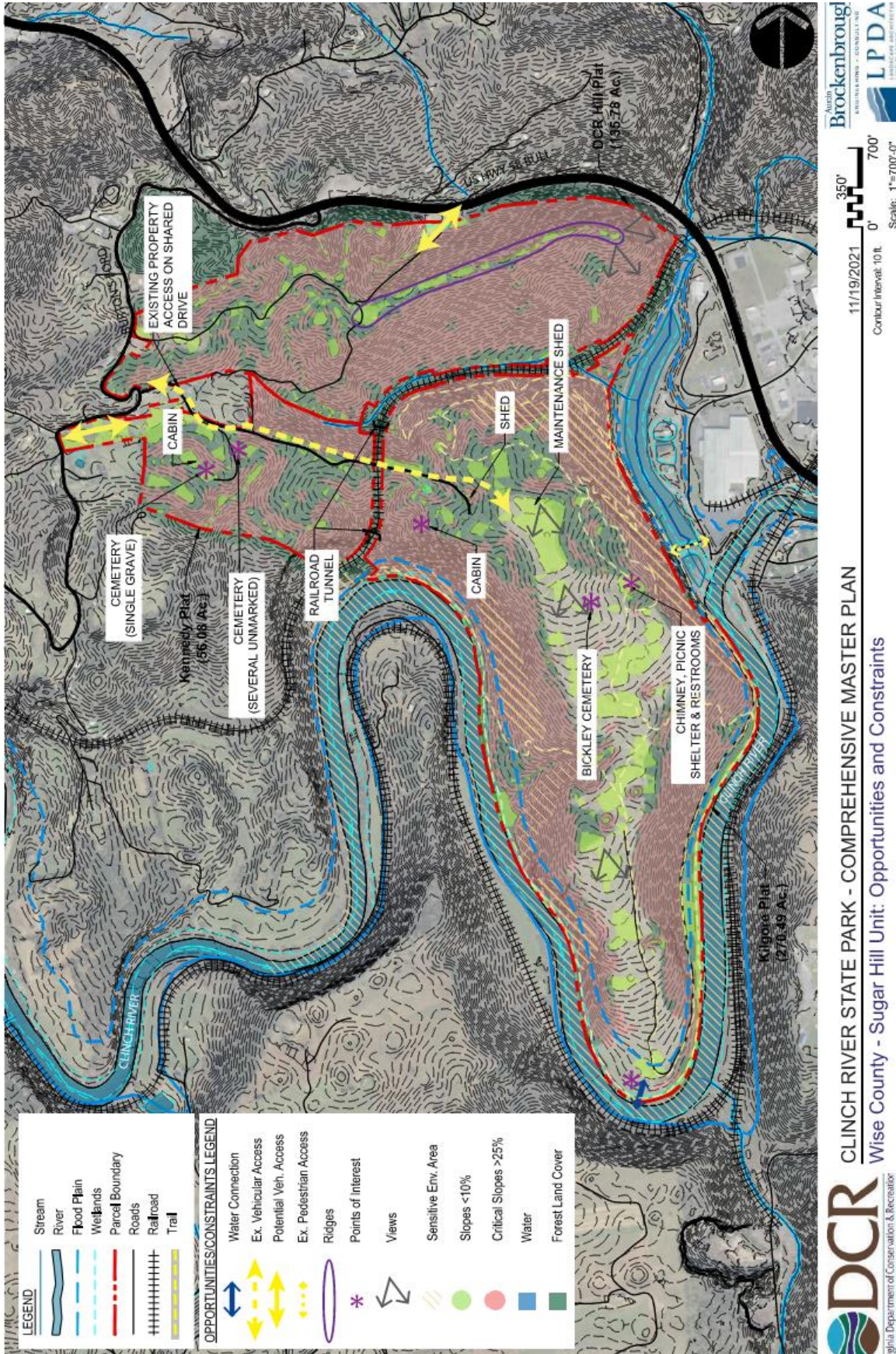
The opportunities and constraints map highlights key characteristics and conditions that will affect the potential development and use of the Sugar Hill site. The analysis diagram shows existing and potential vehicular and water access, areas with high and low development potential based on slopes and sensitive environmental conditions, ridgetops and areas with good views, forested land cover, water features, and points of potential historical interest, including cemeteries.

The inventory and opportunities and constraints mapping and analysis informs the potential for development on the Sugar Hill site, including type, quantity, and location. This analysis leads directly into the final site master plans.

All maps are provided in a larger format in the Appendix.



CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN  
Wise County - Sugar Hill Unit: Existing Conditions Photo Inventory



Architect  
**Brockenbrough**  
ARCHITECTS - PLANNERS - ENGINEERS - PA  
**LPDA**  
LAND PLANNING DESIGN ASSOCIATES

11/19/2021  
350'  
0' 700'  
Contour Interval: 10 ft.  
Scale: 1"=700'-0"

**CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN**  
Wise County - Sugar Hill Unit: Opportunities and Constraints

## STAGE TWO

The state park master planning process is described in §10.1-200.1 of the *Code of Virginia*. The code states that Stage Two of the process shall include size, types, and locations of facilities and associated infrastructure, including roads and utilities. The master plan needs to include a proposed plan for phased development of potential facilities and infrastructure as well as development cost and operational, maintenance, and staffing needs. The above requirements for Clinch River State Park were met through a business plan analysis and working meetings with Department of Conservation and Recreation Planning staff, park staff, a park advisory committee, and public comment. During the master planning process, two advertised public meetings were held to obtain input from the general public.

### I. COMMUNITY CONTEXT

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The state park is intended to complement and enhance the region’s recreational opportunities, serving the needs of visitors and citizens of the Commonwealth while also operating successfully. As part of the master planning process, several methods were used to determine the area’s needs and carrying capacity, including existing regional plans and operations, potential visitor levels, and public preferences for park features. These methods include a priority theme alignment analysis of existing organizations and plans in the region, a market study and business plan, engagement with an advisory committee, online public survey, and public meeting and comment opportunities.

### REGIONAL ORGANIZATIONS AND PLANS THEME ALIGNMENT

The master plan reviewed organizations and planning documents in the project region whose mission and goals relate to the themes and objectives of the state park. These include tourism and community development boards, environmental conservancy agencies, and cultural and historic resources organizations, as well as municipalities’ comprehensive plans, planning district plans, and regional environmental initiatives. Common themes of the organizations and in the plans and objectives were identified, and every alignment was tallied. The chart below shows the organizations, plans, and common themes. The tallies for each of the themes is totaled, with a higher number indicating more organizations or plans shared that theme. Many of the themes are shared by 2 or more organizations/plans, and there are no conflicts between the themes or between the themes and Clinch River State Park’s goals and mission. The State Park’s operation can in fact further every one of these goals and objectives held by regional organizations and master plans, either through direct management, programming, or partnership. This theme analysis indicates that the development of the state park is in alignment with the region’s goals and objectives.

## Clinch River Regional Organizations and Plans: Theme Alignment

Organizations & Goals	Southwest Virginia Cultural Heritage Foundation	The Nature Conservancy	Heart of Appalachia Tourism Authority	The Crooked Road	Round the Mountain	Clinch River Valley Initiative	VA Dept of Housing and Community Development	The Clinch Coalition	Alignment Ranking
<i>Downtown Revitalization</i>	1			1	1	1	1		5
<i>Support Tourism</i>	1		1	1	1	1			5
<i>Support the Creative Economy of SWVA</i>	1			1	1	1			4
<i>Protect and Enhance Water Quality</i>		1				1		1	3
<i>Protect Environmental Resources</i>		1				1		1	3
<i>Support Environmental Education</i>		1				1		1	3
<i>Highlight Historical Resources and Cultural Sites</i>	1		1			1			3
<i>Develop Trail and Greenway &amp; Blueway Connections</i>		1				1			2
<i>Promote Recreational Opportunities</i>			1			1			2
<i>Infrastructure Development</i>	1						1		2
<i>Physical Well-being and Healthy Living</i>						1			1

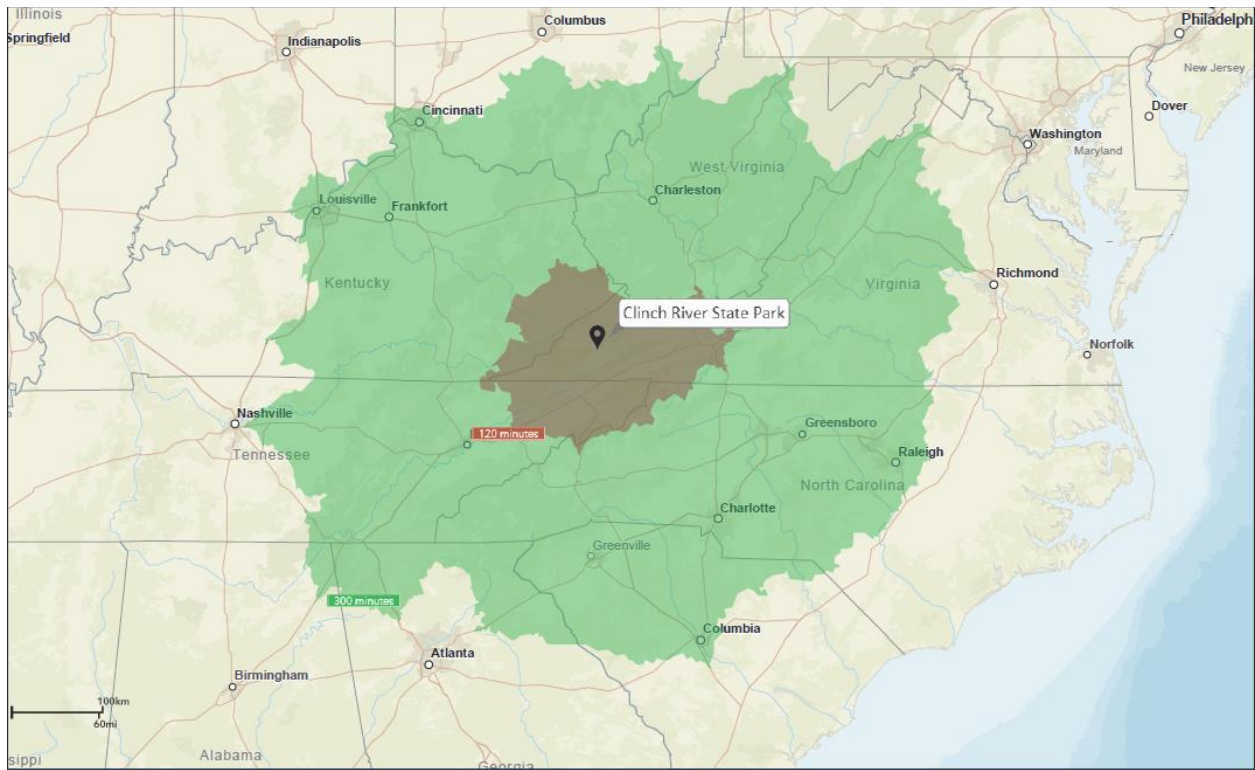
Plans & Objectives	Town of St Paul Comprehensive Plan	Wise County Comprehensive Plan 2018	Tazewell County Comprehensive Plan 2017	Russell County Comprehensive Plan 2010	Scott County Comprehensive Plan 2017	Clinch River Valley Initiative Action Plan (CRVI)	Clinch Valley Program (TNC)	LENOWISCO CEDS -2020	Cumberland Plateau PDC CEDS 2021	Priority Ranking
<i>Promote and Expand Recreational Activities</i>	1	1	1	1	1	1	1	1	1	9
<i>Promote Development of tourism related to the Clinch River</i>	1		1	1	1	1		1	1	7
<i>Support artisans and small business in the Clinch River Valley</i>	1	1	1	1		1		1	1	7
<i>Encourage development of hiking, biking trails and blueways</i>	1	1	1			1	1		1	6
<i>Enhance water quality in the Clinch River</i>		1	1	1		1	1			5
<i>Encourage use of land trust and conservation programs</i>		1	1	1		1	1			5
<i>Coordinate with regional art culture and tourism assets</i>		1			1	1		1	1	5
<i>Connect and expand downtown revitalization efforts</i>	1					1		1	1	4
<i>Develop and enhance access points to the Clinch River</i>						1	1		1	3
<i>Support protection of endangered species</i>			1			1	1			3
<i>Develop and enhance environmental education opportunities</i>						1	1			2

## MARKET ANALYSIS

A key component of the planning process is a market opportunity analysis that identifies the most important aspects of the service market relevant to DCR’s priorities in this project, as well as an analysis of market and services opportunities based on detailed information on similar service providers in the area and emerging best practices from around the country. The following are highlights from the Market Analysis. For the full report please refer to the Market Analysis and Business Plan in the Appendix.

## SERVICE MARKET DELINIATION

In conducting the market analysis, the primary and secondary service areas were identified as being a 2-hour and a 5-hour drive. These delineations are the primary regions in which visitors to Clinch River State Park will most likely originate, based on the amenities and visitor experiences available at the park and typical state park visitation patterns across the country. It is expected that 60-70% of the park’s annual visitors will likely originate from within the primary service area (2-hour drive), and 30-40% from within the secondary service area. The primary service area includes southwest Virginia, and parts of West Virginia, Kentucky, Tennessee, and North Carolina. Within the primary service area there are 1.4 million residents. The secondary service area extends into Virginia, West Virginia, Ohio, Kentucky, Tennessee, Georgia, South Carolina, and North Carolina and includes major metropolitan areas like Cincinnati, Louisville, and Charlotte, as well as the edges of Nashville, Atlanta, and Richmond. Within the secondary service area there are 23.8 million residents.



*Primary (2 hours) and Secondary (5 hours) service area boundaries.*

## DEMOGRAPHIC ANALYSIS

The demographic analysis describes the population within primary and secondary service areas of the study focus. This assessment is reflective of the region’s total population and its key characteristics such as age segments, race, ethnicity, income levels, and gender. The chart below summarizes the findings. Refer to the full Market Analysis and Business Plan in the appendix for additional information.

PRIMARY SERVICE AREA DEMOGRAPHIC OVERVIEW



2021 Total Population  
**1,352,563**



2021 Total Households  
**560,624**



2021 Median Age  
**44.4 years**



2021 Median Household Income  
**\$41,798**



2021 Race  
**93% White 3% Black Alone**  
**1% Asian Alone**  
**2.65% Hispanic Origin**

SECONDARY SERVICE AREA DEMOGRAPHIC OVERVIEW



2021 Total Population  
**23,766,036**



2021 Total Households  
**9,437,915**



2021 Median Age  
**40.5 years**



2021 Median Household Income  
**\$54,881**



2021 Race  
**77% White 14% Black Alone**  
**2% Asian Alone**  
**6.76% Hispanic Origin**

## VISITATION AND USAGE PROJECTIONS

Based on current outdoor recreation trends and participation rates, the total potential user market within a 5-hour drive is approximately 17 million people. Using both a conservative and a more aggressive capture rate model, or the number of people from within the potential user market who would visit, annual estimated visitation to Clinch River State Park would be between 25,000-32,000 visitors. It is important to note that current total tourism visitation to the area as reported by the City of St. Paul is 12,000 people. These projections indicate that visitation to Clinch River State Park, when fully built out, would potentially double annual visitation to the area.

## MARKET ANALYSIS CONCLUSIONS

From these findings, the following recommendations are reflected in the operational models developed for Clinch River State Park:

1. Design of amenities and services should have a broad appeal to people with skilled expertise in specific paddling sports, as well as low-barrier of entry activities for general users.
2. Operations should be limited and low-maintenance in order to be flexible and cost efficient.
3. The core business of Clinch River State Park sites and services will mostly likely be from general users, non-whitewater paddlers, and campers that elect to stay overnight either camping or in improved accommodations that support their stay and desired experience.
4. Ancillary revenue streams are advisable to support operations costs. These include but are not limited to special event, festivals, and concession operations.

## ADVISORY COMMITTEE

As required in the state code, an Advisory Committee was assembled for the Clinch River State Park planning process. There are 30 members representing 20 organizations in the Clinch River region, encompassing a wide range of perspectives and representing the general public. Organizations represented include: state, county, and town elected officials, state and local tourism boards, US Forest Service, DWR Mussel Recovery Program, Nature Conservancy, the Clinch River Valley Initiative, and Wetland Estonia Learning Center.

The Advisory Committee was involved at every stage of the master planning process, meeting three times to review and share ideas about park goals, programming, site design, and overall park master plan framework.

## PUBLIC INPUT

Public involvement in the design and development of the state park master plan is essential. Several opportunities were made available to the public throughout the process to provide opinions regarding the needs and design of Clinch River State Park, including an online program needs survey, a virtual public meeting in December 2021, an in-person meeting in February 2022, and online comment periods for 30 days following each public meeting. More than 150 members of the public shared their input, including 170 respondents to the survey, more than 40 attendees at the meetings, and over 40 comments



submitted online. The report of survey questions and results and the full list of all comments received and DCR’s response can be found in the Appendix.

The public is strongly supportive of the development and expansion of Clinch River State Park. The park’s creation was from a grassroots effort, and public support remains high. There were several themes that arose during the public input sessions, which are outlined in the paragraphs below.

### ENVIRONMENTALLY SENSITIVE DESIGN

The public consensus was that the site should be developed in an environmentally sensitive way that prioritizes natural resource conservation and enhancements, access to the Clinch River, and the natural beauty, solitude, and views of the site. There was an expressed wish that visitors be drawn to the park for the scenic features, rather than destination amenities, and that all programming on the site further the visitors understanding and appreciation of the site. Amenities that have a heavy impact on the site or other people’s peaceful enjoyment of the site were not felt to be appropriate, like a pool or ATV trails. These facilities are desired in the region, but respondents would like them located elsewhere. There was also concern that the construction and usage of the park not degrade the unit’s value, either through harm or disturbance of rare or sensitive environmental areas in construction or the park being “loved to death” with a quantity of visitors higher than the unit’s capacity.

### INCLUSIVE VARIETY OF RECREATIONAL OPPORTUNITIES

The public is interested in a park that serves a wide variety of users, both visitors and neighbors. They are looking for a wide variety of recreational opportunities for people with differing interests and abilities. There is strong support for ADA accessible facilities, or for those with mobility issues, especially for fishing and water access, but also for trails and overnight facilities. Participants indicated interest in all types of overnight facilities, water access, trails, and picnic facilities.

### INTEGRATE WITH THE SURROUNDING COMMUNITIES

There is strong support for the park to integrate with the surrounding communities. The public sees the park as an opportunity to generate more visitation to the area, which would provide economic support to the surrounding area and businesses. Participants hope the park will encourage and support economic development and local businesses. For example, allowing independent outfitters for visitor services, like fishing guides, outfitters, and gear rental, rather than operating those services directly by DCR. The region has many active volunteer groups, and they would like to be actively engaged with the state park, with cross-promotion, events, educational opportunities.

## II. CLINCH RIVER STATE PARK PROGRAMMING

A list of potential programs, or amenities, to be included in Clinch River State Park was developed based on survey input and DCR state park standards. The programs were prioritized, based on their alignment with several different factors, and then each park property was evaluated to determine which programs were suitable for inclusion at that site.

### PROGRAM PRIORITIZATION

All potential programs for Clinch River State Park were scored based on site feasibility, at either the Artrip or the Sugar Hill properties, public input, market analysis, and alignment with the park purpose. The site assessment column score was either a 0, or not feasible at either property, or 1, feasible at at least one of the two properties. Scores for the other categories were either a 0, not in alignment, 1, some support or alignment, or 2, strong support or alignment. The total points for each program were totaled, with the highest scoring programs having the highest priority for inclusion. Low priority facilities might still be included, but at a lower frequency and dependent on site conditions. This scoring shows the suitability for programming in the overall master plan. A blank scoring tool will be applied to each new site as acquired. Different Clinch River State Park sites will have different programming priorities, dependent on site conditions and public needs shifting over time.

The highest scoring program items for the development of the current anchor properties, Artrip and Sugar Hill, were overnight facilities, trails, river access, education/interpretation, and picnic facilities. Neither site is suitable for equestrian trails, due to the minimum site size required for equestrian trails, so they are not to be included in either site plan. They may be able to be included in a future park site. Spraygrounds or splashpads are not compatible with the park’s purpose statement, and will not be included within any of the Clinch River sites. The full prioritization chart is included on the next page.



*Example of standard tent camping site at a Virginia state park.*

Program	Site Assessment		Survey Evaluation		Market Analysis		Park Purpose Alignment with Park Purpose Statement	Score
	Site Feasibility	DCR Priority	Advisory Committee Priority	Public Priority	Market - Primary Service Area (2 hr. drive)	Market - Secondary Service Area (5 hr. drive)		
Camping - Tent	1	2	2	2	2	2	2	13
Camping - RV	1	2	2	2	2	2	2	12
Camping - Yurt	1	2	2	2	2	2	2	12
Camping - Paddle in	1	2	2	2	2	2	2	12
Cabins, rental	1	2	2	2	2	2	2	12
Camping - Hike in	1	2	2	1	2	2	2	11
Trails - Hiking	1	2	2	2	2	1	2	10
Trails - Blueways/water trails	1	2	2	2	1	1	2	10
Water access - fishing	1	2	2	2	2	2	2	10
Water access - paddlers	1	2	2	2	1	1	2	10
Interpretive programs, signs, etc.	1	2	2	2	2	2	2	8
Visitors Center	1	2	2	2	2	2	2	8
Trails - Mountain Bike	1	1	2	2	1	1	1	6
Picnic areas	1	1	1	1	1	1	2	6
Outdoor Classroom	1	1	2	2	1	1	2	6
Scenic driving routes	1	1	1	1	1	1	1	5
Water access - wading	1	1	1	1	1	1	2	5
Picnic shelters	1	1	1	1	1	1	2	5
Open play lawns	1	1	1	1	1	1	1	4
Playground	1	1	1	1	1	1	1	4
Amphitheatre/Event Stage	1	1	1	1	1	1	1	4
Camp Store	1	1	1	1	1	1	1	4
Gift Shop	1	1	1	1	1	1	1	4
Trails - Multi-Use (10', hard surface)	1	1	1	1	1	1	2	4
Disc golf	1	1	1	1	1	1	1	3
Sprayground/Splash pad	1	1	1	1	1	1	1	1
Trails - Equestrian	0	1	1	1	1	1	1	4

High Priority - Programs will be included in master plan  
 Medium Priority - Include in master plan as appropriate  
 Low Priority  
 Do not include

**SITE PROGRAMMING**

Based on the Clinch River State Park program suitability and prioritization, the program (amenity) list was developed for each park anchor property, the Artrip Bent and Sugar Hill Units.

**Site Suitability for Programs**

All the potential programs were evaluated for whether or not they were suitable for each of the two anchor properties. The suitability is based on site conditions and features identified in Stage 1. The Sugar Hill Unit can accommodate all programs except for equestrian trails. The Artrip Bent Unit has more limitations and there is a shorter list of programs that are suitable for that site. Suitability is evaluated as a binary score based on the design consultant's evaluation of recreation opportunities, conservation requirements, access, site features, and site context as related to the park's purpose statement and goals. A full matrix evaluation can be developed to score and weight each suitability factor as it relates to each program. This tool can be applied to the program development of future site acquisitions.

**Final Site Program List**

Collaborating with DCR staff and the Advisory Committee, the final site program list was developed for each of the two properties based on planned site character and market analysis conclusions, as well as operations requirements for the sites. The following chart lists all programs/amenities included in the final design of each site.

Final Programs List - By Site

Sugar Hill Unit	Artrip Bent Unit
Cabins, rental	Camping - Tent
Camp Store	Camping - Hike in
Camping - Group	Camping - Yurt
Camping - Hike in	Interpretive programs, signs, etc.
Camping - Paddle in	Picnicking areas
Camping - RV	Picnic shelters
Camping - Tent	Trails - Hiking
Camping - Yurt	
Event Space	
Gift Shop (combined with Visitor Center)	
Interpretive programs, signs, etc.	
Open play lawns	
Picnic shelters	
Picnicking areas	
Playground	
Trails - Blueways/water trails	
Trails - Hiking	
Trails - Mountain Bike	
Trails - Multi-Use (10', hard surface)	
Visitors Center	
Water access - fishing	
Water access - paddlers	
Water access - wading	
Supplemental Amenities	
Contact Station	Contact Station
Maintenance Area	Maintenance Area
Staff Residences	Staff Residences
Parking	Parking
Vault Toilets	Vault Toilets
Restrooms	

### III. CLINCH RIVER STATE PARK DEVELOPMENT PLAN

Clinch River State Park is unique as the first blueway state park in Virginia. The park will ultimately consist of a series of sites stretching 140 miles along the Clinch River. This situation requires an alternative master plan strategy than the standard site-specific park design and operation model in place in existing state parks. The plan for the blueway state park considers the development of existing park properties, while also planning for the acquisition and develop of future properties. Some large properties, or anchor properties, will operate similarly to standard state parks, with the types of amenities and services commonly seen in state parks. Other smaller, support properties with function as a chain of pearls supporting the Clinch River experience.

Site master plans were developed for the two anchor properties currently part of the park, the Artrip Bent and Sugar Hill Units. The plans show the types, quantities, and locations of amenities, facilities, and infrastructure on the sites. A separate framework plan outlines the future acquisition and development of sites along the Clinch River, providing general locations, types of properties, services at the sites, and potential operational strategies.



*Clinch River State Park provides opportunities to enjoy the scenery and views of the picturesque region.*

## SITE MASTER PLANS

The site master plans show the types, quantities, and locations of programming and amenities on the Atrip and Sugar Hill sites. The final designs and locations will be refined during the construction document phase, based on site survey and final design decisions. The site master plan is based on publicly available and DCR-collected survey data. It is recommended that a Phase 1 Archeological Study, Jurisdictional Waters Delineation, and biota survey be completed for both sites. The results from those studies may affect the planned site layouts and feature locations. It is also recommended that interpretive plans for the two sites be developed based on the findings from those studies.

### ARTRIP BENT UNIT MASTER PLAN

The character of the Artrip Bent Unit is planned as remote, rural, and scenic, matching the preliminary analysis of the site. The development of the property is planned to promote and enhance this character for visitors, creating lower visual and site impact opportunities for day-use and overnight-visitors to explore and experience the site. Views within the site and to the surrounding area are maintained, with most of the existing pasture being converted to managed native meadow. Roadways and overnight facilities hug the edges of the property and the existing tree lines, with new planting planned to further shield them from view. A network of hiking trails within the site will offer opportunities to explore historic sites and ridgetop views, with the potential to connect to adjacent public recreation properties. A new public entrance is planned on the east side of the site, that will provide two lanes of access without an at-grade railroad crossing. The site will be served by one or more wells, with pumphouses providing service to the property. Septic fields will be installed to serve restroom facilities.

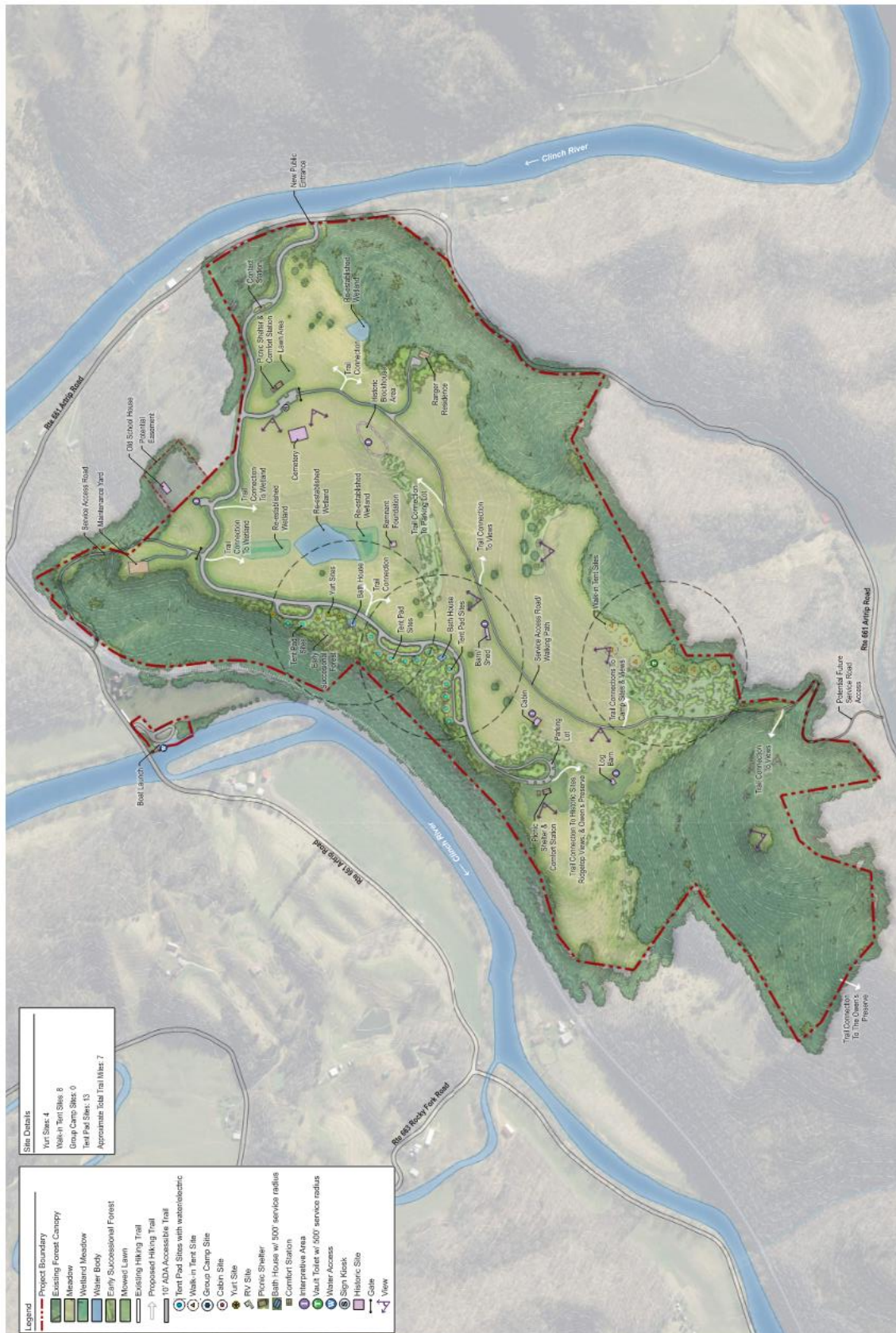
#### **Site Program List**

The following features are planned elements of the park's development:

- Walk-in tent camping sites (8)
- Tent camping pad sites (13)
- Yurts (4)
- Hiking trails
- Interpretive areas
- Historic sites
- Bathhouses (2)
- Vault Toilet
- Picnic shelters (2)
- Comfort stations (2)
- Contact station
- Ranger residence
- Maintenance facility
- Roads and parking
- Signage: entry, wayfinding, interpretive
- Managed native meadows
- Re-established wetlands
- Managed successional forest
- Mature forest

#### **Site Master Plan**

The site master plan on the following page shows the locations of all site program elements, as well as key site characteristics, like topography, water features, and land cover. A full size copy of the master plan map is included in the appendix.



**Site Details**

- Yurt Site 4
- Walk-in Tent Sites 8
- Group Camp Sites 0
- Tent Pad Sites 53
- Approximate Total Trail Miles: 7

**Legend**

- Project Boundary
- Existing Forest Campsite
- Meadow
- Wetland Meadow
- Water Body
- Early Successional Forest
- Mowed Lawn
- Existing Hiking Trail
- Proposed Hiking Trail
- 10' ADA Accessible Trail
- Tent Pad Sites with water/electric
- Walk-in Tent Site
- Group Camp Site
- Cabin Site
- RV Site
- Picnic Shelter
- Bath House w/ 500' service radius
- Comfort Station
- Interpretive Area
- Yurt Tent w/ 500' service radius
- Water Access
- Sign Mark
- Historic Site
- Gate
- View



Scale: 1" = 200'

4/11/2023

## CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN

Russell County - Artrip Bent Unit Master Plan

## SUGAR HILL UNIT MASTER PLAN

The Sugar Hill Unit is planned as active and accessible, with development clustered to avoid sensitive environmental areas. This matches the preliminary analysis of the site. The property is planned as the key regional hub for this section of the Clinch River State Park, offering visitor orientation services, multiple types of overnight facilities, river access, and a variety of other recreational opportunities for day and overnight visitors.

The unit’s development is organized into three themed use areas. The north end of the site features most of the overnight accommodations, featuring a wide variety of options like walk-in camping, tent camping pads, group camp sites, RV campground, and yurts. The south-west portion of the site is the operations and maintenance area, with staff housing and maintenance facilities. The southern toe of the site, separated by the railroad tracks, is the primary visitor services area, with the visitors center, picnic facilities, playground, trailheads, and water access. This area does include some overnight facilities, tucked off from day-visitor use areas for privacy. Clustering the programming by use areas creates privacy between day and overnight visitors, security management for park service facilities, and easier wayfinding for visitors.

The unit’s development offers a wide array of services and recreational opportunities, while conserving the ecological and natural features of the site. Most of the site’s mature forest will be preserved, as will the views down the south slope of the site across the managed meadow. Access to additional views on the sites will be created through road and trail connections. The existing pedestrian access from the Town of St. Paul onto the site will be maintained.

A new public entrance is planned on the north side of the site to US-58, that will provide safer and more convenient public access to the site. Public water and sewer lines are present along US-58 and could be of consideration for utility connections. Should public utility connections prove infeasible or cost prohibitive, the site will be served by two or more wells, with pumphouses providing service to the property. Septic fields will be installed to serve restroom facilities.



*Drone photo of the Clinch River horseshoe at Sugar Hill Unit, looking north.*



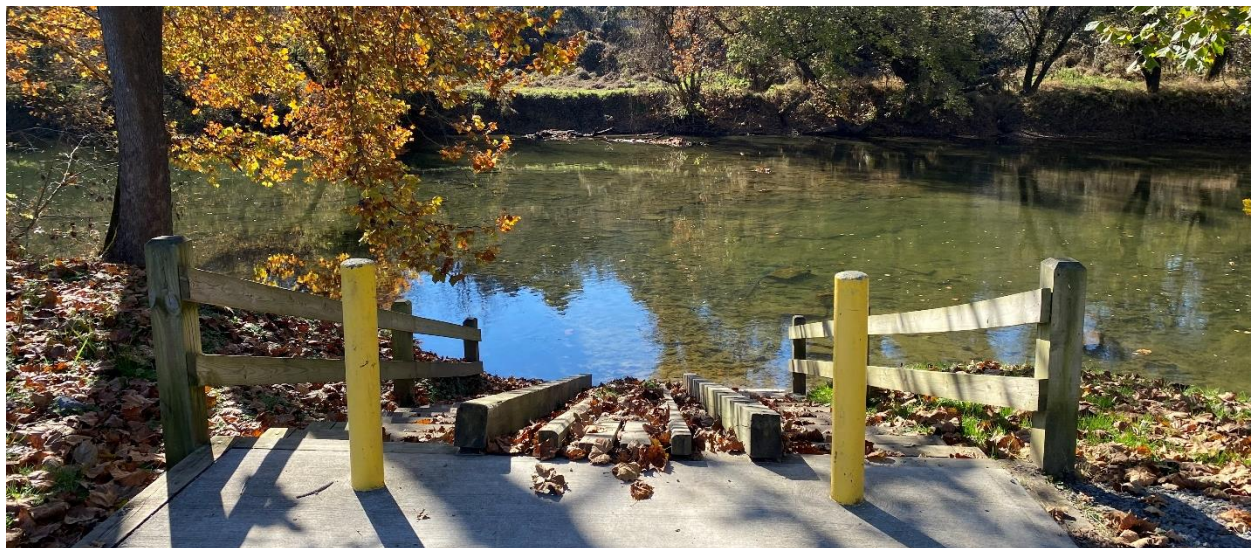
**Site Program List**

The following features are planned elements of the Sugar Hill Unit’s development:

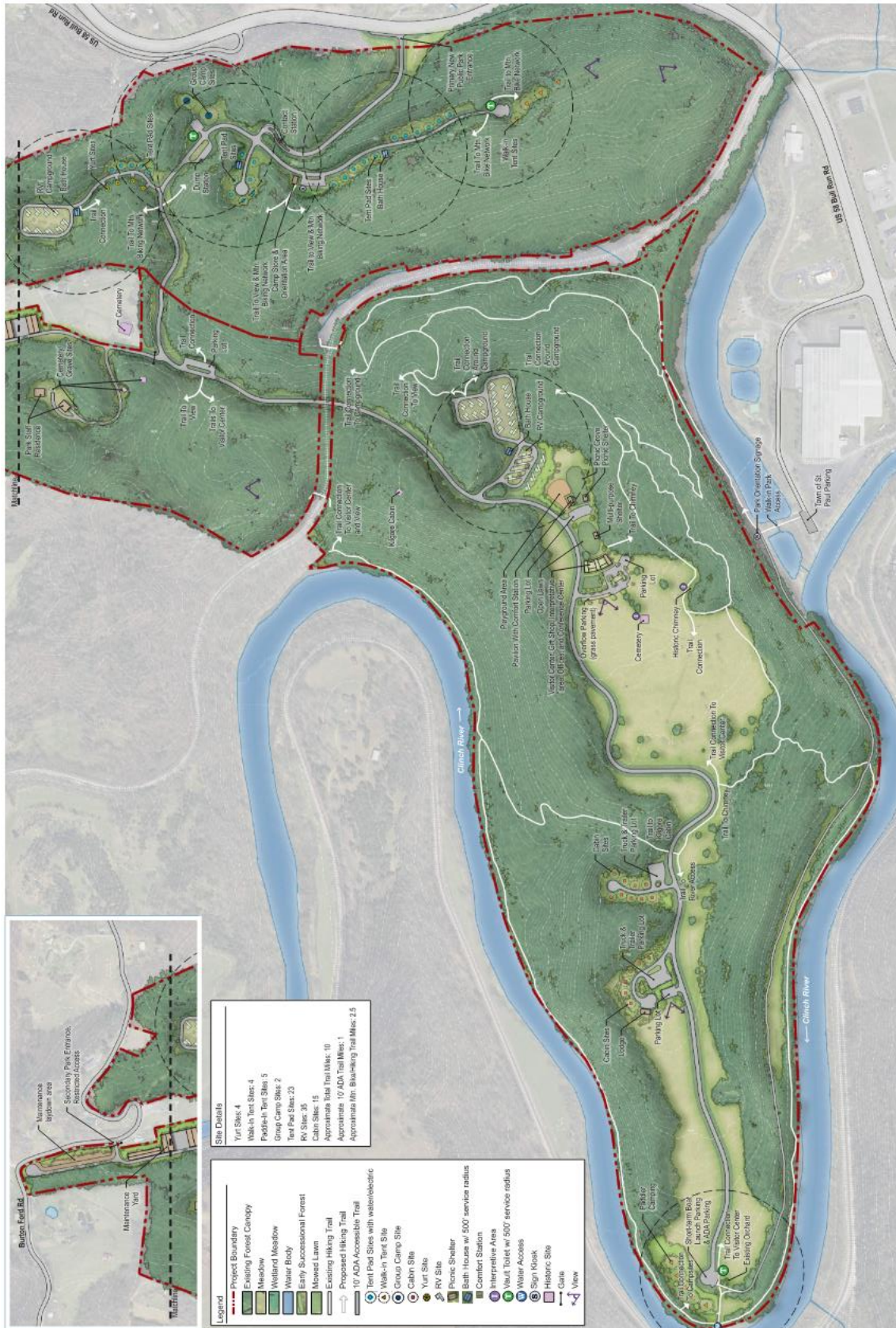
- Paddle-in tent camping sites (5)
- Walk-in tent camping sites (4)
- Tent camping pad sites (23)
- Group camping sites (2)
- RV camping sites (35)
- Yurts (4)
- Cabins (15)
- 6-Bedroom lodge (1)
- Hiking trails
- Mountain biking trails
- Accessible trails
- Canoe/kayak launch
- Visitor Center (with gift shop, offices, and meeting space)
- Camp store
- Playground
- Interpretive areas
- Historic sites
- Comfort stations (1)
- Bathhouses (4)
- Vault toilets (2)
- Picnic area
- Picnic shelter (1)
- Multi-purpose shelter
- Signage: entry, wayfinding, interpretive
- Contact station
- Ranger residence
- Maintenance facility
- Roads and parking
- Truck and trailer parking
- Managed native meadow
- Mature forest

**Site Master Plan**

The site master plan on the following page shows the locations of all site program elements, as well as key site characteristics, like topography, water features, and land cover. A full size copy of the master plan map is included in the appendix.



*Boat slides like the one above are critical infrastructure providing paddlers access to the river.*



**Site Details**

- Yurt Sites: 4
- Walk-in Tent Sites: 4
- Paddle-In Tent Sites: 5
- Group Camp Sites: 2
- Tent Pad Sites: 23
- RV Sites: 16
- Cabin Sites: 15
- Approximate Total Tent Miles: 10
- Approximate 10' ADA Trail Miles: 1
- Approximate 40' ADA Trail Miles: 2.5

**Legend**

- Project Boundary
- Existing Forest Canopy
- Meadow
- Wetland Meadow
- Water Body
- Early Successional Forest
- Mowed Lawn
- Existing Hiking Trail
- Proposed Hiking Trail
- 10' ADA Accessible Trail
- Tent Pad Sites with water/electric
- Walk-in Tent Site
- Group Camp Site
- Cabin Site
- Yurt Site
- Picnic Shelter
- Bath House w/ 500' service radius
- Comfort Station
- Interpretive Area
- View of Toilet w/ 500' service radius
- Water Access
- Sign Hike
- Historic Site
- Gate
- View

## PARK MASTER FRAMEWORK PLAN

Clinch River State Park is envisioned as a “string of pearls” along the Clinch River, stretching 140 miles from Tazewell, Virginia to the Virginia-Tennessee state line. This section describes the types of properties and services that will create the state park, maps recommended locations for the river access sites, and outlines general park management and site development recommendations. This master plan is intended as a framework to guide the park’s development. Additional detailed assessments and plans will be required as the park grows and expands services.

### SITE DEVELOPMENT LEVELS

The park will offer a variety of experiences along the river, with a series of facilities to support day and overnight trips in this area of unique natural beauty, ecological diversity, cultural history, and thriving communities. Large properties with diverse recreational offerings will serve as anchor properties for this river-based state park, with smaller sites providing water access, visitor day-use support, and overnight paddler camping opportunities.

The long-term goal is to provide the opportunity for a continuous float from the town of Tazewell 140 miles to the Tennessee state line, with a variety of shorter user experiences along that length. There will be differences in paddle skill level required, riverbank character, river trip length, and community interaction that will appeal to different user groups and offer visitors different engagement opportunities over multiple visits.

Overnight paddler camping sites are spaced a maximum of 11 river miles apart, or a 5.5-11 hour float time, with day use support facilities accessible to the paddlers spaced approximately every 3 miles, or a 1.5-3 hour float time. Anchor properties are located along or near the river, serving as hubs for visitor orientation and providing a set of expanded services and experience opportunities.

The following sections describe the characteristics, purpose, and amenity standards of each type of site development.



*View of the Clinch River during sunset.*

**Anchor Properties**

*250+ acres, located as opportunities arise to share a unique experience or aspect of the Clinch River*

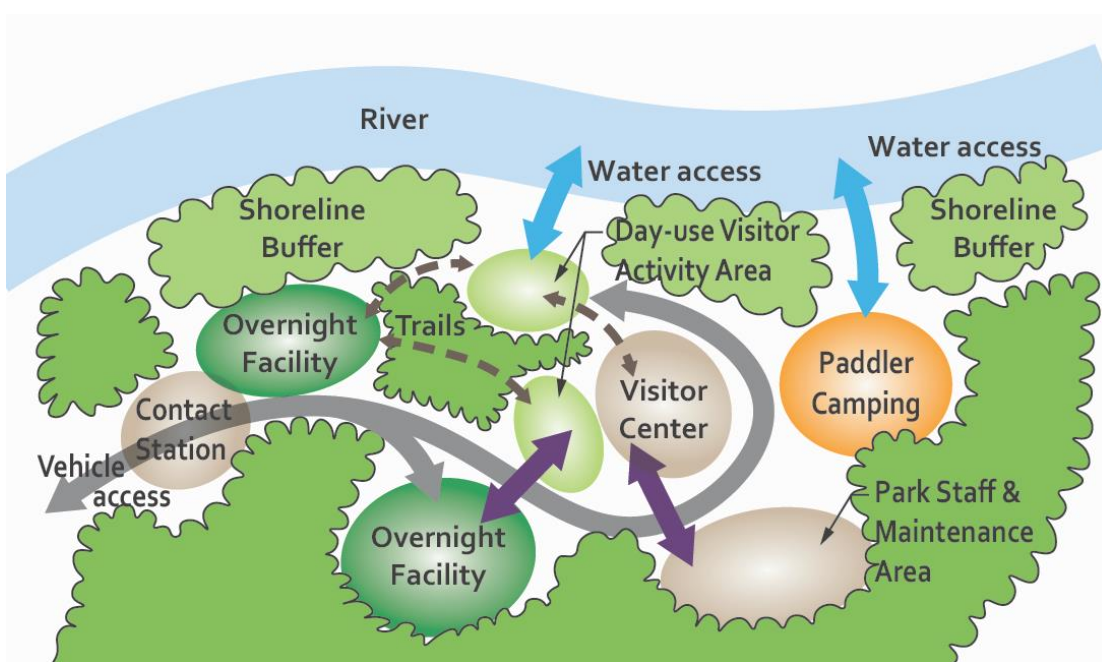
Anchor properties serve as hubs for the Clinch River State Park. They are large properties developed to offer a range of recreational opportunities and services for day and overnight visitors. Their locations should be site opportunity-based, show-casing a unique physical, ecological, or cultural experience or aspect of the Clinch River. It is recommended that CRSP acquire additional properties as appropriate, spaced along the entire river length. Ideally, anchor properties are located near established communities and arterial roadways. Anchor properties will be owned and maintained by CRSP.

Standard Amenities

- Vehicular access and parking
- Orientation and interpretive signage
- Canoe/kayak launch
- Visitor contact and information station
- Picnic facilities
- Trails
- Variety of overnight facility types
- Ranger residence
- Maintenance facility

Optional Amenities (as appropriate)

- Fishing facilities
- Expanded trail types
- Picnic shelter
- Event shelter
- Event space
- Gift shop
- Conference center
- Camp store
- Playground
- Wifi



*Diagram of programming relationships at an Anchor Property*

**Level 1: Overnight River Support Site**

*2-10 acres, 11 river miles maximum spacing*

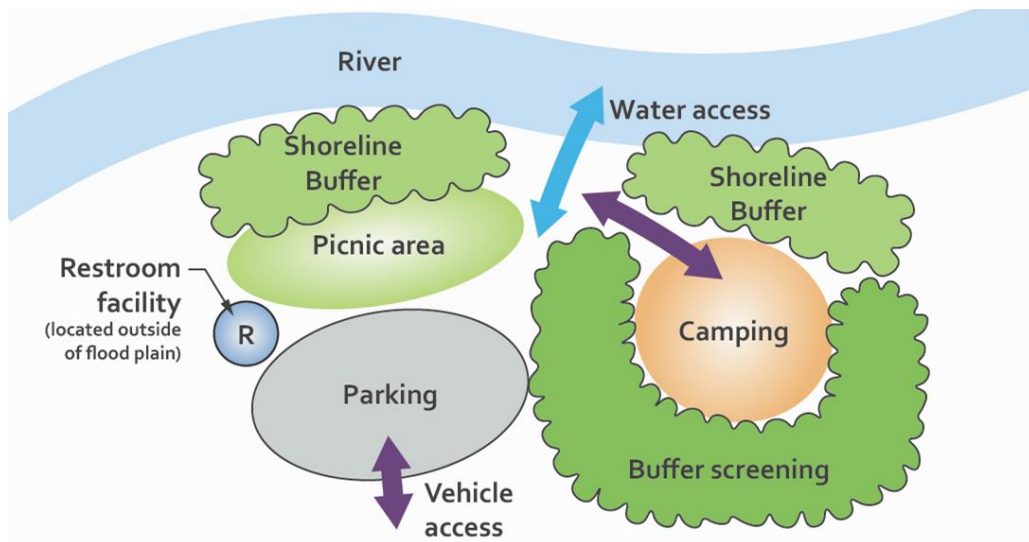
Level 1 sites are developed to facilitate and serve the needs of visitors on overnight paddle trips, providing water access and overnight camping facilities, as well as providing interim resting points for day-users. Sites may be accessible by the public from only the river, but if the opportunity is available, vehicular access should also be provided, creating a river put-in/take-out point. Depending on the site’s size, public use levels, and features, additional amenities beyond those related to overnight camping could be installed, like interpretive signage, trails, or picnic shelters. The sites can be developed and managed by DCR or in partnership with another agency or public entity. Level 1 sites are classified by their primary purpose of providing paddler’s overnight camping facilities, and may be integrated into a property providing other services, even a CRSP Anchor Property. There may be opportunities to locate Level 1 sites on properties with limited interior road access if there is appropriate water access and developable land to support overnight camping and facilities. It is recommended that Level 1 sites be spaced approximately 8-11 miles along the river, to support overnight and multi-day river trips. If certain sections of the river are found to be popular, additional overnight facilities can be developed with a closer spacing or Level 2 Day-Use river support properties be expanded to provide camping facilities.

Standard Amenities

- Identification and safety signage
- Map and orientation signage
- Canoe/kayak put-in
- Boat racks
- Campsites
- Vault toilet
- Picnic facilities

Optional Amenities (as appropriate)

- Vehicle access and parking
- Wifi
- Interpretive signage
- Fishing facilities
- Trails
- Picnic shelter



*Diagram of programming relationships for a Level 1 site*

**Level 2: Day-Use River Support Site**

*0.5-5 acres, 3 river mile maximum from another support site*

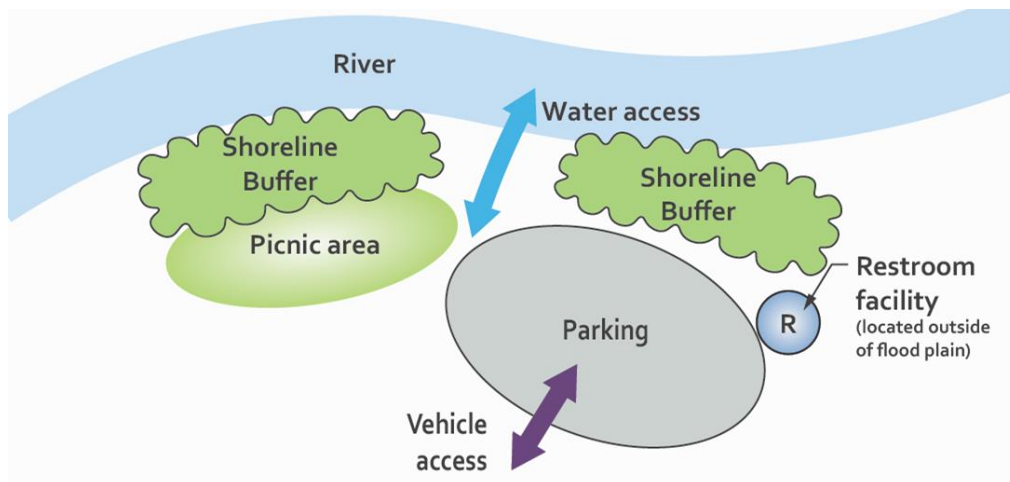
Level 2 facilities are developed to serve as interim rest and support locations for paddlers on the Clinch. Sites would include take-out facilities, picnic sites, and restroom facilities at a minimum, with additional day-use amenities provided as appropriate. The primary user group is paddlers, so sites may be accessible by the public from only the river. If the opportunity is available, vehicular access should also be provided, creating a river put-in/take-out point. The sites can be developed and managed by DCR or in partnership with another agency or public entity. Level 2 river support sites can be integrated into sites managed for another primary purpose, including CRSP Anchor properties. It is recommended that riverbank resting sites be provided at a maximum spacing of 3 river miles, to provide resting points every 1.5-3 hours for those on the river. Level 2 sites can be provided at closer spacing, depending on visitor use levels and vehicular access opportunities.

Standard Amenities

- Identification and safety signage
- Map and orientation signage
- Canoe/kayak put-in
- Restroom facility (port-a-jon, vault toilet, or composting toilet)
- Picnic facilities

Optional Amenities (as appropriate)

- Vehicle access and parking
- Wifi
- Interpretive signage
- Fishing facilities
- Picnic shelter



*Diagram of programming relationships for a Level 2 site*

## PARK SITE MAPPING

Clinch River State Park provides consistent and standardized river access and support facilities through a network of river access and amenity sites. Some of the sites are owned by DCR and others owned by other agencies or public entities and managed in partnership with DCR to create the Clinch River experience. There are existing publicly accessible canoe/kayak put in sites along the entire river from Tazewell, VA to the Tennessee state line. The river between Tazewell (mm 0) and Cedar Bluff (mm 20) is a low flow section with dams impeding use and is not considered part of the current navigable route. This section of the Clinch River is used for recreation seasonally, most especially by people tubing. There is the potential that this section could be developed for education and water-based activities, as well as overnight trips during appropriate flow conditions.

The proposed site mapping expands on the existing access facilities and identifies general locations of potential new facilities to fill in service gaps and provide amenities to facilitate a multi-day paddle of the entire 140 river miles from Tazewell to the state line. The potential site access locations are recommendations based on generalized float times and previous DCR river site analysis. Site investigation will be required to select potential parcels and determine suitability. All potential water access points designated in the master plan shall be subject to regulatory permits and review prior to construction development. Only upon approval from agencies such as Department of Wildlife Resources (DWR), Virginia Marine Resources Commission (VMRC), US Army Corps of Engineers (ACOE) and DCR shall the site be constructed.

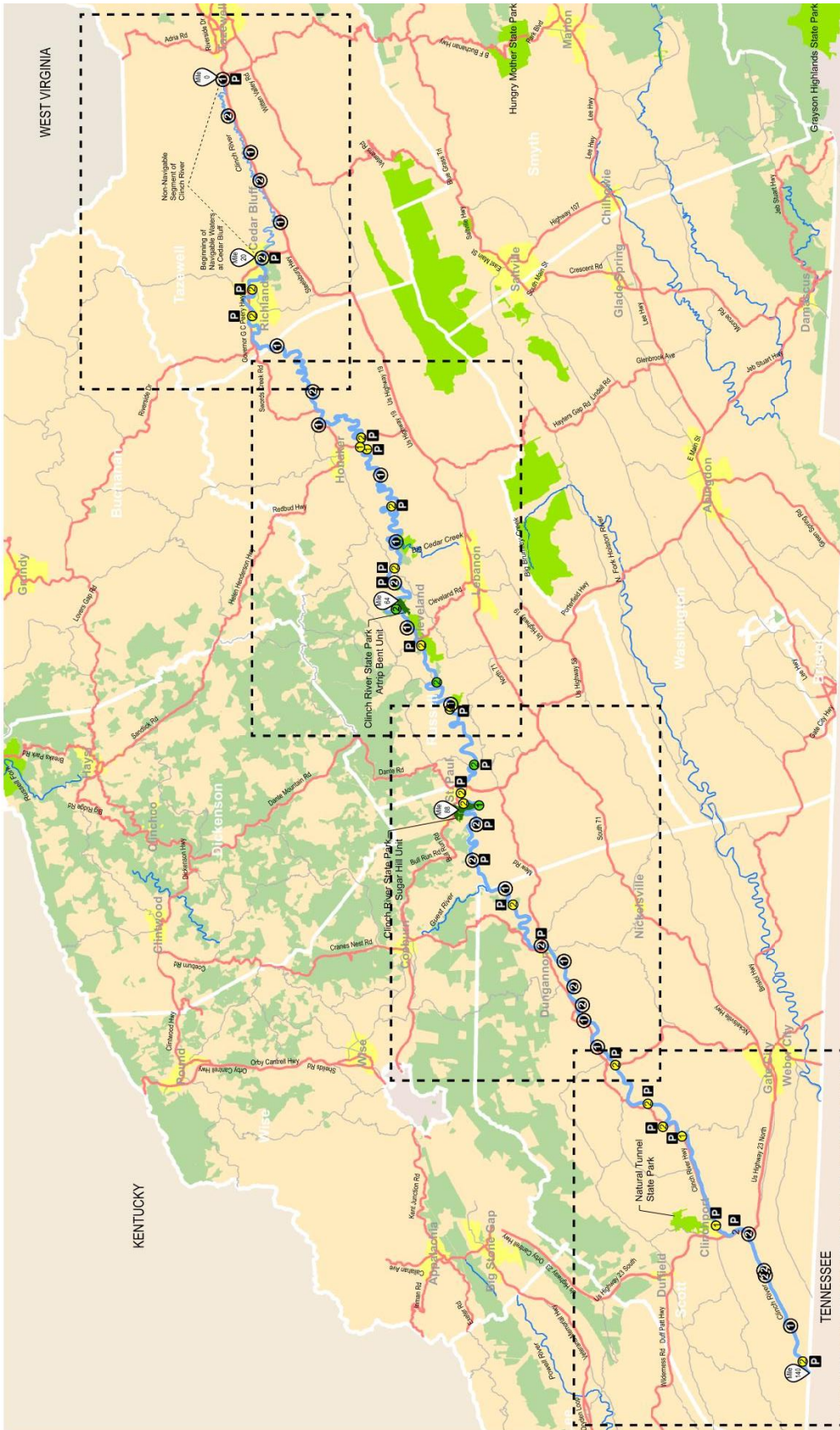
The map identifies the sites as Level 1 Overnight and Level 2 Day-Use. The Level 1 sites are spaced a maximum of 11 miles or a full day float, with Level 2 sites spaced in between so that there is a maximum of 3 miles between resting points. Though river points are spaced as evenly as possible, the variable river character and put-in access will facilitate different river experiences, so that visitors will have a diverse set of opportunities to choose from.

Opportunities may arise to develop additional river support sites or develop day-use sites with overnight capacity. This map is intended as a framework plan and it is expected the final site development map will vary.

Sites with current vehicular access and parking are marked on the plans. The existing river access points provide put-in opportunities for the full length of the Clinch River. There are variable distances between existing put-in locations. Developing the additional proposed river access sites with river access whenever possible will expand the possible river experiences available to the public, opening sections of the river to half or full-day trips that are not currently possible.

The map also identifies conservation lands managed by state, federal, local, and private agencies. These properties could potentially include river support or river access sites. Other potential partnership opportunities for facility location includes municipal properties, VDOT access, and utility companies. There is the potential for partnership opportunities related to the Clinch River State Park across the region, beyond those directly adjacent to the river.

Refer to the **Overall Master Plan Map** on the following pages and in the Appendix for the map of proposed Clinch River State Park sites.

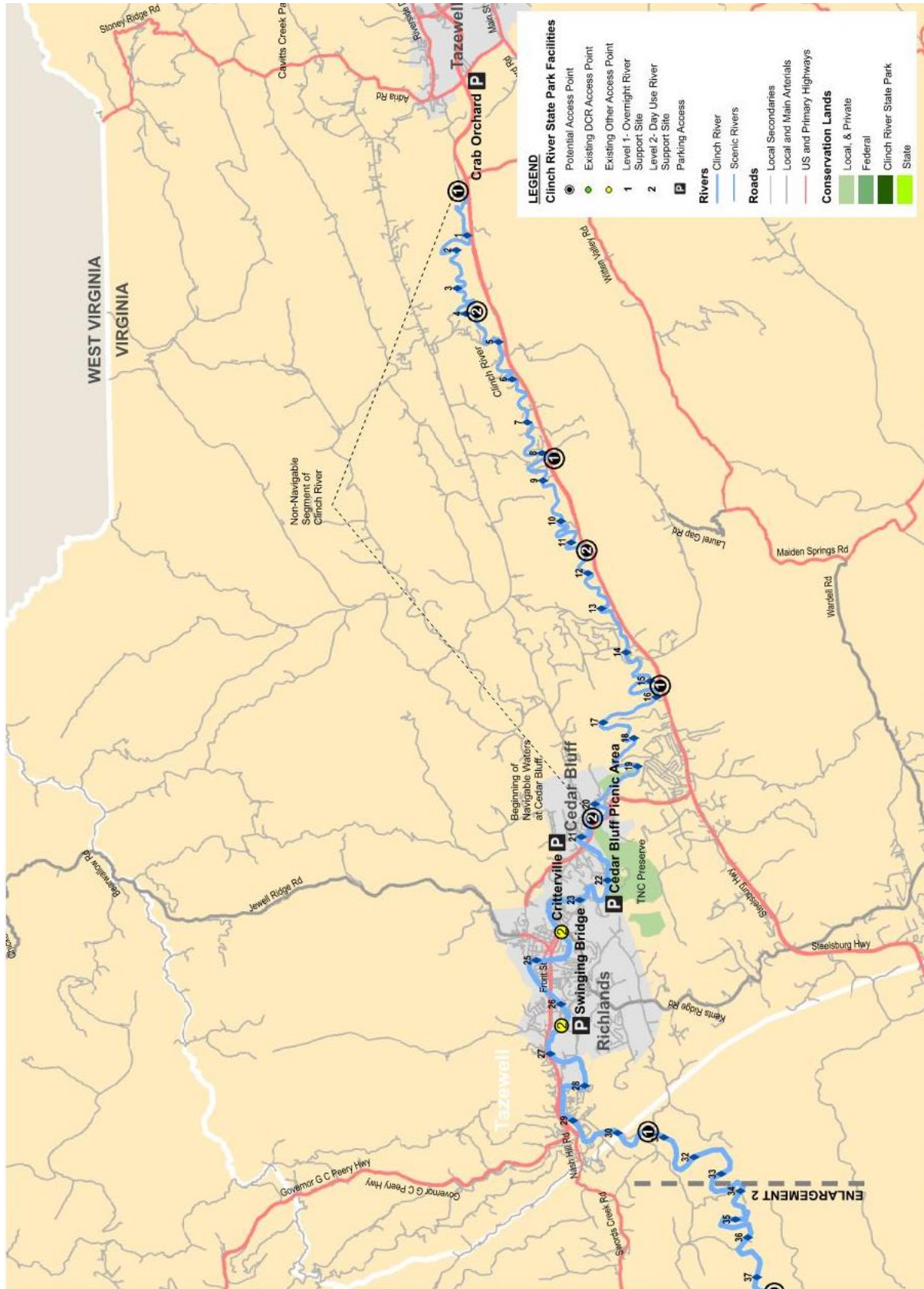


**CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN** 03/29/2023

Overall Master Plan: Tazewell to Tennessee State Line

Scale: 1" = 5 Miles





03/29/2023

SCALE: 1" = 2 MILES

1 MI 0.5 MI 0

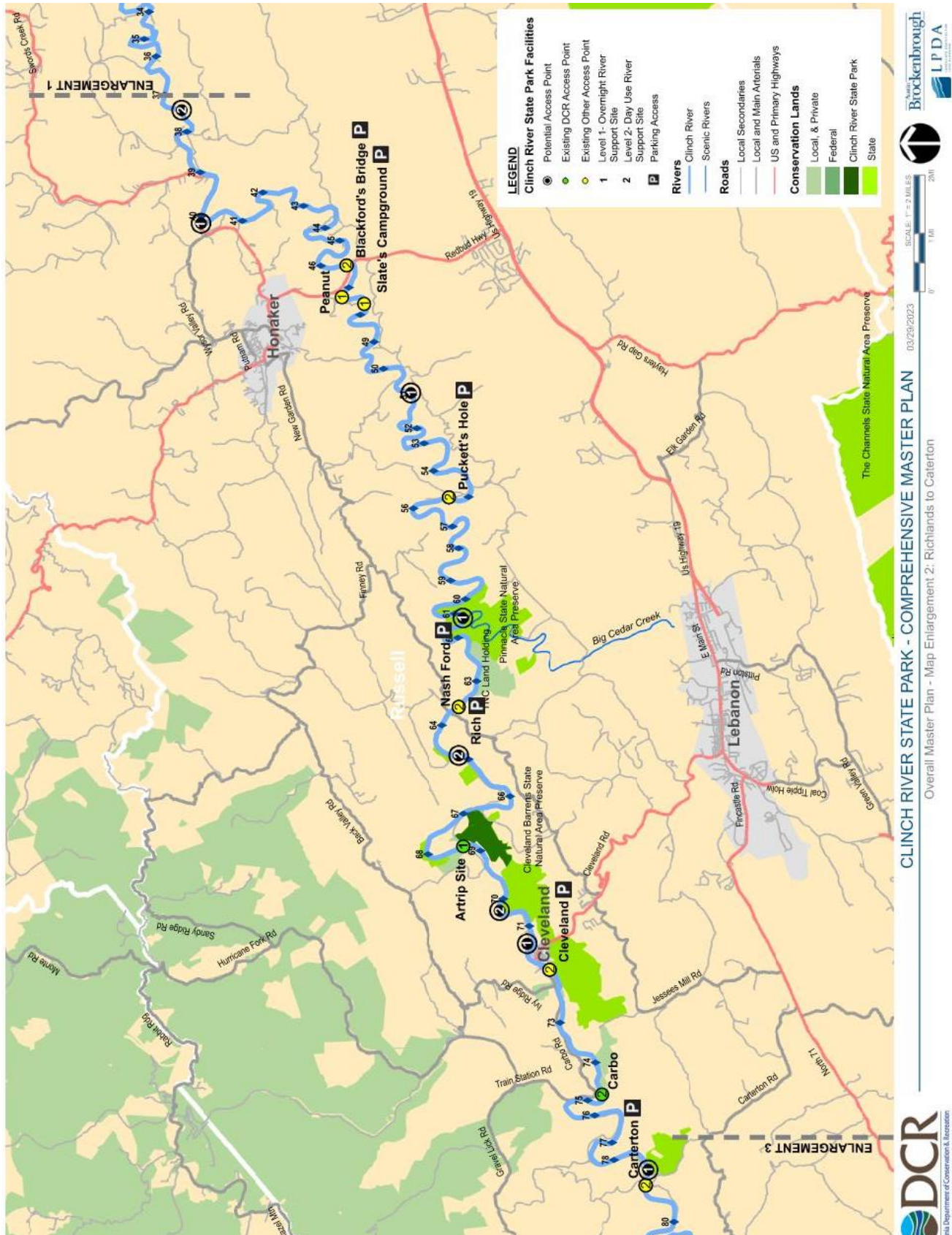
Overall Master Plan - Map Enlargement 1: Tazewell to Tennessee State Line

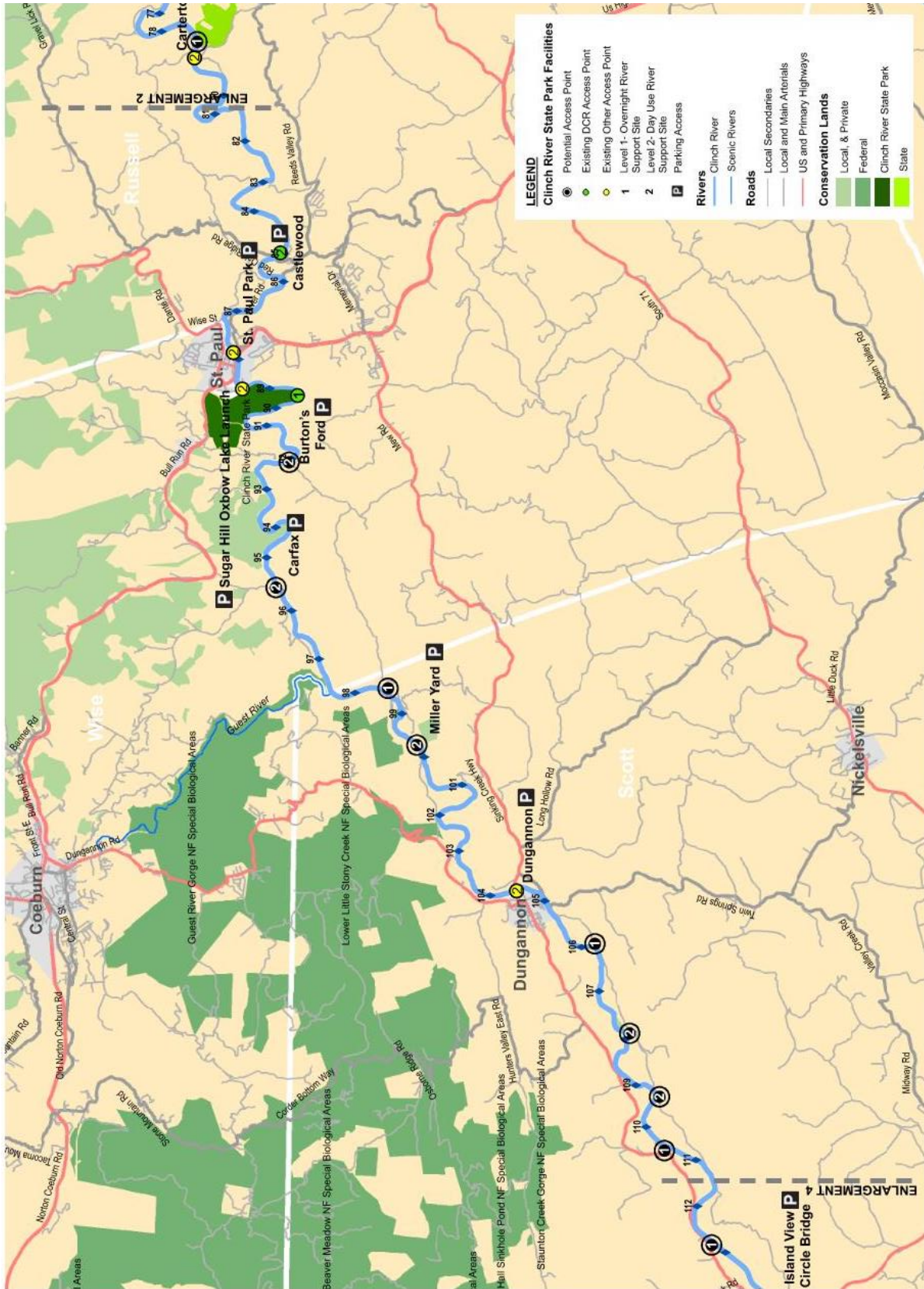
CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN

Map Enlargement 1: Tazewell to Tennessee State Line

DCR Virginia Department of Conservation & Recreation

Map by Brockenbrough LPDA



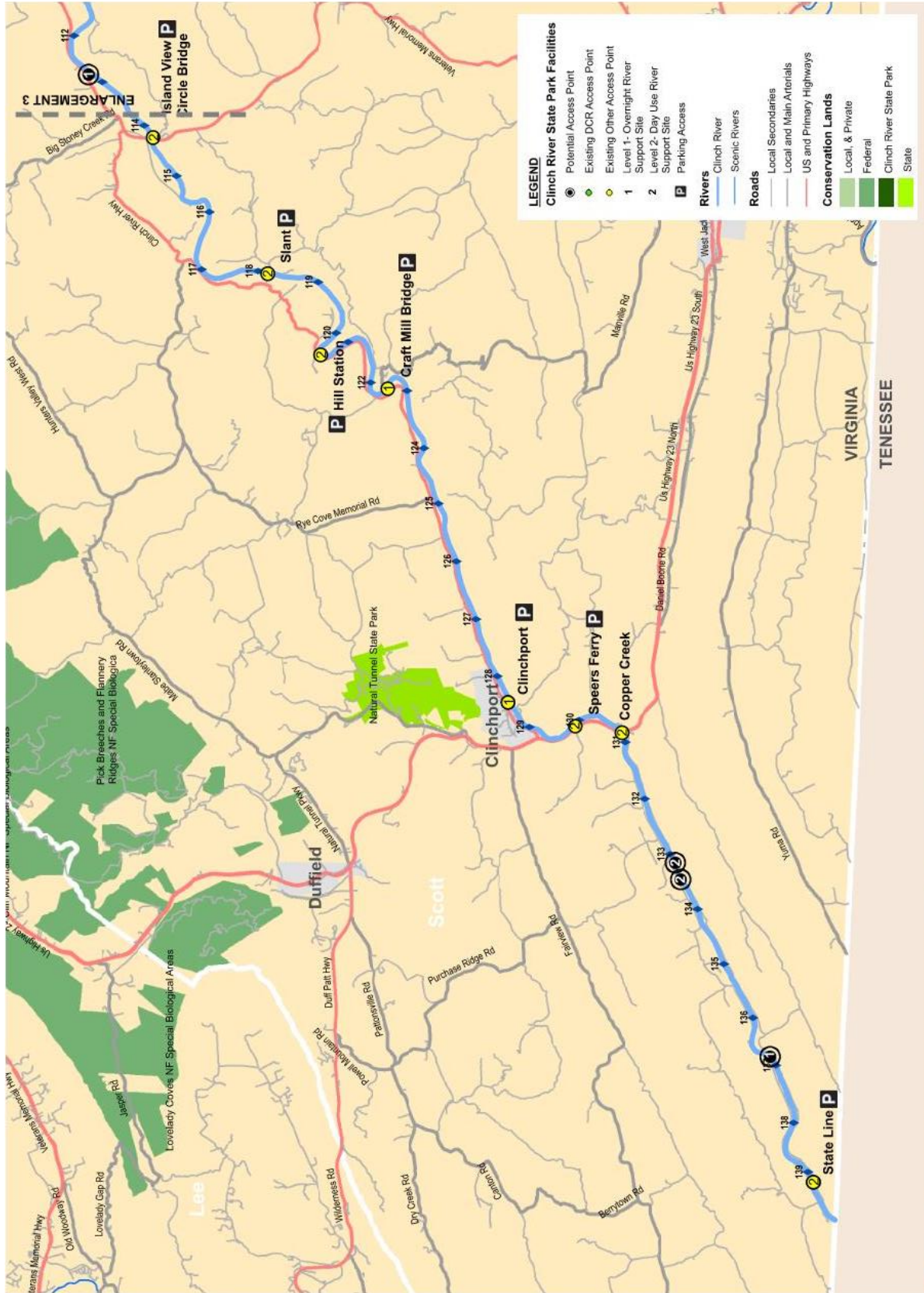


03/29/2023

## CLINCH RIVER STATE PARK - COMPREHENSIVE MASTER PLAN

Overall Master Plan - Map Enlargement 3: Carterton to Island View





## PARK DEVELOPMENT PROCESS RECOMMENDATIONS

### **Design Standards**

Clinch River State Park and the river experience consists of non-contiguous properties under a range of management partners. To provide a cohesive user experience and visitor orientation, all properties need to be developed to a standard level of service and design for the amenities, maintenance, and signage. It is recommended that a facilities handbook be developed that includes design standards for wayfinding and regulations signage, furnishing products, lighting standards, and construction details for campsites, canoe/kayak put-ins, fencing, etc. The handbook will detail branding, materials, and maintenance schedules. Existing state agency standards can be used as the basis for the handbook's content.

### **Partnerships**

All sites will be located as opportunities arise, either under direct ownership and operation by DCR or in partnership. Partnership in locating, developing, and managing sites is highly encouraged as an effective way to increase river access, support local economies, further the region's identity. DCR may be able to partner with other state, federal, or local agencies; non-profits, businesses, or private owners.

### **Property Selection**

The Clinch River is actively marketed as a recreational river, with river put-in access points currently existing between Tazewell to the Tennessee state line 140 river miles downstream. The existing access points are managed by DCR, DWR, and other agencies. Adding additional properties will increase the accessible river area, as well as provide support for a range of float times and experiences, including providing the option for overnight or multi-day float trips down the river.

### Evaluation

All sites considered for inclusion in the state park network should be analyzed for opportunities and potential restrictions, first to determine suitability for acquisition and then if acquired, the results incorporated into the site's master plan. The process should follow Virginia state standards at a minimum. Open lines of communication and data sharing should be established between CRSP, departments within DCR, and other state agencies to facilitate the evaluation process and site understanding. The following surveys should be conducted prior to site master planning:

- Environmental Desktop Review –*research of state and federal databases to create a report narrative and maps showing the parcel boundary, topography, soils, wetlands, floodplains, hazardous materials, cultural resources, and threatened and endangered species. This review should be conducted per NEPA standards should federal funds be proposed to be used.*
- Phase I Cultural Resource Survey – *identify and record all cultural resources within the site boundary through desktop and fieldwork.*
- Ecological Resources Survey – *identify and record all environmental resources within the site boundary, including sensitive environmental areas and plant communities.*

Results from the initial surveys may require that further investigation be performed, potentially including:

- Phase II Archaeological Testing and Evaluations – *determine the extent and significance of the archeological and cultural resources on the property.*
- Ecosystem Mapping – *field mapping ecological community types, including rare/endangered plant communities.*

### **Property Development**

#### Site Master Planning Process

Once sufficient information on the inventory and resources of the site have been gathered and it has been determined suitable for development, a site development plan should be developed using the following steps:

- Viewshed Analysis – *use geographic informational systems to assess key viewsheds into and out of the site and identify sensitive elevations.*
- Opportunities and Constraints Analysis Mapping – *using desktop and field visit information, map areas for potential development, screening, access, preservation, points of interest, views, and any other unique features or opportunities.*
- Site Programming List – *develop a list of programs for the site that aligns with the planned development level and site character.*
- Site Master Plan – *create a site master plan locating the program elements with respect to the site’s physical opportunities and constraints.*
- Order of Magnitude Estimate of Probable Development Cost – *an order of magnitude estimated cost of development should be developed to aid with budgetary planning and project phasing.*
- Market Analysis and Business Plan – *dependent on the scale of the project, a market analysis and business plan may be required to determine appropriate programming, phasing, and management and operation. A market analysis and business plan should always be developed or updated for anchor property planning.*
- Public Comment – *public input should be solicited on the proposed project, potentially through stakeholder groups, public meetings, and online posting.*
- Agency Correspondence – *correspondence with related state and federal agencies complies with NEPA requirements and facilitates more complete site understanding and potential project impacts. Outreach between agencies should happen early in the initial process for data collection and continue through draft site plan review. Relevant agencies may include the State Historic Preservation Office (SHPO), Tribal Historic Preservation Officers (THPO), the Advisory Council on Historic Preservation, Virginia Department of Historic Resources (DHR), U.S. Fish and Wildlife Service, National Marine Fisheries Service, Virginia Division of Natural Heritage, Virginia Department of Wildlife Resources, Virginia Department of Environmental Quality, U.S. Army Corp of Engineers.*

### Site Development and Construction

Site construction plans and installation will be based on the site master plan. The development scope should be considered based on National Environmental Policy Act (NEPA) standards, with a Categorical Exclusion assigned or an Environmental Assessment and Environmental Impact Statement, if necessary. The general steps should be as follows:

1. Determine project impacts
2. Confirm avoidance
3. Mitigation as necessary
4. Project permitting

The site may be developed in phases, depending on anticipated costs or use levels. Please note that the order of magnitude cost estimate may need to be updated if the project’s construction timeline is extended or there are shifts in the construction market. Site survey, construction plans, permitting, construction administration, and site development should all be conducted in accordance with state standards and industry best practices.

### **Phasing**

The scope of Clinch River State Park requires phasing to accomplish. Some sections of the river have evenly spaced existing access points, while other sections currently have no public access. To open state park services to the public as quickly as possible, this report recommends prioritizing improvements in an area with existing river access and DCR owned properties. Developing this section will provide visitor service facilities in the central portion of the river area, supporting later development upstream and downstream. Also, Level 1 overnight river-accessible support facilities between the two anchor properties will create a new recreational experience for paddlers of the Clinch.

The Artrip and Sugar Hill CRSP anchor properties should be developed to provide visitor orientation and services, expanding the variety recreational opportunities and overnight accommodations in further stages. DCR should pursue parcel acquisitions for the anchor properties as appropriate. To create a new visitor experience opportunity, a Level 1 overnight river support site should be developed between the two anchor properties. This will create the opportunity for overnight floats, a recreational opportunity that does not currently exist on the Clinch River. As appropriate, all existing river access points along the Clinch River should be signed with consistent CRSP signage and orientation maps to build the branding and cohesion of the park project.

Later phases of the park development will include the redevelopment of existing access points to meet level of service standards; identification and acquisition, either through ownership or partnership, of additional properties as identified in the overall master plan; and locating, acquiring, and developing additional anchor properties.

### **TOP CLINCH RIVER STATE PARK CAPITAL DEVELOPMENT PRIORITIES**

1. Conduct acquisitions on existing anchor properties.
2. Phase 1 development of Sugar Hill and Artrip Bent Unit anchor properties.
3. Develop river support sites between Artrip Bent and Sugar Hill Units.
4. Installing branded and consistent signage at all existing river access points between Artrip and Sugar Hill, where necessary.

## IV. PARK DEVELOPMENT PHASING AND COSTS

The development of Clinch River State Park is projected to occur over approximately 30 years in a phased approach that supports the ability to launch two separate but linked park units in a thoughtful and strategic manner. At 10-year intervals there will be updates to the comprehensive master plan, reviewing accomplishments, needs, and gathering public input. Development could be soon or longer than 30 years, dependent on funding. The current strategy is to develop the park in four primary phases:

- **Acquisition Phase** (current)
- **Development Phase 1** - initial park infrastructure and activation of day-use areas at Sugar Hill Unit, basic infrastructure at Artrip Bent Unit. Any development at the Artrip Bent Unit will not begin until all acquisition work at this site is complete.
- **Development Phase 2** - initial overnight accommodations at Sugar Hill Unit, expanded day-use area development at Artrip Bent Unit.
- **Development Phase 3** – expansion of overnight accommodations and day-use areas at Sugar Hill Unit, overnight accommodations at Artrip Bent Unit.

These development phases do not have specific timelines associated with them as they will largely be pursued as capital funding is available. Note that Phase 1 is solely the development of basic infrastructure and that which supports day-use of the park. Overnight accommodations are projected to be developed in Phases 2 and 3.

Below is a more detailed description of the planned improvements. Complete lists of the improvement phasing can be found in the *Market Analysis and Business Plan* in the Appendix.

<b><u>Phase 1</u></b>	<b><u>Phase 2</u></b>	<b><u>Phase 3</u></b>
<ul style="list-style-type: none"> <li>• <u>Sugar Hill Unit</u>: Entrance road, utilities, Contact Station, Visitor Center, maintenance shop, trails, boat launch, picnic shelters (2), staff residence.</li> <li>• <u>Artrip Bent Unit</u>: Entrance road, payment station, maintenance yard, staff residence.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Sugar Hill Unit</u>: Variety of camping types (30-37 sites), yurts (4), picnic shelter (1).</li> <li>• <u>Artrip Bent Unit</u>: Contact Station, picnic shelters (2), comfort stations (2), utilities, trails.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Sugar Hill Unit</u>: RV campground (20-25 sites), cabins (12-15), lodges, group campsite, final utility needs.</li> <li>• <u>Artrip Bent Unit</u>: Campgrounds (18-22 sites), yurts (4), bathhouses (2), final utility needs.</li> </ul>



## FINANCIAL PRO FORMA

Industry best practices and local circumstances drove the development of an operational model and business strategy that aligns with the expected development phases of the park, culminating in a project financial pro forma at each development phase.

The table below details the projected operational pro forma for both conservative and aggressive visitation projections as detailed with the business plan. The projected expenses and revenues are calculated for each phase, with the difference calculated as the required loss coverage and cost recovery percentage. These are projected as annual financial performance expectations based on the two usage scenarios across all three phases of development. Though there are no set timelines for the phased development, it is assumed that Phase 2 will not be developed until some years after Phase 1 is complete, and Phase 3 not developed until some number of years after Phase 2 is complete. As a result, conservative usage levels at each phase of development subsequent revenue generation are slightly higher than the previous phase.

	Development Phase 1 Complete		Development Phase 2 Complete		Development Phase 3 Complete	
	Conservative	Aggressive	Conservative	Aggressive	Conservative	Aggressive
<b>Expenses</b>						
FTE Personnel	\$ 283,887	\$ 298,081	\$ 546,191	\$ 573,501	\$ 685,605	\$ 719,885
Wage/Seasonal Staff	\$ 163,800	\$ 171,990	\$ 327,080	\$ 343,434	\$ 353,737	\$ 371,424
Materials and Supplies	\$ 5,000	\$ 5,250	\$ 10,000	\$ 10,500	\$ 10,815	\$ 11,356
Equipment	\$ 5,000	\$ 5,250	\$ 10,000	\$ 10,500	\$ 14,000	\$ 14,700
Utilities	\$ 15,000	\$ 15,750	\$ 20,000	\$ 21,000	\$ 30,000	\$ 31,500
Marketing	\$ 1,000	\$ 1,050	\$ 10,000	\$ 10,500	\$ 13,000	\$ 13,650
Maintenance	\$ 18,000	\$ 18,900	\$ 20,000	\$ 21,000	\$ 25,000	\$ 26,250
Miscellaneous	\$ 7,500	\$ 7,875	\$ 10,000	\$ 10,500	\$ 10,605	\$ 11,135
<b>subtotal</b>	\$ 499,187	\$ 524,146	\$ 953,271	\$ 1,000,935	\$ 1,142,762	\$ 1,199,900
<b>Revenues</b>						
Parking	\$ 66,500	\$ 87,500	\$ 72,500	\$ 95,600	\$ 79,025	\$ 103,523
Camping	-	-	\$ 124,500	\$ 150,000	\$ 135,705	\$ 177,774
Cabins / Yurts	-	-	\$ 95,333	\$ 124,667	\$ 286,000	\$ 374,000
Equipment rental	\$ 30,000	\$ 37,500	\$ 48,000	\$ 60,000	\$ 60,000	\$ 75,000
Picnic shelter rental	\$ 12,500	\$ 18,750	\$ 25,000	\$ 37,500	\$ 27,250	\$ 40,875
Additional Ancillary / Support Programs and Services	\$ 5,000	\$ 8,333	\$ 10,000	\$ 16,667	\$ 15,000	\$ 25,000
<b>subtotal</b>	\$ 114,000	\$ 152,083	\$ 375,333	\$ 484,433	\$ 602,980	\$ 796,171
<b>Total</b>	\$ (385,187)	\$ (372,063)	\$ (577,938)	\$ (516,501)	\$ (539,782)	\$ (403,729)
<b>Cost Recovery Percent</b>	23%	29%	39%	48%	53%	66%
<b>Required Loss Coverage</b>	\$ 385,187	\$ 372,063	\$ 577,938	\$ 516,501	\$ 539,782	\$ 403,729

This operating pro forma indicates the potential to operate at 23%-29% cost recovery (recovery of operating expenses by earned revenues) with the completion of Development Phase 1, 39%-48% cost recovery with the completion of Phase 2, and 53%-66% cost recovered with the completion of Phase 3.

The results of these analysis and business plan indicate that Clinch River State Park is not only going to provide tremendous quality of life and economic value to the local region, but also can be operated with sound business principles and defensible financial performance measures, in keeping with operational

standards of the state park system. This is a visionary project that will provide both tangible and intangible benefits to local residents and visitors to the area, and further promote the local region as a viable eco and adventure tourism destination.

Virginia State Parks, on average, are 55% self-funded through revenue generation in the parks while 45% of funding comes from the General Assembly. So in addition to the parks' primary values of conservation, preservation, and recreation to the citizens of the Commonwealth, they are also a good economic value.

Refer to the *Clinch River State Park Market Analysis and Business Plan* in the Appendix for all details.

## CAPITAL CONSTRUCTION COSTS

The construction of the physical site improvements to the two anchor properties follows the same phasing used in the business plan and pro forma, with Phase 1 providing initial site infrastructure and day-use support facilities, and overnight facilities and further expansion of amenities in Phases 2 and 3. The estimate of probable cost for capital improvements for the Artrip Bent and Sugar Hill sites are shown below, with the total estimated cost for each phase and the grand total for all phases. It should be noted that site work and mobilization costs are applied to the entire phase, and any individual construction project within the phase will require mobilization and site preparation costs. Costs are shown in 2023 dollars. If any part of construction is done in subsequent years, costs may no longer be accurate. Costs include labor, materials, and overhead.



*Summer evening clouds building over the Sugar Hill Unit at Clinch River State Park.*

## Clinch River Comprehensive Masterplan - Artrip Bent Unit Russell County, VA

4/18/2023

Order of Magnitude Estimate of Probable Construction Cost

Prepared by: LPDA

Total Project Area: 231.94 acres

Comments	UNIT	UNIT PRICE	Phase I		Phase II		Phase III	
			QTY.	TOTAL	QTY.	TOTAL	QTY.	TOTAL
<b>Sitework &amp; Mobilization</b>								
Mobilization, Permits, etc.	LS	10%		\$ 667,000		\$ 233,000		\$ 390,000
Site clearing and grubbing	AC	\$7,000	20.07	\$ 140,490	2.8	\$ 19,600	9.41	\$ 65,870
Earthwork	AC	\$5,000	20.07	\$ 100,350	2.8	\$ 14,000	9.41	\$ 47,050
Erosion & Sediment Controls, and Stormwater Management	AC	\$15,000	20.07	\$ 301,050	2.8	\$ 42,000	9.41	\$ 141,150
		<b>Sub total</b>		<b>\$ 1,208,890</b>		<b>\$ 308,600</b>		<b>\$ 644,070</b>
<b>Hardscape &amp; Improvements</b>								
Asphalt parking	EA	\$8,000	45	\$ 360,000	5	\$ 40,000		\$ -
Contact station	SF	\$350		\$ -	500	\$ 175,000		\$ -
Comfort station	SF	\$500		\$ -	1,700	\$ 850,000		\$ -
Maintenance access gate	EA	\$5,000	2	\$ 10,000		\$ -		\$ -
Maintenance buildings	SF	\$250	1,500	\$ 375,000		\$ -		\$ -
Maintenance yard	SF	\$10	7,000	\$ 70,000		\$ -		\$ -
Picnic shelter	EA	\$150,000		\$ -	2	\$ 300,000		\$ -
Staff residence (private)	SF	\$350	1500	\$ 525,000		\$ -		\$ -
		<b>Sub total</b>		<b>\$ 1,340,000</b>		<b>\$ 1,365,000</b>		<b>\$ -</b>
<b>Road System &amp; Utilities</b>								
10' asphalt service road	LF	\$90	6,414	\$ 577,232	1,800	\$ 162,000	474	\$ 42,615
24' Asphalt road	LF	\$190	6,012	\$ 1,142,221		\$ -		\$ -
Power	LF	\$50	10,500	\$ 525,000		\$ -		\$ -
Pump station	EA	\$40,000		\$ -	1	\$ 40,000		\$ -
Septic / Drainfield	LS	\$100,000		\$ -	4	\$ 400,000	3	\$ 300,000
Water	LF	\$50	10,500	\$ 525,000		\$ -		\$ -
Water / Well house system	EA	\$250,000	1	\$ 250,000		\$ -	1	\$ 250,000
		<b>Sub total</b>		<b>\$ 3,019,453</b>		<b>\$ 602,000</b>		<b>\$ 592,615</b>
<b>Overnight Facilities</b>								
Bath houses	SF	\$500		\$ -		\$ -	1,800	\$ 900,000
Tent pad sites	EA	\$25,000		\$ -		\$ -	13	\$ 325,000
Vault toilet	EA	\$50,000		\$ -		\$ -	1	\$ 50,000
Walk-in tent sites	EA	\$20,000		\$ -		\$ -	8	\$ 160,000
Yurt sites	EA	\$50,000		\$ -		\$ -	4	\$ 200,000
		<b>Sub total</b>		<b>\$ -</b>		<b>\$ -</b>		<b>\$ 1,635,000</b>
<b>Trails</b>								
Service access road / walking path	MI	\$264,000	0.75	\$ 198,000		\$ -		\$ -
Soft surface trail	MI	\$20,000	3	\$ 60,000	5	\$ 100,000		\$ -
		<b>Sub total</b>		<b>\$ 258,000</b>		<b>\$ 100,000</b>		<b>\$ -</b>
<b>Signage &amp; Amenities</b>								
Benches / trash cans / bike racks / dog stations	LS	\$50,000		\$ -	1	\$ 50,000	25	\$ 1,250,000
Picnic tables / grills / fire rings (overnight facilities and picnic shelters)	EA	\$2,500		\$ -	12	\$ 30,000	25	\$ 62,500
Interpretative signage	EA	\$2,000	5	\$ 10,000	3	\$ 6,000		\$ -
Orientation signage	EA	\$3,000	1	\$ 3,000	1	\$ 3,000		\$ -
Park entrance signage	EA	\$7,000	1	\$ 7,000		\$ -		\$ -
Wayfinding signage	EA	\$1,000	1	\$ 1,000	1	\$ 1,000	1	\$ 1,000
		<b>Sub total</b>		<b>\$ 21,000</b>		<b>\$ 90,000</b>		<b>\$ 1,313,500</b>
<b>Landscaping</b>								
[1] Landscape planting	LS	\$5,000	1	\$ 5,000	2	\$ 10,000		\$ -
[2] Landscape planting	LS	\$10,000		\$ -	1	\$ 10,000		\$ -
[3] Landscape planting	LS	\$10,000		\$ -		\$ -	1	\$ 10,000
Open lawn areas	AC	\$11,000		\$ -	2.2	\$ 24,200	0.3	\$ 3,300
Turf seeding near main roads / mowed areas	AC	\$11,000	2.9	\$ 31,900	0.8	\$ 8,800	0.4	\$ 4,400
Hydic meadow area preparation and seeding	AC	\$22,000		\$ -	1.41	\$ 31,020		\$ -
Meadow area preparation and seeding	AC	\$22,000	65.1	\$ 1,432,200		\$ -		\$ -
Wetland restoration	AC	\$44,000		\$ -		\$ -	1.4	\$ 62,040
Vegetative buffer / fence	LF	\$30	700	\$ 21,000	300	\$ 9,000	1,000	\$ 30,000
		<b>Sub total</b>		<b>\$ 1,490,100</b>		<b>\$ 93,020</b>		<b>\$ 109,740</b>
		<b>Subtotal</b>		<b>\$ 7,337,400</b>		<b>\$ 2,558,600</b>		<b>\$ 4,294,900</b>
		<b>A/E Fees</b>	15%	<b>\$ 1,100,610</b>	15%	<b>\$ 383,790</b>	15%	<b>\$ 644,235</b>
		<b>Contingency</b>	10%	<b>\$ 733,740</b>	10%	<b>\$ 255,860</b>	10%	<b>\$ 429,490</b>
		<b>TOTAL</b>		<b>\$ 9,170,000</b>		<b>\$ 3,200,000</b>		<b>\$ 5,370,000</b>

\* Note: This estimate is given in 2023 dollars. If any part of construction is done in subsequent years, cost may no longer be accurate. Costs include labor, materials, and overhead. Costs assume all work done by contractor.

**GRAND TOTAL ALL PHASES \$ 17,740,000**

## Clinch River Comprehensive Masterplan - Sugar Hill Unit Wise County, VA

4/18/2023

Order of Magnitude Estimate of Probable Construction Cost

Prepared by: LPDA

Total Project Area: 462 acres

Comments	UNIT	UNIT PRICE	Phase I		Phase II		Phase III		
			QTY.	TOTAL	QTY.	TOTAL	QTY.	TOTAL	
<b>Sitework &amp; Mobilization</b>									
Mobilization, Permits, etc.	10% of total	LS		\$ 1,721,000		\$ 476,000		\$ 1,409,000	
Site clearing and grubbing		AC	\$7,000	19.64	\$ 137,480	7.32	\$ 51,240	15.54	\$ 108,780
Earthwork		AC	\$5,000	19.64	\$ 98,200	7.32	\$ 36,600	15.54	\$ 77,700
Erosion & Sediment Controls, and Stormwater Management		AC	\$15,000	19.64	\$ 294,600	7.32	\$ 109,800	15.54	\$ 233,100
			<b>Sub total</b>		<b>\$ 2,251,280</b>		<b>\$ 673,640</b>		<b>\$ 1,828,580</b>
<b>Hardscape &amp; Improvements</b>									
Asphalt truck and trailer parking		LS	\$160,000		\$0		\$0	2	\$320,000
Asphalt parking (space)	includes asphalt, base material, and stripin	EA	\$8,000	88	\$704,000	40	\$320,000	36	\$288,000
Canoe/Kayak put-in		EA	\$60,000	1	\$60,000		\$0		\$0
Comfort station		SF	\$500	850	\$425,000		\$0		\$0
Contact station	assumes 500 sf	SF	\$350	500	\$175,000		\$0		\$0
Overflow parking (grass pavement)		LS	\$43,200	1	\$43,200		\$0		\$0
Maintenance access gate		EA	\$5,000	2	\$10,000		\$0		\$0
Maintenance building		SF	\$250	2700	\$675,000		\$0		\$0
Maintenance yard		SF	\$10	10000	\$100,000	5000	\$50,000		\$0
Multi-purpose shelter		EA	\$175,000		\$0	1	\$175,000		\$0
Picnic grove	collection of picnic tables and amenities	EA	\$20,000	1	\$20,000		\$0		\$0
Picnic shelter		EA	\$150,000	1	\$150,000	1	\$150,000		\$0
Playground		LS	\$250,000	1	\$250,000		\$0		\$0
Staff residence (private)		SF	\$350		\$0	1500	\$525,000		\$0
Visitor center	Gift shop, Interpretative area, offices, & m	SF	\$400	10000	\$4,000,000		\$0		\$0
Visitor center exhibits		LS	\$2,000,000	1	\$2,000,000		\$0		\$0
			<b>Sub total</b>		<b>\$ 8,612,200</b>		<b>\$ 1,220,000</b>		<b>\$ 608,000</b>
<b>Road System &amp; Utilities</b>									
10' asphalt service road	includes grading, asphalt, base material, ar	LF	\$90	770	\$69,300	800	\$72,000		\$0
24" Asphalt road	includes grading, asphalt, base material, ar	LF	\$190	12970	\$2,464,300		\$0	4760	\$904,400
Power		LF	\$50	13560	\$678,000	800	\$40,000	4760	\$238,000
Pump station		EA	\$40,000	1	\$40,000	1	\$40,000	1	\$40,000
RV dump station and drainfield		EA	\$175,000		\$0	1	\$175,000		\$0
Septic / Drainfield		EA	\$100,000	4	\$400,000	4	\$400,000	12	\$1,200,000
Water		LF	\$50	13560	\$678,000		\$0		\$0
Water / Well house system		EA	\$250,000	1	\$250,000	1	\$250,000	1	\$250,000
			<b>Sub total</b>		<b>\$4,579,600</b>		<b>\$977,000</b>		<b>\$2,632,400</b>
<b>Overnight Facilities</b>									
Bath houses		SF	\$500		\$0	1800	\$900,000	1800	\$900,000
Cabins (3 bedroom)		SF	\$350		\$0		\$0	21000	\$7,350,000
Camp store		SF	\$350		\$0	750	\$262,500		\$0
Group camp sites		EA	\$50,000		\$0	2	\$100,000		\$0
Lodge (6 bedroom)		SF	\$350		\$0		\$0	2000	\$700,000
Paddle-in tent sites		EA	\$20,000	5	\$100,000		\$0		\$0
RV sites	includes utility hookups	EA	\$30,000		\$0	9	\$270,000	26	\$780,000
Tent pad sites		EA	\$25,000		\$0	12	\$300,000	11	\$275,000
Vault toilet		EA	\$50,000	1	\$50,000	1	\$50,000	1	\$50,000
Walk-in tent sites		EA	\$20,000		\$0		\$0	4	\$80,000
Yurt sites		EA	\$50,000		\$0	4	\$200,000		\$0
			<b>Sub total</b>		<b>\$150,000</b>		<b>\$2,082,500</b>		<b>\$10,135,000</b>
<b>Trails</b>									
ADA 10' trails	paved surface	MI	\$396,000	2	\$792,000		\$0		\$0
Soft surface trails	3'-5' wide	MI	\$20,000	1	\$20,000	6	\$120,000		\$0
			<b>Sub total</b>		<b>\$812,000</b>		<b>\$120,000</b>		<b>\$0</b>

Clinch River Comprehensive Masterplan - Sugar Hill Unit (continued)

Wise County, VA

4/18/2023

**Signage & Amenities**

Benches / trash cans / bike racks / dog stations	LS	\$50,000	1	\$50,000	1	\$50,000	\$0
Picnic tables / grills / fire rings (overnight facilities and picnic shelters)	EA	\$2,500	11	\$27,500	33	\$82,500	98 \$245,000
Interpretative signage	EA	\$2,000	10	\$20,000		\$0	\$0
Orientation signage	EA	\$3,000	1	\$3,000	1	\$3,000	1 \$3,000
Park entrance signage	EA	\$7,000	1	\$7,000		\$0	\$0
Wayfinding signage	EA	\$1,000	10	\$10,000	5	\$5,000	5 \$5,000
<b>Sub total</b>				<b>\$117,500</b>		<b>\$140,500</b>	<b>\$253,000</b>

**Landscaping**

[1] Landscape planting	Areas: Boat launch	LS	\$8,000	1	\$8,000		\$0	\$0
[2] Landscape planting	Areas: Staff residence, Parking lot near staff	LS	\$10,000	2	\$20,000		\$0	\$0
[3] Landscape planting	Areas: Contact station, Tent pad sites, park	LS	\$12,000	3	\$36,000		\$0	\$0
[4] Landscape planting	Areas: Picnic Shelter, Multi-purpose shelter	LS	\$50,000	2	\$100,000		\$0	\$0
[5] Landscape planting	Areas: Visitor Center	LS	\$120,000	1	\$120,000		\$0	\$0
Open lawn areas		AC	\$11,000	1.5	\$16,500	0.2	\$2,200	\$0
Turf seeding near main roads / mowed areas		AC	\$11,000	0.6	\$6,556	1.5	\$16,500	4.2 \$46,200
Meadow area preparation and seeding		AC	\$22,000	73.26	\$1,611,600		\$0	\$0
Vegetative buffer / fence		LF	\$30	16300	\$489,000		\$0	\$0
<b>Sub total</b>				<b>\$2,407,656</b>		<b>\$18,700</b>	<b>\$46,200</b>	

\* Note: This estimate is given in 2023 dollars. If any part of construction is done in subsequent years, cost may no longer be accurate. Costs include labor, materials, and overhead. Costs assume all work done by contractor.

<b>Subtotal</b>		<b>\$ 18,930,236</b>		<b>\$ 5,232,340</b>		<b>\$ 15,503,180</b>
<b>A/E Fees</b>	15%	<b>\$ 2,839,535</b>	15%	<b>\$ 784,851</b>	15%	<b>\$ 2,325,477</b>
<b>Contingency</b>	10%	<b>\$ 1,893,024</b>	10%	<b>\$ 523,234</b>	10%	<b>\$ 1,550,318</b>
<b>TOTAL</b>		<b>\$ 23,660,000</b>		<b>\$ 6,540,000</b>		<b>\$ 19,380,000</b>

**GRAND TOTAL ALL PHASES \$ 49,580,000**

**Municipal Water/Sewer Connection\*\***

4" Water Line	connection from main line at Burton's Ford	LF	\$250	5280	\$1,320,000		\$0	\$0
6" Sewer Line	connection from main line on US 58	LF	\$250	9504	\$2,376,000		\$0	\$0
Lift Station		EA	\$75,000	4	\$300,000		\$0	\$0
<b>Sub total</b>				<b>\$3,996,000</b>		<b>\$0</b>	<b>\$0</b>	

\*\* Note: Public water and sewer lines are available near the site along US-58. This cost shows the estimated cost required if wells and septic fields were not included in the development plan.