STONES RIVER BEND REGIONAL PARK

Nashville, Tennessee
December 2017

MASTER PLAN

METRO PARKS NASHVILLE

INTRODUCTION

In 2015, the Department of Parks and Recreation of Metropolitan Nashville / Davidson County embarked the creation of an updated parks and greenways master plan. They had previously completed a master plan in 2002, and an update in 2008, but by 2015 the region was experiencing unprecedented population growth, land development impacts, and changing demographics that demanded another look. Since 2002, the park system had added over 6,300 acres of parks and 85 miles of greenways. In 2017, Metro Parks completed the new master plan, termed the *Plan To Play*.

One of the initiatives to come out of *Plan To Play* was a call to build more regional parks for the people of Nashville and the surrounding area. It was discovered that Nashville lacks not only active recreational programming but also large, open, natural areas for passive activities such as hiking and bird watching that are often a big draw for people both young and old.

In early 2017, Nelson Byrd Woltz Landscape Architects (NBW) was brought on board to lead a design team consisting of Hodgson Douglas, Collier Engineering, and Nashville landscape architect Tara Armistead, to create a regional park master plan on property that had been acquired by the City of Nashville. The city had spent years working in this part of the county, and by the time the design team came onboard, they had assembled 800 contiguous acres of land with vast river frontage on the Stones River, spectacular views, a rich history, and unprecedented scenic beauty.

In May, the master planning effort kicked off with an open house at the future park site, where neighbors far and wide were invited to attend and learn about the many natural attributes of the land and share their vision for the park. The design team had created a ‘park passport’ to help orient visitors and community members, and a survey was handed out for people to indicate their vision for the future park. Hikes and hayrides helped orient people and develop their sense of knowledge and ownership for their future park.

At the same time that the open house was being planned, the design team was hard at work with boots on the ground. A series of site visits and meetings with individuals who were familiar with the park property lead to new discoveries. Overlays of the site’s topography, hydrology, plant communities, and land use revealed the best areas for different types of programming. Simultaneously, stories about the occupation of the land from the time of indigenous people to the modern day were uncovered, inspiring all involved to make sure that these myriad voices were heard and their stories were shared.

Upon completion of the initial site discovery phase, the design team prototyped a series of framework studies that looked at various options for access, circulation and programming. These studies were tested on site and discussed with Metro Parks staff members in an effort to narrow down the best strategies for the park and develop the main goals for the master plan.

The primary goal of all involved in the master plan was to maintain the essence of this vast and exceptional riverfront landscape. In a way, doing less would mean more – more open views, more river access, more natural wildness, which is what is so remarkable about this place. In order to retain the character and highlight the most compelling features of the site, this plan calls for the most intense park infrastructure and active programming to be located in the northeast quadrant, the area formerly known as Ravenwood. Transitioning as one moves south and west toward Stones Bend, the landscape broadens with smaller, more dispersed spaces planned for people to walk and gather, intimately set within the landscape. Lastly, the park would need to celebrate the legacy of its landscape, which includes the recognition of the people who lived on and worked the land over many generations, as well as the agrarian landscape that is so quickly being lost to expanding infrastructure and large scale development in other parts of the County.

These ideas for the park were explored in a series of theme diagrams that described ways to access the site, where and how to play, potential gathering places, and opportunities for environmental education, nature watching, and the restoration of various ecologies. Members of the design team, alongside Metro Parks staff, shared the theme boards with the community members during open houses in the fall. Feedback from the community was then collected and shared with NBW to further develop the master plan. The result of this process is now presented here.

Both Metro Parks and the design team recognize that a vision is only the first step in building a successful regional park – one that is loved by all and endures through the ages. The challenge of maintaining the park will be a significant factor in its long-term success. The maintenance strategies presented here aim to incorporate the parks cultural and ecological heritage, preserve the agrarian landscape, and improve its ecological health, all while reducing the maintenance burden on Metro Parks. The connection of park activities to Nashville’s past will stimulate, engage, and educate visitors for generations.

Likewise, the transformation of the site will be a grand undertaking that will require careful consideration dependent on circumstances beyond the scope of this document. Implementation phases will be contingent on future budgets and an overall strategy developed by Metro Parks and its partner organizations. As a catalyst to developing the entire park, this plan proposes that Phase 1 include the implementation of all amenities in the area of the former Ravenwood Country Club, and an initial cleanup to opening up of the bend portion of the property, granting all visitors to gain access to this spectacular landscape only a few miles from downtown Nashville.

The park plan is the culmination of work that developed over many years by a dedicated group of staff and stakeholders. The *Plan to Play* master plan, plus the input of the local community, has deeply informed this document and the vision for the future Stones Bend Regional Park.

ACKNOWLEDGEMENTS

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Jeff Syracuse, Council District 15

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Metro Nashville Public Works

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Nashville Civic Design Center:

Melody Gibson, Fuller Hanan, and other staff

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Hunter Armistead - Videographer

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Ryan Camp - Northman Creative- drone footage

Renata Soto and Alex Macias- Conexion Americas – community outreach

Atlee Tyree – Community outreach

Phil Ponder

John Norris

Sharon Kipp

Kathy Nevill

Tim Weeks

PROJECT IMPETUS

Why This Park?
No one who visits the Stones River Park properties walks away without being awed. The confluence of the Cumberland and the Stones Rivers is only one of dozens of breathtaking views of open land and sky. The natural features of the land make the site one of the most beautiful in the state of Tennessee, and tell the story of its rich history. The confluence, the flood plain and the rolling hills created an ideal site for human occupation and activity for more than 10,000 years, from Native American Mississippians who hunted grazing animals, to early European agrarian settlers, to a private country club and golf course built in the middle of the 20th century.

From Stone Hall Mansion, to the roads through the former Ravenwood Country Club, to the floodplain on the river bend, the acquisition of these properties for permanent public use has long been a goal of Metro Parks. Past, present and future council members; conservation groups and the community at large have all contributed to the acquisition of the park site.

Why Now?
Metro Parks has now taken the steps to turn this land over to the public. Stones River Bend Park was acquired over a ten-year period, through negotiation and unwavering dedication to the vision of creating a park on this land. Metro and private stakeholders came together to negotiate and purchase the properties, and in 2013 all parcels were finally assembled. The park master plan that you have in your hands follows on the heels of the Metro Parks new county-wide parks and greenways master plan - *Plan To Play* which has set the vision for the Nashville/Davidson County park system for the next ten years.

Plan To Play
The Parks and Greenways Master Plan established new standards for regional parks. These parks are intended to include facilities that provide a diversity of active and passive uses numerous enough to occupy a half-day or day-long excursion. They include elements such as trails, sports fields, picnic shelters, playgrounds, and play courts. Regional parks also contain features like dog parks, restrooms, and programmed facilities like nature centers. Furthermore, they often have specialty features – a unique natural or ecological feature, a sports complex, a revenue generator like golf, or a historic resource. Plan To Play outlines other system-wide programming and operations and maintenance goals, including natural areas management strategies, historic interpretation, and ecological enrichment to promote and support community culture and health.

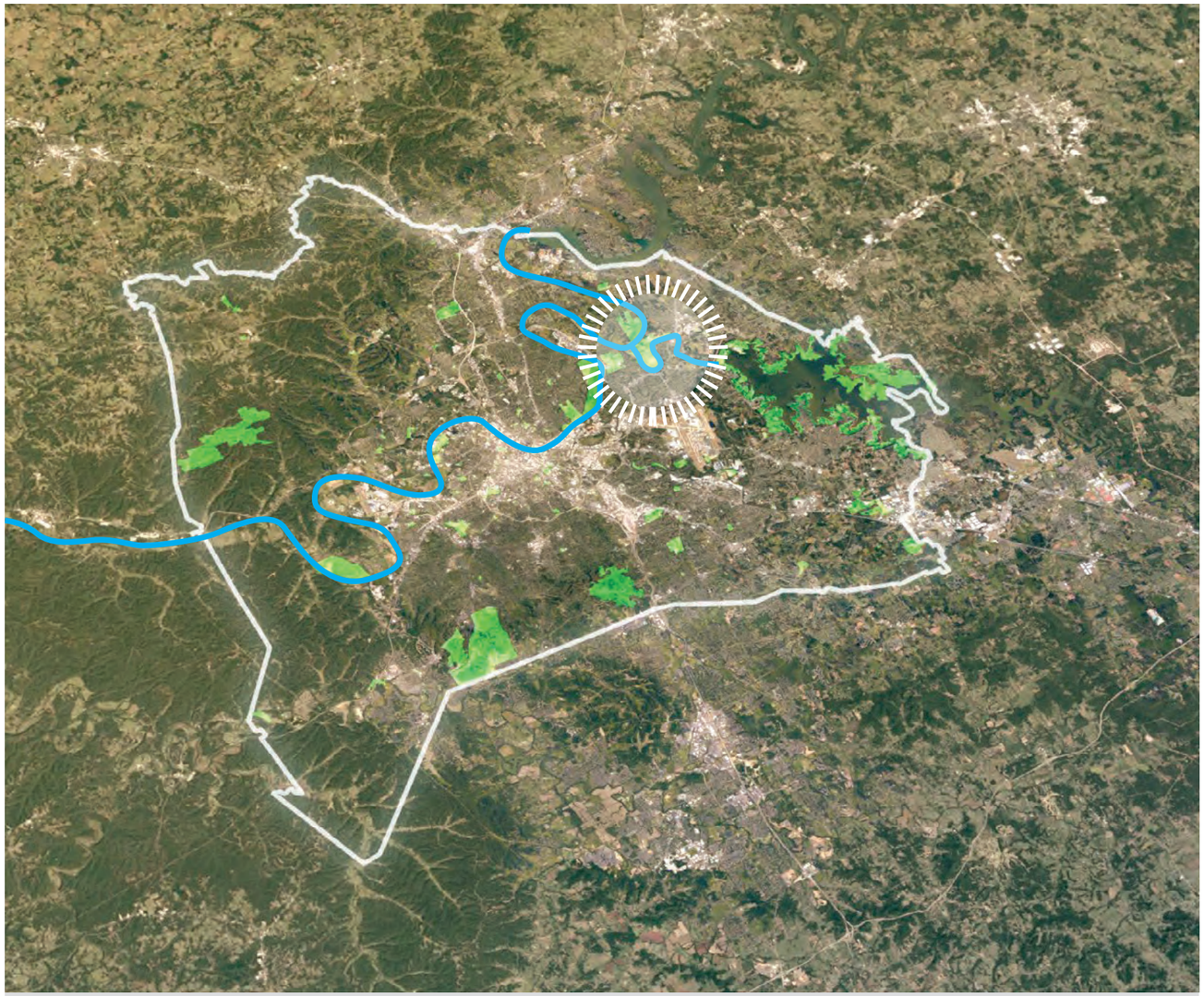


image from Nashville Metro Parks To Play

Project Timeline

DISCOVERY PHASE (RESEARCH AND ANALYSIS)	MASTER PLAN DESIGN STUDIES	MASTER PLAN DRAFT	FINAL MASTER PLAN	REQUEST FUNDING FOR PH 1 IMPLEMENTATION
MARCH 2017	*MAY 2017*	*SEPTEMBER 2017*	*NOVEMBER 2017*	*JANUARY 2018*

Project Team

Metro Parks | Tim Netsch, Rebecca Ratz

Tara Armistead Landscape Architecture | Tara Armistead, Margo Owen

Collier Engineering | Chad Collier, Jenny Brownlie-Carey, Amy Burch, Jean Cheveallier, Glenn Meister, Michael Pavin, Nicholas Voravong

Hodgson Douglas | Richie Jones, Chris Barkley, Chris Mantle, Ashley Braquet, Johnson Bullard, Seth Crawford, Hannah Goodgion, Lauren Patti

Nelson Byrd Woltz Landscape Architects | Thomas Woltz, Breck Gastinger, Jen Trompetter, Chloe Hawkins, Pia von Barby, Mary Cadwallender, Mandi Fung, Joey Hays

PART 1
COMMUNITY ENGAGEMENT

COMMUNITY ENGAGEMENT | Process

Effective community engagement is the foundation for imaginative place-making. It ensures that the new space will meet the needs of those it serves.

At its best, human-centered design opens the door to public insight and stakeholders provide new answers to sometimes difficult problems. At the very least, it is the forum by which the desires and needs of the people are expressed and documented for use in the place-making process.

For the Stones River Bend Park initiative, Metro Parks and the design team planned three open houses and a series of interviews, inviting the community to explore the park and express their vision for this new public space.

The open houses were interactive and festive, giving an opportunity for shared dialogue rather than a presentation of ideas. The stakeholder conversations collaboratively explored a vision for the park that would meet the needs of the surrounding community. Feedback from the open houses and interviews provided key insights and data which were then used to inform the park design.

The initial master plan development is only the first step in a continued interaction with the public. In order for the park to function as a resource for building community, connecting the diverse cultural demographics of the area, the plan recommends that people remain involved in the on-going design process towards implementation.

With boots-on-the-ground, the design team walked alongside Metro officials, local business owners, student groups, community leaders, and the general public. The results were inspirational, driving the design of the park in sometimes surprising directions. Read on to discover how this process informed the park design.

COMMUNITY ENGAGEMENT TIMELINE

Kickoff Meeting	Hikes & Hayrides Open House	Stakeholder Interviews	Framework Open House	Final Master Plan
March 2017	*May 2017*	*June 2017*	*September 2017*	*December 2017*

Hikes and Hayrides Open House

HAYRIDES

DISC GOLF & BICYCLING

FOOD, FAMILY & FRIENDS

CONNECTING COMMUNITY

On May 20th, Metro Parks hosted a kickoff event for Stones Bend Park titled “Hikes and Hayrides.” The event introduced the park to the community by providing fun and engaging activities that would not only heighten awareness about the park, but also demonstrate the potential in the new public land.

Activity stations, such as the plant-a-seed tent and games tents, kept children and younger community members interested, while informational hayrides and guided hikes introduced the captivating and complex history of the parkland.

Biking and disc golf groups from the community set up temporary disc golf and biking courses within the park that demonstrated the potential the parkland held for popular community activities.

The event also provided critical insight into the community’s regional park needs. Surveys and suggestion boards at the event indicated the activities and facilities community members wanted - or didn’t want - in the park. This critical information will allow Stones River Bend to become the best possible park for the surrounding community.

Hikes and Hayrides Survey Results

The Hikes and Hayrides open house event encouraged the community to discover the park by inviting all to the new property. Over eighty participants engaged in a variety of activities and gave their input through a survey and post-it-note system.

Metro Parks invited the Nashville Civic Design Center and the Mayor's Community in Action summer students to participate in the process and observe the event and take notes.

Listed here are the key themes of the survey and a summary of the feedback gathered during the event.

What makes this park unique?

Nature right in the city. From an ecological perspective, it highlights the ideals of a middle TN landscape- wooded hills, river bottom, river frontage.

Vistas and open space. Preserve the scale of the sky.

What makes this park special is that you can be in the city and still experience solitude in nature.

The deeper you go, the quieter it gets. Whisper at the end.

How do you access the park and make strong community connections?

Access to full park for bikes, pedestrians and boats.

Limit access for cars.

The park might need to limit vehicular access to maintain the character of the park.

Greenway connection is strong.

Expansion of greenway will make it easy to access park from surrounding areas.

Future Heritage trail connecting Two Rivers Mansion and the Hermitage.

What is needed in regional parks for this area that might be accommodated here?

Ravenwood could be the focus for newer active elements, while Lytle park would be preserved as more natural passive place.

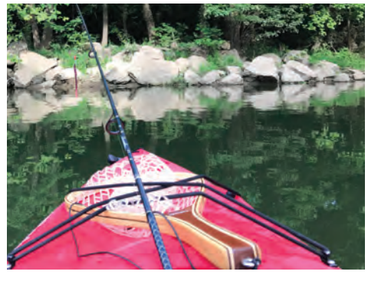
Nature Center/Activity Center where volunteers can lead hikes, nature education such as bird watching, maker classes.

Lots of big homes attracting young families brings need for a regional playground.

Park access for canoes and kayaks (rental facility planned at Percy Priest dam).

Farming - urban agriculture.

Existing structures: Use of Stone Hall as an event center. Adaptive reuse of Eversong cabin.



What is the park's biggest challenge?

The biggest challenge is maintenance.

Restoration of stream banks, land management, loss of views to invasives.

Could park expand urban agriculture vocabulary to hundreds of acres of grazing land reducing maintenance to the noise of chewing grass

Have to balance livestock and native wildlife. Would love to see native grassland restoration/ideal to burn.

What most excites you about the design?

More greenways and additional trails and overlooks.

Providing both active and passive recreation.

Most popular active recreation: Disc golf, cyclocross, and playground.

Provide more access to the river, both visually and physically.

In our second open house, the design team met with interested community members in small groups to explain the conceptual design and answer questions.

Children created a collage of their dream playground.

The response to the plan was very positive, as documented in the second survey, with a summary of the results shown here.

The project team used this community feedback to refine and complete the site master plan and further refine design and pricing construction of the first phase.

What excites you the least about the design?

Shared use of road for cars and pedestrians.

Some active recreation options will not be used.

Stone Hall is underutilized.

What facilities would you use the most?

Trails - biking, hiking, running

Picnic shelters, playground

Nature education, fishing, and camping

What makes you feel welcome?

Good signage, easy access, clean restrooms.

Maintaining big trees and promoting native Tennessee flora and fauna.

Keep it natural and historical.

PART 2
MASTER PLAN

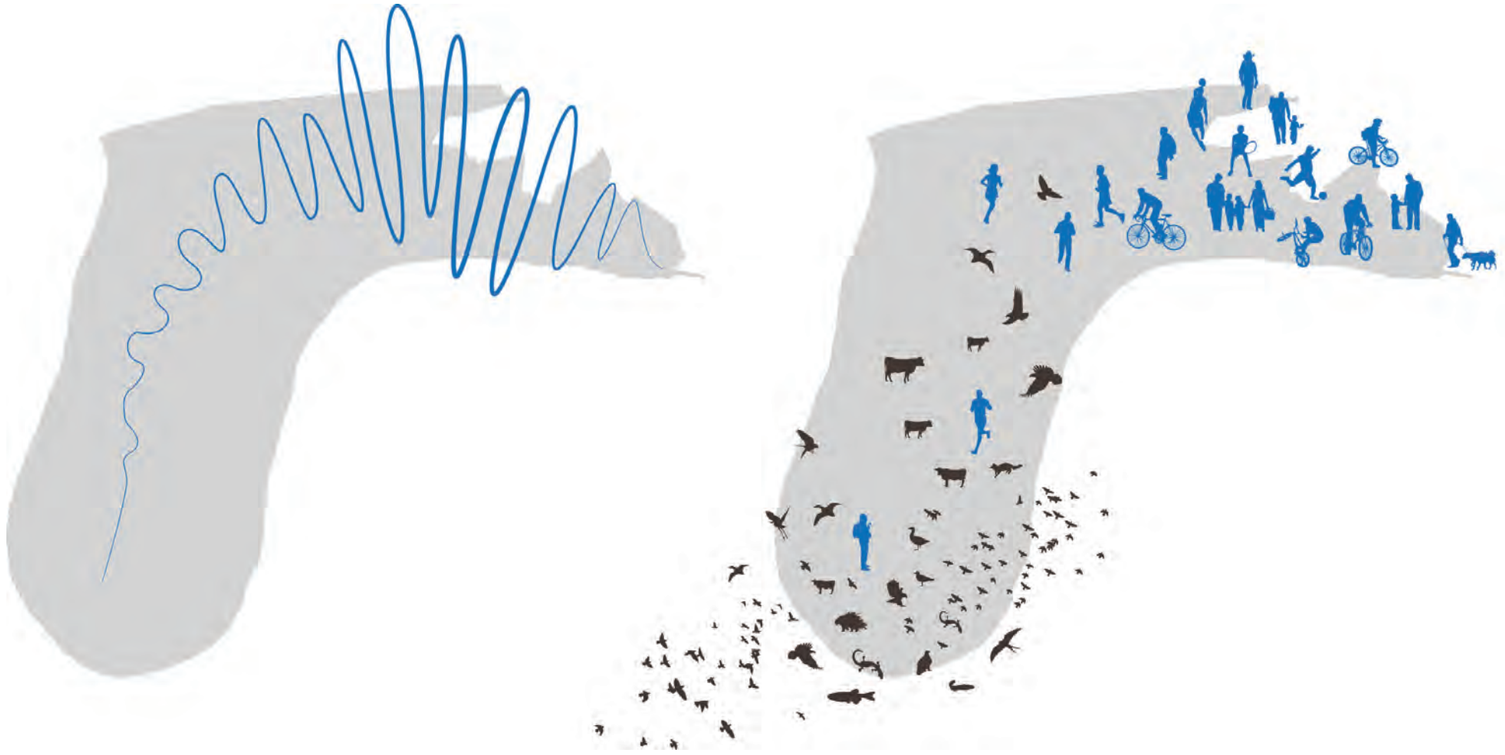
PROJECT NARRATIVE

Stones River Bend Regional Park is set in an awe-inspiring landscape located at the confluence of the Cumberland and Stones rivers. The rolling hills, high bluffs and limestone shelves that transition into the vast flood plain of the bend offer a rare glimpse into an ecological, geological and cultural past characteristic of Middle Tennessee. As the last undeveloped river bend in the Nashville area, this land is a treasure.

This plan concentrates the infrastructure and active areas of the park in the northeast quadrant, retaining the open, quiet, and remote character of the bend that makes it so special. As visitors travel from the eastern entrance west through the park, the trails and gathering spaces transition from larger community scaled spaces to intimate trails and shelters that engage the rolling topography and incredible views.

This plan highlights connections between the natural history of this land and the many generations of human beings who have occupied, maintained, and transformed it over thousands of years. This cultural heritage includes indigenous people, land owners and enslaved workers, phosphate miners, farmers, and the founders of the Ravenwood Country Club.

With goals of preserving the open space into the future, improving its ecological health and biodiversity, and addressing the challenges of managing large acreages, this plan lays out a model for large-scale landscape maintenance that could become a new standard for Metro Parks' management of its regional parks from this point forward.



Peeler Park

Cumberland River

Stones River Greenway

Heartland Park

Stones River

Central Pike

Lebanon Pike

1" = 900'

0' 450' 900' 1800'

ENLARGEMENT PLANS | Ravenwood West

Ravenwood West includes the hilltop, the disc golf course, trails and the Stones River Bend Interpretive Area. The Interpretive Area is a flexible open-air structure on a hilltop overlooking rolling hills and a farm pond. Interpretation might include information about the farm and grassland operations that maintain the park, cultural, and environmental heritage, and the trail network.

01. Stones Bend Interpretive Area (30 x 60')
    - restrooms
02. Stones Bend Interpretive Area Gardens
03. Parking (24) & dropoff
04. Managed grasslands
05. Group camp site & sm pavilion (15 x 30')
06. Parking (60)
07. Greenway
08. Cyclocross area
09. Pedestrian trails
10. Disc golf area
11. Future greenway north
12. Reforestation / restoration planting
13. Access drive
14. Service drive & Stones River Greenway
15. Stones river overlook
16. Gated access: shared farm road & pedestrian trail
17. Permanent fencing

Key Plan

Stone Hall and Ravenwood East

The intersection of Lebanon Pike and Central Pike marks the entrance to the Stones River Bend Regional Park. Another entrance to Stone Hall is proposed off Central Pike, adjacent to the old barn which will be cleared of overgrown vegetation and will mark the threshold into the park. Moving east, the former golf course is repurposed into trails and a neighborhood park featuring two public fishing ponds, a playground, pump track, and fitness trails.

01. Entry signage on existing barn
02. Access drive (Central Pike)
03. Gated greenway to Stone Hall
04. Kiddie pump track
05. Neighborhood playground (8,000 sf)
06. B-Cycle & trailhead
07. Loop trail with fitness stations
08. Lookout
09. Medium pavilion (30 x 60')
10. Lakeside lawn
11. Parking (80)
12. Bridge abutment lookout
13. Fishing boardwalk with small pavilion
14. Boardwalk
15. Upper lake
16. Lower lake
17. Lake recirculation
18. Wetland
19. Stones River Greenway
20. Enhanced landscape and signage at entry along Lebanon Pike
21. Stone Hall and gardens
22. Managed grasslands
23. Reforestation / restoration planting

Key Plan

Hilltop

Most recently the site of the former Ravenwood Country Club, the Hilltop is the most active area of the park. A large community pavilion opens onto a central lawn bordered by smaller pavilions that provide views across the rolling hills, majestic oaks, and the rivers beyond. A regional playground and sport courts offer additional recreational opportunities. This area has been designated as the first phase of the park to be built.

01. Hilltop lawn
02. Large community pavilion (60 x 120')
    - restrooms
    - electrical
    - concessions
03. Restored Ravenwood terrace
04. Small pavilion (15 x 30')
05. Regional playground (0.6 ac)
06. Parking (15) and dropoff
07. Hilltop allee and terrace
08. Basketball courts (2)
09. Tennis courts (4)
10. Parking (100)
11. Giant swings (3)
12. Small pavilion (15' x 30')
    - restroom
    - storage
13. Pedestrian trails
14. Access drive
15. Greenway
16. Neighborhood access trail

Key Plan

Confluence

The Confluence trails connect the park interior to the bluff where the Stones River meets the Cumberland River. The paths and lookouts in this area are arranged to provide more advanced hiking, engage views of the rivers, and interpret the cultural and ecological heritage of the land.

01. Greenway trailhead and park signage
02. Overlook
03. Camp sites (2 sites 10' x 20' each)
04. Kayak tieup
05. Managed grasslands
06. Stones River Greenway
07. Primitive trails
08. East/West connector trails
09. Future ferry route to Peeler Park
10. Reforestation/restoration planting
11. Permanent fencing
12. Future Bridge

Key Plan

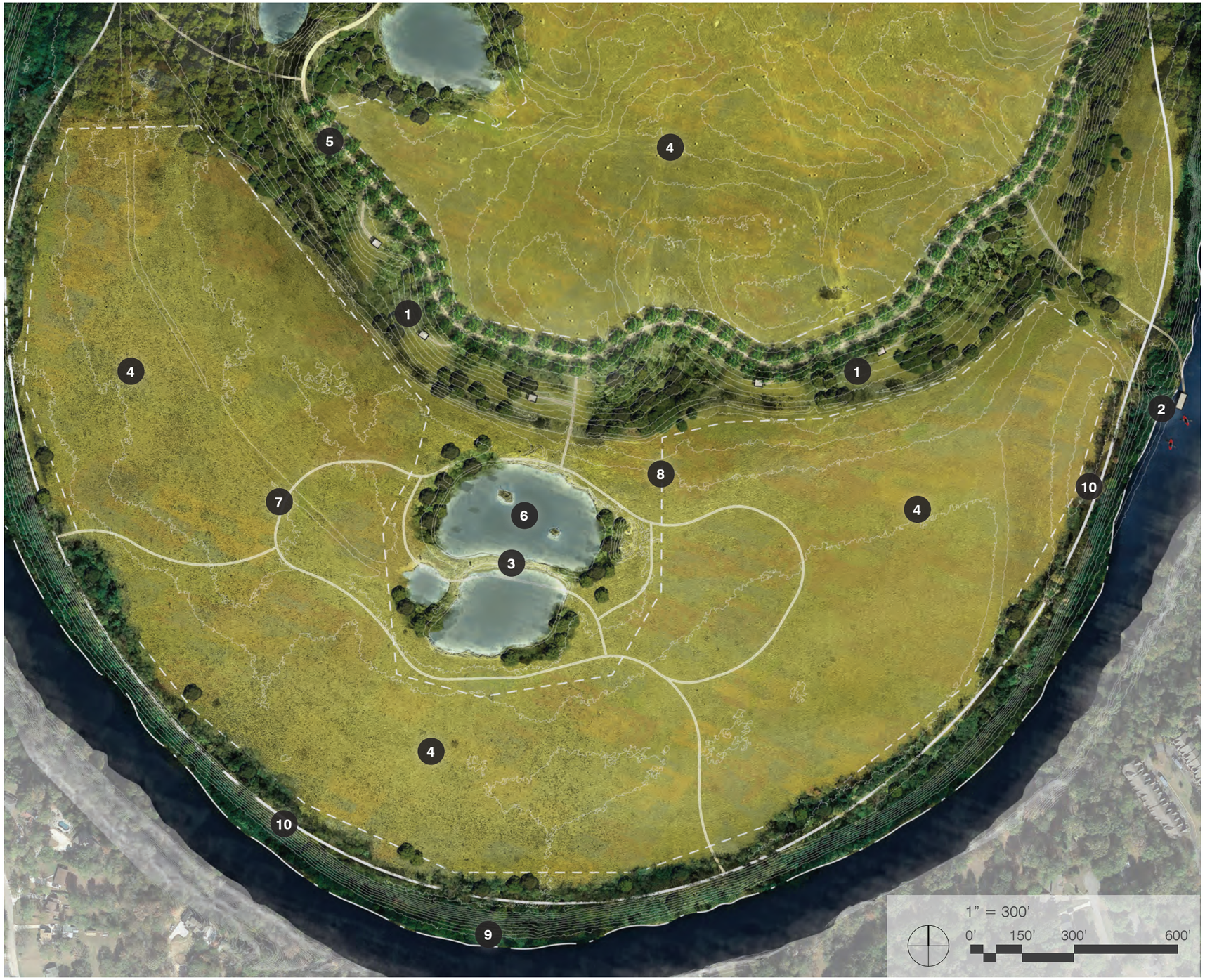
Farm Center

Situated in between the active Hilltop and remote river bend, the Farm Center is the hub of the grazing and grassland management operations. This area offers public trails along and through native grassland pastures, educational opportunities at the Farm Center and incredible 360 degree views from the overlook. Existing farm roads are incorporated into the public trail network with vehicular access restricted to maintenance and farming staff, ensuring a quiet character. The grassland and grazing land management program instituted in these pastures recalls Native American land management practices.

01. Farm Center
02. Kayak tieup
03. Overlook
04. Managed grasslands
05. Greenway
06. East/west connector trail
07. Primitive trails
08. Improved ponds
09. Farm road and trail
10. Reforestation/restoration planting
11. Permanent fencing

Key Plan

Stones Bend



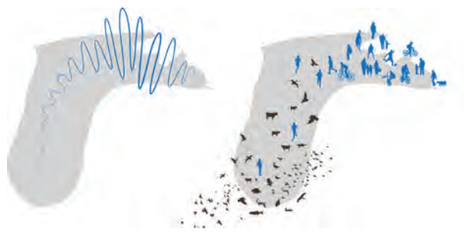
As the most remote area of the park, Stones Bend offers biodiversity for the public to enjoy. This area features the restoration and enhancement of natural features including the riparian forest edge, native grasslands and existing ponds, with the goal to increase the biodiversity of the entire park and become an anchor for habitat in the region. Public amenities in this area are designed to bring people in close connection with nature, including a trail network that traverses the entire bend and crosses restored ponds and campsites that double as bird blinds during the day.

01. Camp site/bird blinds (5) (10 x 20’)
02. Kayak tieup
03. Boardwalk
04. Managed grasslands
05. Farm road and trail
06. Improved ponds
07. Primitive trails
08. Permanent fencing
09. Riparian forest restoration
10. Greenway

Key Plan

KEY CONCEPTS

Key concepts emerged as community priorities during the public engagement process and have evolved to explain the core components of this master plan. They are described briefly on this page and in more detail throughout the next section of the book.



Strategic Stewardship

Maintenance of regional parks is a big challenge facing Metro Parks. The Strategic Stewardship section describes a model of land maintenance based on forming key partnerships. This section describes land uses within the park and identifies the corresponding potential partnerships, the benefits they may provide, and outlines some first steps towards implementation.

Restore & Grow

Restore & Grow focuses on improving the health, biodiversity, and resilience of the park ecology and water-ways. As in Strategic Stewardship, some of these initiatives would benefit from the formation of community partnerships for implementation and maintenance.

Educate & Engage

Educate & Engage identifies opportunities for learning from the landscape, including stories of indigenous people who hunted at the bend to identification of wild plants and animals. Locations for signage and interpretive design elements highlight and make visible the unique narratives about this land, enriching the experience of visitors from near and far.

Access

Access describes the circulation to and within the park, highlighting how the master plan provides connections via many modes of transportation, including vehicular and greenway, ensuring access for people of all physical abilities from throughout the Nashville metro area.

Gather

Gather highlights the places where people come together. The “scales of togetherness” vary from small overlooks for 1-2 people to large pavilions that house activities from weddings to student field trips.

Play

Play is focused in the northeast portion of the park, adjacent to the neighborhood and accessible by car. This section describes the location and various types of organized play from tennis and basketball to more informal types of play including disc golf and cyclocross.

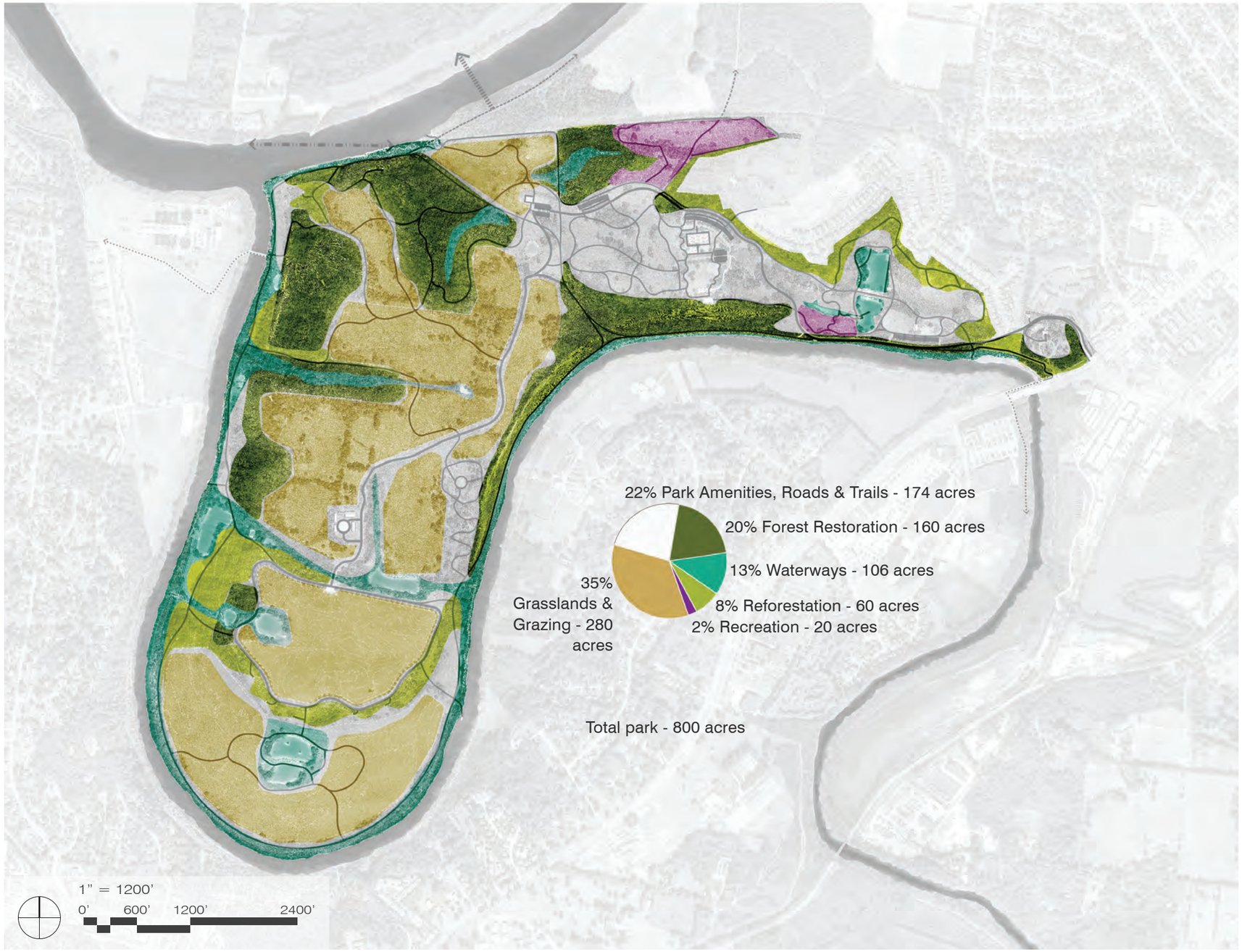
STRATEGIC STEWARDSHIP | Land Use and Potential Partnerships

How will this park be maintained?

At 800 acres, the ongoing maintenance of Stones Bend Regional Park will require more resources than Metro Parks currently has available. These pages highlight the different land uses that require a distinct maintenance strategy and identify associated potential partnerships to help with the initial costs and long term stewardship required. Each land use is broken out in the pie chart below to show the relative acreage within the park.

Each partnership would require an approval process that ensures the partners' mission matches the principles and goals of Metro Parks and adheres to the rules and regulations of Davidson County.

Once validated as a partner, the relationship would need to be monitored over time to verify that the partner's mission continues to align with Metro Parks, to ensure that time and money are spent appropriately, and that the partner's assistance with maintenance meets or exceeds Metro Parks' standards of care.



Grazing Grasslands

The Grasslands & Grazing partner is envisioned in coordination with ***a new maintenance management position*** created at Metro Parks. The ***Lands Resources Specialist*** would coordinate farmers and ecologists to maintain the grasslands through ecological restoration and rotational grazing. This partnership is envisioned as a long-term solution for managing open parkland, not only in Stones River Bend, but also in other parks of Davidson County.

Waterways

With a park surrounded on three sides by water, the Waterways partner would help to maintain the river's edge, the water quality of the ponds, the riparian forests on the upslopes, and coordinate kayak/canoe tours and river camping.

Freinds of, School & Corporate Sponsorship

The adjacent neighbors with direct access to the parks will be important partners - these include corporations along Lebanon Pike, nearby schools, adjacent neighborhoods, and Friends groups. Engaging volunteers and students would provide an enduring model for stewardship while corporate partners could provide funding for discrete elements such as the sport fields, fishing ponds, or accessible trails.

Forest Restoration / Reforestation

The restoration of forest and riparian ecologies would require covering large areas with new planting, monitoring the planting during establishment, and providing ongoing oversight and control of invasive species. Neighborhood garden clubs, conservation groups, and teams of volunteers with a Metro staff or partnering ecologist could help to fund and support the proposed acres of new forest.

Recreational

Disc golf and cyclocross communities have expressed interest in using parkland for their events. These partners would work with the grasslands partner and Metro Parks staff to ensure their activities and courses are maintained in alignment with Metro Parks standards.

Metro Parks Maintenance

Metro Parks Consolidated Maintenance works hard to provide parks that are clean, safe, and in good repair, which is a complex and time consuming task. When asked, "What would make the park more welcoming?" recurring answers from the public included references to cleanliness. Phased operational funding increases for personnel and equipment are essential to meeting the expectations of the public and making the park a success.

Maintenance Costs

Maintenance and mowing of the more developed and designed areas will require more frequent and specialized work. By far the highest cost associated with maintenance is mowing, including bush-hogging hundreds of acres. Maintenance costs are directly related to the management strategy for any parkland. The use of fossil fuel powered mowers has environmental implications to air quality, noise pollution, biodiversity, transport and extraction of fuel. The grasslands restoration, rotational grazing and agricultural uses are both programmatic elements and a management strategy that will help reduce the cost burden on Metro Parks. They provide environmental, educational and recreational opportunities all while helping the bottom line. To this end, it is extremely important that these programs and partnerships get off the ground.

Lands Resources Specialist

Understanding the importance of these natural areas management practices and the goals of *Plan To Play* to implement management plans across the Metro Parks system this plan recommends a new Land Resources Specialist staffing position within Metro Parks.

In addition to oversight and management of the Grasslands & Grazing partnership, major duties would include:

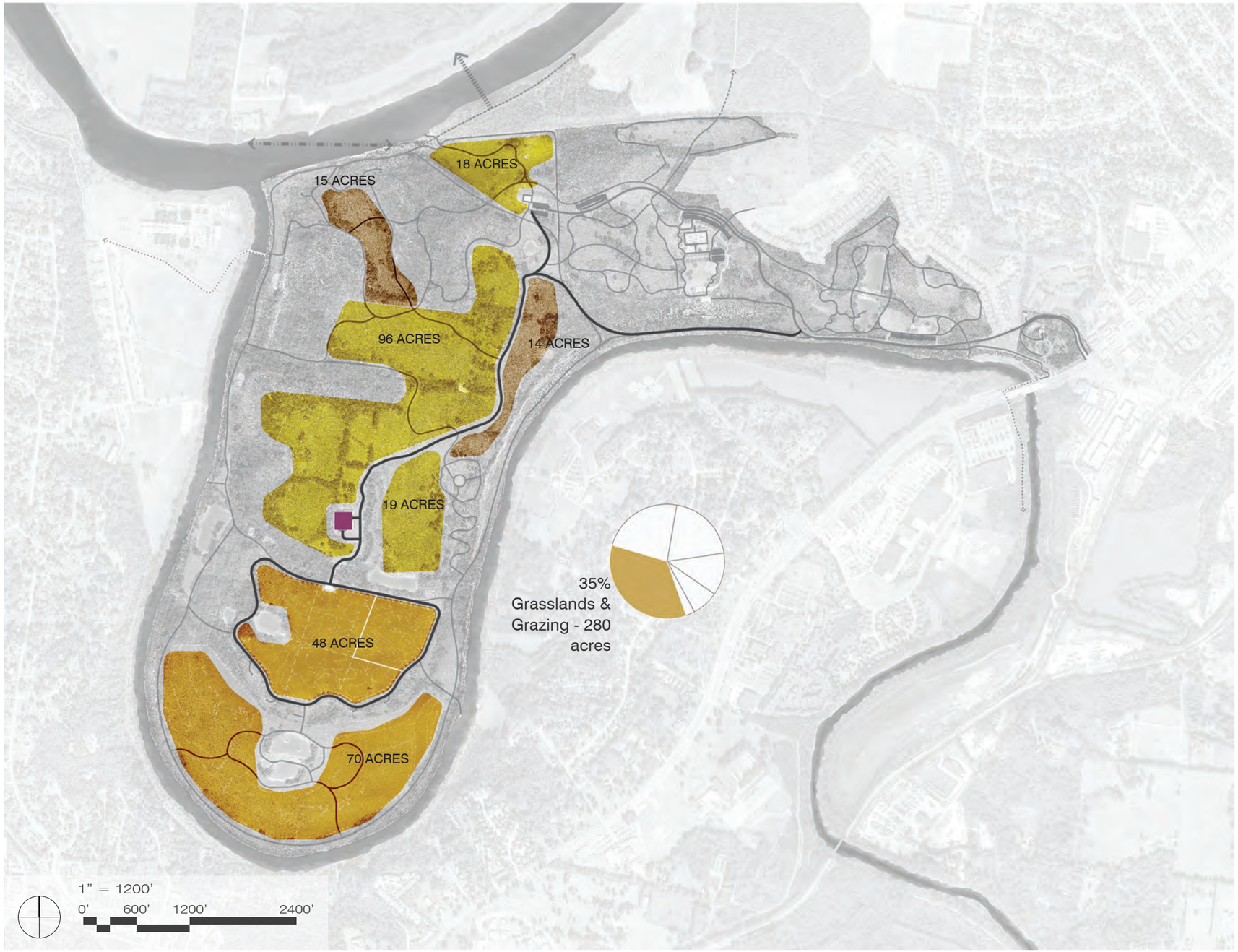
- Develop and promote management plans for agricultural and natural areas which ensure the protection of these properties.
- Manage department projects to maintain natural areas.
- Recruit and manage partnerships
- Represent the department to community groups which use the properties and assist in their maintenance.
- Train and direct volunteers
- Develop and present educational programs highlighting the use and maintenance of natural areas.
- Invasive species management program

Grasslands & Grazing

In a number of Metro Parks existing regional parks, Metro Parks staff have been confronted with maintenance challenges, resulting in the loss of many acres of open land to woody growth and colonization by invasive plants. To ensure the open spaces of Stones River Bend are preserved, and the acrigultural character retained, an achievable long-term plan is needed for ongoing maintenance.

This master plan envisions instituting a management position within Metro Parks to coordinate with a farmer and an ecologist to maintain pasture land through rotational grazing. The grazing maintenance plan designed in coordination with an ecological restoration plan would reveal and celebrate the cultural and ecological heritage of this park, restore remarkable biodiversity, and become a novel public attraction. This vision applies not just at Stones River Bend but across all of Metro Parks, creating a cost effective and enjoyable solution to the dilemma of maintaining large open spaces.

To support this vision, a farm framework of access roads, fencing, water sources, and shelter would need to be established, all designed to allow for continued public access. Discover more information on steps to implementation on the opposite page.



Legend

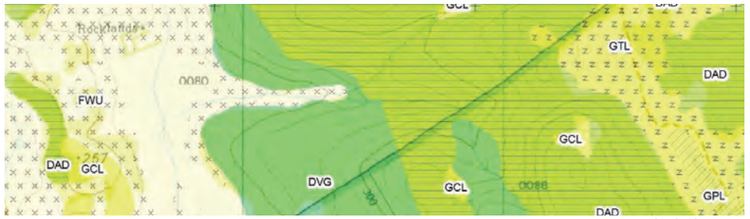
- Steep slopes
- Potential cool season grasslands
- Potential warm season grasslands
- Farm center
- Maintenance road
- Permanent fencing (7.5 miles)

Commission Ecological Survey

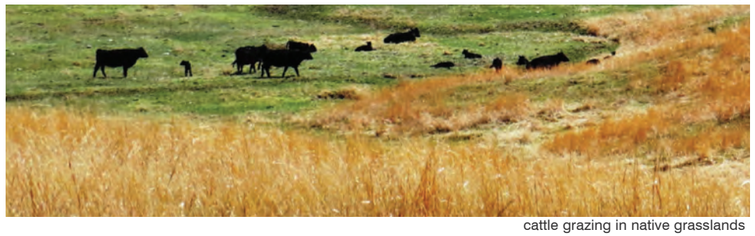
In order to create an ecological restoration plan specific to this site, there is a need to more accurately understand the existing ecology at Stones River Bend including specific plant communities, existing species diversity and the presence of invasive plants.

Develop Restoration / Farm Implementation Plan

With an ecological survey completed and farm and conservation partnerships established, a specific long-term implementation plan can be designed to achieve the restoration and landscape maintenance vision. A pilot site would be envisioned as the first phase of this implementation plan.



ecological survey


cattle grazing in native grasslands

Establish Partnerships

This maintenance strategy relies on new types of closely coordinated partnerships with Metro Parks:

- Farmers: to manage the rotational grazing aspect
- Conservation organizations: to help develop, monitor and implement the ecological restoration component
- Volunteers: to assist the various organizations and to include all who are interested

Designate Pilot Site

A pilot site should be chosen as the first place to implement, test, monitor, and perfect this maintenance approach. At this site, the physical framework of access roads, permanent fencing, and water sources would be built along with shelter for the grazing animals.


monitoring species

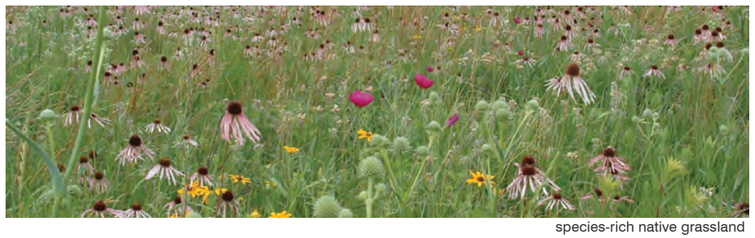
Create a New Metro Position

Understanding the importance of these natural areas management practices and the goals of *Plan To Play* to implement management plans across the Metro Parks system, this plan recommends a new Land Resources Specialist staffing position within Metro Parks. They would help develop and provide oversight and management of natural areas within the Metro Parks system. The Lands Resource Specialist would be responsible for establishing and managing the partnerships with farmers and conservation organizations associated with the Maintenance Grazing program.

Ongoing Public Engagement and Access

This maintenance approach is a new type of experience on public parks that could become a novel attraction, creating opportunities to engage with the local cultural history, and understand the connection between maintenance, biodiversity and soil health. Programming and technology could help integrate this maintenance program with public life such as an app to provide regular monitoring data, track the Metro Grazer's movements, and a seasonal celebration of the Grazers release to pasture.


public engagement in landscape restoration


species-rich native grassland

Native grasslands are the most biodiverse ecology within North America and provide essential environmental benefits such as stormwater filtration and carbon sequestration. Today, the expansive grasslands that for thousands of years once brought bison and other grazers to the Nashville basin are endangered – down to 10% of their original extent, and virtually extinct within the Nashville area.

These native grasslands evolved with periodic burns and grazing by hooved wild animals, like bison. The maintenance grazing program promoted in this master plan is designed to mimick the patterns of undomesticated animals.

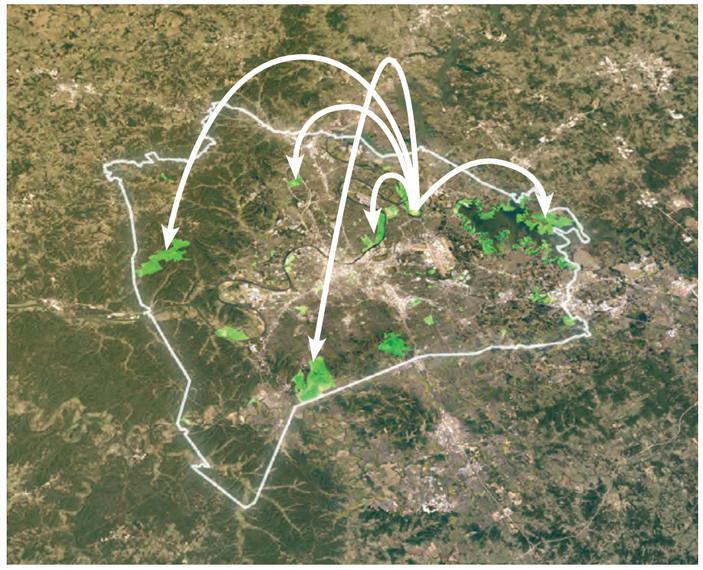
With increasing city growth, residential development and related habitat loss, the future park can have a significant impact in protecting and enhancing the region's biodiversity - through ecological conservation of its lands, education, and the development of a seed bank for propagation.

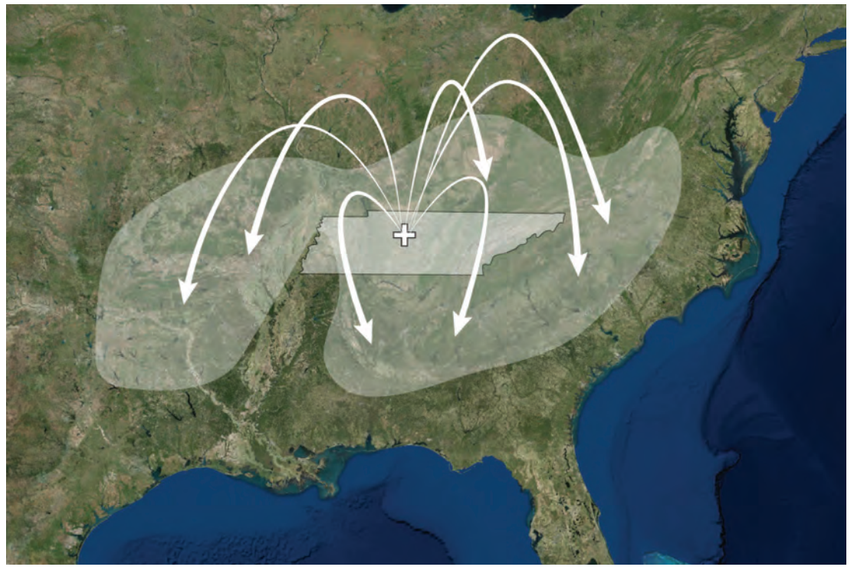
Biodiverse places are also places of unique beauty which attract people and encourage them to become stewards of public parks. The maintenance and grazing program would not only benefit this park, but could be used to maintain the large open spaces of the entire Metro Parks system.

Once established, the native grasslands at Stones River Bend could become a seed source for other open space parks in the region. By sourcing native seeds, Metro Parks could play a major role in improving biodiversity in the endangered southeastern grasslands.

"There are more species of plants and animals and more types of grasslands in the southeastern United States than in all of the Great Plains and Midwestern Tallgrass Prairies combined."

- Dr. Reed Noss, University of Florida

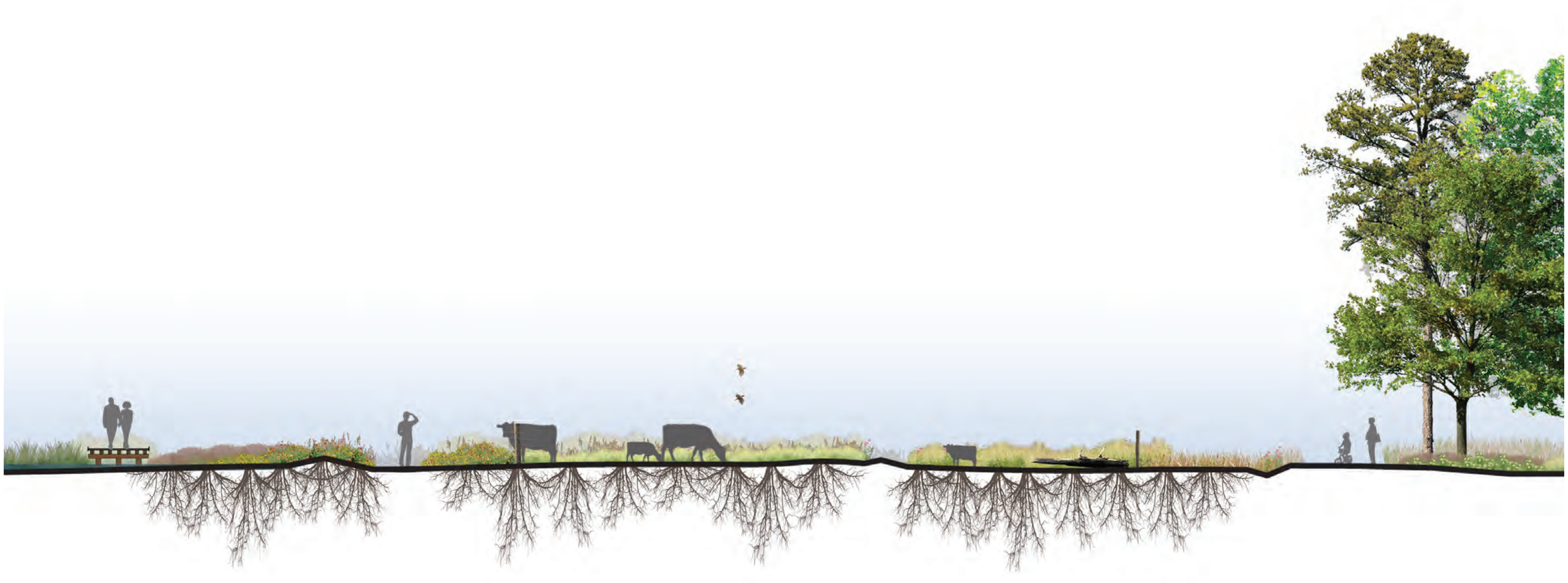




From the city to the region, Nashville Parks could play a big role in biodiversity conservation.

Section through Restored Grasslands

The deep root systems in native grasslands store carbon, allow water to infiltrate, and can withstand droughts better than conventional pastures. Discover more about the benefits of these grasslands at the website for the Southeastern Grasslands Initiative (www.segrasslands.org).



Reforestation & Restoration

Currently, roughly 20% of the site is covered in forests of varying character and health. In order to develop a strategy for forest restoration and preservation, an ecological survey is necessary to map the existing plant communities including native, invasive, and rare or threatened species.

The proposed reforestation extends the existing canopy along valleys and drainage ways to improve existing water courses and ponds, and to create a continuous habitat corridor around the park to support animal movement alongside the river.

An additional stretch of forest along the northeast edge provides privacy to the adjacent neighborhood residences.

Legend

- Forest restoration (160 acres)
- Reforestation (60 acres)
- Riparian forest restoration (56 acres)

1” = 1200’

0’ 600’ 1200’ 2400’

Reforestation

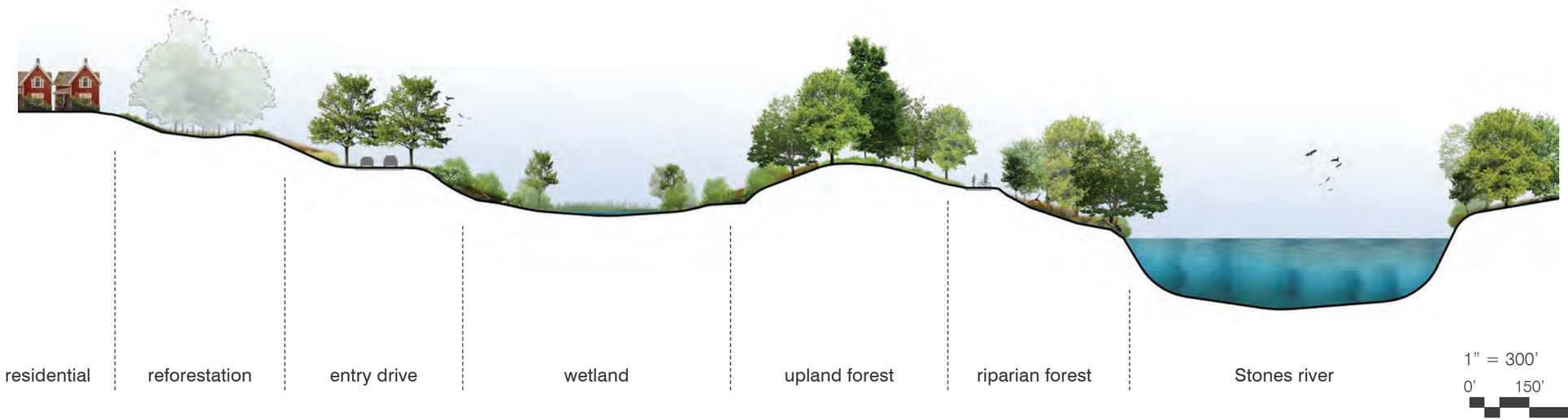
Several thousand trees will need to be planted as soon as possible to provide a buffer between the park and the neighborhood adjacent to the park at Ravenwood East. Groups of volunteers, perhaps from the neighborhood, could help fund this effort or provide the planting labor. Living in close proximity to the park, neighborhood residents have a particular stake in the long-term success of this restoration, and therefore are well suited to become stewards.

Restoration

The remnant ecosystems of the Bend range from riparian to upland forest and provide a vast laboratory for urban ecology.

Citizen science surveys of the existing conditions could be conducted by students and resource groups. Partnered with an ecologist or parks employee, volunteers, friends groups, and garden clubs could work together to install, monitor and then maintain restoration planting.

Section - Forest typologies

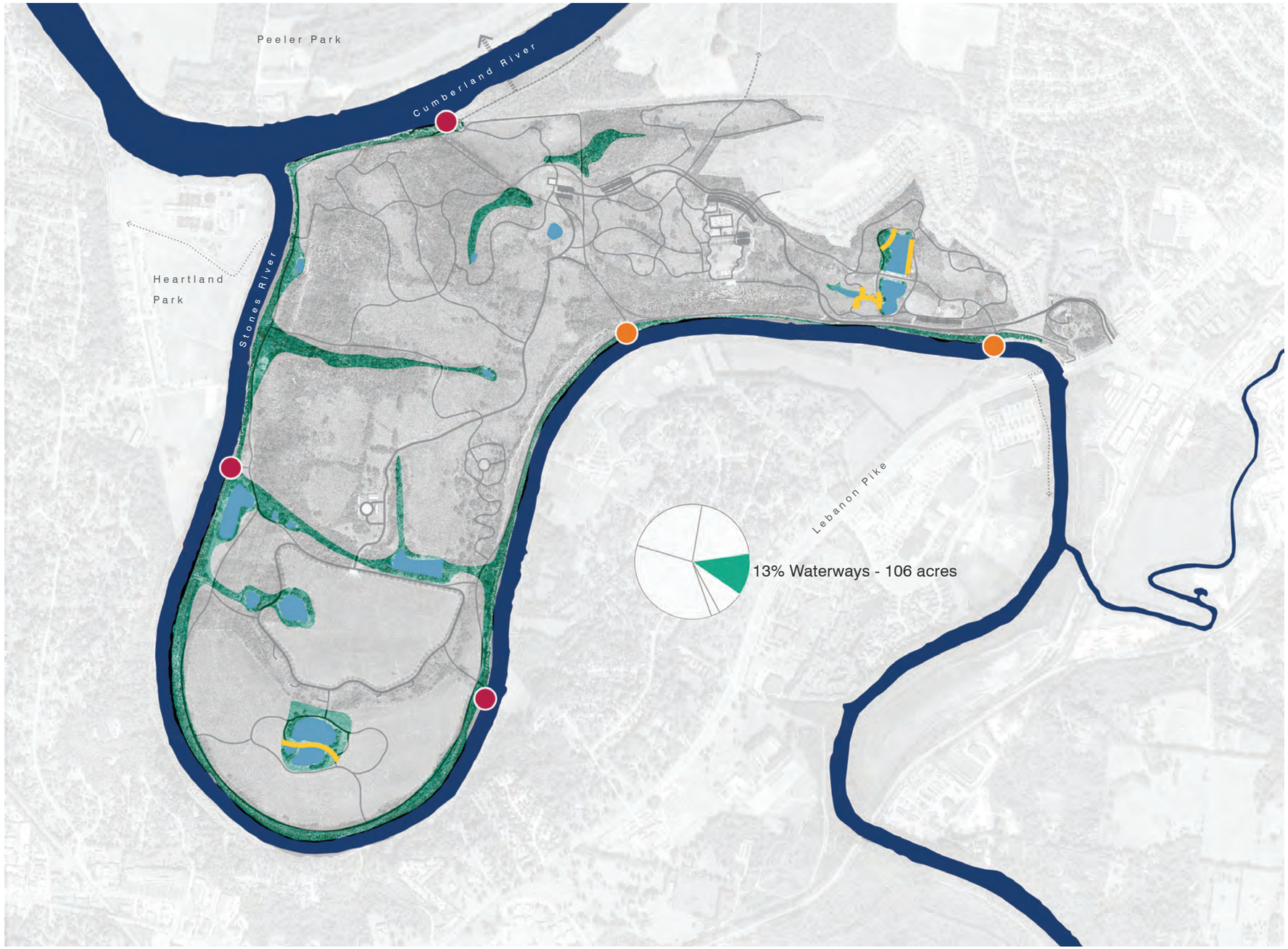


Hydrology

Water access is a defining feature of Stones River Bend Regional Park. As part of the master plan design, public access is opened up to 4.3 miles of river edge. In addition, existing inland ponds become opportunities to improve water quality, creating habitat and recreational opportunities. Maintaining kayak tie-ups, trash pickups and plantings at the water's edge will be critical to withstand the increased public use.

Riparian plantings help to clean run-off during rain events and filter excess nutrients from sites where animals graze. Native grasslands improve the overall water quality and are more drought tolerant because of the extensive spread of their deep roots. These roots also enable water to travel deeper into the soil for storage in dry times.

In Ravenwood East, boardwalks allow exploration of the wetland and provide ample locations for anglers to cast into the fishing ponds.



Farm pond

River edge

Kayak tie-up

Wetland boardwalk

River overlooks

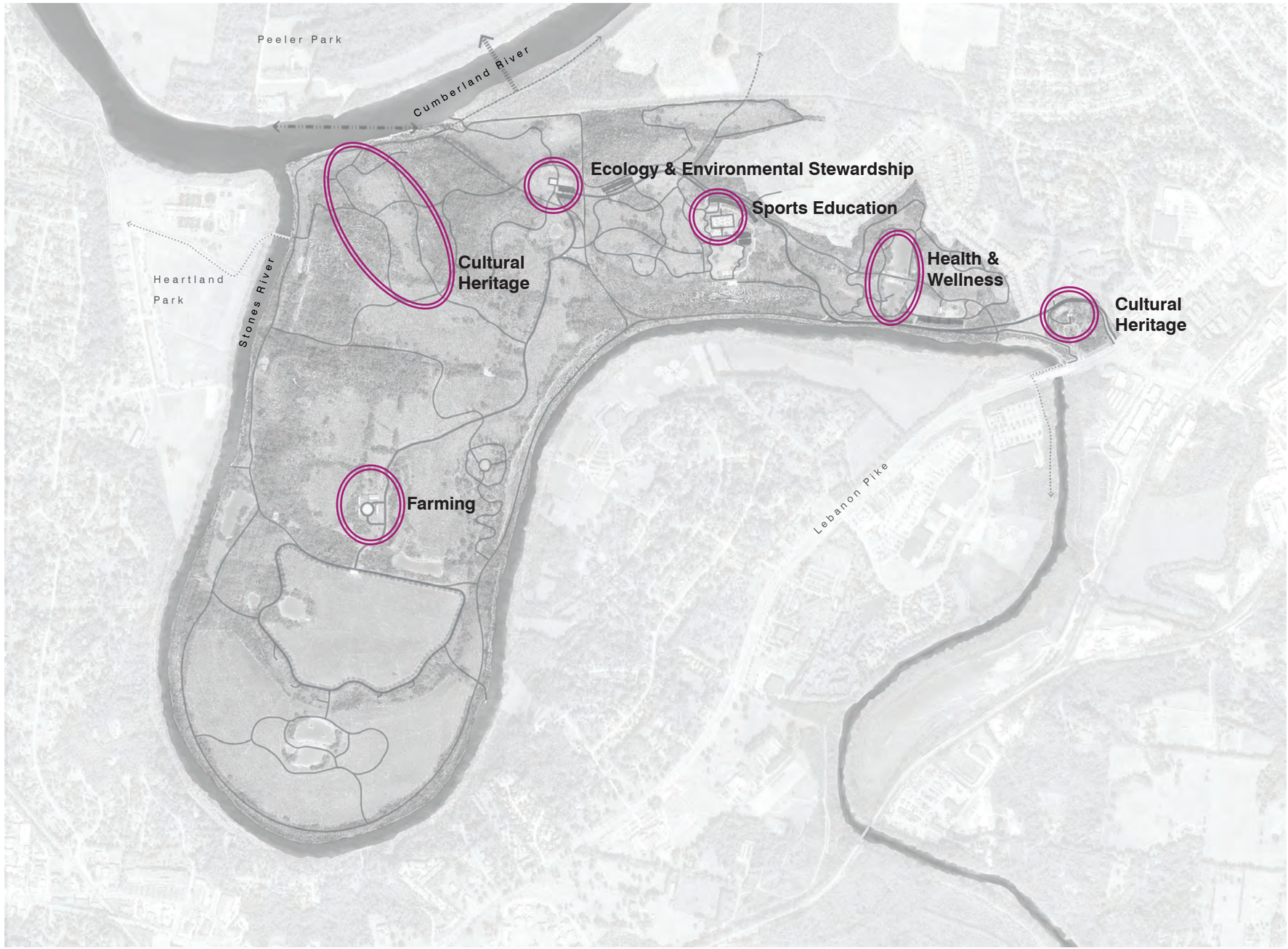
Section through riparian edge

1” = 300’

0’ 150’ 300’ 600’

EDUCATE & ENGAGE | Cultural Landscape

Beyond promoting the benefits of physical fitness and access to the outdoors, the new park at Stones River Bend seeks to teach and enlighten those who come to take advantage of all it has to offer. Throughout the park, there will be places to learn about both the cultural and natural history of the landscape. Strategies to communicate these stories may include trailhead waysides with interpretive signage, exhibits in the various pavilions, and interpretive programming conducted by Metro staff or volunteers, such as nature walks or outdoor demonstrations. This diagram highlights areas that could host educational programming with examples of potential program titles on the opposite page.



1" = 1200'
0' 600' 1200' 2400'

Ecology & Environmental Stewardship


- The Cumberland and Stones River Wildlife Corridors
- Grassland Farming
- Floodplains, Bluffs and Bends – a Lesson in Geology and Hydrology
- Wildlife Habitat along the Cumberland and Stones River Corridors
- The Native Forest of the Cumberland River Valley
- Grasslands and the Benefits of Burning
- Bird Watching in the Bend

Farming


- Cows at Work – Maintaining Grasslands with Grazers
- What is Conservation Ecology?
- Grassland Farming
- Agrarian Landscape Preservation

Sports Education


- Camping, Canoe/Kayak, Fishing, Biking, Rock Climbing, Disc Golf, Tennis, Basketball
- The Value of Team Work
- Gaining and Building Confidence

Cultural Heritage


- The Bend at the Confluence: Indigenous Americans at Stones River Bend
- Stone Hall and Ravenwood Property History
- From the Trail of Tears to the Civil War: Stories of Native Americans and African Americans in the Hermitage Community
- Industrial Traces: the History of Limestone and Phosphate Extraction at Stones Bend
- Hunting and Farming at Stones Bend: From Paleoamericans to Today
- Learning from the Landscape - How the Site Reveals its History

Health and Wellness


- Yoga and Meditation
- Fitness Stations
- Hiking and Biking
- Communing with Nature
- Community Building

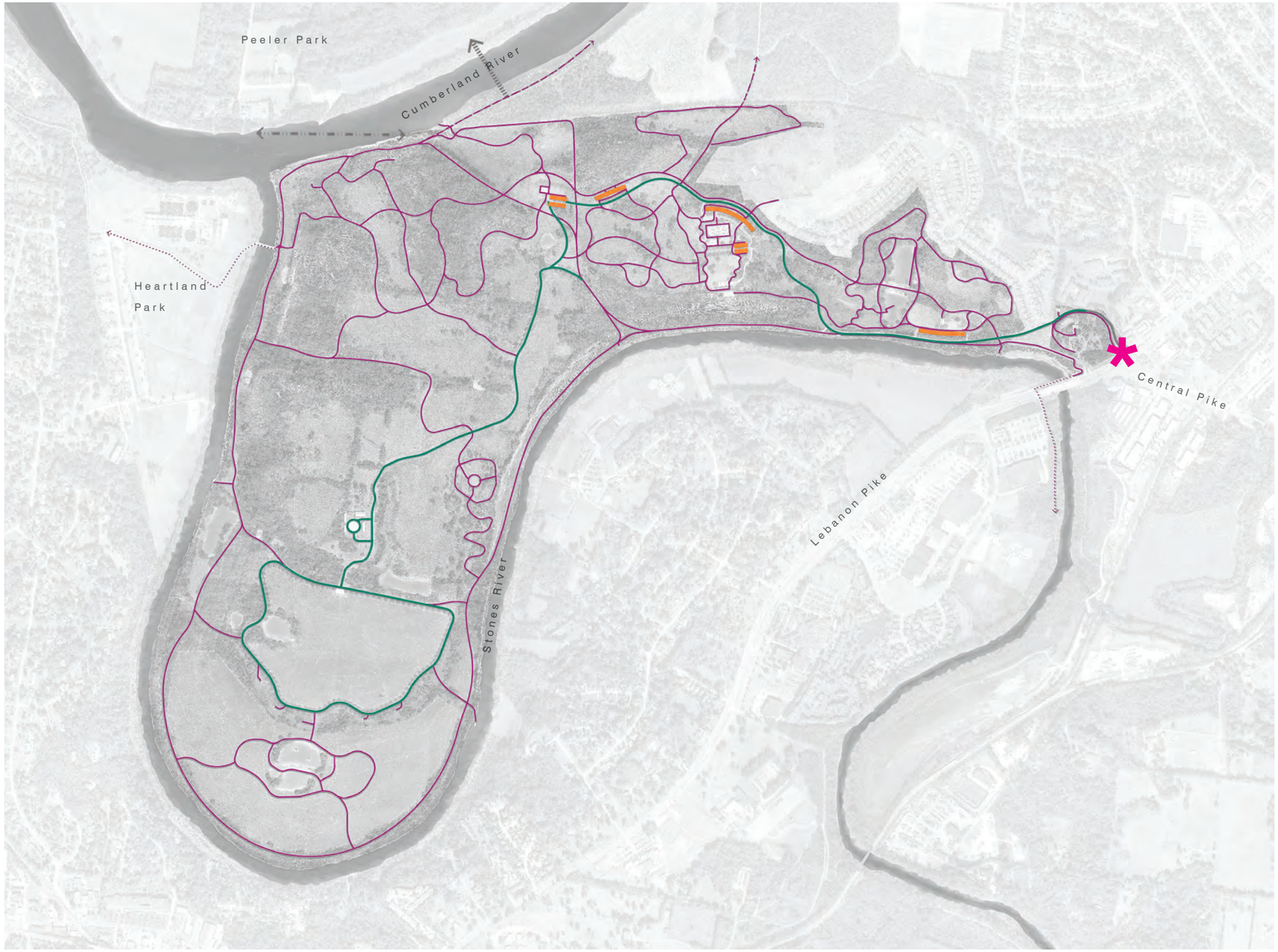
ACCESS | Roads, Transit & Parking

To maintain the majestic and remote character of Stones River Bend, vehicular access to the park is limited to one entrance at Central Pike and Lebanon Pike. Once inside the park, public vehicular access is limited to the Stones River Bend Interpretive Area.

The park can also be accessed from the west at the Stones River Greenway at Heartland Park, and from the east near Stone Hall over the truss bridge. Future connections to the neighborhood and to points north are planned as indicated.

Gravel farm roads are maintained, keeping the agrarian character and providing direct access to the bend for pedestrians and farm vehicles.

Access from the river is provided at river boardwalks and tie-ups. A ferry crossing and pedestrian bridge have been suggested for future access to Peeler Park.

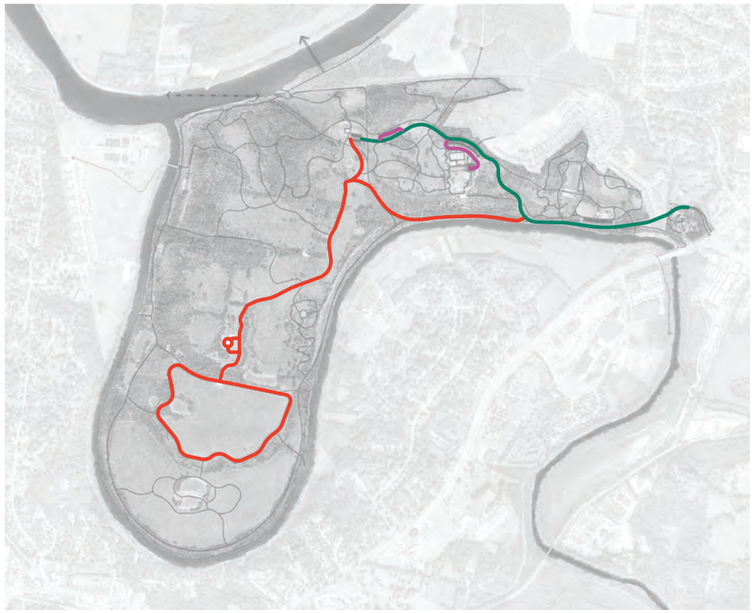


Legend

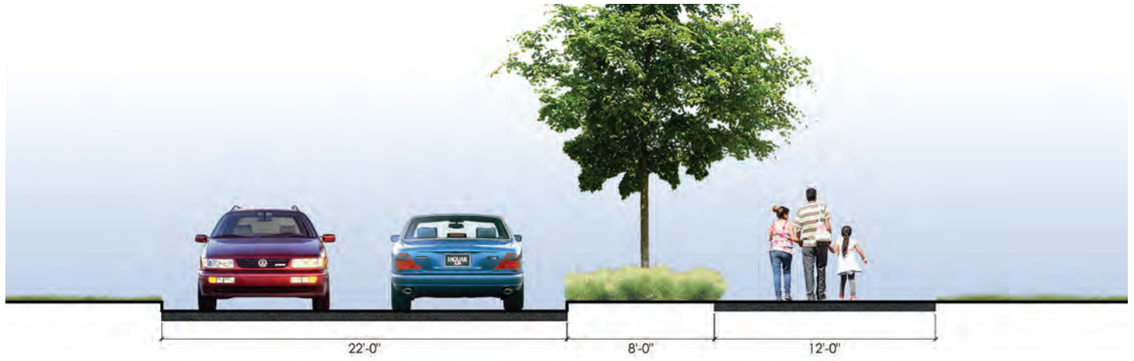
- Roads
- Parking
- Trails
- Existing greenway
- Future greenway
- Future bike & pedestrian bridge
- Potential ferry crossing
- Kayak tie-up
- Park entrance

1" = 1200'
0' 600' 1200' 2400'

Roads



Park Entry Drive



Connecting Roads

Farm Access

Path Types

The park will add an additional four miles of greenway including a loop around the Bend and more than 10 miles of new hiking trails.

Primary and multi-use trails are concentrated around the most active areas of the park. Where suitable, these paths will reuse the existing cart paths from the former Ravenwood golf course.

Secondary paths will orient hikers by designating a unique material to the routes that connect the two rivers east to west. These paths are noted as east-west connector paths in the diagram on the opposite page.

Boardwalks carry hikers over wetlands, between ponds and down to the boat tie-ups.

These paths will accommodate both hiking and biking, but the specific locations of each path type will be developed in future phases of design.

1/8" = 1'

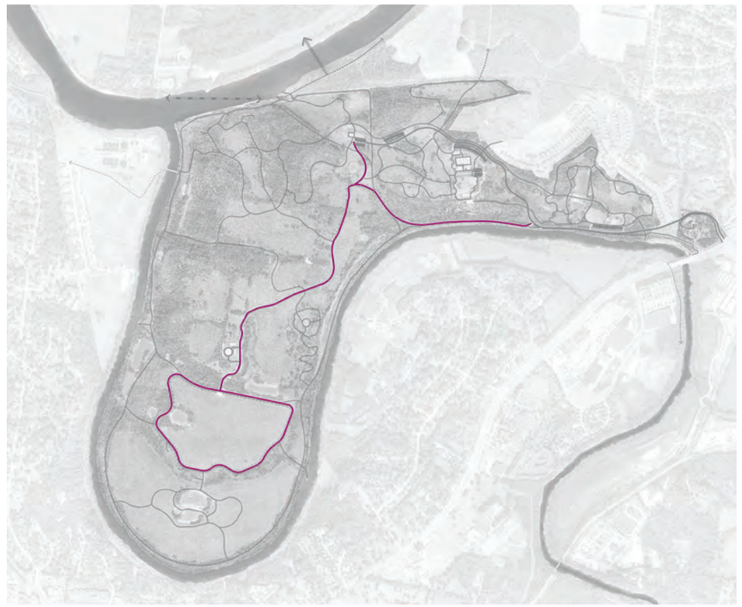
0' 4' 8' 16'

Greenway

designed use

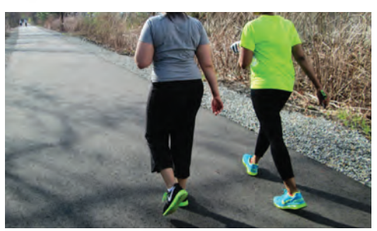
Maintenance Road / Path

designed use



Primary & Multi-Use

designed use



Primitive (Secondary)

designed use

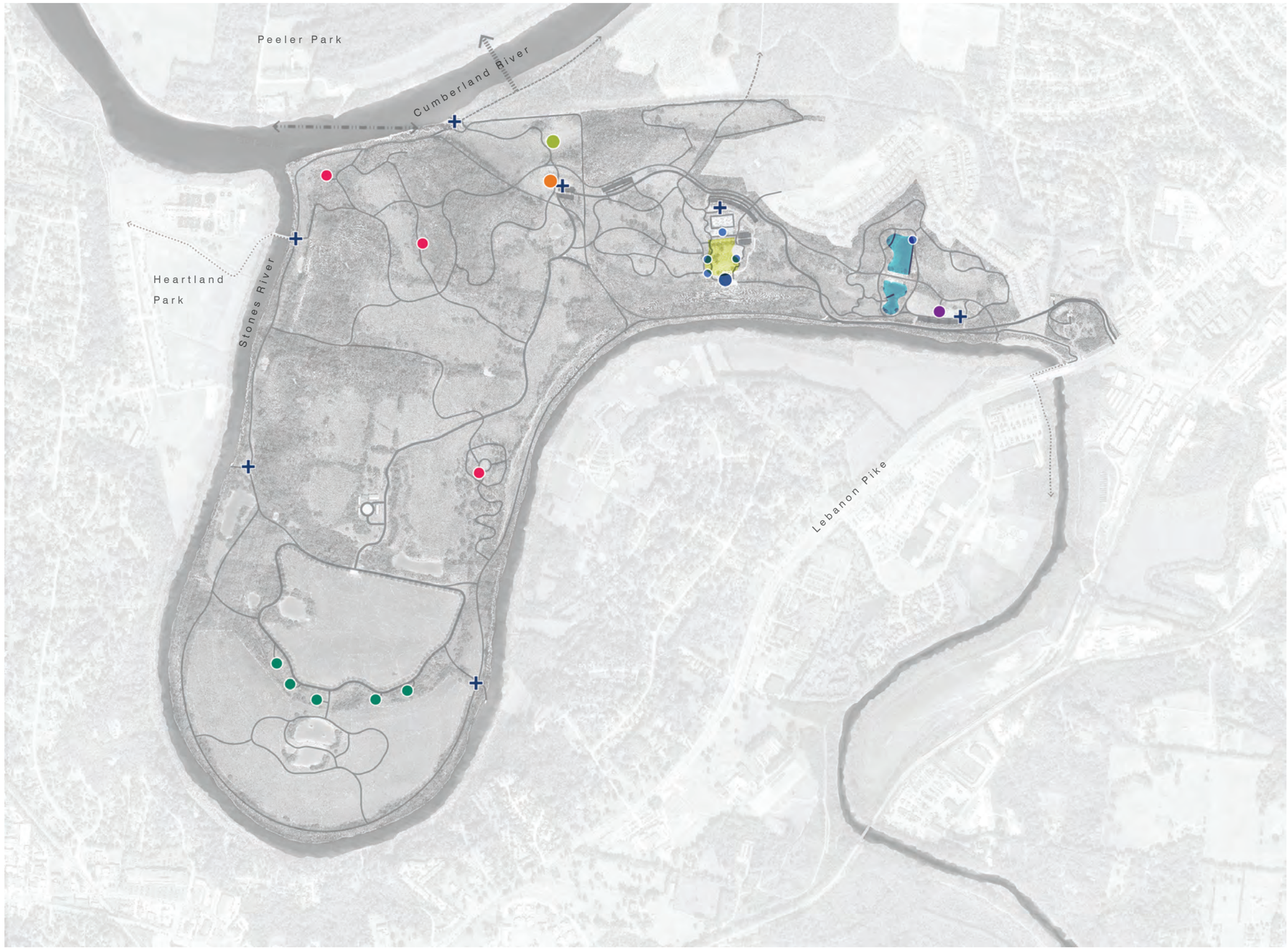
East-West Connector

1/8" = 1'

0' 4' 8' 16'

GATHER

The various scales of gathering places allow for a diversity of activities to take place at each park node, from weddings to classroom picnics. Whether pavilions, overlooks, shelters, or trailheads, each element is to be designed for long-term durability. The structures should have careful consideration for the materials, be simple with a timeless aesthetic, and be sized to accommodate future uses.



Legend

- Large pavilion
- Medium pavilion
- Small pavilion
- Bird blind / campsite
- Group campsite
- Interpretive area
- Overlook
- Trailhead
- Ravenwood green
- Ravenwood ponds

1” = 1200’
0’ 600’ 1200’ 2400’

Ravenwood Green


The Ravenwood Green is a two-acre multipurpose lawn for events and day-to-day use at the crest of the hill, flanked on all sides by pavilions, playgrounds, views, and the entry court allée.

Ravenwood Ponds


Collecting and detaining stormwater from the former golf course, the ponds invite anglers to enjoy casting a line from the public docks and boardwalks.

Stones River Bend Interpretive Area


The open air structure provides flexible space to present workshops and demonstrations on history, biodiversity, propagation, farming, and exercise, or rented space for private events.

Large Pavilion


The large pavilion is a 60’ x 120’ open air structure with picnic tables and shared barbeques. It will have the electrical capacity, bathrooms, and small concessions necessary to host weddings and other events, with spillout space onto the adjacent stone terrace.

Medium Pavilion

A 30’ x 60’ open air structure with picnic tables and shared barbeques.

Small Pavilion

A 15’ x 30’ open air structure with picnic tables.

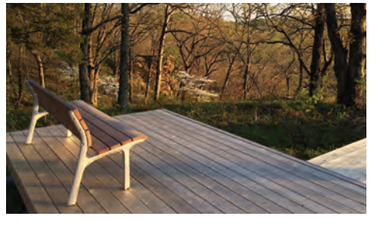
Group Campsite


A short walk from the Interpretive Area, the group campsite is located at the top of a hill, with views over the floodplain toward the confluence. It includes 15 camp sites, a fire pit and one composting toilet.

Bird Blind / Campsite


These dual purpose structures are elevated wooden platforms set on the ridge just above the floodplain, with fixtures for tieing down two tents and a bench along one side.

Overlook



Elevated wooden platform with bench and interpretive signage.

PLAY | Courts, Fields, Tracks, & Playgrounds

The playgrounds at Stones River Bend utilize local materials to engage children with the Oak Hickory forests, bluffs, and limestone outcroppings of the Nashville basin. The elements themselves compel children to engage with and embrace the plants and animals specfic to this area, and the habitats they require.

Other planned active program includes tennis and basketball courts, a fitness loop, a cross-county course, and a children's bicycle pump track.

Legend

- Tennis courts (4)
- Basketball courts (2)
- Kiddie pump track
- Multipurpose fields (5 acres)
- Fitness loop (1 mile)
- Cross country course (3.8 miles)
- Community playground
- Neighborhood playground

1" = 1200'
0' 600' 1200' 2400'

Community Playground


The regional playground is intended as a site-specific intervention, highlighting the natural materials that are indigenous to the region and providing nature-play opportunities that challenge and excite children young and old.

Cross Country Course


Nearly four miles of trails offer 3k, 5k, and 10k loops for recreational and competitive use.

Neighborhood Playground


The neighborhood playground provides an easily accessed location for parents to bring children, adjacent to the kiddie pump track and greenway trailhead.

Fitness Loop


A one-mile loop with outdoor fitness stations located along it.

Multipurpose Courts


The courts are located at the most level area of the site and provide recreational opportunities as well as views to the broader landscape.

Pump Track


The pump track is sized for smaller kids and allows a unique experience and way for children to exercise adjacent to the greenway trail.

MATERIAL PALETTE

Stones River Bend Park is an escape from the city to a place where nature, history, and agriculture meet. Soft hues and native stone, with re-purposed and new farm elements are the characteristic materials employed across the park from children's play areas to trails and grasslands. Tying together existing site walls, the limestone quarry along the Cumberland River, pastures, and campsites, material choices will reflect Tennessee's agricultural and geological history, as well as Nashville's evolving role in the urban ecosystem.

Nashville Limestone | Site Wall Veneers, Boulders

The City of Nashville sits in a basin with a thin top soil that often exposes the iconic gray Nashville Limestone used in buildings throughout the region.

Recycled Barn Wood | Site Structures

The wood barns existing on-site preserve the memory of the agrarian landscape. Updates to those buildings where appropriate and re-use of the barn wood transform the site into a modern agricultural park.

Fencing | Pastures, Natural Areas, Play Area

Durable fencing facilitates livestock management and delineates park uses across the site.

Play Surface | Playground, Sports Field

Wood chips provide a soft-surface for nature play areas. Artificial turf allows for low-maintenance and high-performance athletics.

Permeable Paving | Paths, Parking Areas, Farm Roads

Stone pavers and chip-seal gravel roads are low-impact paving options that contribute to stormwater management and provide appropriate durability for agricultural and park uses.

INTERPRETIVE SIGNAGE & LIGHTING

Signage – Site Guidance, Interpretation, Wayfinding

Signs provide park visitors with information on activities, wildlife, and park procedures. Wood and dark metal posts provide distinct markers consistent with the agrarian character of the site. Interpretive signage tells the story of the site's past and present, teaching visitors about grazing practices, native grasses, and conservation in the urban environment.

Trails – Materiality for Wayfinding

While signs can provide directional information, the master plan also proposes wayfinding by means of distinct trail materials. For example, east-west paths may be a light gravel and north-south paths could be packed earth. Visitors then establish a sense of direction in the park based on the material under their feet.

Entrance Gate – Monumental Signage

A dignified entrance to the site made from Nashville limestone creates a gateway to the park and grounds the site in the geological history of Stone River Bend Park.

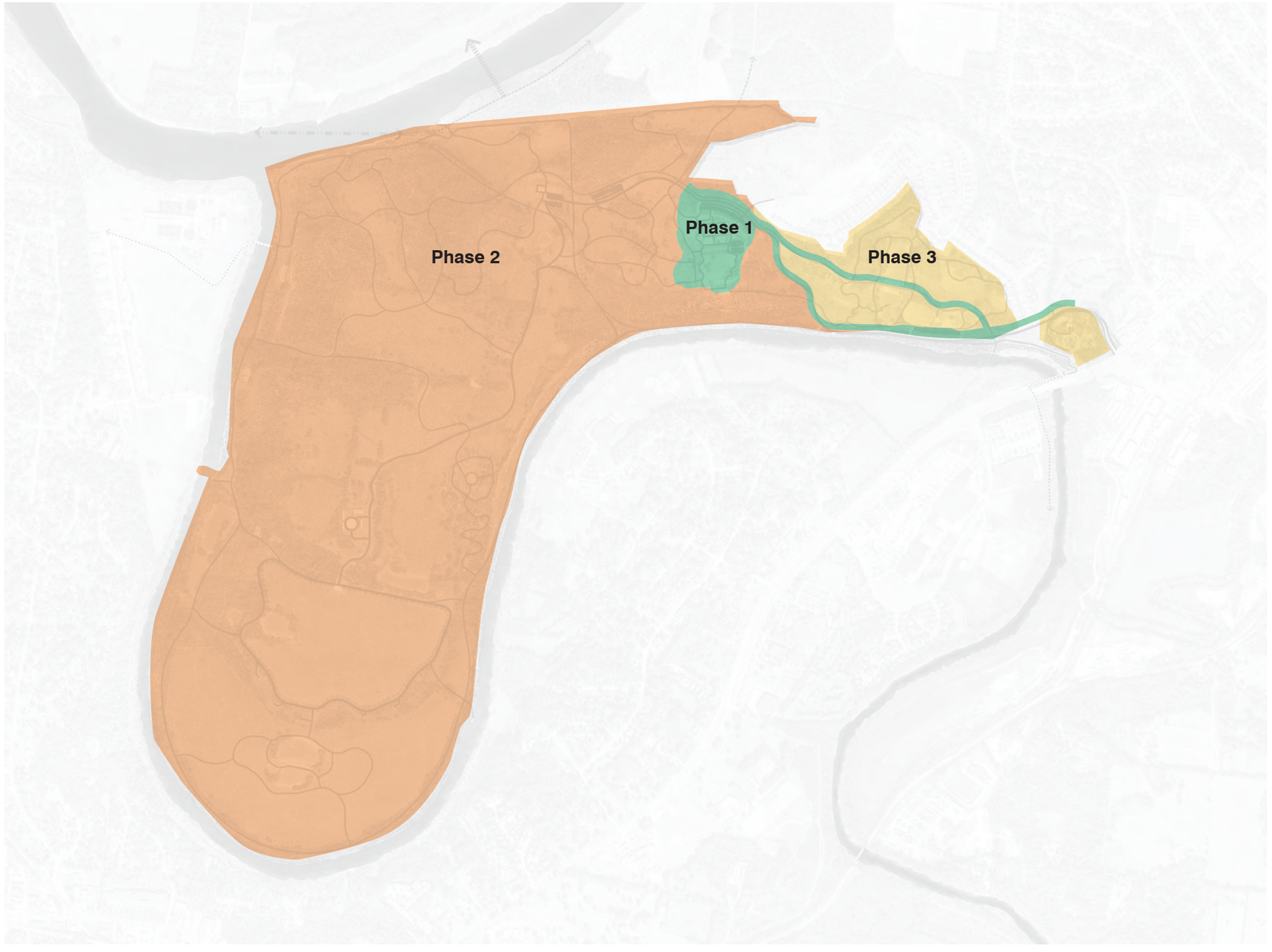
PHASING

Transforming 800 acres is a grand undertaking that will require careful consideration dependent on circumstances beyond the scope of this document. All of these phases will be contingent on future budgets and the direction of Metro Parks. Each phase will likely be divided into sub phases to be determined as funds become available.

Phase 1 includes the active hilltop and the entry drive to get there, as well as extended greenway access through the former Ravenwood property.

Phase 2 covers all areas west of the entry drive beyond the hilltop area.

Phase 3 includes Ravenwood East and Stone Hall.



1" = 1200'
0' 600' 1200' 2400'

CULTURAL HISTORY | Indigenous People of the Cumberland River Valley

DISCOVERY PHASE (RESEARCH AND ANALYSIS) *MARCH 2017* · MASTER PLAN DESIGN STUDIES *MAY 2017* · MASTER PLAN DRAFT *SEPTEMBER 2017* · FINAL MASTER PLAN *NOVEMBER 2017* · REQUEST FUNDING FOR PH 1 IMPLEMENTATION *JANUARY 2018*

The Cumberland River Valley has been inhabited by humans for more than 10,000 years. The area has been occupied by Paleo-Indians (12,000 BCE), Archaic Indians (8000 BCE -1000 BCE), followed by Woodland (1000 BCE -1000 CE) and Mississippian Indians (1000 CE - 1600 CE). The 1989 archaeology report for the Stones River Bend site provides physical evidence of Archaic, Woodland, Mississippian, and Protohistoric Native American occupation of the site, from a period spanning roughly 10,000 years.[1]

The Paleo-Indians were hunter-gatherers known for their dependence on large animals that thrived during the Ice Age, such as the mammoth and mastodon, which became extinct around 7000 - 8000 BCE.[2] The Archaic Period is largely defined by adaptations to a post-glacial climate, with a shift in vegetation from conifer to modern deciduous forests. With the die-off of larger game, Archaic Indians were dependent on hunting smaller game, such as bear, elk, and white-tailed deer, as well as smaller mammals, fish, and mussels. During this period, innovations included the atlatl, an Archaic spear thrower, ground stone tools, the first cloth made of vegetable fibers, fishing weirs, and houses/shelters with compacted clay floors. By the end of this period, basic agricultural practices appear. [3]

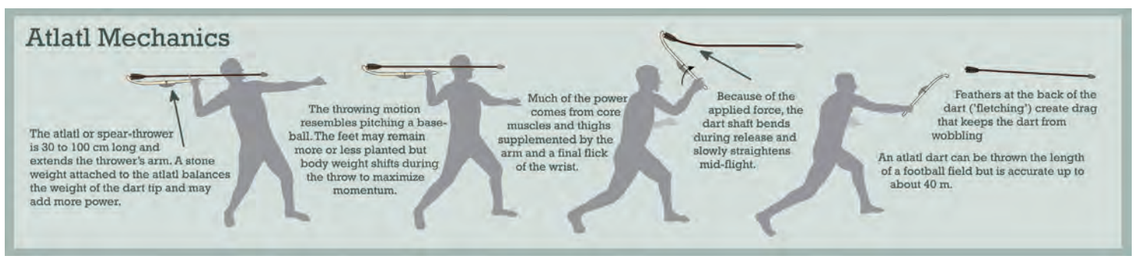
The Woodland Period signaled a shift from hunter-gather to a more 'sedentary' lifestyle with the cultivation of crops and plant domestication. Woodland Indians replaced the spear thrower with the bow and arrow, and began making pottery, as well as elaborate burial mounds. Most of the Woodland sites within the Cumberland Region were located along lower alluvial terraces and floodplains, similar to the topography at the site, which would have been suitable to cultivation or village construction.[4] According to the site archaeology report, evidence of Late Paleo Indians, Early to Late Archaic Indians, as well as Woodland Indian occupation has been found on site.

1 Jack Schock, "A Cultural Reconnaissance of Approximately 530 Acres for the Proposed Gateway Project at Donelson, In Davidson County, Tennessee," Archaeological (Bowling Green, Kentucky: Arrow Enterprises, March 1989). 2

2 Jack Schock, "A Cultural Reconnaissance of Approximately 530 Acres for the Proposed Gateway Project at Donelson, In Davidson County, Tennessee," Archaeological (Bowling Green, Kentucky: Arrow Enterprises, March 1989). 5-6.

3 Ibid, 7-8.

4 Ibid, 8-10.



Early Spear Thrower: Atlatl

Image: https://albertashistoricplaces.wordpress.com/2015/10/07/albertas-ancient-darts-and-atlatl-hunting/

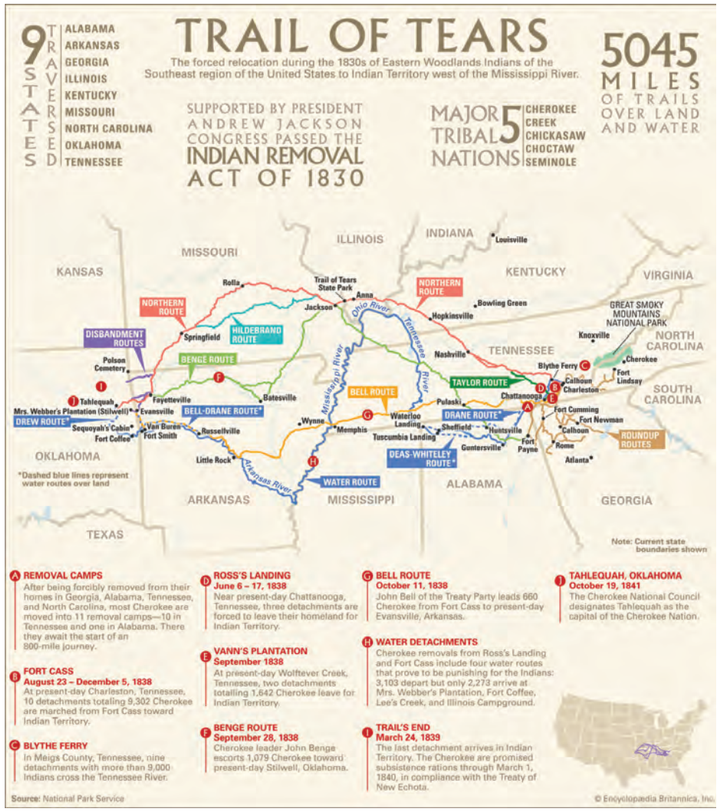
Middle Woodland pottery from the Southern Coastal Plain

Image: http://rla.unc.edu/archaeonc/time/wood_Coast_MWood.htm

Cultural Heritage Trail

The Stones River Bend site is distinctive for both its rich Native American material legacy described in the 1989 archaeology report and its proximity to Andrew Jackson's Hermitage. Furthermore, Andrew Jackson played an instrumental role in the battles against Native occupants of the region and the forced removal of Native Tribes through the Indian Removal Act of 1830.

The proximity of these historic sites can provide a unique opportunity to relay a broader and more complete narrative than what has been shared at other historic sites such as the Hermitage and Two Rivers Mansion. A Cultural Heritage Trail connecting these unique sites would allow locals and tourists to meander from one site to another and understand not just the cultural landscape of the Antebellum era but an expanded view including the time of the Native Americans to the present.



Two Rivers Mansion

The Hermitage

Settlement in the Nashville Basin

Nashville's Natural Advantages

The geological substrate in the Nashville Basin created special conditions that made the site an attractive place to both animals and people. The underlying limestone dissolves easily allowing ground to interact with water in unusual ways, creating natural springs and salt licks.

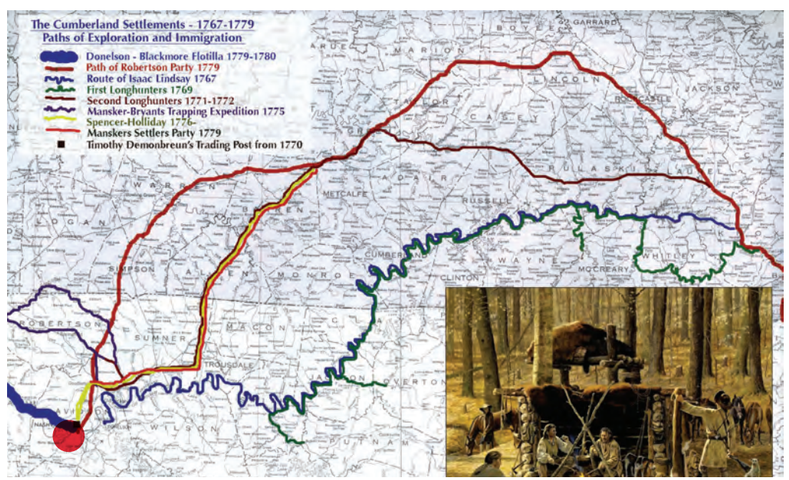
The city of Nashville was the site of the Great Salt Lick, (French Lick, later Nashville) an area directly West of the Cumberland River, where mineral deposits attracted game in search of minerals missing from their regular diets. These herds of buffalo, elk, and deer in turn attracted people to hunt them. Numerous locations along the game paths throughout Davidson County show signs of early human habitation in the area by the Mississippian mound-building culture that vanished before European settlement.

Paths of Donelson and Robertson Parties to Nashville

Image: http://www.nptinternal.org/productions/rachel/images/river_journ_bg.gif

Artist's depiction of Donelson's flatboats descending the Cumberland River in 1784

Image: https://en.wikipedia.org/wiki/History_of_Nashville,_Tennessee



Paths of Donelson and Robertson Parties to Nashville

As the first white settlers began to populate the area, they recorded the types of vegetation and game they encountered. One account from A. W. Putnam (circa 1780) describes a Sulfur Spring at Freeland's Station (just north of French Lick) stating that it was "open--freed from trees and underbrush by the innumerable buffalo and deer and elk that came to these waters."[1]

In early land warrants for the area the terms 'buffalo trace,' 'buffalo path,' 'buffalo run,' 'buffalo road,' or 'buffalo trail' are used frequently to describe the locations and thoroughfares created by passing herds of buffalo.[2] The settlers continued to use historic game paths to travel throughout the region.

The first of these European settlers arrived by way of the Tennessee Road, during the Historic Period (about 1770 CE), which brought settlers from North Carolina and Northeast Tennessee to Middle Tennessee. In 1779, this was the route taken by Nashville founders, James Robertson, and John Donelson. Before settlements developed around Fort Nashborough (Nashville) at the site of the Big Salt Lick (French Lick), an exploratory party came through the area in 1766, which included Colonel James Smith and Uriah Stone, for whom the Stone's River was named. [3]

1 Clements, Paul. Chronicles of the Cumberland settlements, 1779-1796. Place of publication not identified: P. Clements, 2012. Print. 146. 543.
2 Ibid., 543.
3 Leona Taylor Aiken. "Donelson, Tennessee: Its History and Landmarks". (Kingsport, Tennessee; Kingsport Press Inc. 1968) 4-5

Settlement along the Stones River

The Stones River Bend site and context is closely tied to the first families of Nashville: Colonel John Donelson arrived to Nashville on the Donelson Flotilla in 1780. The Donelson family appears on Land Grant Maps surrounding the Stones River Bend Project Site, although they actually settled on the adjacent property west of Lebanon Road. This site was known as Stones River Station, Donelson Station, or Clover Bottom (for the white clover found on the bottomland of the site). In 1780, Col. John Donelson settled with his family and about 30 slaves, building cabins, and planting cotton and corn. The river rose and flooded, and the Donelson party retreated about 12 miles north to Mansker's Station. When they returned later to harvest the crops, several of Donelson's men were killed, which prompted his retreat to Kentucky with his family.[1]

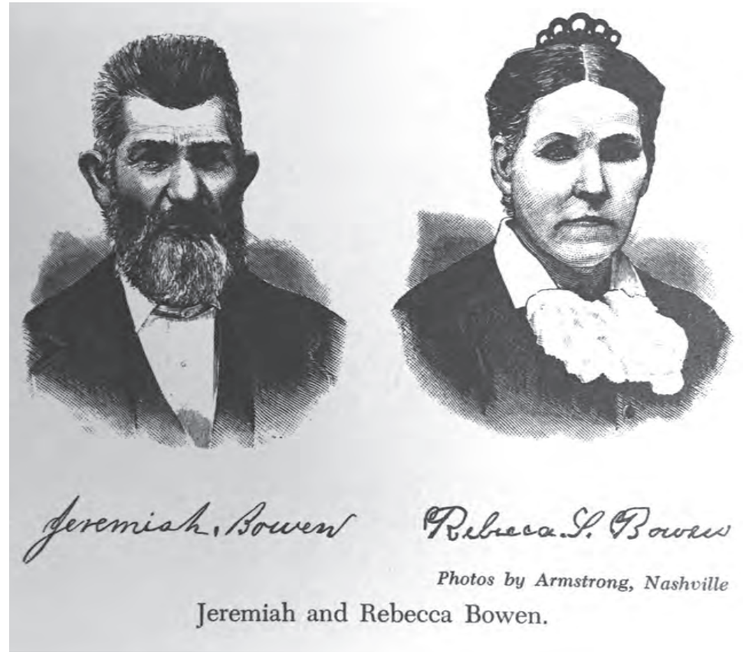
Later, Col. John Donelson became the father-in-law of Andrew Jackson through his daughter, Rachel Donelson Robards. Rebecca S. Buchanan, granddaughter of Archibald, married Jeremiah Bowen II in 1848, and they eventually settled the area in Donelson, just south of the bend, and farmed the present-day area of Stones River Bend. The Bowen's farmed the land at Stones River Bend for over 50 years, and his son, Jeremiah Bowen III continued to maintain the property until he was in his late sixties.[2]

Another family specific to this site is the Dodson Family. Records state that Timothy Dodson rented a few acres in 1808, and eventually purchased several thousand acres for farming. He passed the land down to his thirteen children, notably, Sarah Dodson.
In the early 1900s, the property located between the Cumberland and the Stones River, just west of Lebanon Road, was inherited by Sarah Dodson DeBow from the Dodson family. It was developed during the American Country House Movement by Sarah Dodson DeBow (1873-1905) and her husband, Judge James Dunwoody Brownson DeBow (1861-1947). Sarah named the property Ravenwood due to the large presence of ravens on site. They built a two-story stone mansion as a "Country House" on a 272-acre parcel. [3]

1 Leona Taylor Aiken. "Donelson, Tennessee: Its History and Landmarks". (Kingsport, Tennessee; Kingsport Press Inc. 1968) 5

2 lLeona Taylor Aiken. "Donelson, Tennessee: Its History and Landmarks". (Kingsport, Tennessee; Kingsport Press Inc. 1968) 8-9

3 Robbie Jones, "Ravenwood: Property History. Nashville, Davidson County, Tennessee," Informal (Ravenwood Country Club, April 9, 2017). 1



Jeremiah Bowen and Rebecca Buchanan Bowen
Image: lLeona Taylor Aiken. "Donelson, Tennessee: Its History and Landmarks". (Kingsport, Tennessee; Kingsport Press Inc. 1968) 87.

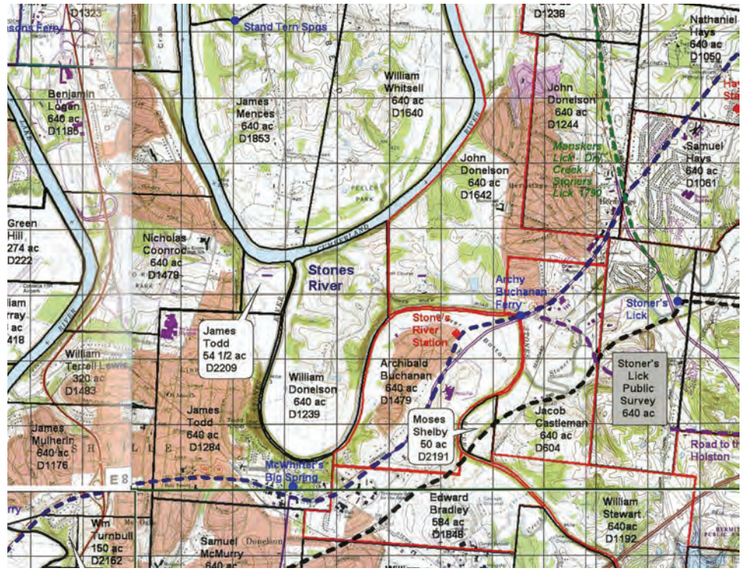
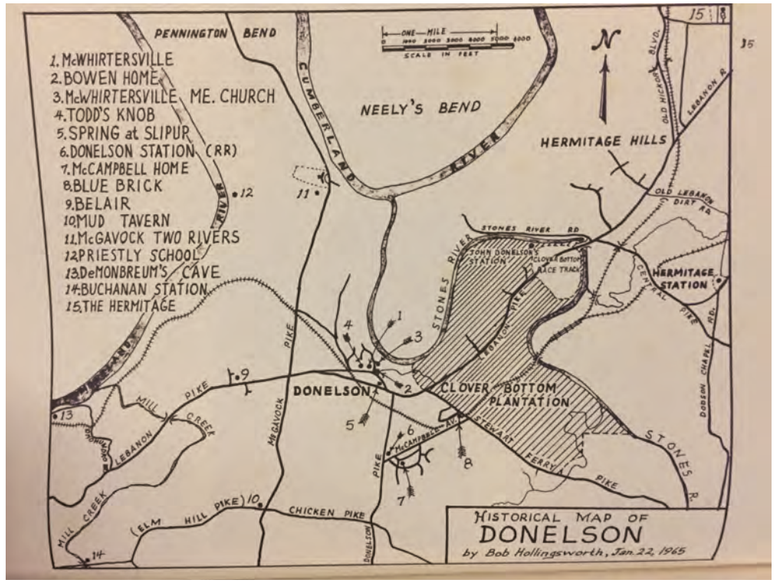


Image: Founding of the Cumberland settlements: the first atlas, 1779-1804

Original Land Grant Boundaries over Contemporary USGS map



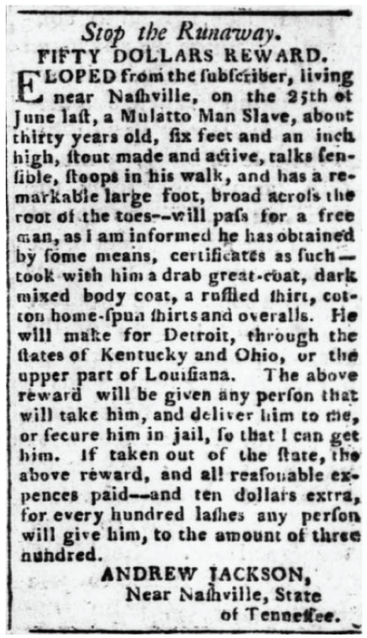
Historic Map of Donelson

Slavery and the Stones River Bend Site

Andrew Jackson was one of the most well-known slave-holders in the areas around the Stones River Bend site. Throughout his lifetime, he may have owned as many as 300 slaves. Local newspapers show many instances of advertisements posted for fugitives who had escaped his landholdings, and images exist of some of his slaves in the Tennessee Library Archives.

Slave censuses were taken in Davidson County during the 1850s and 1860s. An investigation of sites within the 4th District revealed that Joseph W. Dodson owned nine slaves in 1860, and had two slave houses on the Stones River Bend Property. There was also a John Powel listed in the census who had three slaves and one slave house, although little else is known about that family.[1] When Joseph W. Dodson's father, Timothy Dodson began farming in the area around 1808, it was said that he owned "one full-grown and one half-grown negro." [2]

Sarah Dodson and her husband Judge James Dunwoody Brownson Debow first developed the Ravenwood estate as a "Country House" weekend retreat on the 272 -acre estate they inherited from the Dobson Family.[3] Cursory investigation into their family roots show Sarah's connections to a line of powerful slaveholding families in Virginia and Tennessee. Her husband's father, James D.B. Debow the elder (1820-1867) was at once a slave owner, and a rhetorical advocate for slavery and secession though his publication of the influential magazine, *Debow's Review*.



Stop the Runaway.

FIFTY DOLLARS REWARD.

ELOPED from the subscriber, living near Nashville, on the 25th of June last, a Mulatto Man Slave, about thirty years old, six feet and an inch high, stout made and active, talks sensible, stoops in his walk, and has a remarkable large foot, broad across the root of the toes--will pass for a free man, as I am informed he has obtained by some means, certificates as such--took with him a drab great-coat, dark mixed body coat, a ruffled shirt, cotton home-spun shirts and overalls. He will make for Detroit, through the states of Kentucky and Ohio, or the upper part of Louisiana. The above reward will be given any person that will take him, and deliver him to me, or secure him in jail, so that I can get him. If taken out of the state, the above reward, and all reasonable expences paid--and ten dollars extra, for every hundred lashes any person will give him, to the amount of three hundred.

ANDREW JACKSON,
Near Nashville, State
of Tennessee.

Runaway Slave Ad taken out by Andrew Jackson in the Tennessee Gazette, Oct 3, 1804

Image:https://www.washingtonpost.com/news/retropolis/wp/2017/04/11/hunting-down-runaway-slaves-the-cruel-ads-of-andrew-jackson-and-the-master-class/?tid=ss_mail&utm_term=.643463057679

Image of Alfred Jackson, Body servant of Andrew Jackson

Image: http://tnsos.org/tsla/imagesearch/index.php?resultpage=42&find=Phosphate+%2B+industry

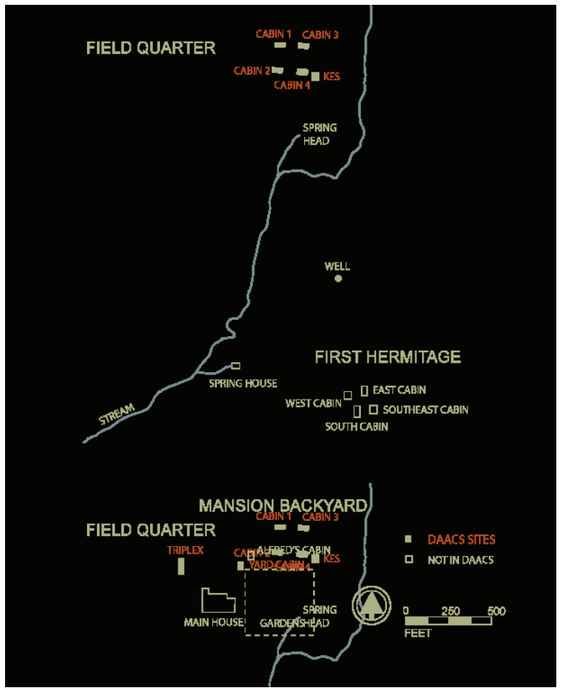
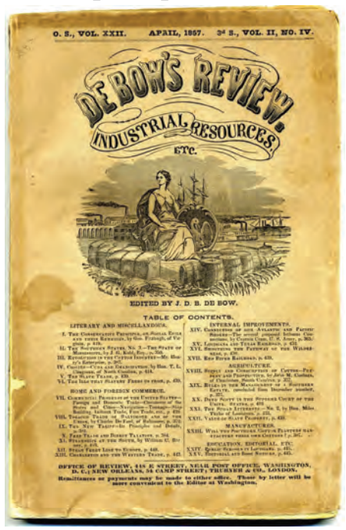


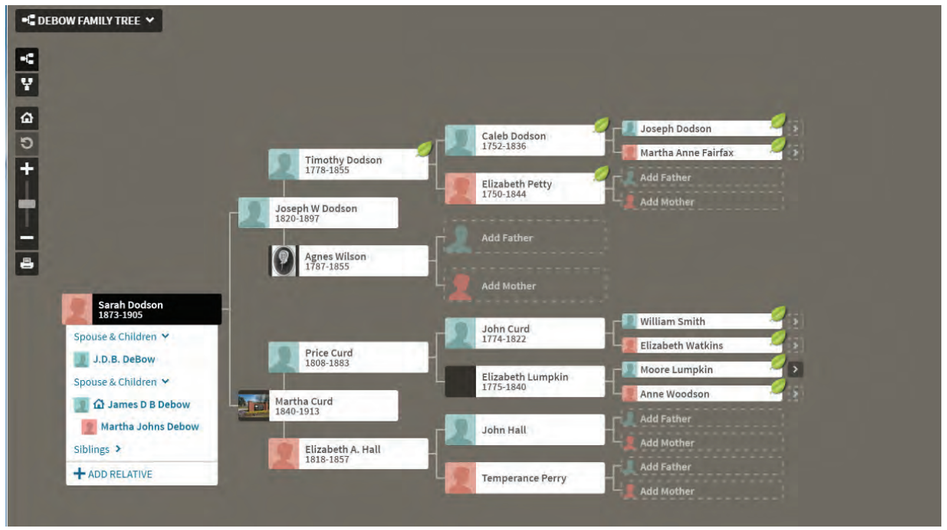
Image Accommodations of the Enslaved at the Hermitage Plantation

Image: https://www.daacs.org/plantations/the-hermitage/



DeBow's Review

Image:https://en.wikipedia.org/wiki/De_Bow%27s_Review#/media/File:De_Bows_Review_from_1857_(146665459).jpg



Sarah Dobson Family Tree

Image: http://tnsos.org/tsla/imagesearch/index.php?resultpage=42&find=Phosphate+%2B+industry

1 1850 and 1860 Slave Censuses for Davidson County (www.ancestry.com). Access date 25, April 2017.

2 ILeona Taylor Aiken. "Donelson, Tennessee: Its History and Landmarks." (Kingsport, Tennessee: Kingsport Press Inc. 1968) 202.

3 Robbie Jones, "Ravenwood: Property History. Nashville, Davidson County, Tennessee," Informal (Ravenwood Country Club, April 9, 2017). 1

Native Agricultural Practices

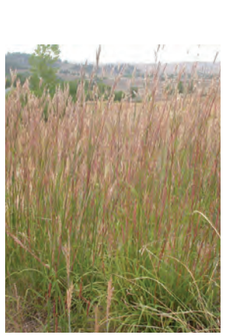
Mississippian cultures, which thrived from about 800 CE to 1600 CE, developed an economy around corn production in the alluvial soils around regional rivers. This practice allowed them to form large settlements and develop a complex material culture. Native peoples of the Southeast were known to grow some indigenous grains, like Chenpod, Maygrass, and Little Barley. Grasses that grew well in the mineral laden limestone soils of the Nashville basin, including *Andropogon, Erianthus, Panicum, and Sporobolus* supported the grazing of wild ruminants that enabled hunting. Native cultures often managed these open areas through burning.

With the collapse of this culture with the introduction of European diseases, there is a gap in understanding of Native cultures between 1600 and first European contact in the 1700s. However, the first European settlers to the Nashville area describe numerous tribes including the Shawnee, Cherokee, Chickasaw, Creek, and Apalachee, some of whom known to have practiced agriculture to supplement hunting and gathering.

Practices included intercropping of beans, corn, and squash, and a field pattern of mounds that helped prevent erosion and consolidate otherwise thin soils. This mound typically took a spatial pattern of 1’ tall x 3’ wide mounds 3’ apart in large plots. Excess food produced in these plots was often served at large communal gatherings.

These tribes also utilized native tree fruits and nuts, including red and white mulberries, persimmons, walnuts, chestnuts, plums, dwarf chinquapins, and plums (*Prunus chicasa*) as a mainstay of their diets.

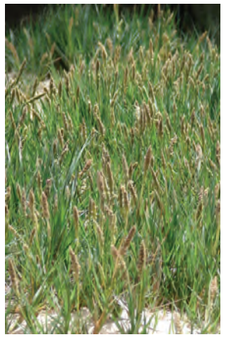
Native Grasses



Andropogon

Erianthus

Panicum



Sporobolus

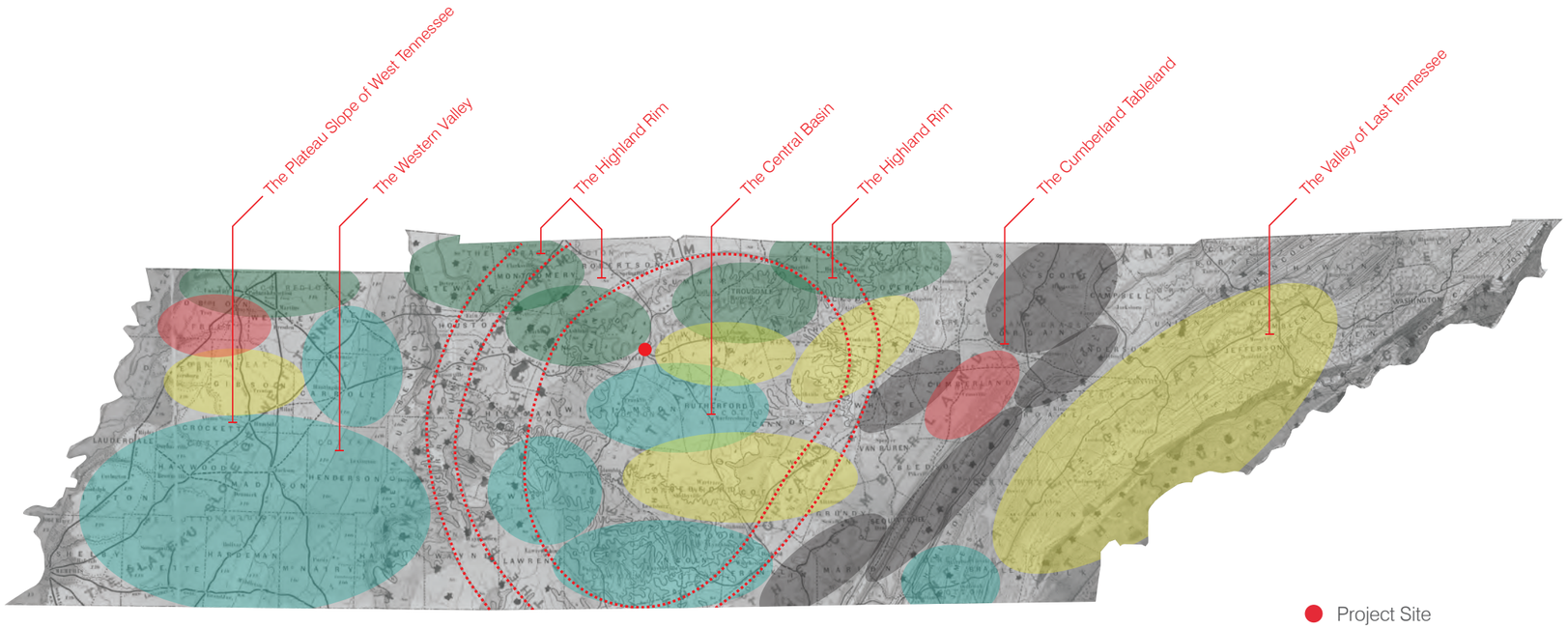
Indigenous Grains

Chenopod

Maygrass

Little Barley

Grass fire being started
Painted by Frederic Remington, (no changes made) https://commons.wikimedia.org/wiki/File: Frederic Remington The Grass Fire.jpg



Agricultural and Geological Map of Tennessee, 1877
from "Tennessee: Its Agricultural and Mineral Wealth"
by Joseph B. Killebrew, Tennessee Commissioner of Agriculture

Agricultural and Geological Map of Tennessee, 1877 Agricultural and Geological Map of Tennessee, 1877 with crop types color-coded

Settlement Brings New Ways to Farm

As European settlers began to enter the Nashville area around 1780, they brought agricultural practices with them and continued to use historic game paths leading through the hills surrounding the city to the Great Salt Lick. This "spoke and wheel" pattern persists today as the dominant spatial organization of the city as major transportation routes re-used these existing paths.

Settlers in the Nashville area often arrived to partially wooded lots, and commenced clearing these sites by removing small trees and girdling larger trees. These settlers often grew grains like corn and later wheat, and brought animals like hogs, horses, and cattle with them to support farm operations.

As the Nashville area became more settled and connected to the outside world first via water and later via rail networks, larger scale agriculture of cotton, tobacco, and cereals became more prevalent. In the Southern Nashville basin, soils over blue-fossil limestone deposits proved suitable for large-scale cotton production. Alluvial soils around rivers supported the production of corn, wheat, and other cereal crops. Tobacco became a major crop in the Northern part of the basin along the highland rim.

"Three Sisters", Beans, Corn and Squash grown in unison

Typical forest clearing Farmstead
Otto, J. S. "The Decline of Forest Farming in Southern Appalachia." Forest & Conservation History 27, no. 1 (January 1, 1983): 18–27. doi:10.2307/4004858.

Clearing Practices/Girdling Trees

http://en.wikipedia.org/wiki/Girdling#mediaviewer/File:AnnelageAnn%C3%A9lationGirdling1LilleLamiot3.jpg

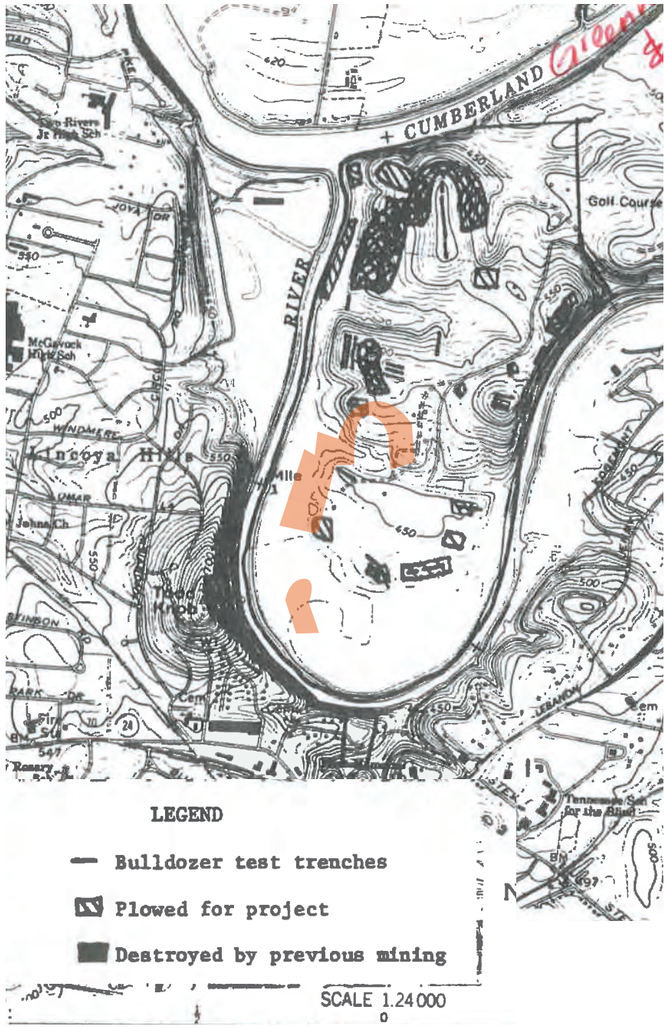
INDUSTRIAL HISTORY | Extraction at the Stones River Bend

The archaeological report for the Stones River Bend site notes two waves of phosphate mining on the west side of the site at the bend in the Stones River, the first around 1917 and the second around 1938. Phosphate-rich deposits on the site are part of the Bigby Cannon Formation of limestone, from the time that the Nashville Basin was submerged under a shallow sea. Initial mining by Kitrell, Alexander, and Hall in 1917 removed 10,000 tons of phosphate from the site which was transported via the Hermitage Station of the Nashville, Chattanooga and St. Louis Railroad.[1]

At this time numerous phosphate plants were in operation in Mt. Pleasant, Tennessee's center of Bigby-Cannon phosphate rich rock and phosphate processing. As many as 15 companies operated in the area in the early 1900s. [2] This industry supported an elite class in Mt. Pleasant who participated in pastimes such as breeding and racing horses. Images of phosphate mining operations from this time period show a largely African-American mining workforce engaged in strip mining of phosphate rock.

A second round of mining on site occurred in 1938 when W. A Johnson leased Benson Farm and several other properties for phosphate mining. In 1939, Monsanto bought the Benson property for $100,000, and extracted 585,000 tons of phosphate rock.[3] Monsanto had just opened a plant in Columbia (near Mt. Pleasant) in 1936 to manufacture elemental phosphorous,[4] and it is reasonable to assume that material from this site would have been transported to facilities in Columbia or Mt. Pleasant. The archaeology report notes that topographical evidence of phosphate mining (from both 1917 and 1938) are still visible on site (orange areas on maps to right).

Artificial fertilizers like those produced from phosphate rock helped fuel large-scale industrial agriculture in the US, a system still largely in place today involving "miracle seeds," pesticides, irrigation, and synthetic fertilizers to increase crop yields per acre. By 1971, the Tennessee phosphate industry died out, when the Monsanto Plant shut down in 1986 due to depletion of regional sources and declining markets.



Phosphate Mining sites documented in Archaeology Report

Image:http://tnsos.org/tsla/imagesearch/

Bigby-Cannon Rock Formations in Franklin, TN, 1922

Image:http://tnsos.org/tsla/imagesearch/

Men working in a field loading phosphates into a wagon ca. 1908

1 Jack Schock, "A Cultural Reconnaissance of Approximately 530 Acres for the Proposed Gateway Project at Donelson, In Davidson County, Tennessee," Archaeological (Bowling Green, Kentucky: Arrow Enterprises, March 1989). 3

2 "Phosphate Mining and Industry | Entries | Tennessee Encyclopedia," accessed April 12, 2017, http://tennesseeencyclopedia.net/entry.php?rec=1052.

3 Jack Schock, "A Cultural Reconnaissance of Approximately 530 Acres for the Proposed Gateway Project at Donelson, In Davidson County, Tennessee," Archaeological (Bowling Green, Kentucky: Arrow Enterprises, March 1989). 3

4 "Phosphate Mining and Industry | Entries | Tennessee Encyclopedia," accessed April 12, 2017, http://tennesseeencyclopedia.net/entry.php?rec=1052.

Dragline Phosphate mining near Mt. Pleasant 1939

Image:http://tnsos.org/tsla/imagesearch/

Train of phosphate ore arriving at a phosphate plant near Mt. Pleasant, 1939

Image:http://tnsos.org/tsla/imagesearch/

Monsanto Phosphate Plant, Mt. Pleasant 1941

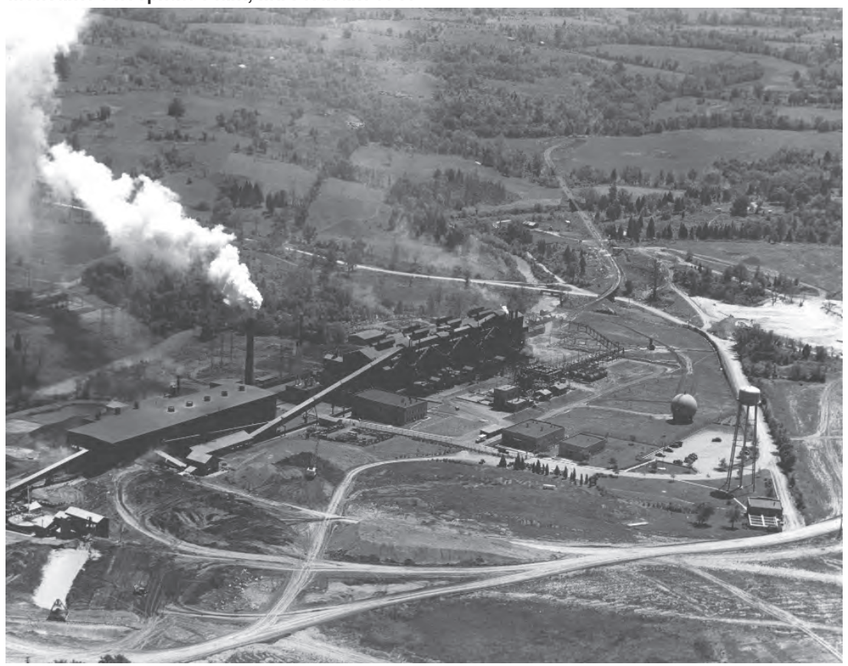


Image:http://tnsos.org/tsla/imagesearch/

Wagonload of hay from .4 acres of land treated with #120 triple super phosphate, 1943

Image:http://tnsos.org/tsla/imagesearch/

TVA Agricultural Extension, showing crimson clover growing luxuriously as a result of application of phosphate fertilizers and lime

Image:http://tnsos.org/tsla/imagesearch/

Image:http://tnsos.org/tsla/imagesearch/

Workers in a field at a phosphate mine ca. 1907

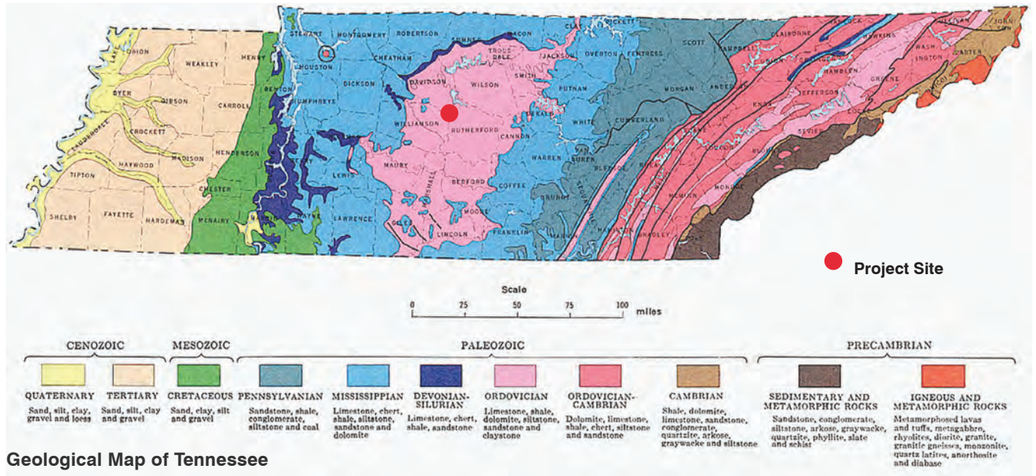
SITE ANALYSIS | Geology

Nashville's current location and prominence as a regional urban center is in large part due to the underlying geology of the region. The city is located at the edge of the Outer Central Basin of Tennessee, directly south of the Highland Rim. As evidenced by the geological map of the state, the differences between these physiographic regions is largely based on underlying geological formations of the state.

The land in Davidson County was formed around 400 million years ago, when the area where the city now stands was submerged under a great inland sea. The accumulation of sea life created the fossil-rich limestone the city sits upon. As the sea retreated, newer layers were deposited on the land. As the area sat on a shallow continental shelf, deposits of algae formed shale. Later, as rivers covered that layer with silt and clay, silt stone was formed. Three hundred and thirty million years ago, the three layers folded into a broad warp called the Nashville Dome, which eroded away, exposing the limestone substrate below. Landforms on and around Nashville reflect this underlying geological structure.

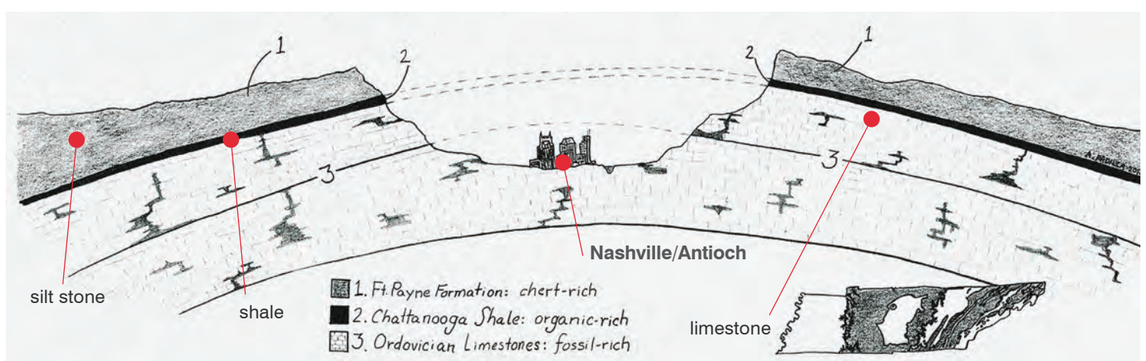
The geological deposits found within the bend of the Stones River are Ordovician Limestones, most likely derived rom the Bigby-Cannon formation that is common in the area. These alluvial deposits are located in the low-lands of the site, on the river and within the flood plain at the southern portion of the bend. During the early 1900s, nearly 600,000 tons of phosphate was removed from the site. Today, limestone outcrops can still be found in various areas of the site.

Physiographic Regions of Tennessee



Geological Map of Tennessee

Image: http://tn.gov/environment/tdg/smmap.shtml



Conceptual Section of Nashville's Geology

Image: http://www.vanderbilt.edu/ees/geologywalk.php

Bigby-Cannon formation on Cumberland River

Limestone slabs from a former quarry found on site

Trace of old quarry road on site


Geology (Age / Primary)
Ordovician / Limestone
Ordovician / Calcarenite
Quatemary / Sand
Nrcs Soil Survey
AmB
AmC
Ar
BbD
BbE
Eg
Ld
MaB
MaC
McB
MmC
MmD
MrE
Pt
Se
StD

Topography

Within the boundaries of the site, the change in elevation from the Stones River (400') to the highest ridgetop (596') is nearly 200 feet. The character of rolling hills is highlighted by a series of ridgelines and the large meadow to the south of the site, accentuated by its extreme flatness. Due to these differences in elevation, magnificent view sheds within and beyond the site are created.

Elevations

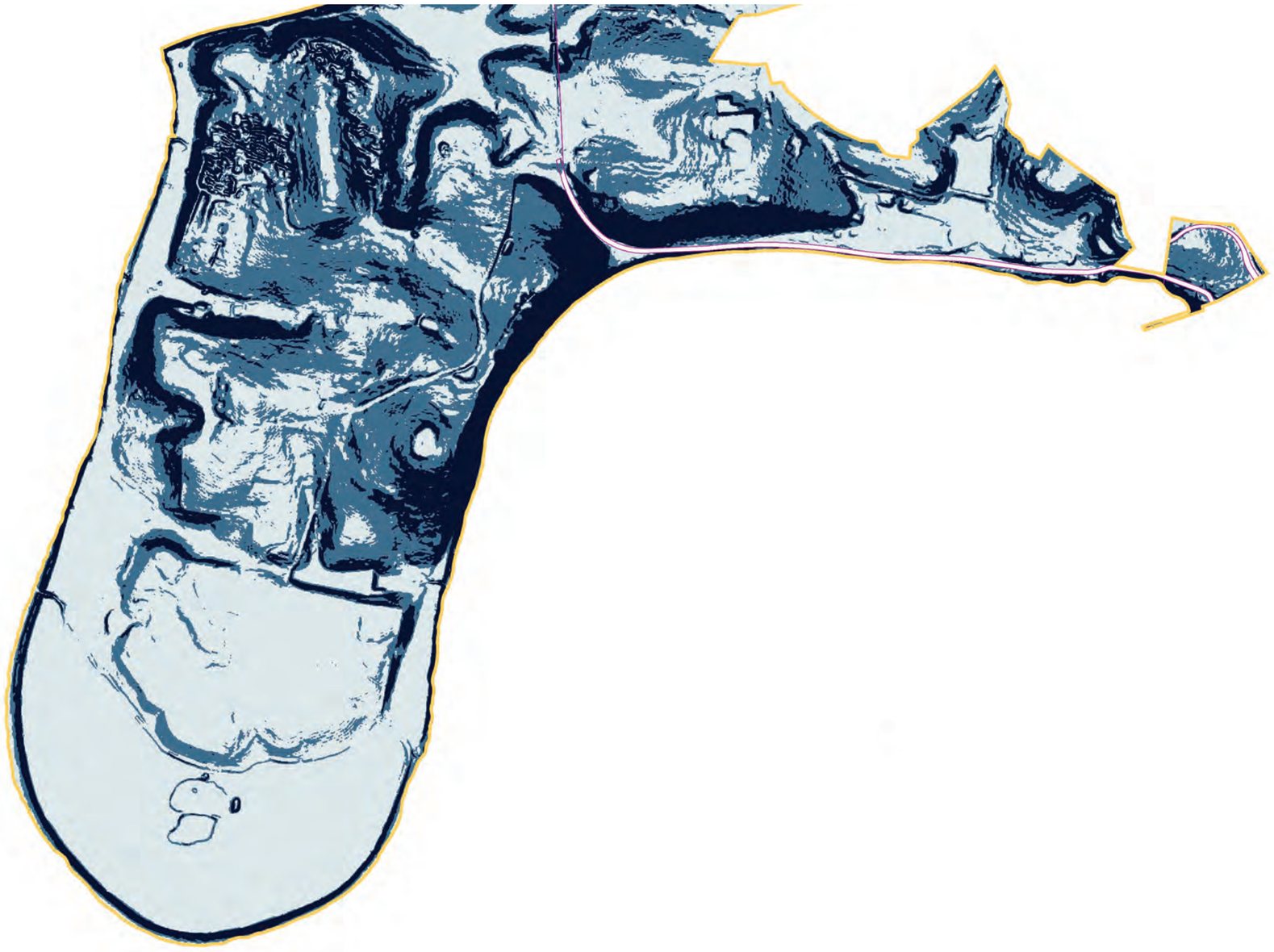
- 364-380
- 381-400
- 401-420
- 421-440
- 441-460
- 461-480
- 481-500
- 501-520
- 521-540
- 541-560
- 561-580
- 581-600

- Major Ridgeline
- Minor Ridgeline
- Highpoints
- Lowpoints

0' 500' 1000' 2000'

Critical Slopes

Slope analysis of the site highlights the prevalence of steep slopes along the southeastern edge of the property. The central portion of the site contains primarily slopes of 6% and greater, except for the ridgeline and floodplain elevations. Most of the slopes face in a north or south direction.



Slope %

- 0-5
- 6-10
- 11-30

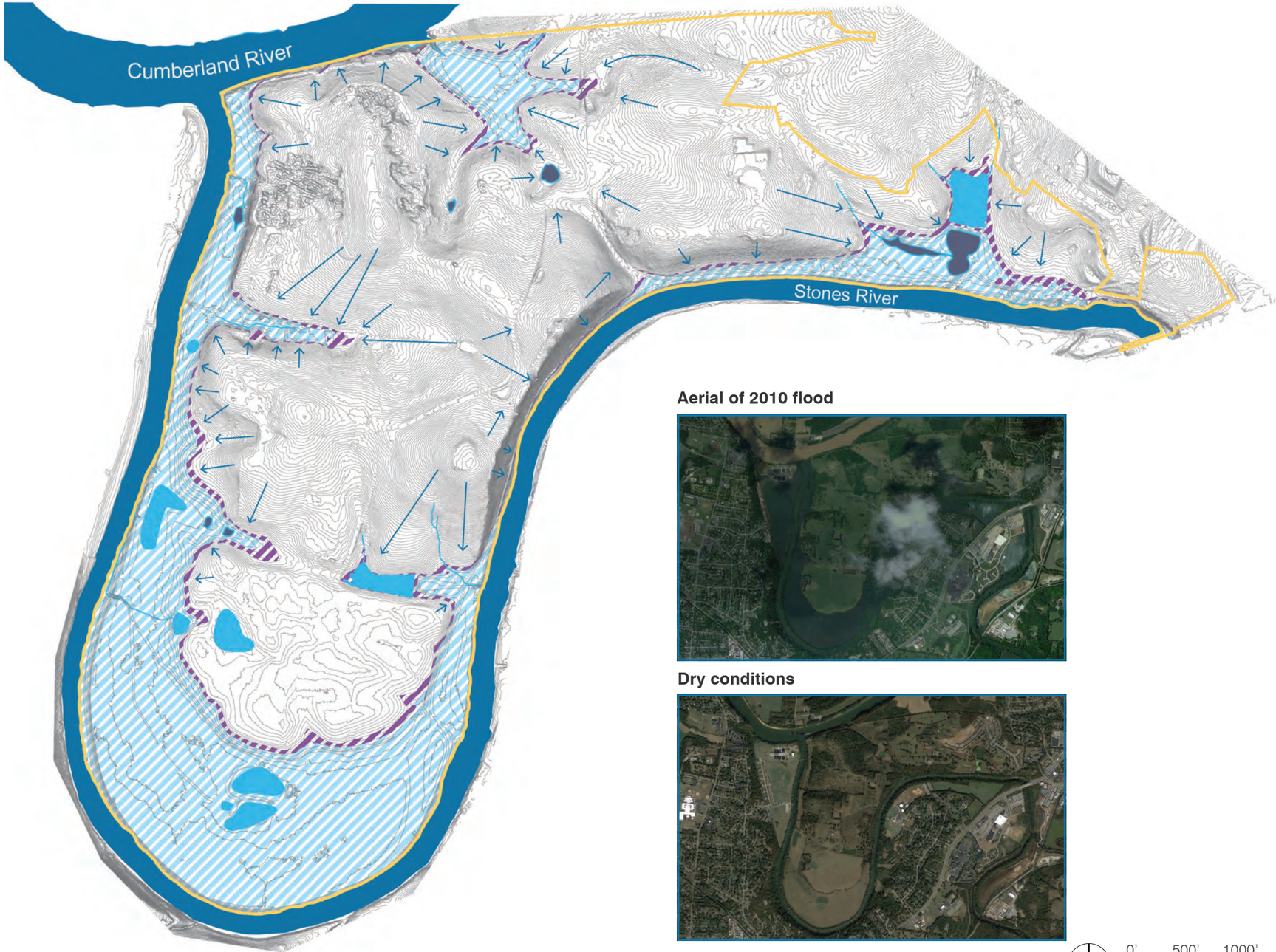
0’ 500’ 1000’ 2000’

Hydrology

The majority of the site boundary is defined by the Stones and Cumberland Rivers and 33% of the site lies within the floodplain.

Small ponds that were once associated with farming are found throughout the site. Unhealthy ponds are defined by their high algae content and eroding edges.

Since the founding of the Cumberland Settlements, the region has been drastically altered by transportation infrastructure. In the 1800s, the Stewart Ferry was built on the Stones River. The Percy Priest Dam was constructed in 1968 on the Stones River. The effect of damning the river drastically changed the flow. The current is slow-going and provides a safe environment for water sports such as kayaking and fishing.



Hydrology

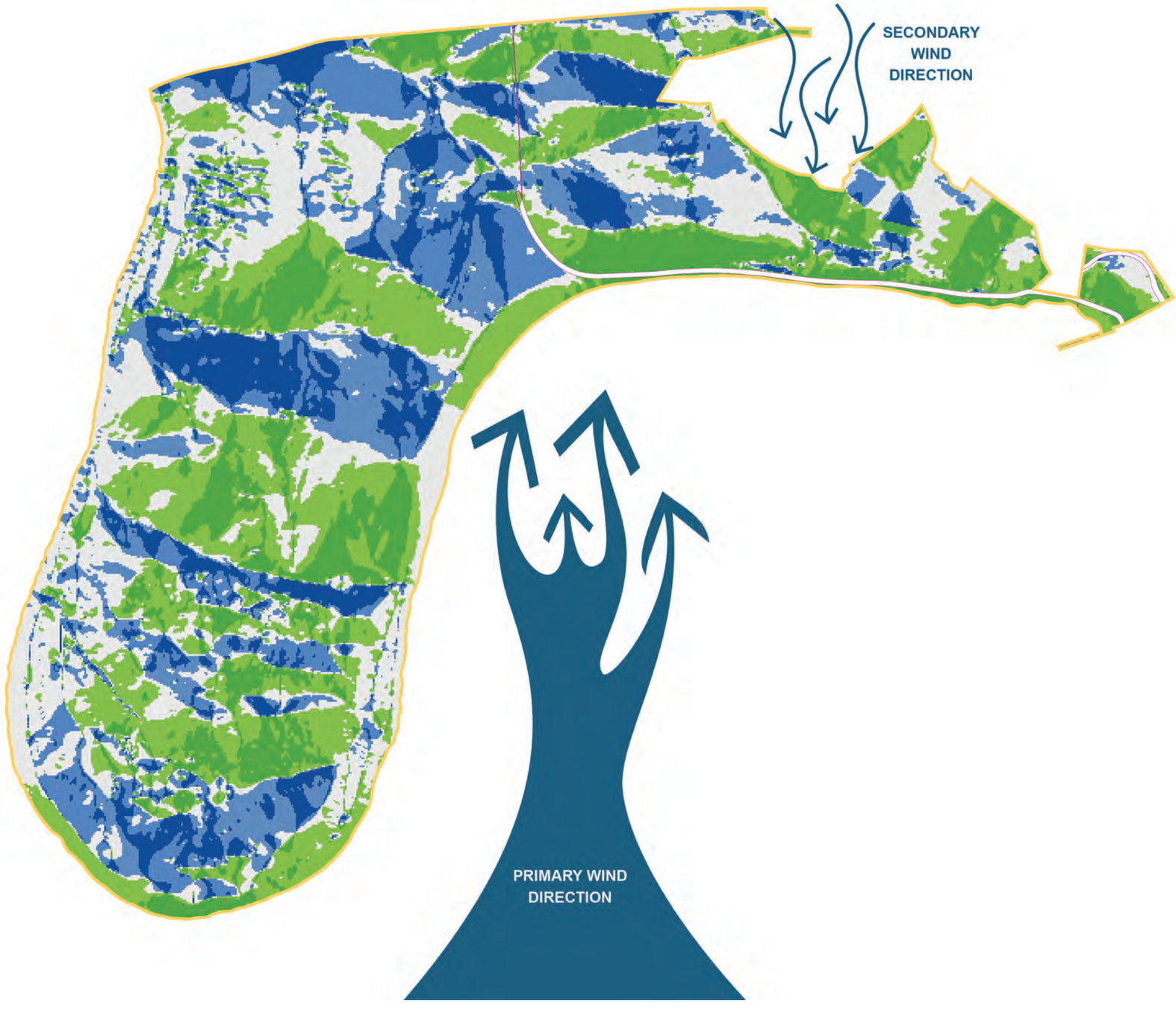
- Rivers
- Healthy ponds
- Unhealthy ponds
- 100yr floodplain
- 500yr floodplain
- Surface flow
- 2’ contour

0’ 500’ 1000’ 2000’

Aerial of 2010 flood

Dry conditions

0’ 500’ 1000’ 2000’



Aspect

- North
- Northeast
- East
- Southeast
- South
- Southwest
- West
- Northwest
- North

0’ 500’ 1000’ 2000’

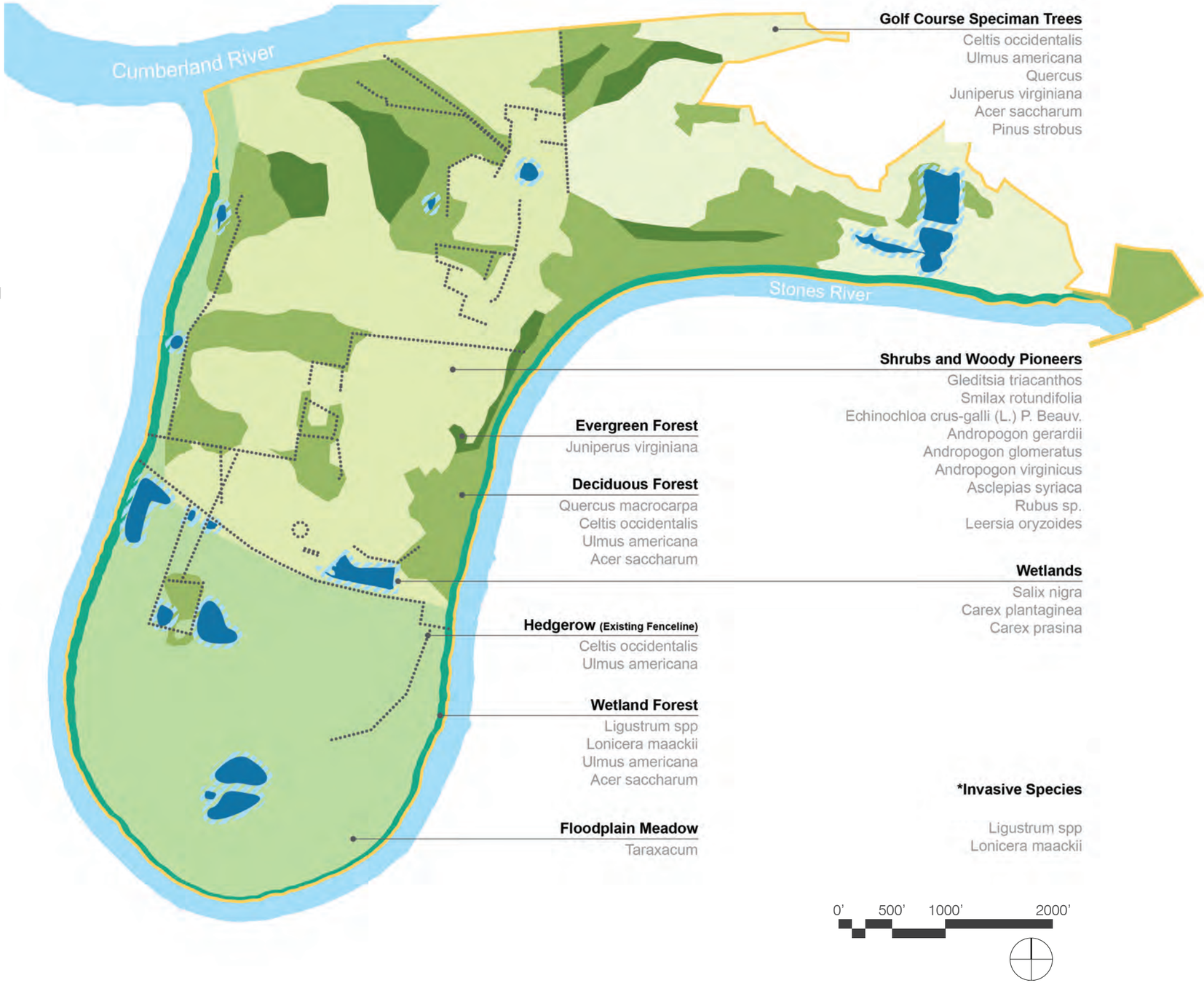
Plant Communities

Due to the history of farming that occurred within the bend of the Stones River, as well as the operation of a golf course on the Ravenwood portion of the site, the native plant communities such as the oak history forest, that may have once existed here have been greatly reduced.

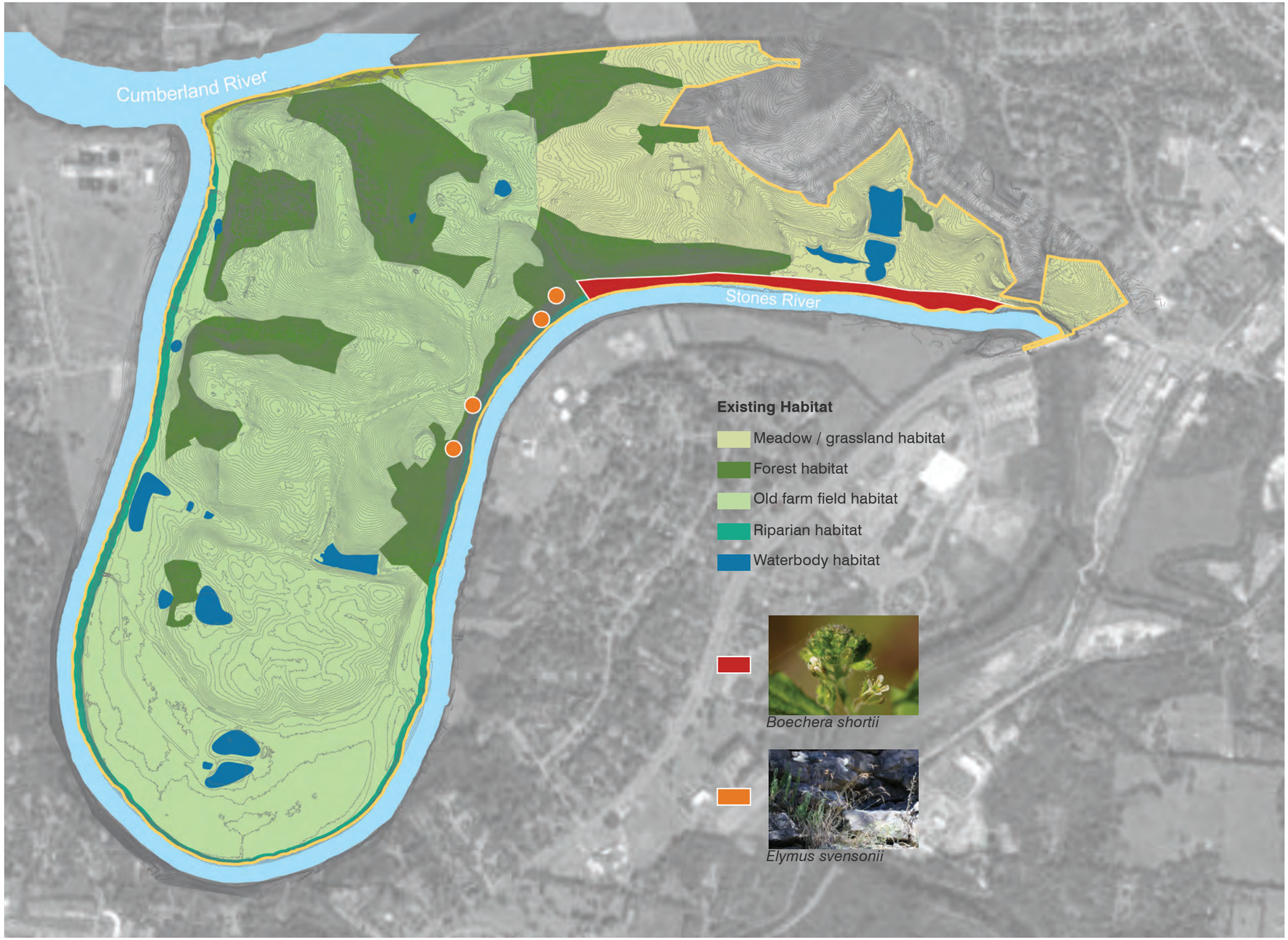
The adjacent property was named Cloverbottom for the extensive growth of white clover (*Trifolium repens*) on the Stones River bottom land. This clover, and another wildflower called Fringed Phacelia (*Phacelia fimbriata*) are both native species found on the Stones River Bend site.

Some of the existing plant communities on site include an evergreen forest, largely comprised of *Juniperus virginiana*, as well as deciduous and wetland forest types. These deciduous forests largely consist of bur oak (*Quercus macrocarpa*), American elm (*Ulmus Americana*) and Sugar maple (*Acer saccharum*).

The wetland forest runs along the perimeter of the site on the Stones River and is also comprised of elm, maple with the addition of two invasive species: privet (*Ligustrum sp.*) and Amur honeysuckle (*Lonicera maackii*). An aggressive species found pioneering the open areas of the site is the honey locust tree (*Gleditsia tricanthos*).



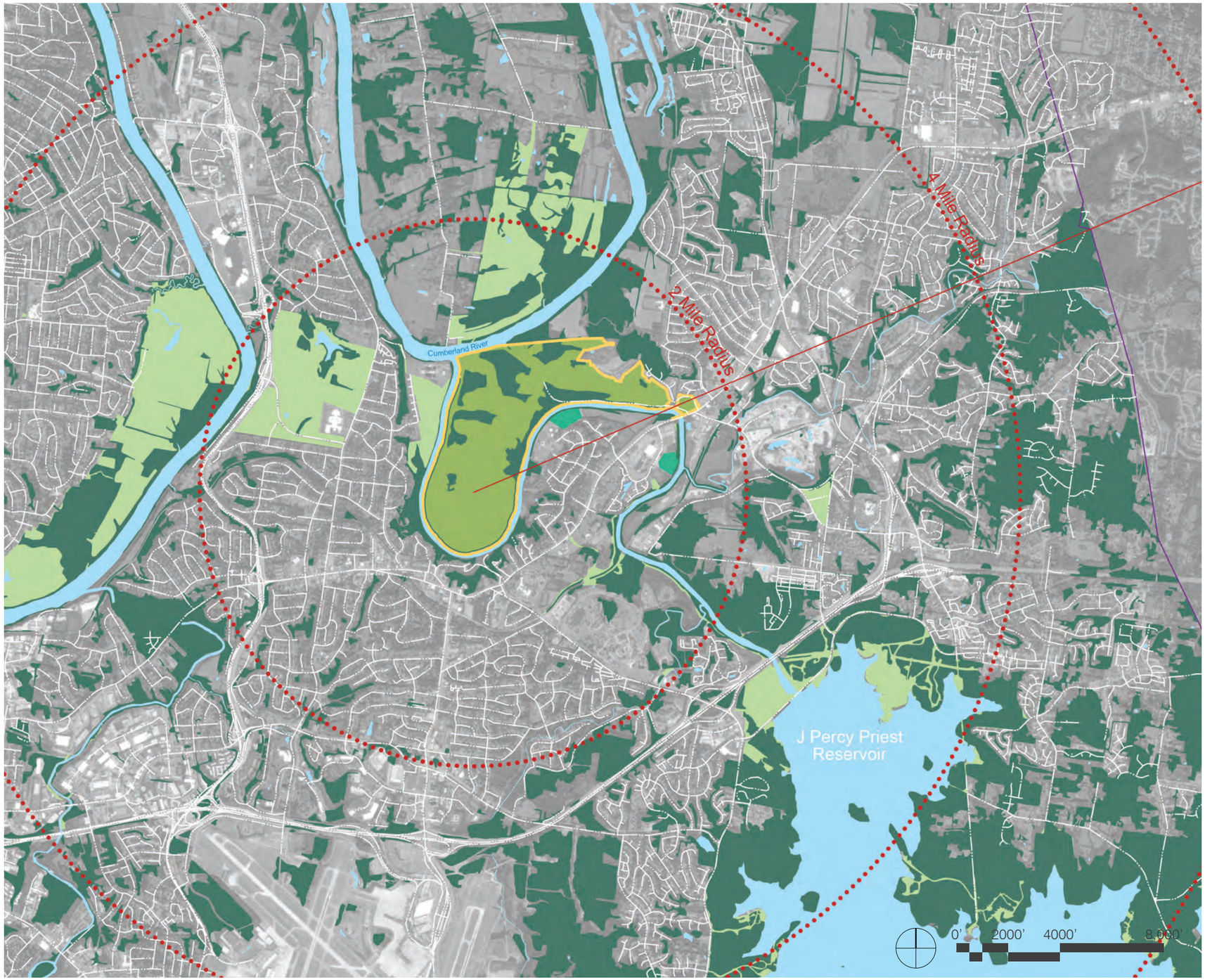
Existing Habitat and Rare Species



Wildlife Habitat

Due to its isolation, the site offers unmatched opportunities for wildlife habitat within the greater metropolitan Nashville area. The site lies within the migratory flight paths of the monarch butterfly, the Sandhill Crane, the Whooping Crane and is undoubtedly home to many rare and endangered species.

An extensive natural resource study and management plan should be initiated prior to further site development.

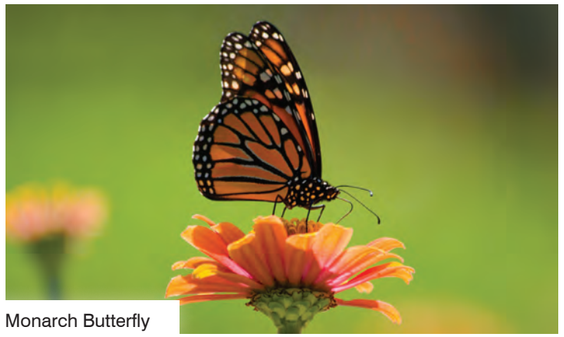


Legend

- Parkland
- Private park
- Forest canopy
- Water bodies

0' 2000' 4000' 8,000'

Migratory Species


Monarch Butterfly


Sandhill Crane


Whooping Crane

Birds


Eastern Bluebird


Carolina Wren


American Robin


American Crow


Bluejay


Northern Cardinal


Wild Turkey


Turkey Vulture


Great Blue Heron


Canada Goose

Mammals


Eastern Chipmunk


Eastern Gray Squirrel


Eastern Cottontail


White Tailed Deer


Striped Skunk

Reptiles

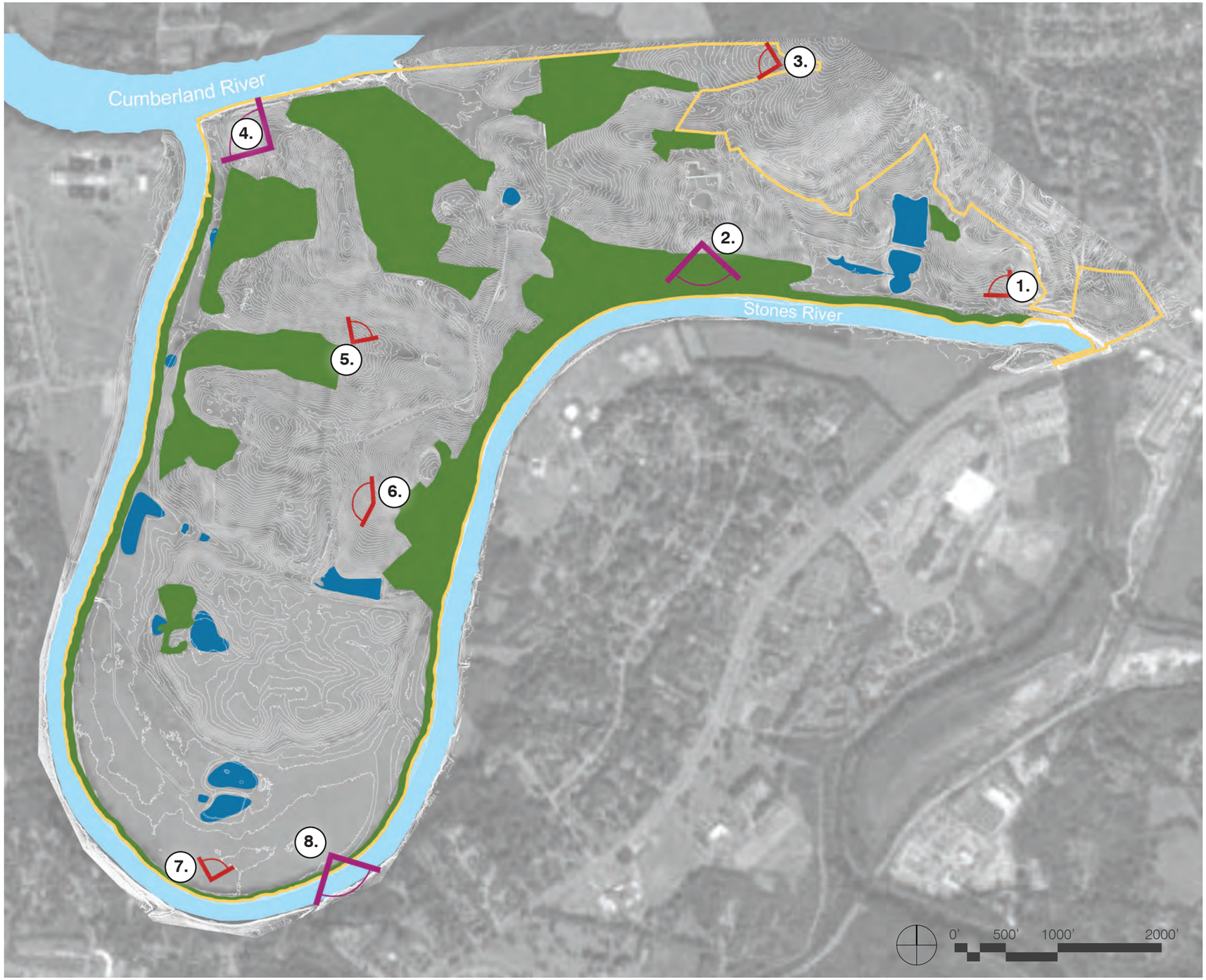

North American Racer


Red-eared Slider

Viewsheds

The views at Stones Bend are unlike any elsewhere in Nasvhille. To those who have visited the site, the biggest takeaway has been the lasting impression of the vast sky and the 360 degree views that can be found on some of the highest points on the site.

Other impressive exterior views are achievable with proper framing and selective clearing of overgrown vegetation. Interior views are plentiful with the site's rolling hills to the north and open expanse to the south.



Legend

- Interior view
- Exterior view
- Forest canopy

1.

2.

3.

4. The Confluence

5.

6.

7.

8. Lytle **b**end

Land Use

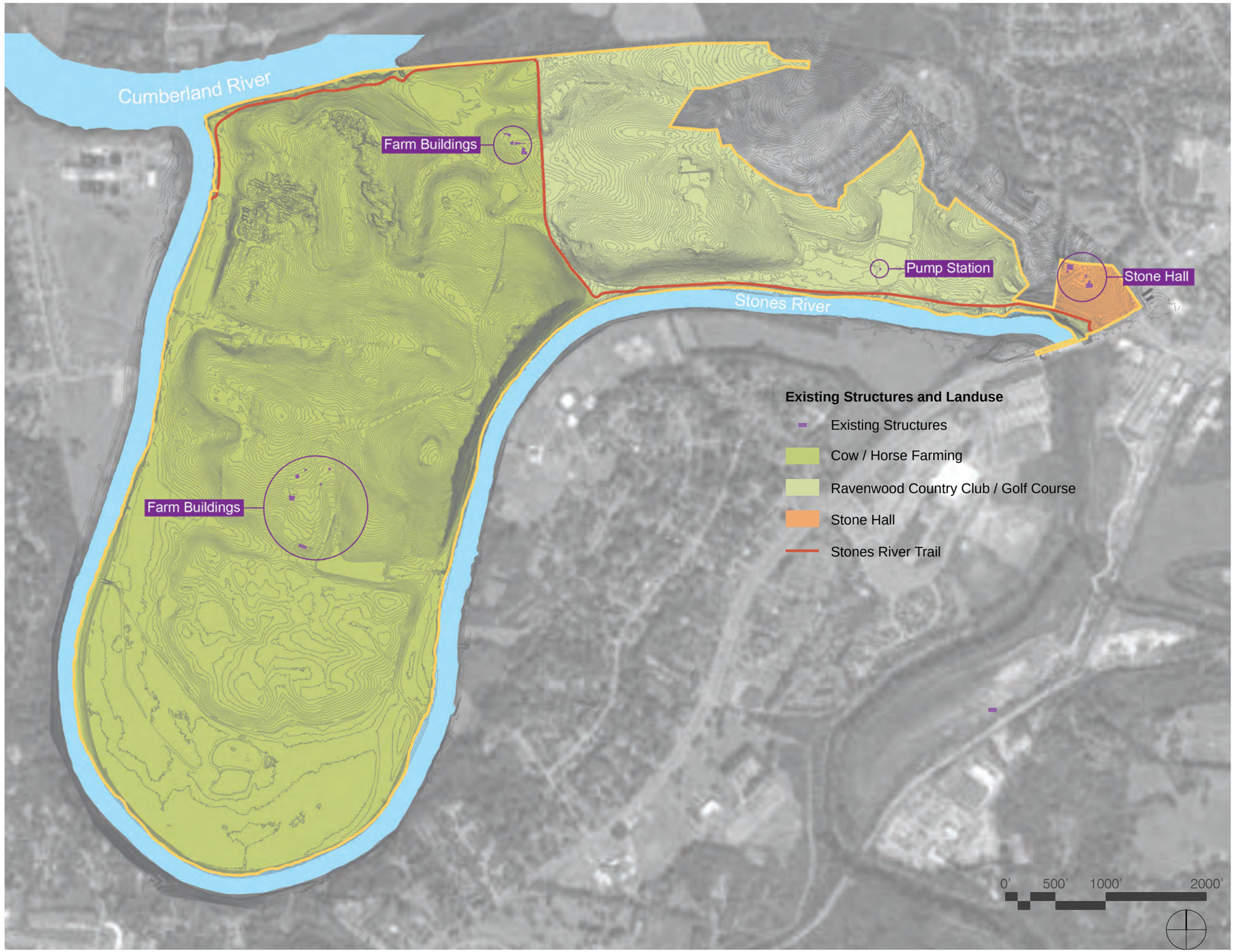
One of the most remarkable assets of the Stones River Bend site is how little exists on the site. Evidence of its former uses are revealed as one travels over the hills and terrain where old foundations, barns and farm vehicles provide clues to its history.

Furthest to the east, Stone Hall is listed on the National Register of Historic Places. The house is a Colonial revival built in 1918.

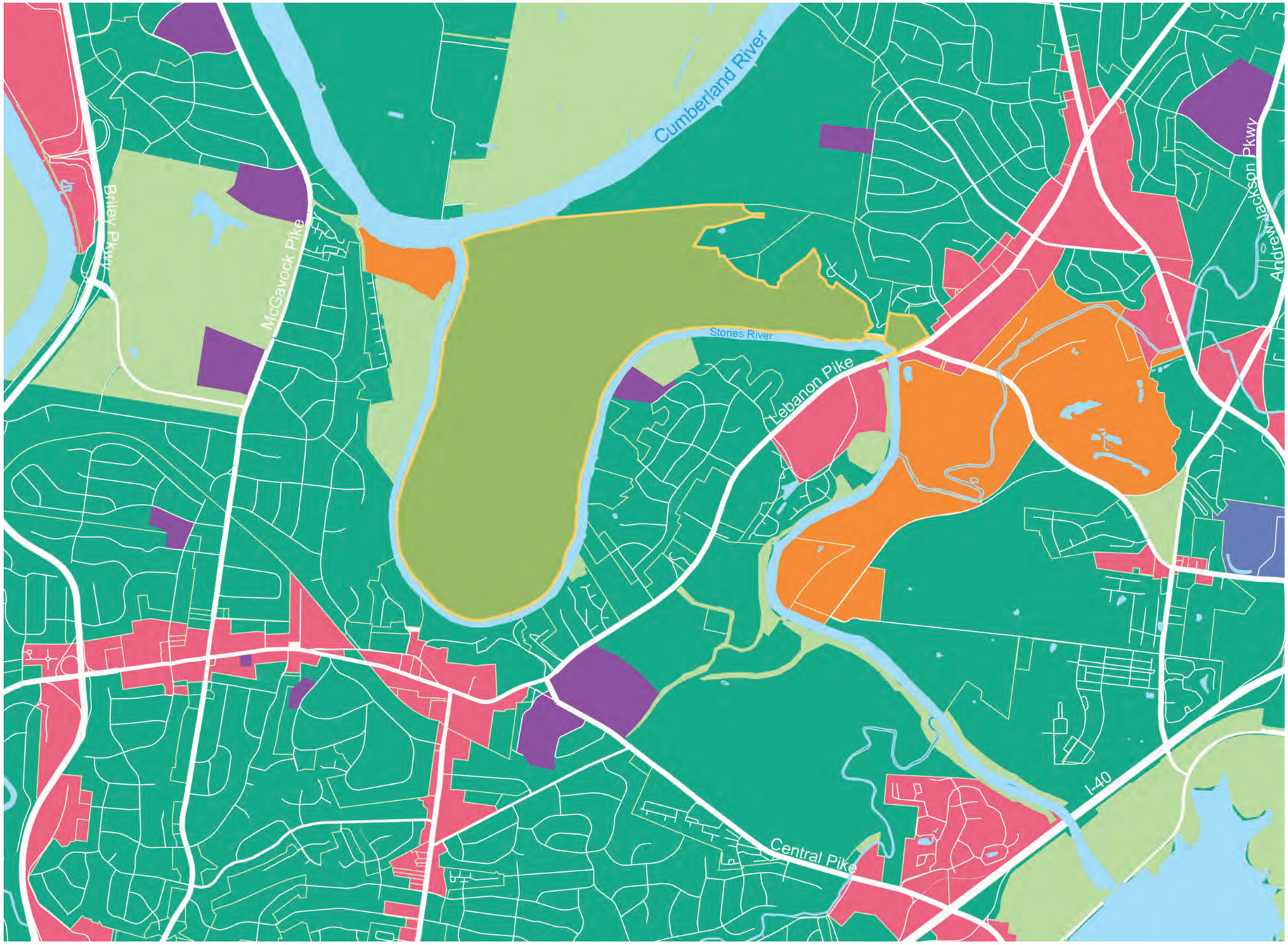
The central parcel is the former home of the Ravenwood Country Club and Golf Course. Evidence of the golf course still exists but all structures associated with the country club have been removed or have burned down. Historic resources that remain include the manmade lake and entrance drive, access roadways, stone walls and hewn limestone entrance gateposts with ‘Ravenwood” inscribed.

The bend was most recently been utilized as grazing land for horses and cattle. Old barns and structures are in a state of disrepair and will likely not be able to be adapted for future use.

A thorough site survey and cultural landscape inventory is suggested prior to further site development.



Regional Land Use

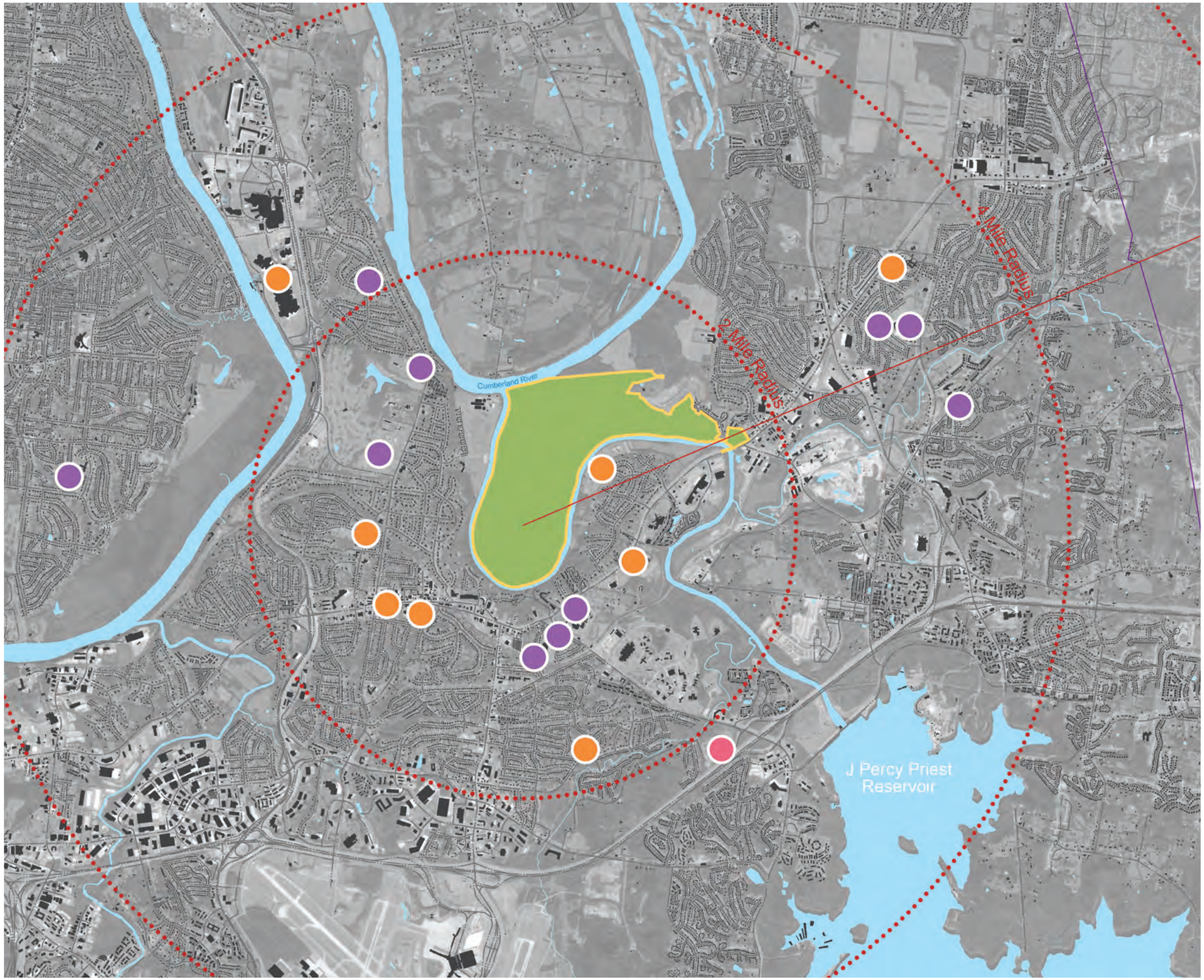


Existing General Land Use

- Residential, Agriculture and General Open Space
- Industrial (From Nashville Next Growth & Preservation Concept M))
- Commercial and Office (From Nashville Next Growth & Preservation Concept M)
- Hospital (From Nashville Next Growth & Preservation Concept M)
- School
- Parkland (From Nashville Next Growth & Preservation Concept M)
- Waterbodies

COMMUNITY | Adjacent Schools

There are 10 schools within a two mile radius of the site. Donelson Christian Academy's campus is directly across the Stones River from the site.

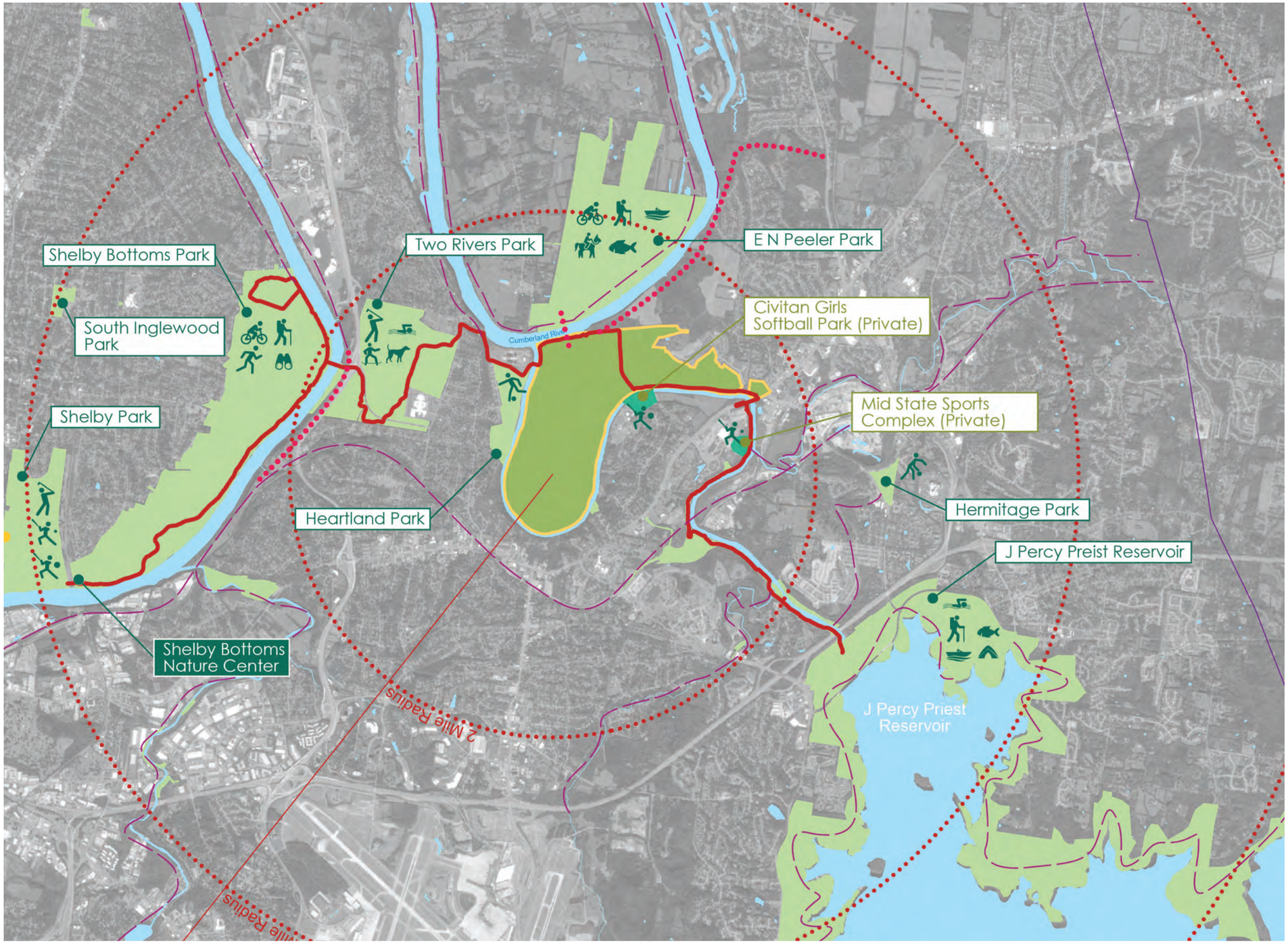


Area Schools

- Public school
- Private school
- College or university

0' 2000' 4000' 8,000'

Adjacent Parks



Adjacent Parks and Trails

- Parkland
- Private park
- Existing regional greenway
- Planned greenway priority (*Plan to Play*)
- Planned greenway long term vision (*Plan to Play*)

Adjacent Parks and Trails

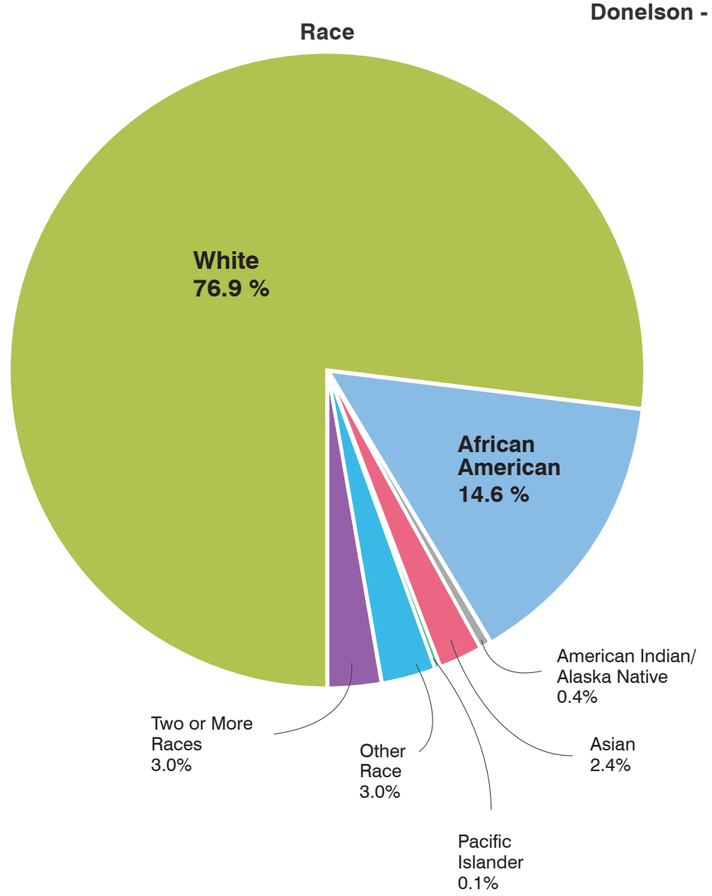
- Hiking
- Jogging / trail running
- Swimming
- Golf
- Dog park
- Skate park
- Fishing
- Horse trails
- Bird wathcing
- Biking
- Baseball
- Softball
- Campiong
- Boating
- Soccer

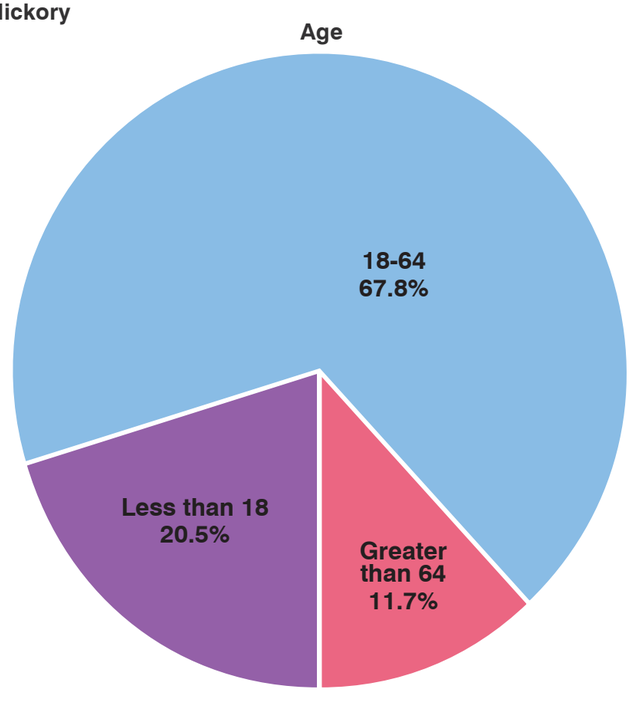
0’ 2000’ 4000’ 8,000’

Neighborhood Demographics

The Donelson–Hermitage–Old Hickory area is one of the fastest growing areas in Davidson County, and has been since the 1980s. The Donelson–Hermitage–Old Hickory Community area contains 38,410 housing units (13.5 percent of Davidson County's total housing units).

Donelson - Hermitage - Old Hickory





POPULATION

Population 1990
11.8%
% of Davidson County

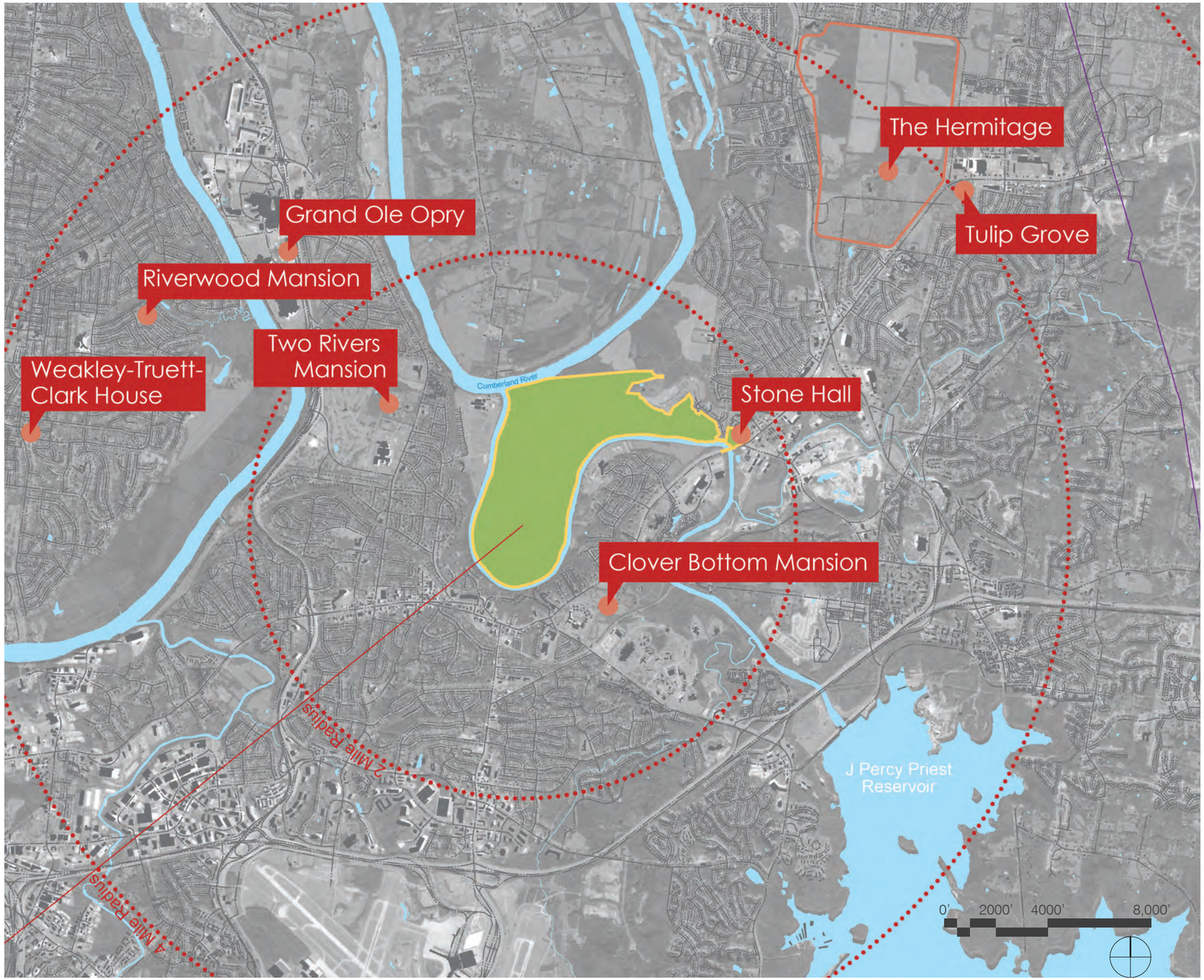
Population 2000
12.6%
% of Davidson County

Population 2010
12.7%
% of Davidson County

Population change 1990-2000
18.8%

Population change 2000-2010
9.6%

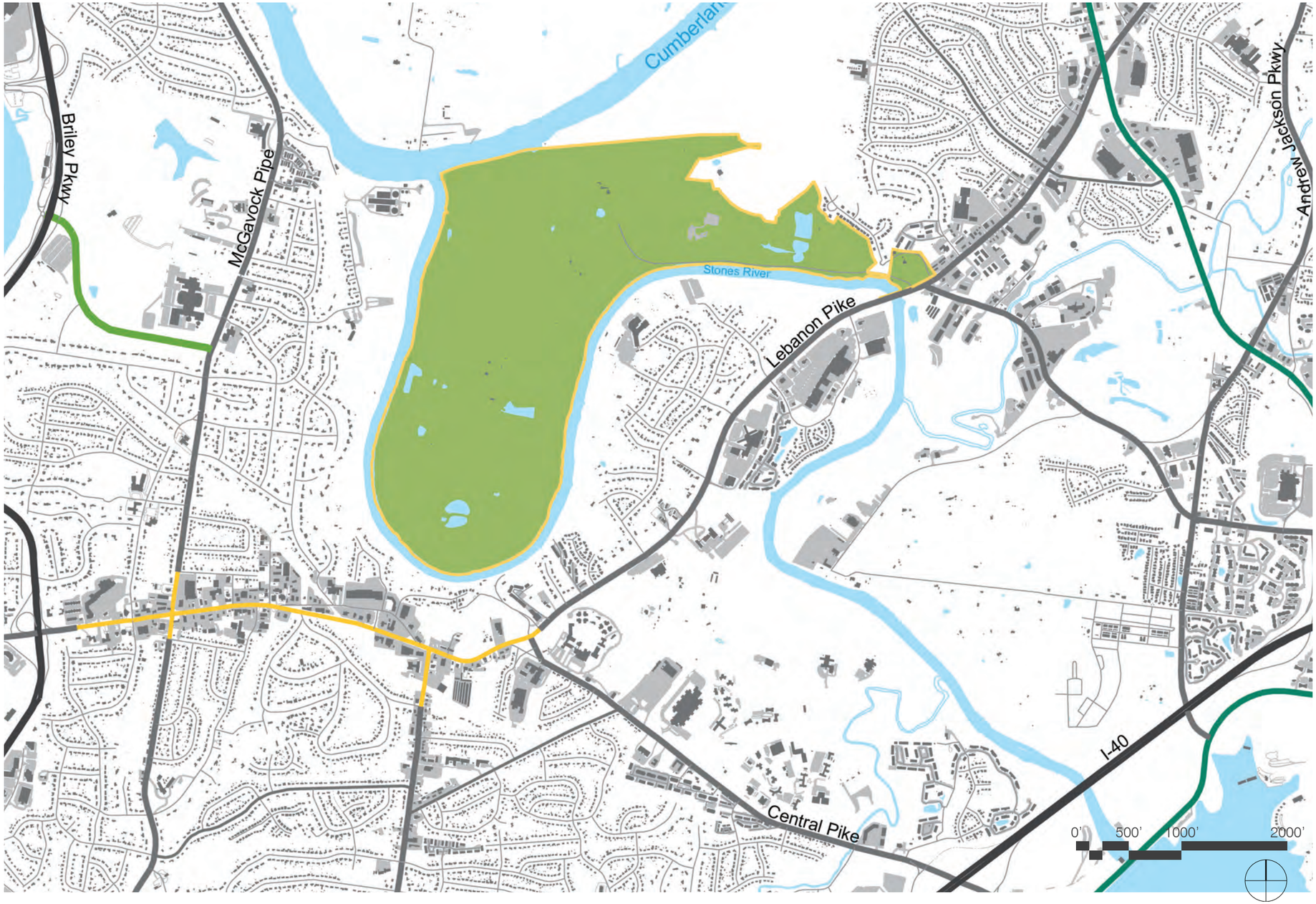
Heritage Sites



Stone Hall is on the U.S. National Register of Historic Places and is located near the entrance to the site. Andrew Jackson's Hermitage is just over one mile to the northeast, while Clover Bottom and the Two Rivers Mansions are only two miles away. Connecting these historic sites to the larger Stones River Bend Regional Park via a Cultural Heritage Trail would provide innumerable opportunities to engage the local and tourist community and broaden the historic understanding of the Nashville region.

CIRCULATION & UTILITIES | Streets & Parking

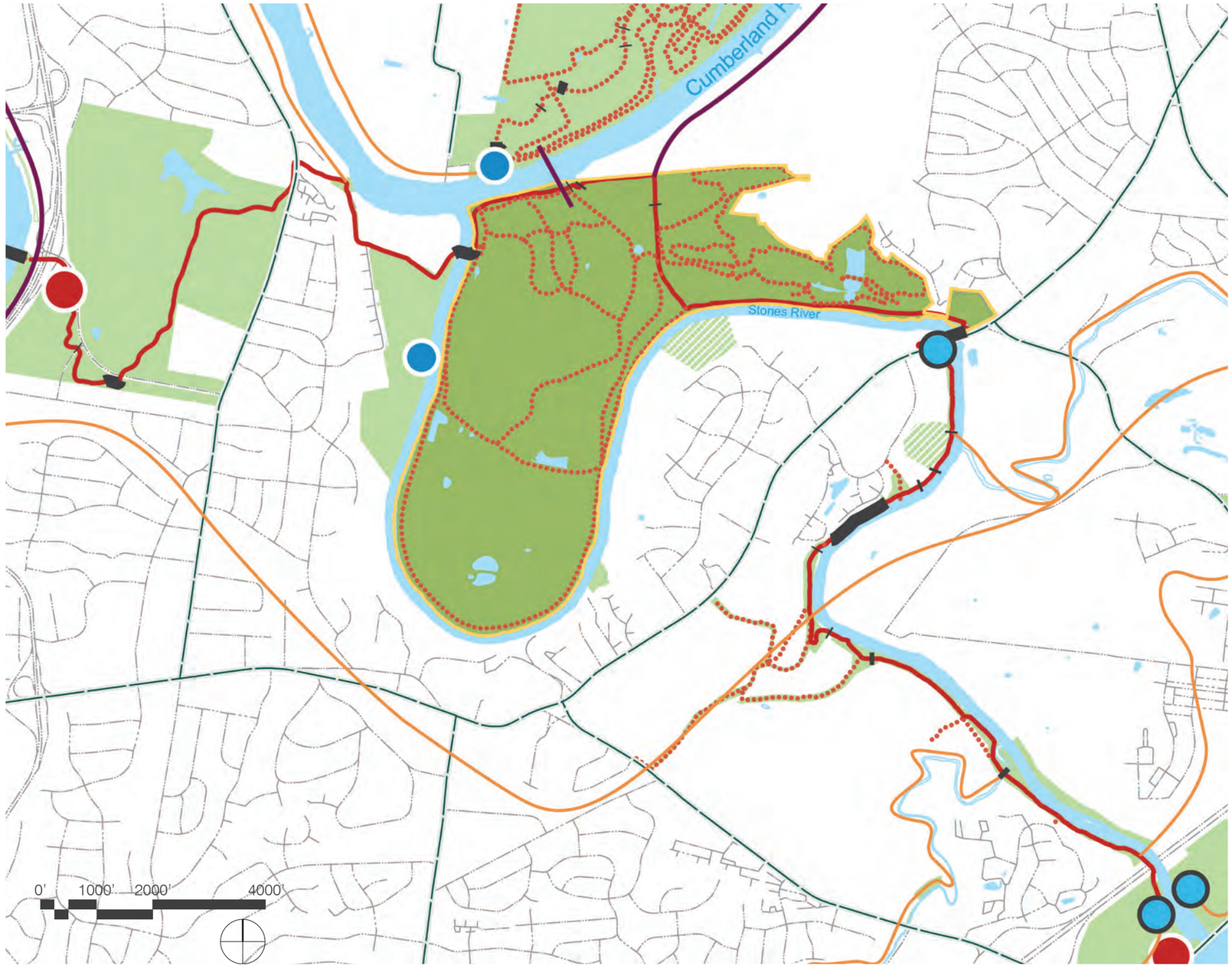
The site is largely isolated due to the two rivers that surround the majority of the site. Access is available from McGavock Pike to the west and Lebanon Pike to the east. There is an existing parking lot at Stone Hall and within the Ravenwood portion of the site, however it is not accessible to public vehicles. There is also parking at the Stone River Greenway trail heads.



Streets & Parking

- Highway / interstate
- Arterial parkway - scenic
- Arterial boulevard
- Arterial boulevard - scenic
- Local street
- Collector - avenue
- Neighborhood street
- Parking
- Buildings

Water Access & Trail Network



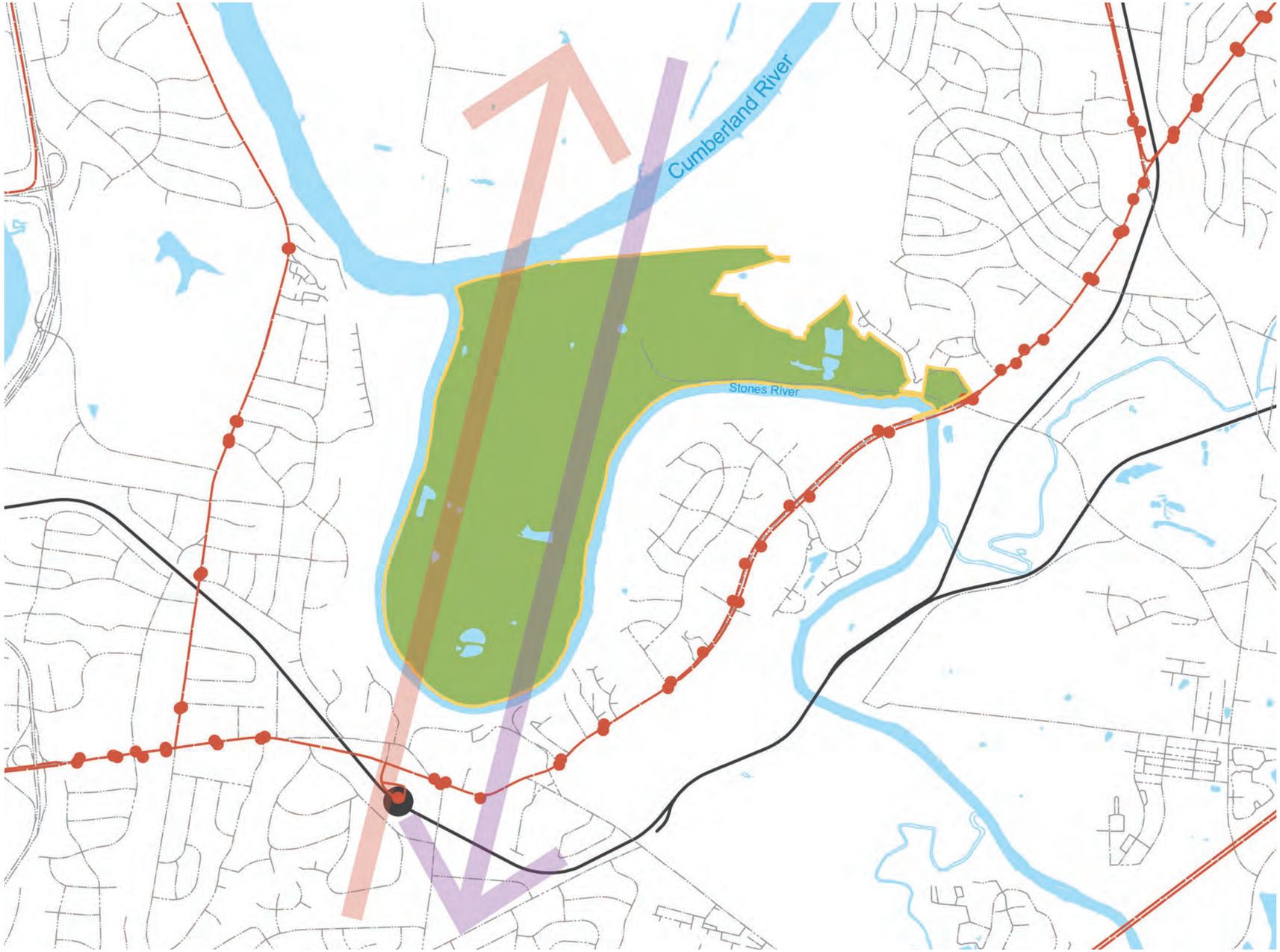
The Stones River Greenway bisects the site and provides regional connections to J Percy Priest Reservoir and Shelby Park. A proposed pedestrian bridge connecting the site to E N Peeler Park is a priority according to the Metropolitan Board of Parks and Recreation's 2017 *Plan To Play.* Water access is available in 3 locations adjacent to the site.

River Access, Existing Trails and Planned Trails

- Boat ramp
- Canoe launch
- Existing regional greenway
- Existing trail network
- Planned greenway priority (ped bridge)
- Planned greenway long term vision (Plan to Play)
- Bikeway
- B-cycle station
- Pedestrian bridges and boardwalks
- Parkland
- Private park

CIRCULATION & UTILITIES | Traffic System and Flight Paths

Bus service is available at the eastern entry along Lebanon Pike. The site lies in the direct path of the Nashville International Airport (BNA) which averages 440 flights daily and is the 33rd busiest airport in the U.S.



Animal Corridors

- MTA route
- MTA stop
- Music city star (commuter rail) route
- Music city star (commuter rail) station
- BNA departures
- BNA arrivals

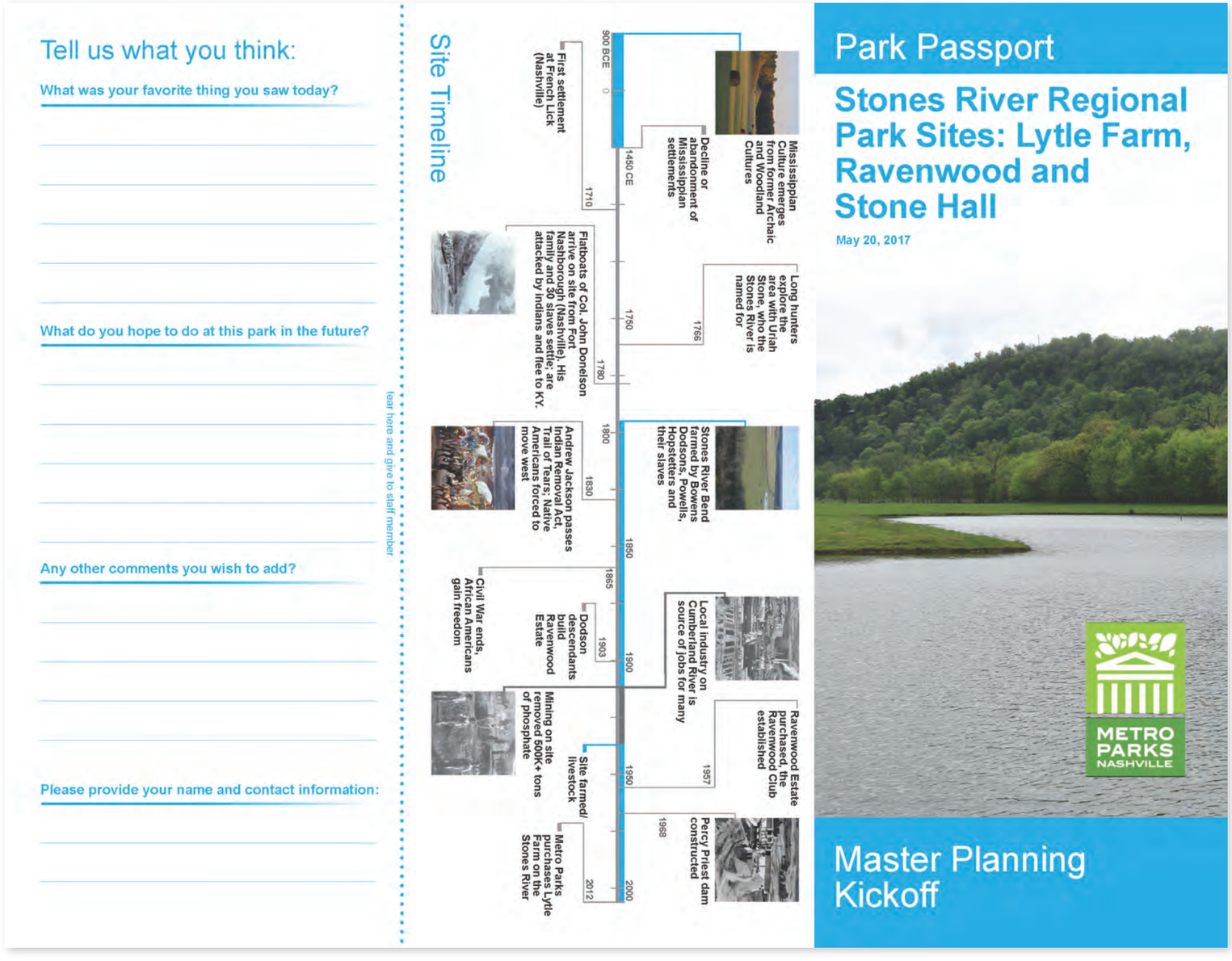
0’ 1000’ 2000’ 4000’

PART 3
APPENDIX

PARK PASSPORT

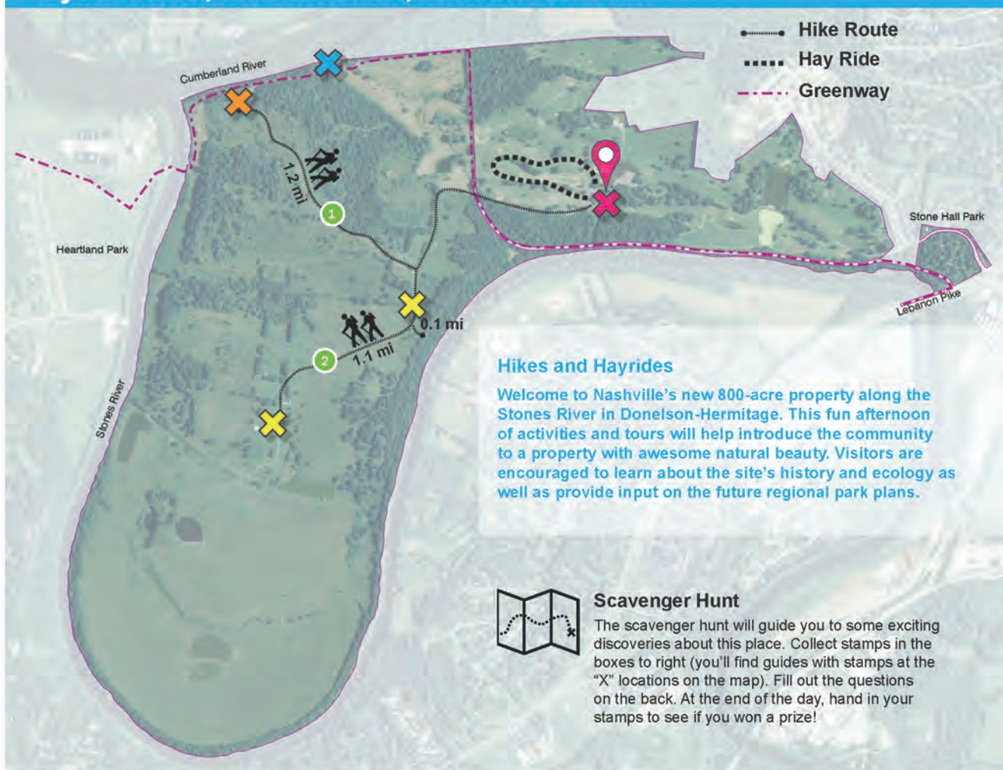
DISCOVERY PHASE (RESEARCH AND ANALYSIS) *MARCH 2017* · MASTER PLAN DESIGN STUDIES *MAY 2017* · MASTER PLAN DRAFT *SEPTEMBER 2017* · FINAL MASTER PLAN *NOVEMBER 2017* · REQUEST FUNDING FOR PH 1 IMPLEMENTATION *JANUARY 2018*

The master planning process kicked off with an open house at the location of the future regional park. Metro Parks staff hosted activities which included orientation to the site, hikes, games, face painting, music, and hayrides. In addition, each participant was given a 'Park Passport' (right) which included a scavenger hunt that provided information on the site and solicited feedback from the community on what the future park might become. A number of surveys were also handed out to participants. Later, results were tallied to be incorporated into the master plan study.



Metro Parks Presents the Stones River Regional Park Sites:

Lytle Farm, Ravenwood, and Stone Hall



Hikes and Hayrides

Welcome to Nashville's new 800-acre property along the Stones River in Donelson-Hermitage. This fun afternoon of activities and tours will help introduce the community to a property with awesome natural beauty. Visitors are encouraged to learn about the site's history and ecology as well as provide input on the future regional park plans.

Scavenger Hunt

The scavenger hunt will guide you to some exciting discoveries about this place. Collect stamps in the boxes to right (you'll find guides with stamps at the "X" locations on the map). Fill out the questions on the back. At the end of the day, hand in your stamps to see if you won a prize!

Overview

Metro Parks developed the Plan to Play Master Plan to provide a 10-year vision to meet the community's need for parks. In it, Metro Parks designated the land assemblage of Lytle Farm, Ravenwood and Stone Hall as a new regional park. Master planning for the park has just begun and will continue into early December. Take part in the process by letting us know your thoughts on the other side of this passport. Even better, come tell us your thoughts in person at the Passport table.

Passport Pickup & Drop Off

Stamp Spots

Hikes

1 **River Convergence** (guided) leaves at 1:15, 2:15 and 3:15

2 **Floodplain** (guided) leaves at 1:15, 2:15 and 3:15

Hayrides

Departs from Pickup & Drop Off locations every 1/2 hour

Scavenger Hunt

stamp here

River Convergence

The settlement of Nashville began with the Cumberland River which runs through the city creating many meander bends that separate different neighborhoods. Stones River is a tributary of the Cumberland River that forms a bend around this park site. Get a stamp by marking on the city map the neighborhood where you live. Get another stamp by taking the hike to where the two rivers meet.

Industrial Traces

Limestone geology underlying the site yielded phosphate-rich deposits that were mined to provide fertilizer for large scale farms in the early 20th century. Prior to that, large limestone slabs were quarried from a location near the existing Greenway along the Cumberland River. Get a stamp by walking or riding by the old quarry along the Greenway.

Grazing Animals

Archeological evidence reveals that Stones River Bend has been a hunting ground for 10,000 years by every culture that lived here up to the 18th century, and today still serves as pasture for cattle. Get a stamp by taking a hayride through the Ravenwood site and learning more about the former Ravenwood Country Club.

Grassland Farming

Many Native American tribes maintained grasslands to attract grazing animals to hunt. Over the years many of these native grasses have been overtaken by invasive and aggressive species which out-compete the native species. Get a stamp by identifying an invasive species on a hike with a park naturalist.

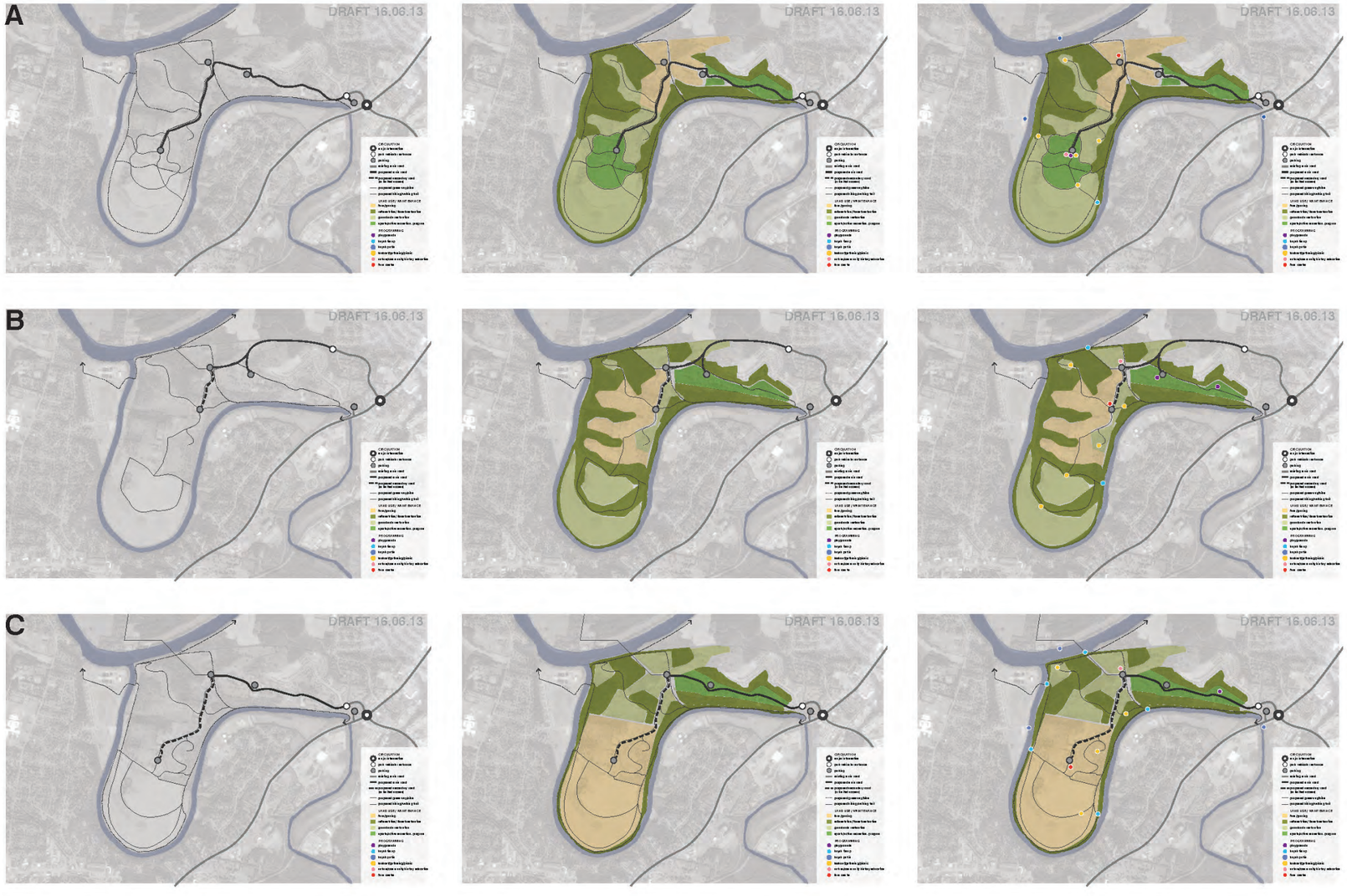
Floodplains & Bluffs

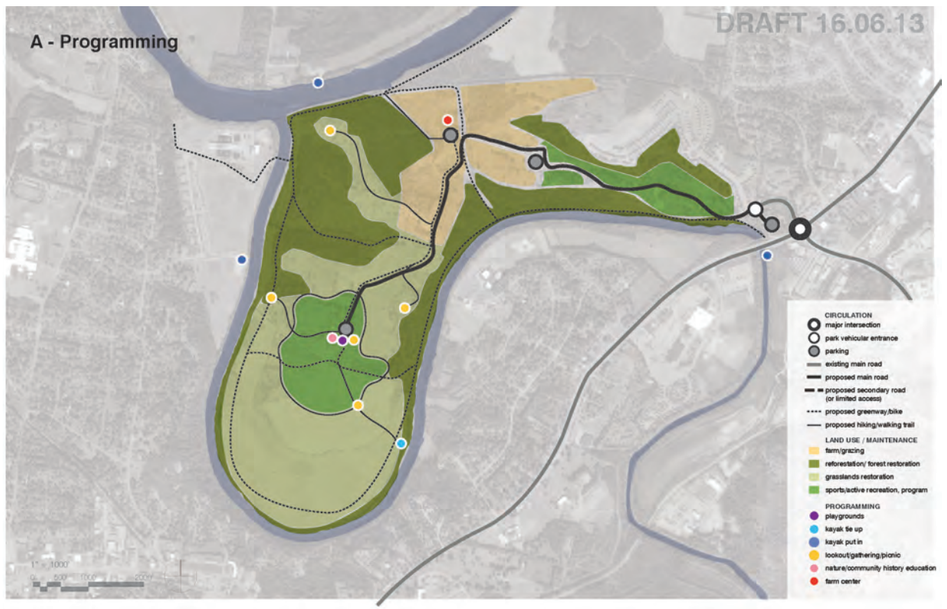
The bluff south of the bend was created by the Stones River as it carved through the limestone geology. With 3.5 miles of river frontage, much of the property sits low within a wide and flat floodplain. Get a stamp by pointing out the limestone bluff as you look across the floodplain.

MASTER PLAN STUDIES | Option Matrix

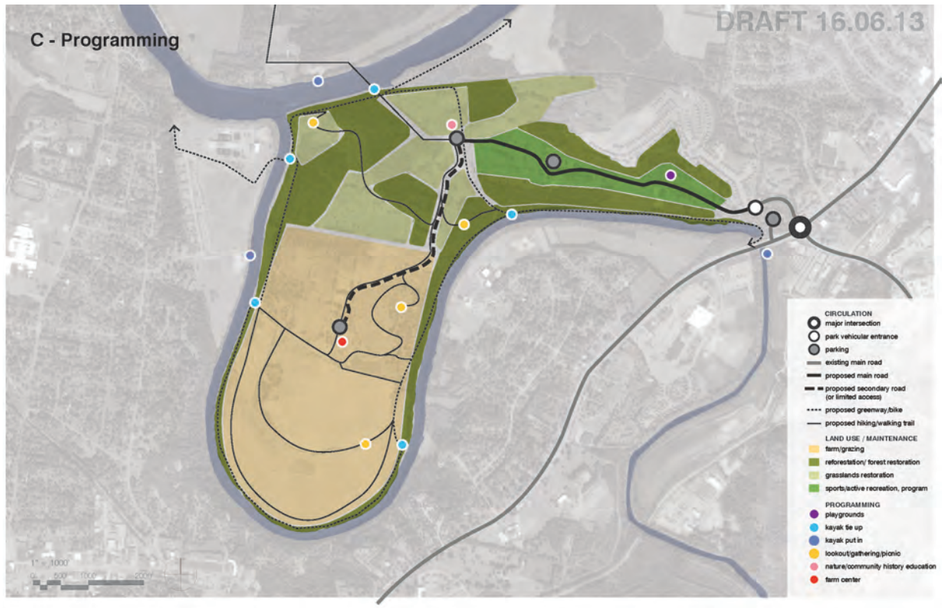
DISCOVERY PHASE (RESEARCH AND ANALYSIS) — *MARCH 2017*
MASTER PLAN DESIGN STUDIES — *MAY 2017*
MASTER PLAN DRAFT — *SEPTEMBER 2017*
FINAL MASTER PLAN — *NOVEMBER 2017*
REQUEST FUNDING FOR PH 1 IMPLEMENTATION — *JANUARY 2018*

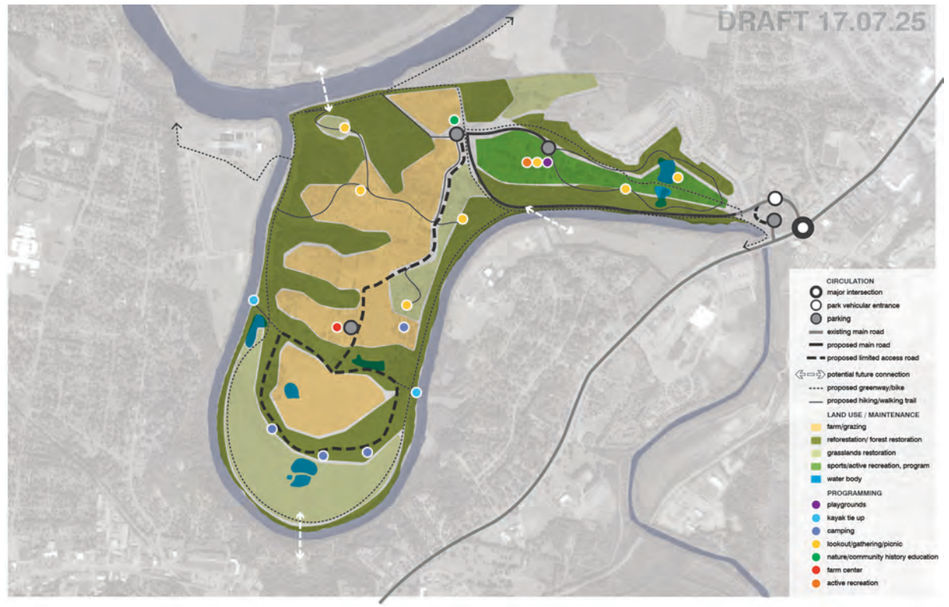
During the early process of master plan design, the design team developed a matrix of various circulation options to test strategies for improved circulation and potential programming of the park site.




A - Programming
DRAFT 16.06.13
CIRCULATION
major intersection
park vehicular entrance
parking
existing main road
proposed main road
proposed secondary road (or limited access)
proposed greenway/bike
proposed hiking/walking trail
LAND USE / MAINTENANCE
farm/grazing
reforestation/ forest restoration
grasslands restoration
sports/active recreation, program
PROGRAMMING
playgrounds
kayak tie up
kayak put in
lookout/gathering/picnic
nature/community history education
farm center


B - Programming
DRAFT 16.06.13
CIRCULATION
major intersection
park vehicular entrance
parking
existing main road
proposed main road
proposed secondary road (or limited access)
proposed greenway/bike
proposed hiking/walking trail
LAND USE / MAINTENANCE
farm/grazing
reforestation/ forest restoration
grasslands restoration
sports/active recreation, program
PROGRAMMING
playgrounds
kayak tie up
kayak put in
lookout/gathering/picnic
nature/community history education
farm center


C - Programming
DRAFT 16.06.13
CIRCULATION
major intersection
park vehicular entrance
parking
existing main road
proposed main road
proposed secondary road (or limited access)
proposed greenway/bike
proposed hiking/walking trail
LAND USE / MAINTENANCE
farm/grazing
reforestation/ forest restoration
grasslands restoration
sports/active recreation, program
PROGRAMMING
playgrounds
kayak tie up
kayak put in
lookout/gathering/picnic
nature/community history education
farm center


DRAFT 17.07.25
CIRCULATION
major intersection
park vehicular entrance
parking
existing main road
proposed main road
proposed limited access road
potential future connection
proposed greenway/bike
proposed hiking/walking trail
LAND USE / MAINTENANCE
farm/grazing
reforestation/ forest restoration
grasslands restoration
sports/active recreation, program
water body
PROGRAMMING
playgrounds
kayak tie up
camping
lookout/gathering/picnic
nature/community history education
farm center
active recreation

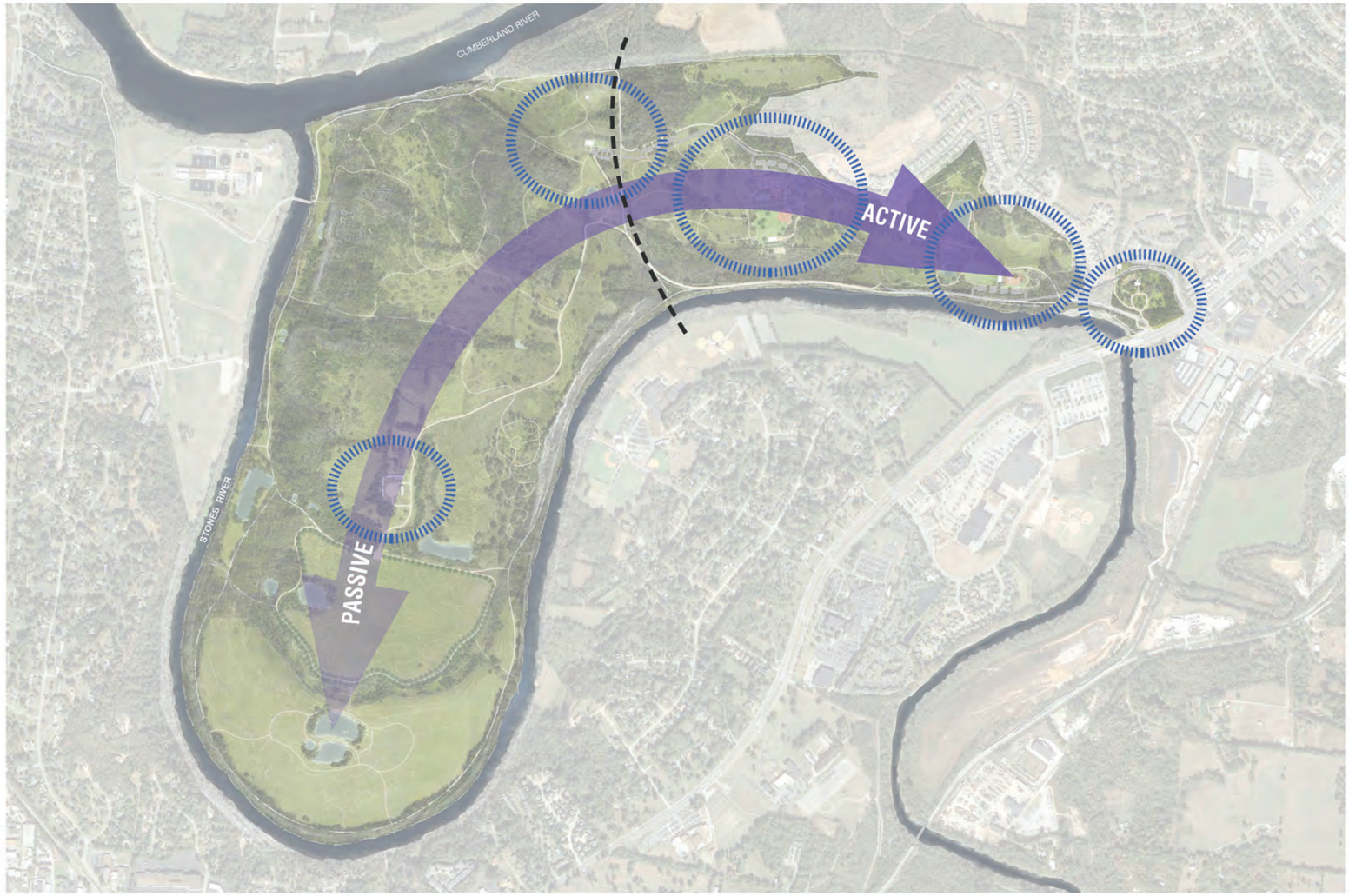
MASTER PLAN THEMES | Thematic Boards

DISCOVERY PHASE (RESEARCH AND ANALYSIS) — MARCH 2017
MASTER PLAN DESIGN STUDIES — MAY 2017
MASTER PLAN DRAFT — SEPTEMBER 2017
FINAL MASTER PLAN — NOVEMBER 2017
REQUEST FUNDING FOR PH 1 IMPLEMENTATION — JANUARY 2018

Midway through the master plan process, the design team developed a series of master plan draft theme boards to be presented to the community by the Metro Park staff and other members of the design team. Feedback on these various themes was solicited, collected, analysed and summarized by the team members present. The feedback was then incorporated into the final master plan document.

Framework

Stones River Bend Regional Park Master Planning



SEPTEMBER 2017 COMMUNITY WORKSHOP

Access

Stones River Bend Regional Park Master Planning

SEPTEMBER 2017 COMMUNITY WORKSHOP

Play

Stones River Bend Regional Park Master Planning

SEPTEMBER 2017 COMMUNITY WORKSHOP

Gather

Stones River Bend Regional Park Master Planning

Draft Plan

SEPTEMBER 2017 COMMUNITY WORKSHOP

Educate

Stones River Bend Regional Park Master Planning

Draft Plan

SEPTEMBER 2017 COMMUNITY WORKSHOP

Restore

Stones River Bend Regional Park Master Planning

Draft Plan

SEPTEMBER 2017 COMMUNITY WORKSHOP

Engage

Stones River Bend Regional Park Master Planning

Putting the people we serve at the center of the design process...

Hikes & Hayrides

Greater Community

Metro Parks hosted Hikes & Hayrides, an event to bring communtiy members to the site to explore, learn and share their hopes for the future spaces.

Community Outreach

Community leaders and Metro officials gathered to explore stakeholders' vision for the future of the park.

...and this is what we heard:

The deeper you go, the quieter it gets, to where it whispers at the end.
Take care of the big beautiful trees.
Experience solitude and nature right in the city.
The wooded hills and river are the ideal middle TN landscape.
Preserve the grazing land and native wilderness.
The expansive scale of the sky is important to preserve.
Places to play - sports fields, playgrounds, trails and tracks.
Groups of gathering spaces for all ages with a variety of activities.
Camping, bird watching and listening to nature.
Connections to the water and the greenway.

Master Plan Timeline

DISCOVERY PHASE (research and analysis)	MASTER PLAN DESIGN STUDIES	MASTER PLAN DRAFT	FINAL MASTER PLAN	REQUEST FUNDING FOR PH 1 IMPLEMENTATION
March 2017	*May 2017*	*September 2017*	*December 2017*	*January 2018*

SEPTEMBER 2017 COMMUNITY WORKSHOP

History

Stones River Bend Regional Park Master Planning

Mississippian Culture emerges from former Archaic and Woodland Cultures.

Archeological evidence reveals that Stone's River Bend has been a hunting ground for 10,000 years by every culture that lived here up to the 18th century.

900 BCE

0

1450 CE — Die-off or abandonment of Mississippian settlements

1710 — First settlement at French Lick (Nashville)

1766 — Long hunters explore the area with Uriah Stone, who the Stones River is named for

1780 — Flatboats of Col. John Donelson arrive on site from Fort Nashborough (Nashville). His family and 30 enslaved workers settle; are attacked by Native Americans and flee to Kentucky

1800

1830 — Andrew Jackson passes Indian Removal Act, forcing Southeastern Native Americans to move from their lands to go west of the Mississippi River

1865 — Civil War ends, African Americans gain freedom from slavery

Stones River Bend farmed by many families and their enslaved workers including the Bowens, Dodsons, Powells, and Hopstetters continuing the agricultural use of the land.

Many Native American tribes maintained grasslands to attract grazing animals to hunt. Over the years many of these native grasses have been overtaken by invasive and aggressive species which out-compete the native species.

1850

1900

1903 — Dodson descendants build Ravenwood Estate

Industrial businesses active along the Cumberland River

1950

1957 — Ravenwood Estate purchased, the Ravenwood Club established

landscape continues to be farmed with livestock

Limestone geology underlying the site yields phosphate-rich deposits that are mined to provide fertilizer for large scale farms in the early 20th century. Over 500,000 tons of phosphate are removed from this site.

1968 — Percy Priest dam constructed

2000

2012 — Metro Parks purchases Stone's River Farm

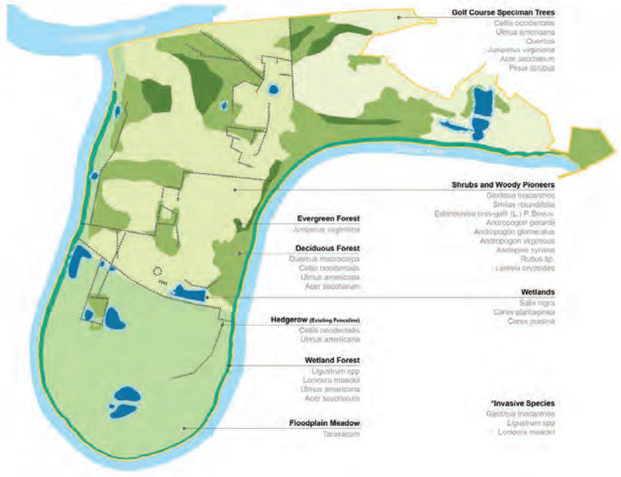
SEPTEMBER 2017 COMMUNITY WORKSHOP

Analysis

Stones River Bend Regional Park Master Planning

Plant Community Site Observations

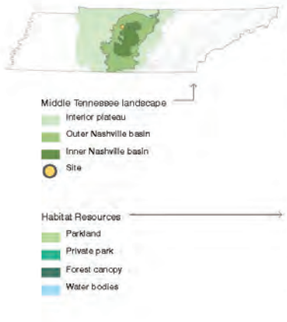
The site represents a diverse plant community. Some defining characteristics of the site are: the large amount of Locust found to the northwest of the site, a robust colony of Bur Oak along the eastern ridgeline of the site and the vast meadow in the southern bottom lands.

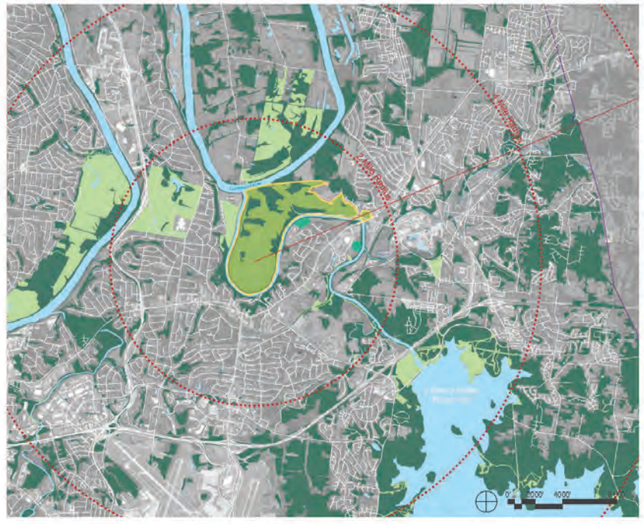


Ecology and Geology

As the last undeveloped riverbend in Davidson county, the Stones River Landscape is a valuable habitat resource. Due to its isolation and proximity to river habitat corridors, the site offers an impressive amount of wildlife. The site lies within the migratory flight paths of the monarch butterfly, the sandhill crane and the whooping crane.

The site lies within the Outer Nashville Basin near the border of the Inner Nashville Basin. The Nashville Basin is underlain primarily by limestone from the Ordovician Period. The basin's soils and limestone are high in phosphorus. Historically the site was mined for phosphate, which is commonly used in fertilizer production.



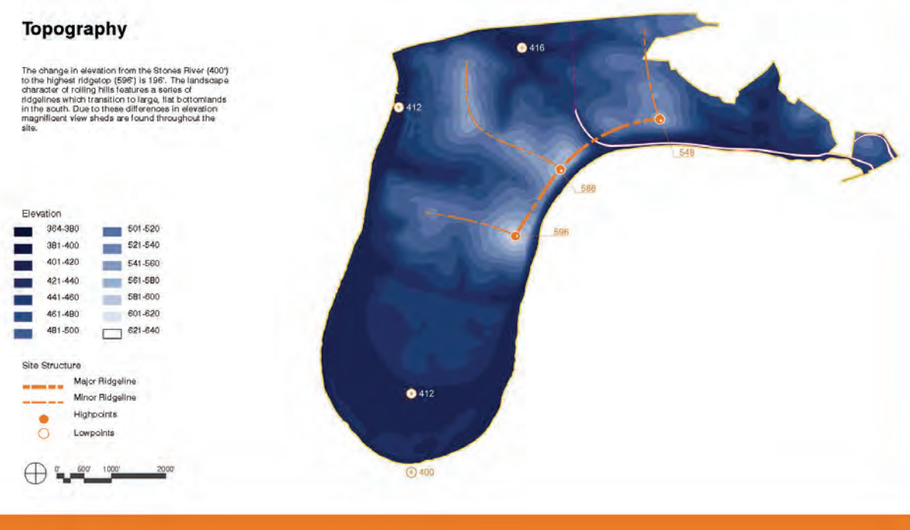


Hydrology

The majority of the site boundary is defined by the Stones and Cumberland Rivers and 33% of the site lies within the floodplain. Small ponds that were once associated with farming are found throughout the site. The pond and riparian edges throughout are largely devoid of riparian habitat buffers.

Topography

The change in elevation from the Stones River (400') to the highest ridgetop (596') is 196'. The landscape character of rolling hills features a series of ridgelines which transition to large, flat bottomlands in the south. Due to these differences in elevation magnificent view sheds are found throughout the site.



SEPTEMBER 2017 COMMUNITY WORKSHOP

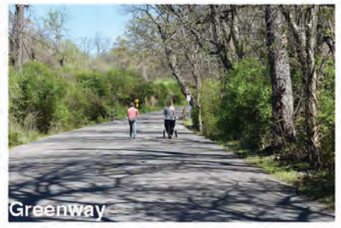
Existing Site Features

Stones River Bend Regional Park Master Planning


Historic Stone Hall


Historic Ravenwood Entrance


Historic Eversong Cabin


Greenway


Stones River


Ravenwood entrance wall


Ravenwood entrance drive


Historic stone terrace and wall


Historic bridge abutment


Stone bridge on drive


Lower pond and cart paths


Upper pond

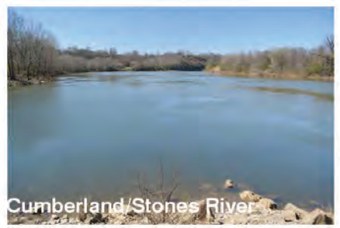

Ravenwood old golf course fields


Floodplain


Highpoint view


Farm buildings


Pond in lower meadow


Cumberland/Stones River

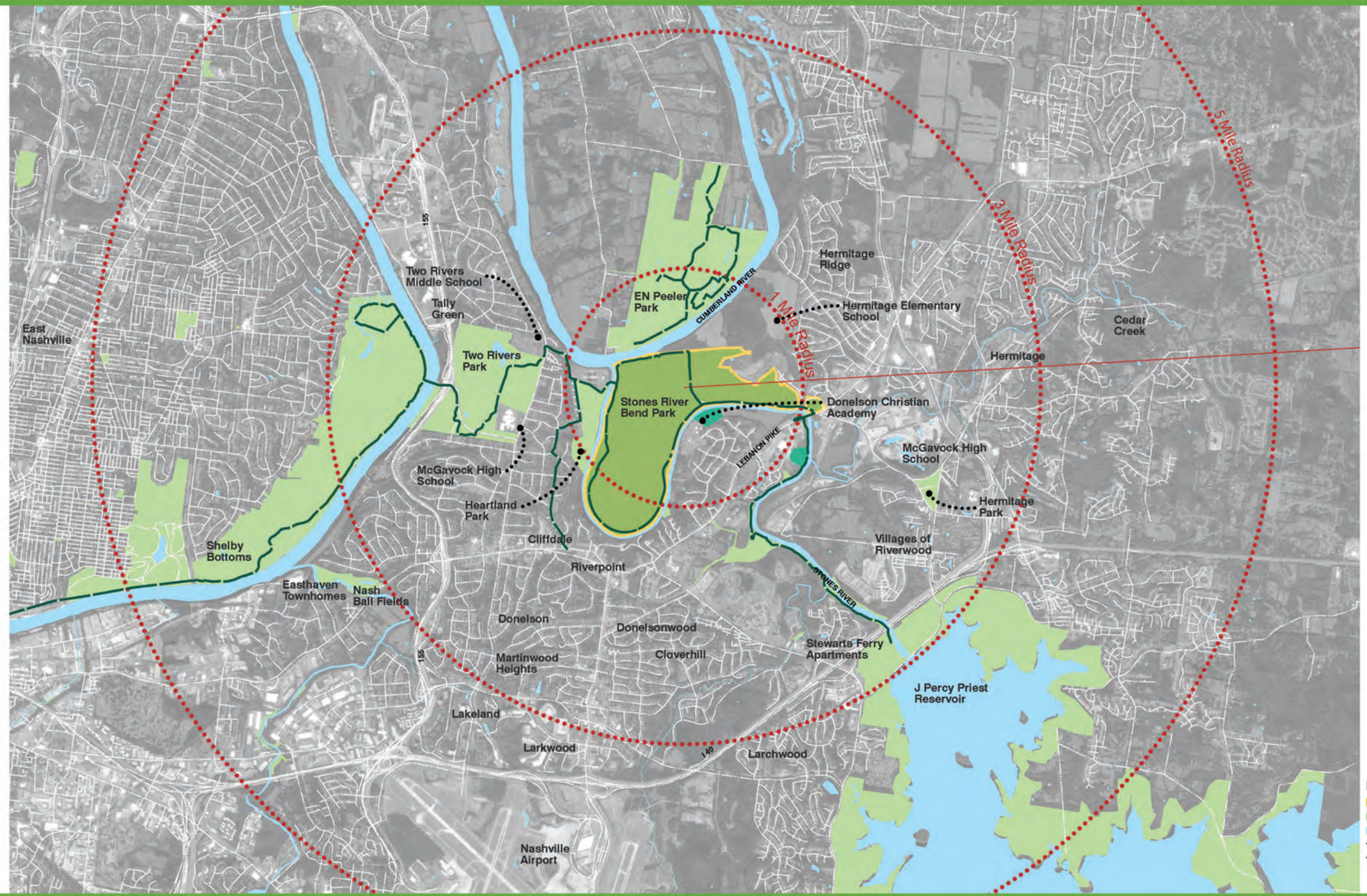

Floodplain meadow


Gravel farm road and pastures

SEPTEMBER 2017 COMMUNITY WORKSHOP

Context

Stones River Bend Regional Park Master Planning



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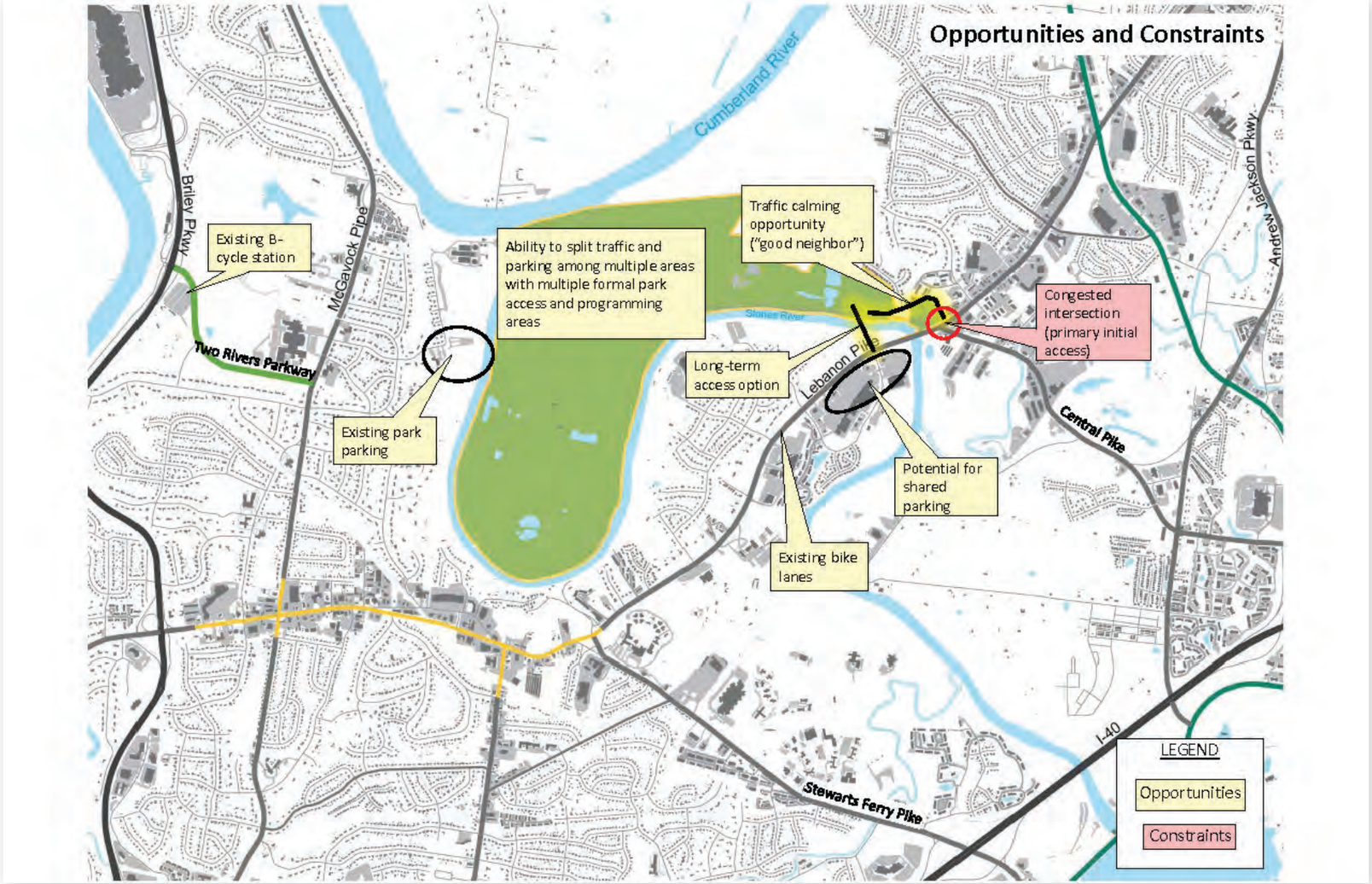
Opportunities and Constraints
Cumberland River
Briley Pkwy
McGavock Pike
Andrew Jackson Pkwy
Existing B-cycle station
Two Rivers Parkway
Ability to split traffic and parking among multiple areas with multiple formal park access and programming areas
Traffic calming opportunity ("good neighbor")
Stones River
Congested intersection (primary initial access)
Long-term access option
Lebanon Pike
Central Pike
Existing park parking
Potential for shared parking
Existing bike lanes
I-40
Stewarts Ferry Pike
LEGEND
Opportunities
Constraints

LYTLE BEND AND RAVENWOOD PARK

STUDY AREA ROADWAYS

McGavock Pike is a two-way roadway that generally travels in a north-south direction with one travel lane in each direction in the vicinity of the project site. McGavock Pike provides connection between Briley Parkway to the north-west and Elm Hill Pike to the south-east. According to the *Metro Nashville Major and Collector Street Plan*, McGavock Pike is categorized as an arterial-boulevard (T3-R-AB3-LM) south of Two Rivers Parkway and as an arterial-boulevard (T3-M-AB3-LM) north of Two Rivers Parkway in the vicinity of the project site. The posted speed limit within the study area is 40 mph. Generally, sidewalk is provided on the east side of McGavock Pike in the vicinity of the project site.

Looking Northbound on McGavock Pike
North of Two Rivers Parkway

The #34 MTA Opry Mills bus route provides local transit service along McGavock Pike in the vicinity of the project site. The #34 makes 11 trips Sunday through Friday and 14 trips on Saturdays. The #34 provides connection between Downtown, Donelson, and Opry Mills along Lebanon Pike, McGavock Pike, Briley Parkway, and Ellington Parkway. No bike facilities are provided on McGavock Pike in the vicinity of the project site.

Two Rivers Parkway is a median-divided, two-way roadway that generally travels in an east-west direction with one travel lane in each direction within the study area. Two Rivers Parkway provides connection between Briley Parkway to the west and McGavock Pike to the east. According to the *Metro Nashville Major and Collector Street Plan*, Two Rivers Parkway is categorized as an arterial-parkway scenic (T3-R-AP4-S) in the vicinity of the project site. The posted speed limit within the study area is 40 mph. Sidewalk is not provided on either side of Two Rivers Parkway within the study area. No transit services or bike facilities are provided on Two Rivers Parkway in the vicinity of the project site.

Looking Westbound on Two Rivers Parkway
West of McGavock Pike

LYTLE BEND AND RAVENWOOD PARK

Lebanon Pike is a two-way roadway that generally travels in an east-west direction within the study area. West of Jackson Downs Boulevard (eastern intersection) Lebanon Pike is median-divided and includes two travel lanes in each direction in the vicinity of the project site. East of Jackson Downs Boulevard (eastern intersection) Lebanon Pike includes two travel lanes in each direction and a center two-way left-turn lane in the vicinity of the project site. Lebanon Pike provides connection between downtown Nashville to the west and the City of Lebanon to the east. According to the *Metro Nashville Major and Collector Street Plan*, Lebanon Pike is categorized as an arterial-boulevard (T3-M-AB4-IM) west of Central Pike and as an arterial-boulevard (T3-M-AB5-IM) east of Central Pike in the vicinity of the project site. The posted speed limit on Lebanon Pike is 45 mph. East of Stones River Road, sidewalk is provided on both sides of Lebanon Pike in the vicinity of the project site. Bike lanes are provided in each direction on Lebanon Pike near the project site. The #6 MTA Lebanon Pike bus route provides local transit service along Lebanon Pike with stops every 15-60 minutes on weekdays and every 1-2 hours on Saturdays. The #6 provides connection between downtown Nashville, Donelson, and Hermitage along Lebanon Pike and Andrew Jackson Parkway.

Looking Westbound on Lebanon Pike
West of Jackson Downs Boulevard

Looking Eastbound on Lebanon Pike
East of Central Pike

Jackson Downs Boulevard is a two-way roadway that creates a loop on the south side of Lebanon Pike and provides access to the Jackson Downs commercial development as well as residential developments. At its intersections with Lebanon Pike, Jackson Downs Boulevard generally travels in a north-south direction. At its western intersection with Lebanon Pike, Jackson Downs Boulevard includes two travel lanes in each direction and a center two-way left-turn lane. At its eastern intersection with Lebanon Pike, Jackson Downs Boulevard includes one travel lane in the southbound direction and two travel lanes in the northbound direction. According to the *Metro Nashville Major and Collector Street Plan*, Jackson Downs Boulevard is categorized as a local street. The posted speed limit on Jackson Downs Boulevard is 30 mph. At its western intersection with Lebanon Pike, sidewalk is provided on the west side of Jackson Downs Boulevard. Near its eastern intersection with Lebanon Pike, sidewalk is provided on the east side of Jackson Downs Boulevard. No transit services or bike facilities are provided on Jackson Downs Boulevard.

Looking Southbound on Jackson Downs Boulevard South of Lebanon Pike (Western Intersection)

Looking Southbound on Jackson Downs Boulevard South of Lebanon Pike (Eastern Intersection)

Downeymeade Drive is a two-way roadway that generally travels a north-south direction with one travel lane in each direction. Downeymeade Drive provides connection between Lebanon Pike to the south and Jenry Drive to the north as well as access to the Donelson Civitan athletic fields. It should be noted that Downeymeade Drive is generally aligned with Jackson Downs Boulevard at Lebanon Pike. According to the *Metro Nashville Major and Collector Street Plan*, Downeymeade Drive is categorized as a local street. The posted speed limit on Downeymeade Drive is 30 mph. No sidewalk is

Looking Northbound on Downeymeade Drive North of Lebanon Pike

provided on Downeymeade Drive. No transit services or bike facilities are provided on Downeymeade Drive.

Central Pike is a two-way roadway that generally travels in an east-west direction, but at its intersection with Lebanon Pike generally travels in a north-south direction. North of Lebanon Pike, Central Pike includes one travel lane in each direction. South of Lebanon Pike, Central Pike includes two travel lanes in each direction and a center two-way left-turn lane in the vicinity of the project site. Within the study area, Central Pike provides connection between Lebanon Pike to the west and I-840 to the east. In addition, to the north of Lebanon Pike, Central Pike provides access to residences and Ravenwood Park. According to the *Metro Nashville Major and Collector Street Plan*, Central Pike is categorized as an arterial-boulevard (T3-M-AB5) south of Lebanon Pike and as a local street north of Lebanon Pike. The posted speed limit on Central Pike in the vicinity of the project site is 30 mph. Sidewalk is not provided on Central Pike north of Lebanon Pike and is generally provided on both sides of Central Pike south of Lebanon Pike. South of Lebanon Pike, bike lanes are provided in both directions along Central Pike in the vicinity of the project site. No transit services are provided along Central Pike in the vicinity of the project site.

Looking Northbound on Central Pike North of Lebanon Pike

Looking Southbound on Central Pike South of Lebanon Pike

STUDY AREA INTERSECTIONS

McGavock Pike and Two Rivers Parkway is a signalized intersection with three approaches. The southbound approach of McGavock Pike includes one shared through/right turn lane. The northbound approach of McGavock Pike includes one left turn lane with approximately 85 feet of storage and one through lane. The eastbound approach of Two Rivers Parkway includes one left turn lane with approximately 25 feet of storage and one right turn lane. Protective/permissive left turn signal phasing is provided for the northbound approach of McGavock Pike. No pedestrian facilities are provided for the intersection; however, sidewalk is provided on the east side of McGavock Pike at the intersection.

Looking Northbound on McGavock Pike at Two Rivers Parkway

Lebanon Pike and Jackson Downs Boulevard/Downeymeade Drive is a signalized intersection with four approaches. The westbound approach of Lebanon Pike includes one left turn lane with approximately 125 feet of storage, one through lane, and one shared through/right turn lane. The eastbound approach of Lebanon Pike includes one left turn lane with approximately 100 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage. The southbound approach of Downeymeade Drive includes one shared lane for all turning movements. The northbound approach of Jackson Downs Boulevard includes one shared left turn/through lane and one right turn lane. Protective/permissive left turn signal phasing is provided for the eastbound and westbound approaches of Lebanon Pike. Split signal phasing is provided for the northbound approach of Jackson Downs Boulevard and for the southbound approach of Downeymeade Drive. Pedestrian signals and pushbuttons are provided for crossing the west leg of the intersection.

Looking Westbound on Lebanon Pike at Downeymeade Drive/Jackson Downs Boulevard

Lebanon Pike and Jackson Downs Boulevard (Eastern Intersection) is a signalized intersection with three approaches. The westbound approach of Lebanon Pike includes one left turn lane with approximately 200 feet of dedicated storage within the center two-way left-turn lane and two through lanes. The eastbound approach of Lebanon Pike includes one left turn lane with approximately 115 feet of storage, two through lanes, and one right turn lane with approximately 160 feet of storage. The northbound approach of Jackson Downs Boulevard includes one left turn lane and one shared left/right turn lane with channelized, yield-controlled right turns. Protective/permissive left turn signal phasing is provided for the westbound approach of Lebanon Pike. No pedestrian facilities are provided for the intersection; however, sidewalk is provided on the east side of Jackson Downs Boulevard at the intersection.

Looking Northbound on Jackson Downs Boulevard at Lebanon Pike

Lebanon Pike and Central Pike is a signalized intersection with four approaches. The westbound approach of Lebanon Pike includes one left turn lane with approximately 130 feet of dedicated storage within the center two-way left-turn lane, one through lane, and one shared through/right turn lane. The eastbound approach of Lebanon Pike includes one left turn lane with approximately 100 feet of dedicated storage within the center two-way left-turn lane, two through lanes, and one right turn lane with approximately 325 feet of storage. The southbound approach of Central Pike includes one left turn lane with approximately 100 feet of storage, one through lane, and one right turn lane with approximately 100 feet of storage. The northbound approach of Central Pike includes one left turn lane with approximately 275 feet of dedicated storage within the center two-way left-turn lane, one shared left/through lane, and one right turn lane. Protective/permissive left turn signal phasing is provided for the eastbound and westbound approaches of Lebanon Pike. Split signal phasing is provided for the northbound and southbound approaches of Central Pike. Pedestrian crosswalks and signals are provided for the north, south, and east legs of the intersection. Pedestrian-activated pushbuttons are provided for crossing the east leg of the intersection.

Looking Southbound on Central Pike at Lebanon Pike

The existing laneage of the study intersections are presented in Figure 1.

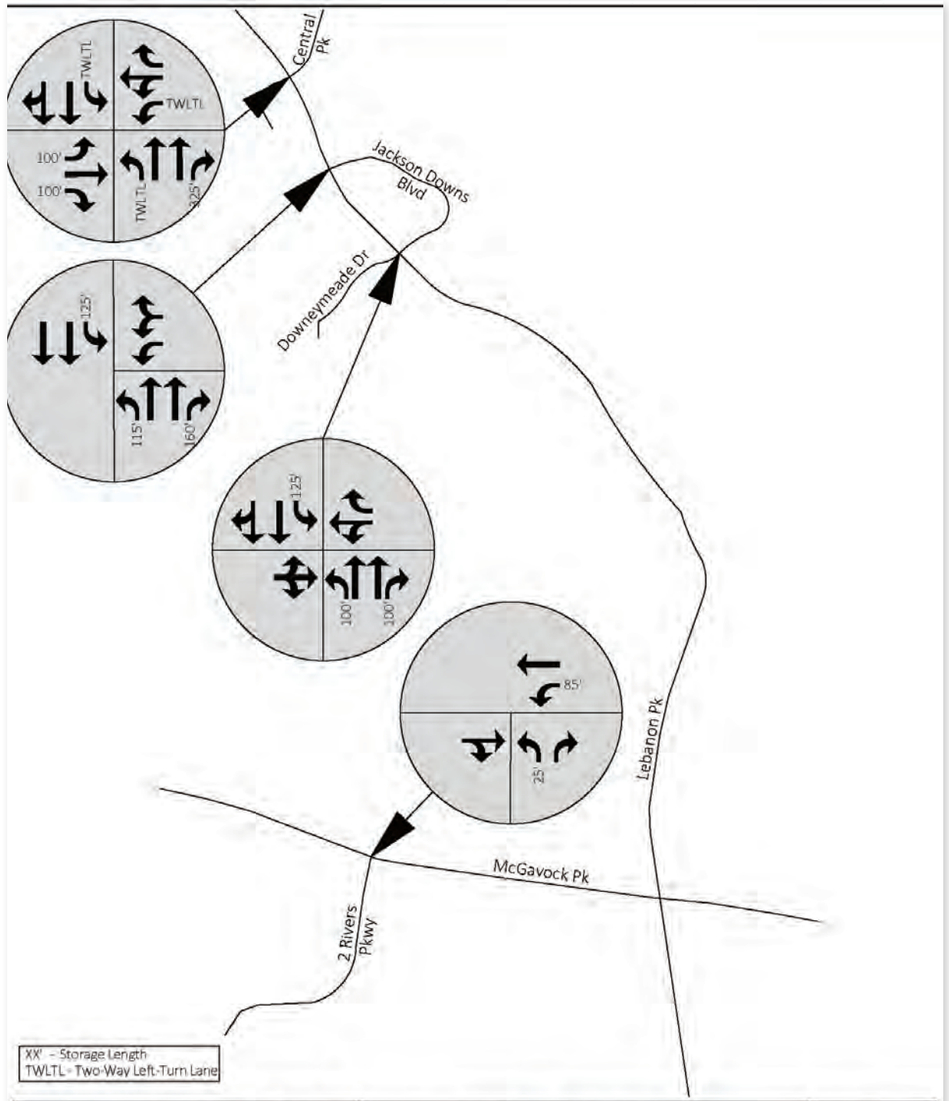

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FIGURE 1. EXISTING LANEAGE
LYTLE BEND AND RAVENWOOD PARKS
METRO PARKS
NASHVILLE, TENNESSEE

MAY 2017
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LYTLE BEND AND RAVENWOOD PARK

EXISTING TRAFFIC VOLUMES

To provide data for the capacity analysis, manual turning movement counts were conducted by Collier Engineering Company, Inc., at the study intersections from 4:00 – 7:00 PM on a typical weekday and from 10:00 AM – 12:00 PM on a typical Saturday in April 2017 while Metro Nashville Public Schools were in session. From the counts, it was determined that the weekday PM peak hour occurs from 4:30 – 5:30 PM and the Saturday midday peak hour occurs from 11:00 AM – 12:00 PM. In addition, the TDOT count station data was referenced for the roadways in the vicinity of the project site. Figure 2 presents the 2015 AADT available for the study roadways in the vicinity of the project site. The existing weekday PM peak hour and Saturday midday peak hour turning movement volumes are presented in Figure 3. It should be noted that the peak hour volumes along Lebanon Pike were balanced between intersections.

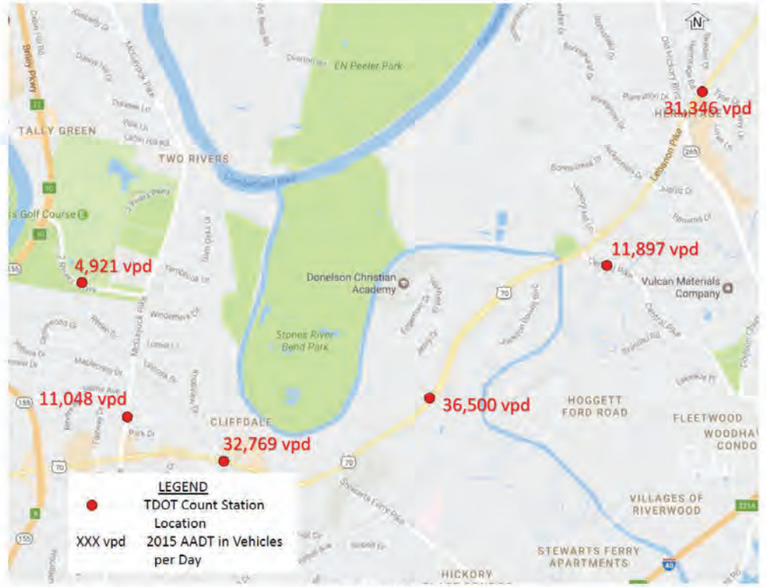

Figure 2. 2015 AADT

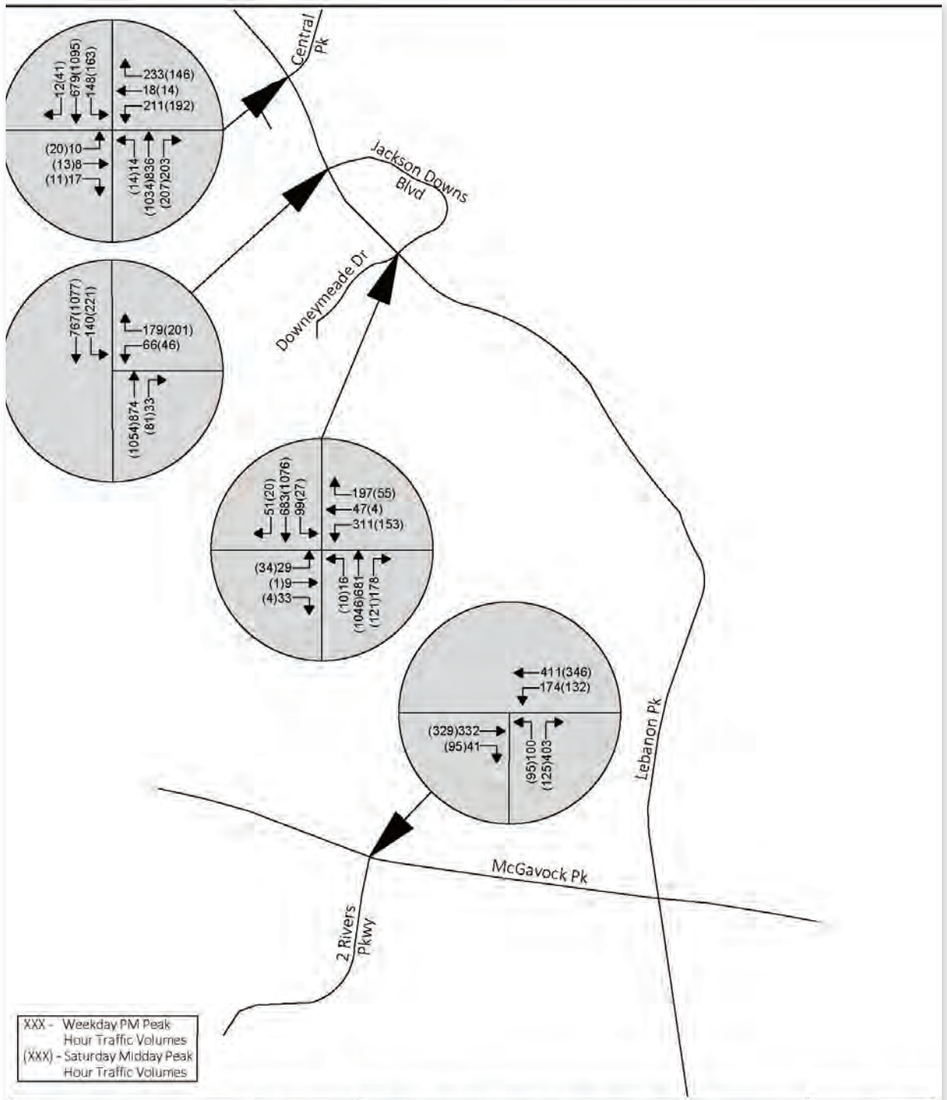

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FIGURE3. EXISTING PEAK HOUR TRAFFIC VOLUMES
LYTLE BEND AND RAVENWOOD PARKS
METRO PARKS
NASHVILLE, TENNESSEE

MAY 2017
PAGE 9 OF 12

LYTLE BEND AND RAVENWOOD PARK

EXISTING CAPACITY ANALYSIS

To evaluate the existing operation of the study intersections during the weekday PM peak hour and Saturday midday peak hour, capacity analyses were conducted for the study intersections under existing conditions. The capacity analyses were based on the methodology presented in the Transportation Research Board's fifth edition of the *Highway Capacity Manual* (HCM 2010). The capacity analyses determine the intersections' existing level-of-service (LOS). The results of the existing capacity analysis for the study intersections are presented in Table 1. As shown, the study intersections currently operate at LOS D or better during the weekday PM peak hour, with one exception, and at LOS B or better during the Saturday midday peak hour. During the weekday PM peak hour, the intersection of Lebanon Pike and Jackson Downs Boulevard/Downeymeade Drive operates at LOS F; however, it should be noted that the Lebanon Pike approaches operate at LOS B or better.

Table 1. Existing Peak Hour Capacity Analysis

INTERSECTION	TURNING MOVEMENT	WEEKDAY PM PEAK HOUR	SATURDAY MIDDAY PEAK HOUR
		LOS (Average Control Delay in sec/veh)	LOS (Average Control Delay in sec/veh)
McGavock Pike and Two Rivers Parkway	Overall Intersection	D (37.1)	B (12.9)
Lebanon Pike and Jackson Downs Boulevard/Downeymeade Drive	Overall Intersection	F (108.3)	B (16.8)
Lebanon Pike and Jackson Downs Boulevard (Eastern Intersection)	Overall Intersection	A (3.0)	A (5.5)
Lebanon Pike and Central Pike	Overall Intersection	D (43.9)	B (19.9)

Note: For signalized intersections, an overall LOS is presented.

BIKE, PEDESTRIAN, AND TRANSIT FACILITIES

No sidewalk is provided on either side of Two Rivers Parkway or Downeymeade Drive. In the vicinity of the project site, sidewalk is provided on the east side of McGavock Pike. In general, sidewalk is provided on the north side of Lebanon Pike west of Downeymeade Drive and on both sides of Lebanon Pike east of Stones River Road in the vicinity of the project site. No sidewalk is provided on either side of Lebanon Pike between its intersections with Jackson Downs Boulevard. At its western intersection with Lebanon Pike, sidewalk is provided on the west side of Jackson Downs Boulevard, and at its eastern intersection with Lebanon Pike, sidewalk is provided on the east side of Jackson Downs Boulevard. Generally, sidewalk is not provided on either side of Central Pike; however, sidewalk is provided on the east and west sides of Central Pike between Lebanon Pike and Stoners Bend Drive. The existing pedestrian facilities provided at the study intersections are presented in Table 2.

Bike lanes are provided in each direction along Lebanon Pike in the vicinity of the project site. Bike lanes are provided in each direction along Central Pike between Lebanon Pike and Stoners Bend Drive. No bike facilities are provided on Two Rivers Parkway, McGavock Pike, Downeymeade Drive, or Jackson Downs Boulevard in the vicinity of the project site.

Table 2. Study Intersection Pedestrian Facilities

INTERSECTION	TRAFFIC CONTROL	CROSSWALK(S)	CURB RAMP(S)	PEDESTRIAN SIGNAL(S)	PUSH-BUTTON(S)
McGavock Pike and Two Rivers Parkway	Signalized	--	--	--	--
Lebanon Pike and Jackson Downs Boulevard/ Downeymeade Drive	Signalized	--	NW and SW Corners	West Leg	West Leg
Lebanon Pike and Jackson Downs Boulevard (Eastern Intersection)	Signalized	--	SE Corner	--	--
Lebanon Pike and Central Pike	Signalized	North, South, and East Legs	All Corners	North, South, and East Legs	East Leg
Note: For signalized and all-way stop-controlled intersections, an overall LOS is presented.					

A number of bus routes provide transit service along the study roadways within the vicinity of the project site. The #34 MTA Opry Mills bus route provides local transit service along McGavock Pike with 11 trips on weekdays and Sundays and 14 trips on Saturdays. The #34 bus route provides connection between Downtown, East Nashville, the Grand Ole Opry, McGavock Pike, and The Music City Star's Donelson Station. The #6 MTA Lebanon Pike bus route provides local transit service along Lebanon Pike with stops every 15-60 minutes and weekdays and Sundays and every 1-2 hours on Saturdays. The #6 bus route provides connection between Downtown, The Music City Star's Donelson Station, and the Music City Star's Hermitage Station.

The nearest stops to the project site for the #34 bus route are located at the intersections of McGavock Pike with Fernbrook Lane and Knobdale Road, which are located approximately 0.2 and 0.1 miles away, respectively. The nearest stop for the #6 bus route is located at the intersection of Lebanon Pike and Central Pike.

OPPORTUNITIES AND CONSTRAINTS

Opportunities:

- Park parking is existing on the west side of the park, accessed from McGavock Pike. There is ability to split traffic and parking among multiple areas with multiple formal parking access and programming areas.
- A long-term access option could be a new access on Lebanon Pike aligned with the eastern intersection of Lebanon Pike and Jackson Downs Boulevard.
- The streetscape and design of street connectivity with Central Pike could incorporate traffic calming techniques.
- Shared parking potential for the Park using the parking areas within the Jackson Downs commercial development located on the south side of Lebanon Pike.
- Bikeways – existing B-cycle station on Two Rivers Parkway with potential facility connection between station and western park access. Existing bike facilities on Lebanon Pike.
- Transit – existing local transit service along McGavock Pike and Lebanon Pike in the vicinity of the Park.

Constraints:

- Expectations for big/wide roads to carry increased residential and commercial density in this area.
- Primary initial access to be at intersection of Lebanon Pike and Central Pike, which is an existing congested intersection.

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MEMORANDUM

To: Jen Trompetter, Nelson Byrd Woltz Landscape Architects
From: Amy Burch, P.E.
Date: October 31, 2017
Re: Parking Analysis and Recommendations
Subject: Stones River Bend Regional Park Master Plan Draft

Collier Engineering Co., Inc., has analyzed the proposed master plan draft for the Stones River Bend Regional Park. Per our previous review, the access and circulation plan is acceptable and we have no further recommendations for this aspect of the master plan. We have reviewed the proposed the site features and the number and location of proposed parking spaces within the park, and as a result have recommended changes to the master plan. This memo provides a summary of our parking analysis and our recommendations.

PARKING ANALYSIS

The Stones River Bend Regional Park Master Plan Draft includes five primary nodes, which include the following:

- Ravenwood West
- Stone Hall & Ravenwood East
- Confluence
- Farm Operations
- Stones Bend

Collier identified which site features within each segment would generate parking demand and estimated the peak parking demand of these features. Since the peak parking demand of each feature is not likely to occur at the same time and some of the spaces will be shared between features, a 25% reduction factor was applied to the recommended parking supply. Tables 1-5 present the site features, planned parking supply per the current plan, and recommended parking for each segment of the park.

Table 1. Parking Analysis - Ravenwood West

Site Feature	Size	Quantity	Recommended Parking
Hilltop lawn	--	1	10
Large community pavilion	7,200 s.f.	1	66
Small pavilion	450 s.f.	2	8
Regional playground	0.6 acre	1	13
Basketball courts	--	2	16
Tennis courts	--	4	12
Stones Bend Interpretive Area	1,800 s.f.	1	7
Stones Bend Interpretive Area Gardens	--	--	2
Group camp site and small pavilion	450 s.f.	1	15
Greenways/Trails	--	--	40
Disc golf area	--	1	10
Cyclocross area	--	1	10
Planned Parking Supply	--	199	--
		SUBTOTAL	209
		TOTAL (with 25% reduction factor)	157
		Additional Parking Recommended	**-42**

Table 2. Parking Analysis - Stone Hall & Ravenwood East

Site Feature	Size	Quantity	Recommended Parking
Kiddie pump track	--	1	15
Neighborhood playground	8,000 s.f.	1	40
Medium pavilion	1,800 s.f.	1	16
Lakeside lawn	--	1	10
Fishing boardwalk with small pavilion	450 s.f.	1	4
Greenways/Trails	--	--	40
Stone Hall & gardens	--	--	5
Planned Parking Supply	--	80	--
		SUBTOTAL	130
		TOTAL (with 25% reduction factor)	98
		Additional Parking Recommended	**18**

Table 3. Parking Analysis – Confluence

Site Feature	Size	Quantity	Recommended Parking
Camp sites	200 s.f.	2	4
Greenways/Trails	--	--	40
Planned Parking Supply	--	0	--
		SUBTOTAL	44
		TOTAL (with 25% reduction factor)	33
		Additional Parking Recommended	**33**

Table 4. Parking Analysis – Farm Operations

Site Feature	Size	Quantity	Recommended Parking
Farm Center	--	1	5
Greenways/Trails	--	--	40
Planned Parking Supply	--	0	--
		SUBTOTAL	45
		TOTAL (with 25% reduction factor)	34
		Additional Parking Recommended	**34**

Table 5. Parking Analysis – Stones Bend

Site Feature	Size	Quantity	Recommended Parking
Camp site/bird blinds	200 s.f.	5	10
Greenways/Trails	--	--	40
Planned Parking Supply	--	0	--
		SUBTOTAL	50
		TOTAL (with 25% reduction factor)	38
		Additional Parking Recommended	**38**

RECOMMENDATIONS

Table 6 presents a summary of our parking analysis. As shown in Table 6, we recommend the master plan include approximately 81 additional parking spaces, which should be provided within Ravenwood West.

Table 6. Parking Analysis Summary

Total Parking Provided	Total Recommended Parking (with 25% reduction factor)	Additional Parking Recommended
279	360	81

Note: The additional parking should be provided within Ravenwood West

In addition, since there is potential for the peak parking demand to occur for the individual site features at the same time, overflow parking should be available.

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