

BLUE HERON NATURE PRESERVE

Master Plan Update 2015

Prepared by: TSW



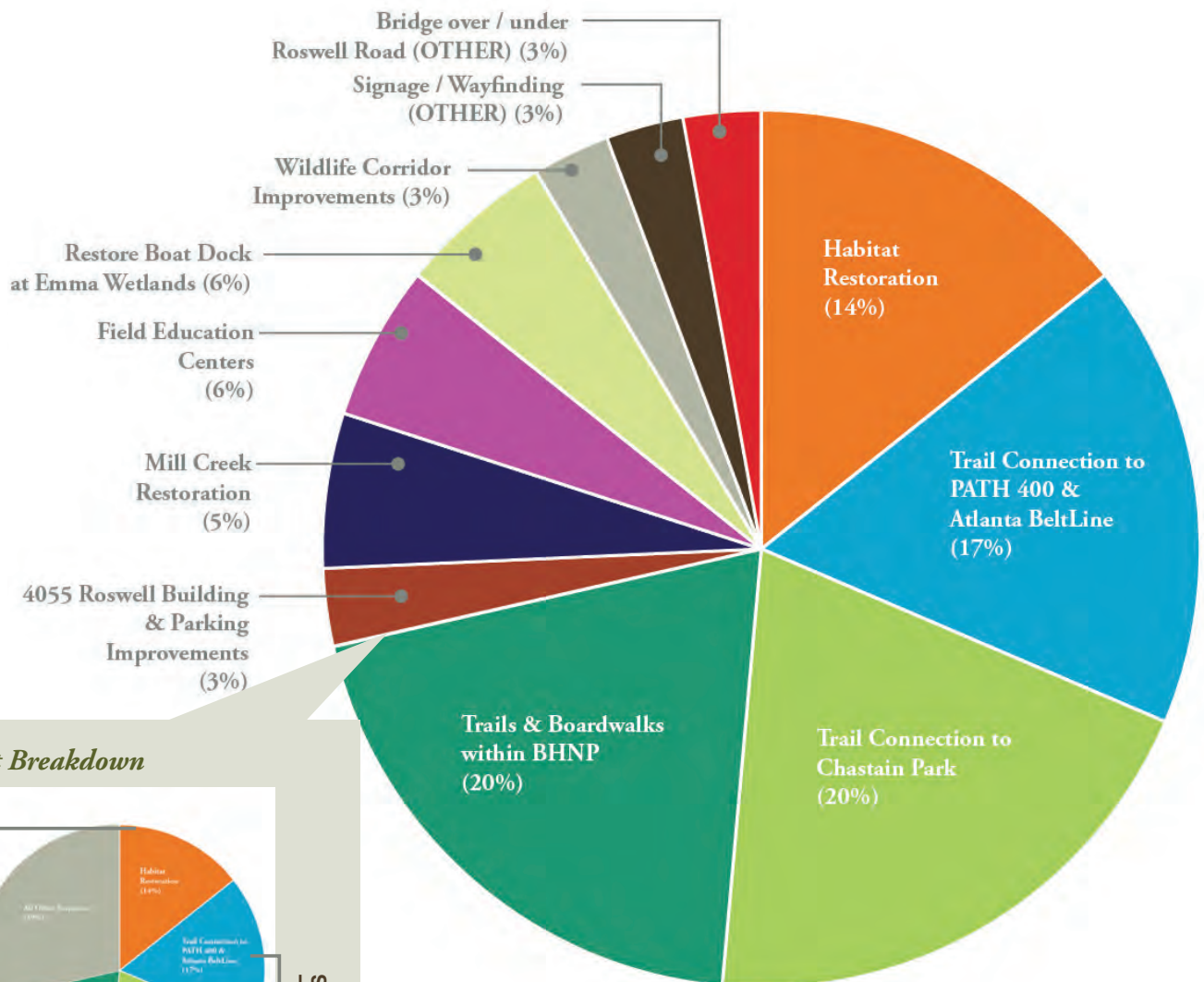
Master Plan Update Narrative

Blue Heron Nature Preserve (BHNP) has updated its 2008 master plan to create a vision for the future of the Preserve. Much of the previous plan has been implemented and new land has been acquired, resulting in the need for a vision and plan update. BHNP retained TSW to assist with the planning process and to create the master plan illustration and supporting documents.

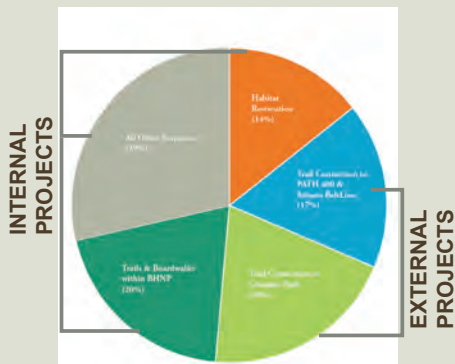
TSW met with multiple stakeholder focus groups and a smaller steering committee with representatives from each group. The focus groups included BHNP staff and volunteers, neighborhood residents, City of Atlanta staff (Parks and Recreation, Department of Watershed Management), a group of partners, and the Project and Facilities Committee. The steering committee convened in a final meeting after TSW analyzed the results from the focus group

meetings to ensure that the ideas were accurately represented. Following this review process, TSW created design and planning recommendations based on the BHNP vision and prioritized by focus group feedback. This document compiles the feedback results, vision, design recommendations, project list with steps for implementation and rough order of magnitude costs, and master plan image.

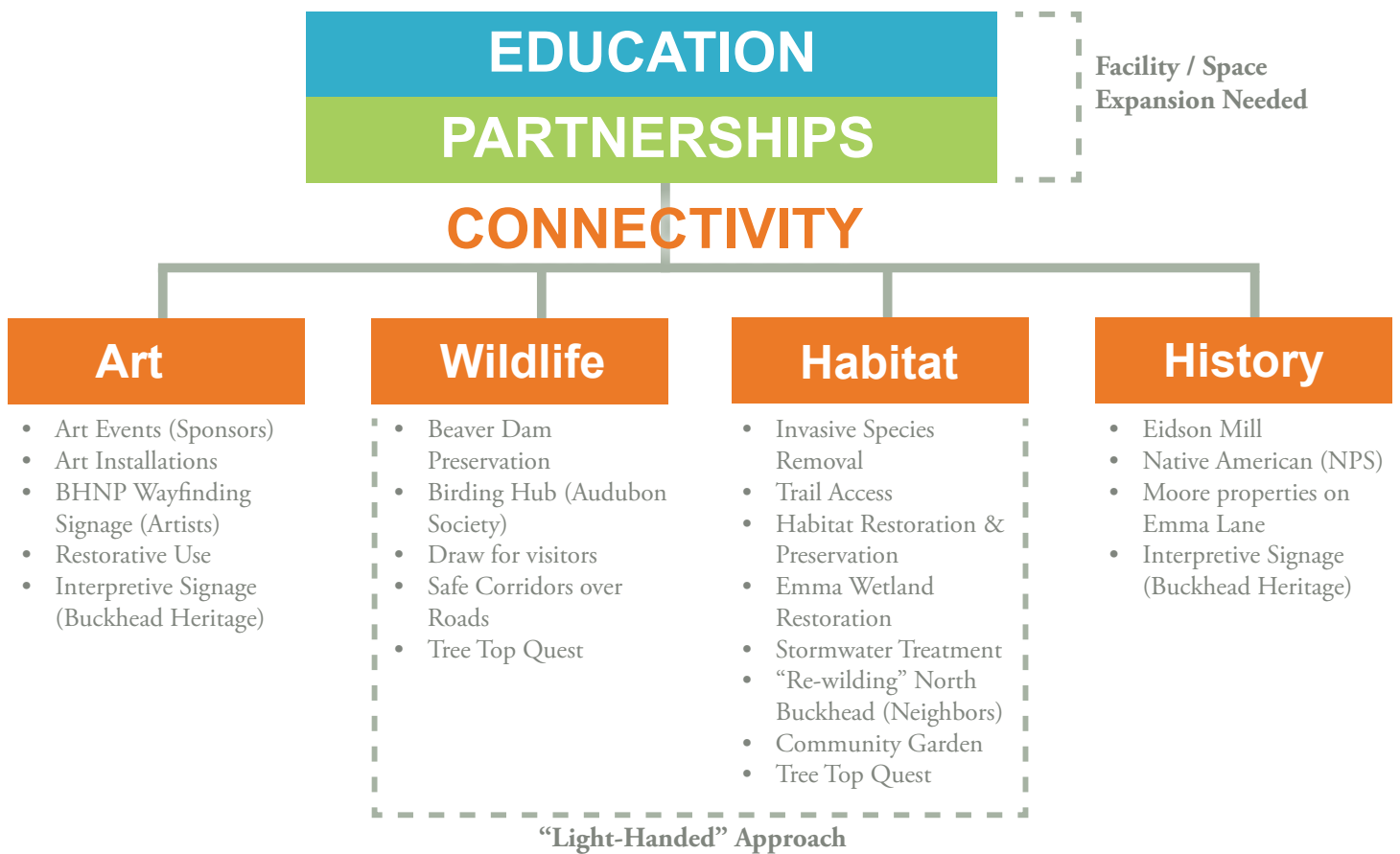
The focus group meetings involved a short survey that determined the project preferences for the future of Blue Heron Nature Preserve. One question was: "What are your top 3 priority projects for BHNP?" The results of this question are shown in the below chart.



Project Breakdown



BHNP AS A MODEL



Overall, it was determined that BHNP should use a light-handed approach to accomplishing many of the implementation projects. BHNP is viewed as a model for education, partnerships, and connectivity within the North Buckhead area (shown in the chart above). The planning team and steering committee selected a total of 63 projects, which were divided into the following categories: A. Art Projects; B. Wildlife Projects; C. Habitat Projects; D. History Projects; and E. People and Facilities Projects. Each project was ranked in a scoring matrix according to a set of vetted criteria. Criteria meeting the BHNP mission were weighted much more heavily than other criteria. The criteria were placed in the following groups: Mission & Goals; Environmental Impact; Partnering; Cost; Revenue; Timeline; Funding.

After the matrix was scored, a top 20 project list was created from the highest scoring projects (shown on the next page). After

further review, some projects were combined because they could be feasibly completed simultaneously and were higher priority for the BHNP staff than represented in the evaluation matrix. The highest ranking projects revolved around inter-BHNP and neighborhood connectivity, education, increasing staff, existing building expansion and renovation, and enhanced, artistic wayfinding signage throughout BHNP.

A PATH trail connection ranked as a high priority; however, BHNP does not view the standard, concrete PATH trails as meeting the mission and goals for BHNP’s future. The connections to the Atlanta BeltLine, PATH 400, and Chastain Park are important to create, but BHNP would prefer to partner with PATH on alternative trail locations and types. The PATH could follow adjacent streets with smaller access trails to BHNP for users to walk through the Preserve on small, low-impact trails.

BHNP Mission

“To create a personal experience with nature through a regional model of conservation, education, research, and connectivity.”

Education centers are planned throughout the Preserve in all of the different habitats represented at BHNP: meadows, ponds, forests, and wetlands. The education centers are generally clustered with wildlife viewing overlooks, interpretive art installations, and gathering spaces in key locations along the trails.

BHNP and the Atlanta Audubon Society (AAS) anticipate future growth in terms of services, programming, and staff, which will require expansion and renovation of the existing building. AAS could serve as a hub for local and visiting birders. BHNP plans to add a teacher, a marketing and communications specialist, and a volunteer coordinator to their staff. Building changes will need to accommodate office space for new staff, ADA access from Rickenbacker Drive to AAS and BHNP, and additional bathrooms.

Consistent wayfinding signage and gateway features are needed throughout the Preserve, and the City of Atlanta has installed signage as part of one of their projects. A new entrance monument sign has been installed at the Roswell Road entrance, and trail signage will be installed in the near future. BHNP could partner with local artists to create additional, artistic gateway features and interpretive art installations.

The chart below shows the top 20 projects and notes which individual projects were combined to create the top 20. The text that follows the chart describes each of the individual projects and lists steps for project implementation and rough order of magnitude costs. The master plan image illustrates most of the projects from the project list, but specifically highlights the top ten (10) projects.

Top 20 Projects

#	Project Name	Combined Projects
D.1	Entrance Signage & Art and other City of Atlanta Approved Interpretive and Wayfaring Signage	D.1, A.1, A.5, E.25
C.10	Meadows for Monarchs	N/A
C.8	Mill Creek Enhancement Phase I (Emma Wetlands), II (Lakemoore Pond), III (Blue Heron Pond), IV (LOL)	N/A
E.33	Indoor Education Space & Education Staffing	E.33, E.36
E.20	Soft Trails and Boardwalks through BHNP, connecting Blue Heron properties and installing Lakemoore Dr crossing	N/A
C.11	Bird Habitat at Roswell Road, Emma Wetlands and Land O' Lakes Drive + Bird/Wildlife Viewing	B.2, C.11
E.4	Field Education Gathering Place at Emma Wetland Boat Dock, LOL, Lakemoore Overlook, Woodland Loop Trail + Nature and Field Education Plan for BHNP	E.1, E.2, E.4, E.5
E.19	Easements from Property Owners for Access - 1 Emma	N/A
E.37	Staffing - Communication Specialist, Development, Volunteer Coordinator	
E.24	PATH Trail to Chastain Park (including Roswell Rd Crossing)	
E.12	ADA Compliant Building Entrance From Rickenbacker Dr With Pond Overlook	Combined on map with all building improvements
E.9	4055 Roswell Road Building Reconfiguration for BHNP and Audubon Including Bathroom	Combined on map with all building improvements
B.3	Wildlife Corridors (Lakemoore Dr, Entrance Driveway)	N/A
E.6	Community Garden Entrance Improvements (Parking Area)	N/A
E.32	Learning Garden at Land O Lakes Property (Partnership with Sarah Smith Elementary)	N/A
E.21	Trail Connection to Sarah Smith Elementary School	N/A
E.29	Tree Top Quest	N/A
A.3	Art Events, Art Gallery, Art Installations	A.3, A.4
E.27	Interpretive Signage (Buckhead Heritage) & Historical Walking Tours & Programming	N/A
E.3	Nature-based Play Opportunities	N/A



Project Descriptions

a. art

A.1 Sculptural Gateway Feature (see also D.1)

Add branded signage, such as art pieces, at the entry points and gateways to BHNP. Gateway sculptures may borrow their design from a Blue Heron feather.

- Hire artist or branding / marketing specialist
- Create BHNP brand (font, colors, imagery)
- Create sculptural sign design
- Fabricate and locate the elements as indicated on the Master Plan

Rough Order of Magnitude Cost: \$5,000 - \$8,000 each sign

A.2 Boundary Markers and Fencing

Use branded design elements from Project A.1 to create artistic fencing and signage to denote the site boundary lines. This would also make BHNP more visible to the neighbors.

- Hire artist or branding / marketing specialist
- Create BHNP brand (font, colors, imagery)
- Create sculptural fencing and site signage design
- Fabricate and locate the elements as indicated on the Master Plan

Rough Order of Magnitude Cost: Fencing \$30 per LF / Signage \$1,500 each sign

A.3 Art Events

Host annual art event to support local art and artists and bring awareness to the Preserve. Use the spring 2015 event as a model.

- Create annual plan / schedule for art events
- Find funding for the events

Rough Order of Magnitude Cost: \$5,000 (Based on 2015 event costs)

A.4 Art Installations / Art Gallery

In addition to the art events and art displayed within the 4055 Roswell Road Building, locate permanent art installations elsewhere in the landscape. Partnerships with the City of Atlanta Office of Cultural Affairs, Buckhead Heritage, and other local creative groups will help implement these projects.

- Create plan for potential art locations within the Preserve
- Establish partnerships
- Find funding and artists
- Install art pieces according to plan

Rough Order of Magnitude Cost: \$5,000 per installation

A.5 Wayfinding Signage Branding

In addition to Projects A.1 and A.2, make the wayfinding and other signage throughout BHNP consistent.

- Hire artist or branding / marketing specialist
- Create BHNP brand (font, colors, imagery)
- Create wayfinding and site signage designs
- Fabricate and locate the elements as indicated on the Master Plan

Rough Order of Magnitude Cost: Branding \$10,000 / \$1,500 to \$5,000 per sign

A.6 Pop-Up Shop for Art

Host a pop-up art shop featuring work from local artists and artists participating in the scheduled art events at BHNP. This will be a temporary, rolling store to display items during events, located on the parking lot.

- Establish a plan for temporary installation on the parking lot during art events
- Evaluate the success of the shop

Rough Order of Magnitude Cost: \$2,500 for temporary shop

B.1 Natural Wetland Habitat Enhancement with Beavers

The light-handed approach to restoring sections of BHNP extends to wetland restoration. Harness the efforts started by the beavers to restore the Emma Wetland throughout the Preserve, rather than expensive engineering techniques that could have a negative impact on the plants' and animals' habitats.

- Develop an updated natural wetland habitat restoration plan
- Coordinate the work with City of Atlanta Department of Watershed Management CIP Project # NC-2113 to restore Emma Wetland (water quality benefits)
- Secure funding as needed / partner with City for funding
- Implement phase 1 of BHNP Urban Watershed Restoration Master Plan
- Secure additional funding for Phases 2 and 3 / partner with City for funding
- Implement phases 2 and 3 of BHNP Urban Watershed Restoration Master Plan
- Monitor water quality (concurrent) (City of Atlanta to conduct monitoring)

Rough Order of Magnitude Cost: \$5,000 annually

B.2 Bird Viewing Sites

Add bird viewing sites in multiple locations throughout BHNP, including the Emma Wetland, the Land O' Lakes property, and near the community garden. These sites will provide visiting birders a place to visit and enhance the Audubon Society's role as a regional and national destination. Construct the sites of simple materials, such as wood, to avoid negative environmental impact.

- Locate viewing sites on the Master Plan
- Identify funding sources / partner with Boy Scouts and other volunteer groups as needed
- Construct viewing sites in pre-determined locations

Rough Order of Magnitude Cost: \$5,000 to \$10,000 each

B.3 Wildlife Corridors

The BHNP is spread over multiple parcels with streets dividing the properties, which causes problems for wildlife when migrating or reaching other parts of the property. Create wildlife corridors to allow safe passage throughout the site, including the entry driveway from Roswell Road and along Lakemoore Drive.

- Develop wildlife corridors implementation plan with methods and locations
- Establish funding and partner with Boy Scouts and other volunteer groups as needed
- Implement Phase 2 of Urban Watershed Restoration Master Plan (crossing at Lakemoore Drive)
- Construct wildlife corridors in other pre-determined locations using planned methods

Rough Order of Magnitude Cost: \$5,000 to \$10,000 each

B.4 Wildlife Education Animal Facility

Build a facility and acquire an education animal to enhance educational programming. Partner with Atlanta Audubon Society for funding applications and creating the habitat.

- Atlanta Audubon Society to apply for and receive all necessary legal permits for an education animal
- BHNP check their legal documents to make sure it is possible
- Find suitable, safe location within the Preserve to build a structure
- Apply for or solicit funding to cover construction expenses for an avian habitat

Rough Order of Magnitude Cost: \$2,500

B.5 Wildlife Viewing Sites

Create viewing sites that allow people to be close to the wildlife. These sites will be as simple as small footpaths leading to a bench, or boardwalks with small overlooks. Include interpretive signage describing the specific area's prevalent wildlife and surrounding habitat.

- Identify locations of viewing sites on the Master Plan (noted by eyeglasses symbol on Master Plan)
 - Blue Heron Pond
 - Emma Wetlands
 - Land O' Lakes Property
 - Community Garden on Roswell Road
- Create interpretive signage consistent with branding established in Projects A.1, A.2, A.5
- Establish funding and partner with Boy Scouts and other volunteer groups as needed
- Construct wildlife viewing sites in pre-determined locations

Rough Order of Magnitude Cost: \$2,000 to \$10,000 each

C.1 Invasive Species Removal

Continue efforts to remove invasive species and prevent the intrusion of non-native plants and animals that could be detrimental to the existing ecosystems. Partner with the City and other organizations, such as Georgia Native Plant Society, Rock Springs Restoration, and community funding partners, in order to provide funding and additional labor.

- Create an invasive species removal and maintenance plan for the entirety of BHNP
- Identify funding and partner with the City, Boy Scouts, and other volunteer groups as needed
- Implement invasive removal as described in “3931 Land O Lakes Building Plans” document for the Land O’ Lakes property
- Remove invasive species in priority areas as determined in the plan
- Implement regular maintenance program

Rough Order of Magnitude Cost: \$5,000 per acre

C.2 Habitat Restoration at Land O’ Lakes Property

Partner with the City to restore the natural habitat at the newly-acquired Land O’ Lakes Property. This involves the demolition of the existing house (currently planned) and the removal of invasive plant species, such as the large bamboo grove. Apply a light-handed approach, in order to be consistent with BHNP principles and to potentially relieve the need for large amounts of additional funding and / or grants.

- Create a habitat restoration plan for the whole Preserve
- Establish funding and partner with City, Boy Scouts, and other volunteer groups as needed
- Restore habitat at Land O’ Lakes property as prioritized in the plan with Rock Springs Restoration, as described in “3931 Land O Lakes Building Plans” document

Rough Order of Magnitude Cost: \$15,000 for planning efforts / more detailed planning needed

C.3 Habitat Restoration / Preservation (General)

Partner with the City to restore the natural habitat throughout the Preserve. Apply a light-handed approach, in order to be consistent with BHNP principles and to potentially relieve the need for large amounts of additional funding and grants.

- Create habitat restoration plan for the whole Preserve using BHNP Restoration Principles
- Invasives Removal and Prevention through manual methods where possible with use of few chemicals
- Research and preserve the cultural history of BHNP
- Use wood for edging and bracing trails with natural stone for entryways, signage, steps, benches
- For construction projects use untreated locust and cedar wood, no asphalt, screws instead of nails to improve durability, avoid the use of plastics, and use materials on-site where possible
- Use native plants and trees and replace non-natives with natives
- Establish funding and partner with City, Boy Scouts, and other volunteer groups as needed
- Restore habitat at different locations as prioritized in the restoration plan

Rough Order of Magnitude Cost: \$15,000 for planning efforts / more detailed planning needed

C.4 Emma Wetland Restoration

Apply the light-handed approach to restoring sections of BHNP. Harness the efforts started by the beavers to restore the Emma Wetland, rather than expensive engineering techniques that could have a negative impact on the plants’ and animals’ habitats.

- Develop natural wetland habitat restoration plan for the preserve
- Coordinate with City of Atlanta Department of Watershed Management (DWM) CIP Project # NC-2113 to restore Emma Wetland (water quality benefits)
- Construct a new wetland in parks area
- Establish funding and partner with the City, Boy Scouts, and other volunteer groups as needed
- Implement Phase 1 of “Urban Watershed Restoration Master Plan”
- Restore Emma Wetland as prioritized in the BHNP and DWM CIP plan

Rough Order of Magnitude Cost: \$15,000 for planning efforts / more detailed planning needed

C.5 Water Quality Enhancement

Enhance water quality throughout the Preserve, particularly in the ponds, plunge pool, Nancy Creek, and Mill Creek. Partner with the City’s Department of Watershed Management to ensure that this occurs in the least harmful method possible.

- Department of Watershed Management CIP Plan Projects on BHNP Property:
 - NC-2113 – Construct Wetland at Emma Wetlands
 - NC-2097 – Retrofit existing wetland at Lakemoore / Roswell Pond

- Department of Watershed Management CIP Plan Projects NOT on BHNP Property that affect the Preserve:
 - NC-2030 – Retrofit existing wet pond at Post Chastain Apartments
 - NC-242 – Construct bio-retention at Chastain Reserve
 - NC-228 – Construct Bio-swale at Sarah Smith Elementary School
 - NC-211 – Construction bio-retention at Sarah Smith Elementary School
 - NC-207 – Construct bio-swale on Rickenbacker Way
- Coordinate and partner with the City as needed
- Add other projects to the list as needed
- City of Atlanta DWM to monitor water quality

Rough Order of Magnitude Cost: \$500,000 to \$1,000,000

C.6 Re-Wilding North Buckhead

Collaborate with adjacent neighbors to “re-wild” their properties to connect wildlife corridors and physically expand the reach of BHNP’s efforts, which could involve the growth of native plants, avoiding the use of pesticides and fertilizers, and allowing wildlife access to property owners’ yards. Include an education component so that neighbors know the appropriate processes and plants to grow. Create a contract for participating residents and businesses, and offer a certification, potentially through the National Wildlife Federation.

- Create a “re-wilding” implementation plan for North Buckhead
- Establish funding and partner with the City, North Buckhead residents & businesses, National Wildlife Federation
- Host education programming events for residents and businesses
- Establish a certification program
- Establish a contract for residents and businesses who agree to participate
- Identify and implement a pilot demonstration area for this process, shown on Master Plan as “Re-Wilding Demonstration Area,” around Sarah Smith Elementary, 3931 Land O’ Lakes

Rough Order of Magnitude Cost: \$5,000 to \$10,000 for planning efforts

C.7 Community Garden Expansion

Expand the community garden with a couple more plots, which could serve people currently on the waiting list, increase the revenue that the BHNP makes from the garden, and increase the number of crops donated to those in need. If needed, fund the expansion through the donations. Limit the expansion to BHNP property to avoid the City’s sewer tunnel easement.

- Create an expansion plan for the community garden
- Establish funding and partner with Boy Scouts or volunteer groups as needed
- Construct the expansion
- Open expansion to waiting list

Rough Order of Magnitude Cost: \$500 per plot

C.8 Mill Creek Restoration

Partner with the Department of Watershed Management to restore Mill Creek. Enhance water quality throughout the Preserve, particularly in the ponds, plunge pool, Nancy Creek, and Mill Creek. The partnership should ensure that this occurs in the least harmful method possible.

- Implement applicable phases of “BHNP Urban Watershed Restoration Master Plan”
- Coordinate with City of Atlanta Department of Watershed Management CIP project # NC-2097 – Retrofit existing wetland at Lakemoore / Roswell Pond (Blue Heron Pond)
 - Modify the existing or build a new outlet control structure to regulate outflow and remove sediment
 - Increase storage capacity through the above
 - Rip rap or other erosion control
- Establish funding with the City of Atlanta
- City of Atlanta to monitor water quality

Rough Order of Magnitude Cost: \$50,000 to \$100,000

C.9 Land Acquisition Opportunities

Acquire land when opportunities become available; two current opportunities are 3901 Land O’ Lakes and 1 Emma Lane. The 3901 Land O’ Lakes property is adjacent to Sarah Smith Elementary and the newly-acquired BHNP property, and could provide an important connection piece for BHNP access, wildlife corridors, and habitat restoration / preservation. Adding more land to the Preserve accomplishes many of the goals for the Preserve and meets the BHNP mission.

- Create land acquisition plan and identify potential opportunities
- Follow progress of 3901 Land O’ Lakes development proposal

- Establish funding mechanism to purchase land now and in the future
- Purchase land as prioritized in acquisition plan or as it becomes available

Rough Order of Magnitude Cost: Market value of properties

C.10 Meadows for Monarchs

Continue current efforts of creating and maintaining small meadows to attract Monarch butterflies on-site and off-site for organizations that express a desire to create gardens. Maintain the partnership with Georgia Power for the gardens along Roswell Road. Extend the meadow along the entire Roswell Road BHNP frontage.

- Create a plan for more meadows on-site, such as the Roswell Road frontage
- Implement in planned areas with BHNP staff, Boy Scouts, other volunteer groups
- Expand partner gardens to schools and other community organizations

Rough Order of Magnitude Cost: \$5,000 for expansion at BHNP, plant material, and maintenance / \$2,500 per partner garden

C.11 Bird Habitat at Roswell Road, Emma Wetlands, and Land O' Lakes Drive (see also B.2, Bird Viewing Sites)

Continue current efforts of creating and maintaining the habitat to attract different bird species on-site, which will be an attraction for visiting and local birders. Maintain the partnership with the Atlanta Audubon Society for the maintenance and creation of the habitat and marketing of the Preserve as a location for birding.

- Create a plan for bird habitat locations on-site (noted on the Master Plan with the eyeglasses icon)
- Create an implementation and maintenance plan
- Implement in planned areas with BHNP staff, Boy Scouts, Atlanta Audubon Society, other volunteer groups

Rough Order of Magnitude Cost: \$500 to \$1,000

D.1 Interpretive Signage, Art, Walking Tour Plan for BHNP

Develop an interpretive signage, art, and walking tour plan for the preserve. The following projects (D.2 – D.5) are implementation projects for specific elements in this plan. Create City of Atlanta approved interpretive and wayfinding signage.

- Partner with Buckhead Heritage and the City of Atlanta
- Create an overall plan for interpretive signage and art throughout the site based on the Buckhead Heritage Plan
- Prioritize locations for the addition of the interpretive pieces
- Create a walking tours program and schedule (each partner to create program)

Rough Order of Magnitude Cost: \$5,000 for planning efforts

D.2 Eidson Mill Historical Signage / Art

As part of the branding, wayfinding signage, and interpretive signage / art projects (A.1, A.2, A.5), partner with Buckhead Heritage to add an interpretive, historical piece about the Eidson Mill property. Add accompanying description on BHNP interpretive signage.

- Partner with Buckhead Heritage and the City of Atlanta
- Install interpretive piece and accompanying signage at Eidson Mill as prioritized in the plan

Rough Order of Magnitude Cost: \$10,000 to \$15,000 for installation

D.3 Native American Historical Signage / Art

As part of the branding, wayfinding signage, and interpretive signage / art projects (A.1, A.2, A.5), partner with Buckhead Heritage to add an interpretive, historical piece about the Native American history on the site and in the Atlanta area. This piece should be located in the wooded area near Nancy Creek and the City of Atlanta Sewer Tunnel Shaft.

- Partner with Buckhead Heritage and the City of Atlanta
- Install interpretive piece and accompanying signage in this location as prioritized in the plan

Rough Order of Magnitude Cost: \$10,000 to \$15,000 for installation

D.4 Moore Properties on Emma Lane – Historic Designation and Signage / Art

As part of the branding, wayfinding signage, and interpretive signage / art projects (A.1, A.2, A.5), partner with Buckhead Heritage to add an interpretive, historical piece about the Moore Estate.

- Partner with Buckhead Heritage and the City
- Install interpretive piece and accompanying signage on Moore property as prioritized in the plan

Rough Order of Magnitude Cost: \$10,000 to \$15,000 for installation

D.5 Historical Walking Tours and Programming

BHNP can partner with Buckhead Heritage and other organizations involved in Atlanta's history to provide walking tours through the Preserve and offer classes and workshops.

- Identify potential partners
- Establish official partnerships with each group
- Create programming for education and schedule (each partner to create program)
- Add walking tours and historic programming to the BHNP schedule

Rough Order of Magnitude Cost: \$500 to \$1,000

E.1 Reimagine Boat Dock at Emma Wetlands as Overlook & Interpretive Space (See also E.4 and E.5)

Rebuild the Emma Wetlands former boat dock on the Moore Estate and make it flexible for multiple purposes. Use this space as an overlook, interpretive space, field education center, and location for additional programming. Mark this area with branded signage.

- Create a plan for the restoration of the dock
- Identify funding sources and potential partners
- Construct the dock

Rough Order of Magnitude Cost: \$40,000 to \$50,000

E.2 Nature and Field Education Plan for BHNP (See also E.4 and E.5)

Develop a nature and field education plan for the preserve. The following projects (E.3 – E.5) are implementation projects for specific elements in this plan. Add centers at Emma Wetland Boat Dock (E.4), Land O' Lakes (E.5), Lakemoore Overlook (E.4), Woodland Loop at TreeTop Quest (E.4).

- Identify locations for play areas and nature-based activities
- Identify ways these locations can enhance the educational programming
- Identify locations for field education centers for whole Preserve (in addition to those on the Master Plan)
- Create a plan for locations and construction schedule for whole Preserve
- Create educational programming for each center

Rough Order of Magnitude Cost: \$5,000 if additional planning is needed

E.3 Nature-based Play Activities

Add play activities that promote direct access to the natural features, enhance the educational programming, and allow children to play in exciting and interactive ways. Mark these areas with branded signage.

- Partner with Boy Scouts or other volunteer groups to construct as needed
- Construct the areas as prioritized in the plan
- Add signage

Rough Order of Magnitude Cost: \$500 to \$1,000

E.4 Field Education Gathering Place at Emma Wetland Boat Dock, Lakemoore Overlook, Woodland Loop at TreeTop Quest

Create Field Education Centers throughout the Preserve that allow people to learn about wildlife, plants, and ecosystems directly in nature. Centers will be gathering spaces that are flexible for a variety of lessons and could contain kiosks with activity materials. One location could be the boat dock at Emma Wetland.

- Establish funding source
- Partner with Boy Scouts and other volunteer groups as needed to construct
- Construct the centers as prioritized in the plan
- Add kiosks and activity materials

Rough Order of Magnitude Cost: \$5,000 to \$10,000

E.5 Field Education Gathering Place at Land O' Lakes Property

Create Field Education Centers throughout the Preserve that allow people to learn about wildlife, plants, and ecosystems directly in nature. Centers will be gathering spaces that are flexible for a variety of lessons and could contain kiosks with activity materials. One location could be at the Land O' Lakes property. This center will re-use the existing

garage structure as a classroom or storage area. Use this space to serve Sarah Smith Elementary School students, and other APS and local schools.

- Establish funding source
- Partner with Boy Scouts and other volunteer groups as needed to construct
- Rehabilitate the existing garage structure for pre-determined use as a classroom or storage, as described in “3931 Land O Lakes Building Plans” document
- Construct the center as prioritized in the plan
- Add kiosks and activity materials

Rough Order of Magnitude Cost: \$5,000 to \$10,000

E.6 Community Garden Entrance Improvements (Parking Area)

The parking area near the Community Garden currently floods and retains water. The system was supposed to allow infiltration, but it does not work effectively. Make parking area enhancements that involve either the reconstruction of the current system or the construction of a concrete or asphalt parking lot.

- Test the effectiveness of the current system if it is upgraded
- Determine parking capacity requirements
- Determine if upgrading the system or constructing a new lot is more effective
- Establish funding source
- Design the new lot and upgrades
- Construct the lot

Rough Order of Magnitude Cost: \$5,000 to \$8,000

Projects E.7 to E.12 complement each other and address multiple needs for the Audubon Society and BHNP as they grow.

E.7 4055 Roswell Road ADA Access (1st and 2nd Floor)

The existing building at 4055 Roswell Road does not offer ADA access. Add an entrance on Rickenbacker (open the fence and make a clear path) to allow ADA access to the second floor and the Audubon Society. Install a ramp to the current building entrance for ADA access to the first floor.

- Identify funding
- Design ramp for first floor entrance
- Install ramp for first floor entrance
- Design pathway and entrance from Rickenbacker
- Construct pathway and entrance from Rickenbacker

Rough Order of Magnitude Cost: Walkways \$10,000 / Ramp \$10,000 - \$15,000

E.8 4055 Roswell Road Existing Bathroom Improvements (See also E.9)

The existing building at 4055 Roswell Road has one bathroom on the second floor, and children’s restrooms on the first floor. The Audubon Society plans to add more employees and will need more restrooms. If the Little Da Vinci School relocates, upgrade the bathrooms to adult-sized facilities. An addition to the building could also provide more facilities that would be accessible for visitors to the Preserve.

- Establish funding for preferred option (building addition, school restroom upgrade)
- Reconfigure the children’s bathrooms if the school relocates
- Design building addition
- Construct building addition

Rough Order of Magnitude Cost: Feasibility study \$5,000 / Design \$8,000 to \$10,000 / Construction \$130 per SF

E.9 4055 Roswell Road Building Reconfiguration for BHNP and Audubon (See also E.8)

The existing building at 4055 Roswell Road needs renovations and reconfiguration as the Audubon Society and BHNP add more employees and programming. The Little Da Vinci School may relocate, so more space would be opened for the Audubon Society and BHNP. Each organization needs more space for meeting rooms, classroom space, and offices. Capture space from the school and the entrance lobby on the first floor to address some of the space needs. A building addition may be necessary. Projects E.7 and E.10 provide an official gateway to the Audubon Society from Rickenbacker for visiting birds.

- Establish funding for preferred option (building addition, building reconfiguration)
- Design building addition or reconfiguration

- Construct building addition or reconfiguration

Rough Order of Magnitude Cost: \$90,000 to \$130,000 per SF

E.10 4055 Roswell Road Building New Back Entrance from Rickenbacker

The existing building at 4055 Roswell Road has a fenced former entrance to the building from Rickenbacker. Open the entrance and add a walking path, gathering space, garden, and overlooks (E.12) to create a grand entrance for the Audubon Society and BHNP. If the Little Da Vinci School remains a tenant, the entrance provides a stronger presence for the Audubon Society and allows a separate entrance to both organizations that does not require the same security measures as the current entrance from the parking lot.

- Establish funding for entrance
- Partner with Boy Scouts or other volunteer groups as needed
- Design the back entrance and establish a schedule
- Construct the entrance
- Construct the pathway, overlooks, and gateway enhancements

Rough Order of Magnitude Cost: \$20,000 to \$25,000

E.11 4055 Roswell Road Building Energy Efficiency Improvements

Make energy efficiency enhancements to the existing building at 4055 Roswell Road in conjunction with building renovations and additions.

- Complete energy audit (potentially partner with Enterprise Innovation Institute at Georgia Tech)
- Establish funding for energy efficiency improvements
- Design the improvements and establish a schedule
- Construct in conjunction with other building improvements

Rough Order of Magnitude Cost: TBD from energy audit

E.12 ADA Compliant Building Entrance from Rickenbacker Drive with Pond Overlook

Open the Rickenbacker entrance to the 4055 Roswell Road Building and add an ADA-accessible pathway that includes overlooks fronting the Blue Heron pond to give visitors and employees a gathering space with viewing access to wildlife and habitat.

- Establish funding for pathway and overlook
- Design the pathway and overlook
- Partner with Boy Scouts or other volunteer groups as possible for construction
- Construct the pathway and overlook

Rough Order of Magnitude Cost: \$20,000 to \$50,000

E.13 Gathering Spaces Throughout Preserve (Benches, Picnic Tables)

Add gathering spaces of varying sizes in appropriate locations throughout the Preserve. With planned locations, partner with Boy Scouts and other organizations willing to donate time and labor to construct projects. Design the gathering spaces to range in size from small enough for an individual to large enough to accommodate classes and workshops.

- Identify gathering space locations (in addition to those shown on Master Plan)
- Establish funding
- Partner with Boy Scouts or other volunteer groups as possible for construction
- Construct the spaces as prioritized in the plan

Rough Order of Magnitude Cost: \$2,000 to \$10,000

E.14 Outdoor Restrooms

No restrooms exist in the Preserve, except for the ones in the 4055 Roswell Road Building. Add small restroom buildings in different locations in the Preserve. These will require additional maintenance, staffing, and security measures, potentially with restricted access during the hours that the Preserve is closed.

- Create a plan locating both temporary and permanent bathroom
- Devise a plan for maintenance, staffing, security
- Establish funding
- Construct the bathrooms as prioritized in the plan

Rough Order of Magnitude Cost: \$20,000 to \$30,000

E.15 Develop Additional Parking Opportunities

The current parking facilities at the Preserve may not be enough to accommodate growth and additional activities and events. Establish partnerships with nearby businesses and facilities, such as the nearby shopping center and Sarah Smith Elementary, to allow shared parking during specific hours. Encourage visitors to park on the neighborhood streets and walk into the Preserve. These partnerships would allow BHNP to accommodate the addition of events and activities and the growth of the Audubon Society without destroying more habitat for the creation of new parking spaces.

- Create a shared parking agreement with the nearby businesses and organizations
- Encourage visitors to park in these lots for specific events, during specific times (add information to website)
- Encourage visitors to park on the street nearby (add information to website)

Rough Order of Magnitude Cost: \$2,500 per new parking space

E.16 Private Event Rental

Host private event rentals, such as family reunions, small weddings, and company functions. Use the revenue to fund other capital projects and programming. Allow users to rent the conference room, parking lot, or specific gathering spaces in the Preserve for their events.

- Devise a space plan and schedule for private events (which spaces are rentable, when the spaces can be rented, how much will they cost)
- Create a plan for the revenue stream
- Advertise the event rental possibilities

Rough Order of Magnitude Cost: N / A

E.17 Memorials

BHNP has received multiple requests from people throughout the years to memorialize loved ones, demonstrating a need to create a policy for this purpose. Provide a location to disperse ashes and have one centralized location to add names or some way to commemorate the person. The policy should be strict and enforced, to prevent the creation of a cemetery. Use donations or required fees as a revenue source to fund other capital projects and programming.

- Find a location within the Preserve suitable for this purpose
- Create an enforceable plan and policy
- Create a plan for the revenue stream
- Advertise memorial possibilities

Rough Order of Magnitude Cost: \$5,000

E.18 Pop-Up Shop for Audubon and Blue Heron

Add a pop-up shop in the Roswell Road building or a temporary shop in the parking lot during events. This shop could serve as an attraction to visiting birders who choose to visit the Audubon Society and Preserve. Sell art by local artists, or other memorabilia to create another revenue source to fund capital projects and programming.

- Determine if temporary or permanent shop is appropriate
- Identify the appropriate location within the building
- Establish funding source
- Identify items to sell / vendors
- Design the store as appropriate
- Purchase rolling store to display items

Rough Order of Magnitude Cost: \$2,500

E.19 Easements from Property Owners for Access – 1 Emma Lane

In addition to acquiring additional land, request easements and rights-of-access through adjoining properties to expand wildlife corridors and pathways for visitors to access the Preserve. Denote the easements with small signage that matches the wayfinding signage and branding noted in the (A. Art) Projects.

- Identify appropriate locations for easements or rights of access
- Create a plan for establishing the easements and rights of access
- Approach property owners for properties as prioritized in the plan
- Coordinate with the City to create official easements / rights of access
- Create signage and add to the gateways
- Add easements to the site map and wayfinding maps

Rough Order of Magnitude Cost: \$2,500

E.20 Soft Trails and Boardwalks through BHNP [connecting BHNP properties and installing Lakemoore Drive crossing]

Construct paths through the Preserve noted in the 2008 and 2015 Master Plans and add new trails where appropriate, such as through the Emma Wetlands and in the new Land O' Lakes Property. Construct the paths through BHNP resources as available and continue partnerships with the Boy Scouts to build specific pieces. With a plan in place, the Boy Scouts can have more directed projects that help BHNP continue their goals. The trails will facilitate connections to nearby (and future) trail networks, such as the potential PATH trails, and add a direct connection to Sarah Smith Elementary (E.21). Integrate gathering spaces and overlooks with the trails (E. 12 and E.13).

- Identify appropriate locations for new trails and create a plan
- Identify key water crossings: TreeTop Quest, Blue Heron Pond overlook, Mill Dam Crossing
- Establish funding for trails as prioritized in the plan
- Partner with Boy Scouts and other volunteer organizations as appropriate
- Construct paths and creek crossings as funding is acquired and as prioritized in the plan

Rough Order of Magnitude Cost: Boardwalk \$50 per SF / Soft Trails \$3.00 per SF

E.21 Trail Connection to Sarah Smith Elementary

Construct a trail connection to Sarah Smith Elementary through the Land O' Lakes property and allow additional access for students at the parcel frontage on Land O' Lakes Drive. The trail will physically and programmatically connect BHNP and Sarah Smith Elementary. Education is an important component for BHNP and the trail facilitates a partnership between the Preserve and the school. Students could take field trips or have classes at the Preserve and have safe access via the trail and / or a wider sidewalk and entrance gateway on Land O' Lakes Drive. Either location is an opportunity for the trail to be a concrete connection part of the PATH network, if desired by both BHNP and PATH (E.22).

- Identify appropriate location for the trail connection(s) between the school and BHNP
- Decide which material the trail should be
- Establish funding for trail (PATH, Atlanta Public Schools, City of Atlanta)
- Partner with Boy Scouts and other volunteer organizations as appropriate
- Construct path(s) when funding is acquired

Rough Order of Magnitude Cost: Hard Trail \$8.00 per SF / Soft Trails \$3.00 per SF

E.22 PATH Trail Connection to BHNP

Partner with PATH to create a portion of the trail network through the Preserve. PATH could coordinate to create "softer" trails through the Preserve, or BHNP could allow a portion of a larger boardwalk trail to enter the property, such as the connection to Sarah Smith Elementary. The PATH trail should not run through the Preserve completely, and should use construction techniques that are light on the land, preserving the natural character of the surroundings. The PATH trail should go on surrounding streets and include "jumping off points" and gathering spaces that provide less intrusive access to the Preserve for pedestrians and cyclists (E.23 and E.24).

- Identify appropriate location for the PATH trail and connections to BHNP
- Establish funding for trail (PATH, City of Atlanta, private donations)
- Construct path(s) when funding is acquired

Rough Order of Magnitude Cost: PATH Foundation to cover cost

E.23 PATH Trail adjacent to BHNP with Preserve Access to PATH 400 and BeltLine

Add a PATH trail on surrounding streets and include "jumping-off points" and gathering spaces that provide less intrusive access to the Preserve for pedestrians and cyclists. These access points should include bike racks for cyclists. The trail could change forms as it weaves through the North Buckhead neighborhood (multi-use trail, cycle track, soft trails, etc.).

- Identify appropriate location for the PATH trail and connections to BHNP
- Identify streets and materials for PATH trail
- Establish funding for trail (PATH, City of Atlanta)
- Construct path(s) when funding is acquired

Rough Order of Magnitude Cost: PATH Foundation to cover cost

E.24 PATH Trail to Chastain Park (including Roswell Road Crossing)

Add PATH trail on surrounding streets and include "jumping-off points" and gathering spaces that provide less intrusive access to the Preserve for pedestrians and cyclists. The trail could change forms as it weaves through the North Buckhead neighborhood (multi-use trail, cycle track, soft trails, etc.). Link soft trails within the Preserve with the PATH trail, and provide a safe crossing on Roswell Road. Additional PATH trails west of Roswell Road would connect to Chastain Park and

complete the trail network between the BHNP, Chastain Park, and PATH 400 / Atlanta BeltLine.

- Identify appropriate location for the PATH trail to Chastain Park and connections to BHNP
- Identify the Roswell Road crossing location
- Establish funding for trail (PATH, City of Atlanta)
- Construct path(s) when funding is acquired

Rough Order of Magnitude Cost: PATH Foundation to cover cost

E.25 BHNP Wayfinding Signage (City of Atlanta Signage)

Partner with the City to enhance the wayfinding in the surrounding area to the Preserve on the City's signage. This would provide greater community visibility for the Preserve.

- Identify appropriate signage locations
- Identify existing signage that could be modified with BHNP wayfinding
- Coordinate with the City to add BHNP wayfinding

Rough Order of Magnitude Cost: City of Atlanta to cover cost

E.26 Maps of Trails for Wayfinding within the Preserve

Partner with artists to create wayfinding maps to install throughout the Preserve to allow visitors to see and understand the trail network and the activities and places available for them to use within the Preserve.

- Identify appropriate locations in the Preserve to install wayfinding maps
- Find funding for design fees for artist(s)
- Establish partnerships with local artist(s)
- Ensure that the design matches the brand established in the (A. Art) Projects
- Establish funding for materials and installation
- Fabricate and install wayfinding signage throughout the Preserve as prioritized in the plan

Rough Order of Magnitude Cost: \$1,500 per sign

E.27 Interpretive Signage (Buckhead Heritage) & Historical Walking Tours & Programming

In addition to using BHNP's existing wilderness graphics, partner with Buckhead Heritage to add interpretive signage throughout the Preserve that describes history, habitats, wildlife, plants, etc. (similar to projects D.2 to D.4).

- Partner with Buckhead Heritage and the City of Atlanta
- Create an overall plan for interpretive signage and art throughout the site
- Prioritize locations for the addition of the interpretive pieces based on the interpretive plan (D.1)
- Install interpretive piece and accompanying signage

Rough Order of Magnitude Cost: See D.1 and D.2

E.28 Interpretive Kiosks

Partner with artists to reimagine how kiosks look and function, which would create a unique identifier for the Preserve. These kiosks can contain information about history and nature, supplement the field education centers, and serve as storage locations for materials used in the educational programming and workshops.

- Determine appropriate locations within the Preserve to locate kiosks
- Establish funding for design and artist fees
- Establish partnerships with local artists and designers
- Establish funding for materials and installation
- Fabricate and install kiosks throughout Preserve as prioritized

Rough Order of Magnitude Cost: \$2,500 to \$5,000 each kiosk

E.29 Tree Top Quest

Continue coordination for the Tree Top Quest, which will be located adjacent to the parking lot. Add a field education center and play activities within the tree tops. Offer parking and restroom accommodations (Projects E.14 and E.15). Tree Top Quest may provide portable bathroom facilities during the times the facility is open.

- Plan TreeTop Quest
- Create parking and bathrooms plan
- Create education and play programming
- Determine revenue stream
- Establish funding

- Construct the TreeTop Quest

Rough Order of Magnitude Cost: TreeTop Quest to cover cost

E.30 Sidewalks on Lakemoore Drive (NBCA Master Plan)

The North Buckhead Community Association Master Plan recommends a complete street for Lakemoore Drive, which would include an enhanced crosswalk at Rickenbacker, traffic calming measures, and the addition of sidewalks. The NBCA calls for the addition of sidewalks on one side.

- Coordinate with adjacent property owners, the City of Atlanta, North Buckhead Neighborhood Association
- Acquire right-of-way as needed (City of Atlanta)
- Secure funding source (City of Atlanta)
- Install sidewalks

Rough Order of Magnitude Cost: \$7.00 per SF

E.31 Traffic Calming on Lakemoore Drive (NBCA Master Plan)

The North Buckhead Community Association Master Plan recommends a complete street for Lakemoore Drive, which would include an enhanced crosswalk at Rickenbacker, traffic calming measures, and the addition of sidewalks. Traffic calming will use design elements to reduce the speed of vehicular traffic and prioritize pedestrians.

- Coordinate with adjacent property owners, the City of Atlanta, North Buckhead Neighborhood Association
- Determine the proper traffic calming measures by following City of Atlanta protocol
- Obtain support from adjacent property owners
- Secure funding source (City of Atlanta)
- Install selected methods of traffic calming

Rough Order of Magnitude Cost: \$2,000 to \$8,000 each

E.32 Learning Garden at Land O' Lakes Property

Create a Learning Garden at the Land O' Lakes property, as a potential partnership with Sarah Smith Elementary School. The garden can be used for plant propagation and as a food source for Sarah Smith Elementary School.

- Finish demolition of existing structures, per current plans
- Secure funding for garden construction
- Form partnership with Sarah Smith Elementary and / or the Atlanta Public Schools (APS)
- Obtain materials and potentially partner with volunteer groups to construct the garden
- Allow students and teachers to use the garden for learning
- Potential for providing food to the school, as other APS schools have done

Rough Order of Magnitude Cost: \$10,000 to \$50,000

E.33 Education Space (Building) (Combine with E.36)

As part of the building renovations, provide enough space for additional educational programs and classes. If the current school leaves the BHNP building, potentially re-use their space for educational purposes specific to BHNP and AAS.

- Establish funding for preferred option (building addition, building reconfiguration)
- Design building addition or reconfiguration
- Construct building addition or reconfiguration

Rough Order of Magnitude Cost: \$120 per SF

E.34 Education Transportation

Purchase a van to transport supplies and students to different parts of the Preserve and to other sites throughout the City.

- Establish and secure funding (apply for a grant)
- Choose type and size of van
- Purchase the van

Rough Order of Magnitude Cost: \$30,000

E.35 Children's Sensory Garden

Expand the existing community garden with a few more plots to create a children's sensory garden for educational and mental health purposes.

- Ensure expansion is permitted per the Memorandum of Understanding with the City of Atlanta Department of Watershed Management
- Secure funding for garden construction

- Obtain materials and potentially partner with volunteer groups to construct the garden

Rough Order of Magnitude Cost: \$10.00 per SF

E.36 Teaching Staff (Combine with E.33)

Add a teacher to the part-time or full-time staff at BHNP to organize and handle the educational programming.

- Determine the needs for a teacher (part- or full-time)
- Determine the teacher's responsibilities
- Secure funding source (grant or revenue stream)
- Interview and hire a teacher

Rough Order of Magnitude Cost: TBD

E.37 Staffing - Communications Specialist, Volunteer Coordinator, Contract Teachers

Hire a communications and promotions specialist to create BHNP branding, create and promote events, handle social media accounts, update the website, and other duties related to communications and marketing. Hire a volunteer coordinator to schedule volunteer events, recruit regular volunteers, and expand the volunteer network of BHNP.

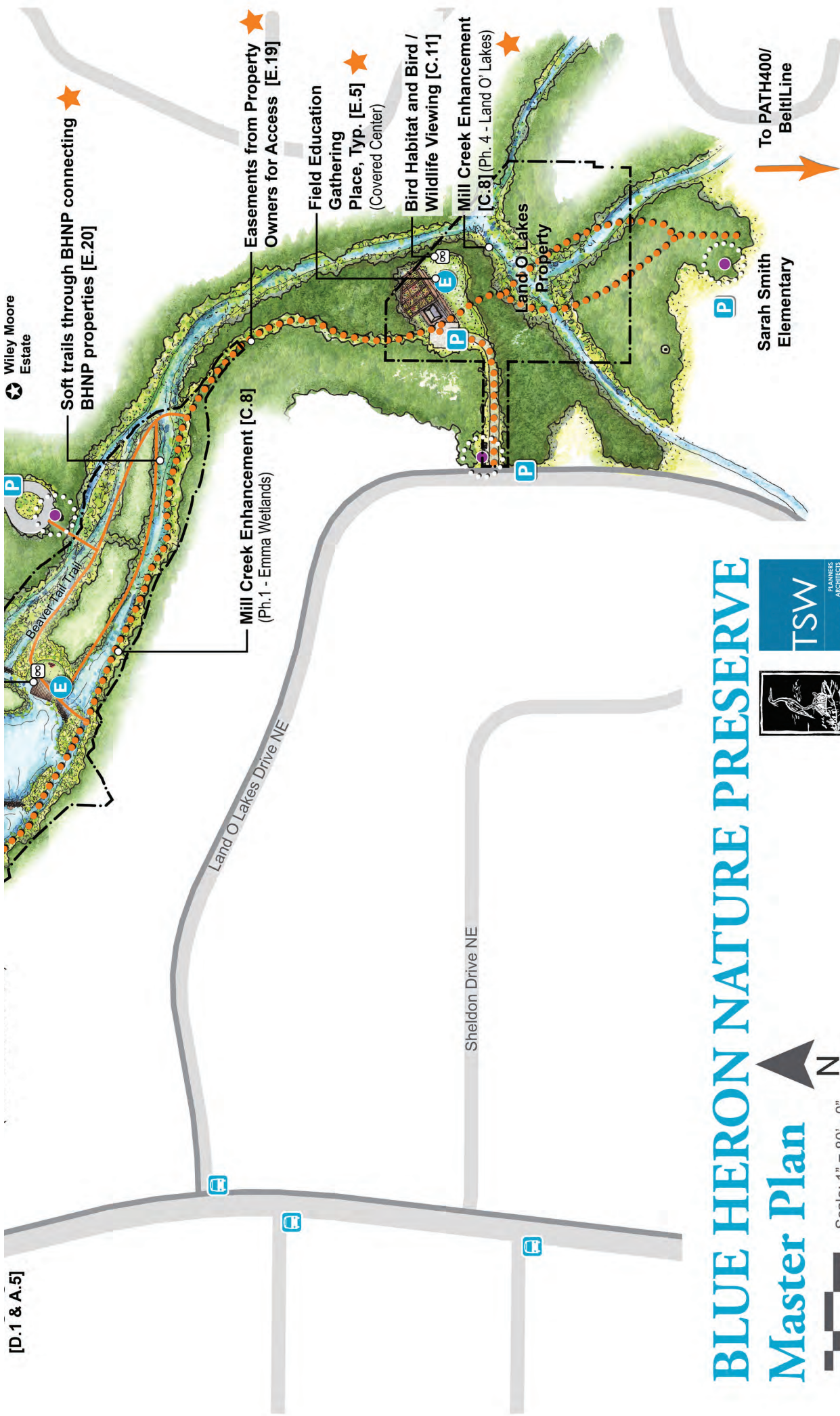
- Determine the needs for a communications specialist and volunteer coordinator (contract, part-, or full-time)
- Determine the specialist's and coordinator's responsibilities
- Determine the needs for contract teachers
- Secure funding source (grant or revenue stream)
- Interview and hire for all positions

Rough Order of Magnitude Cost: TBD

Legend

- BHP Property Line
 - - - City of Atlanta Property
 - Waterways
 - Important Existing Sidewalk Connection
 - Existing Trails
 - Proposed Trails
 - PATH Trail Connection
 - Wildlife Corridor
 - Wayfinding Sign & BHP Entrance
 - MARTA Bus Stop
 - Parking Area / On-street Parking
 - Wildlife / Bird Viewing
 - Historic Site
 - Field Education Center
 - Top 10 Priority Project
- **Star shown on one occurrence for those with duplicative projects





BLUE HERON NATURE PRESERVE

Master Plan



Scale: 1" = 80' - 0"