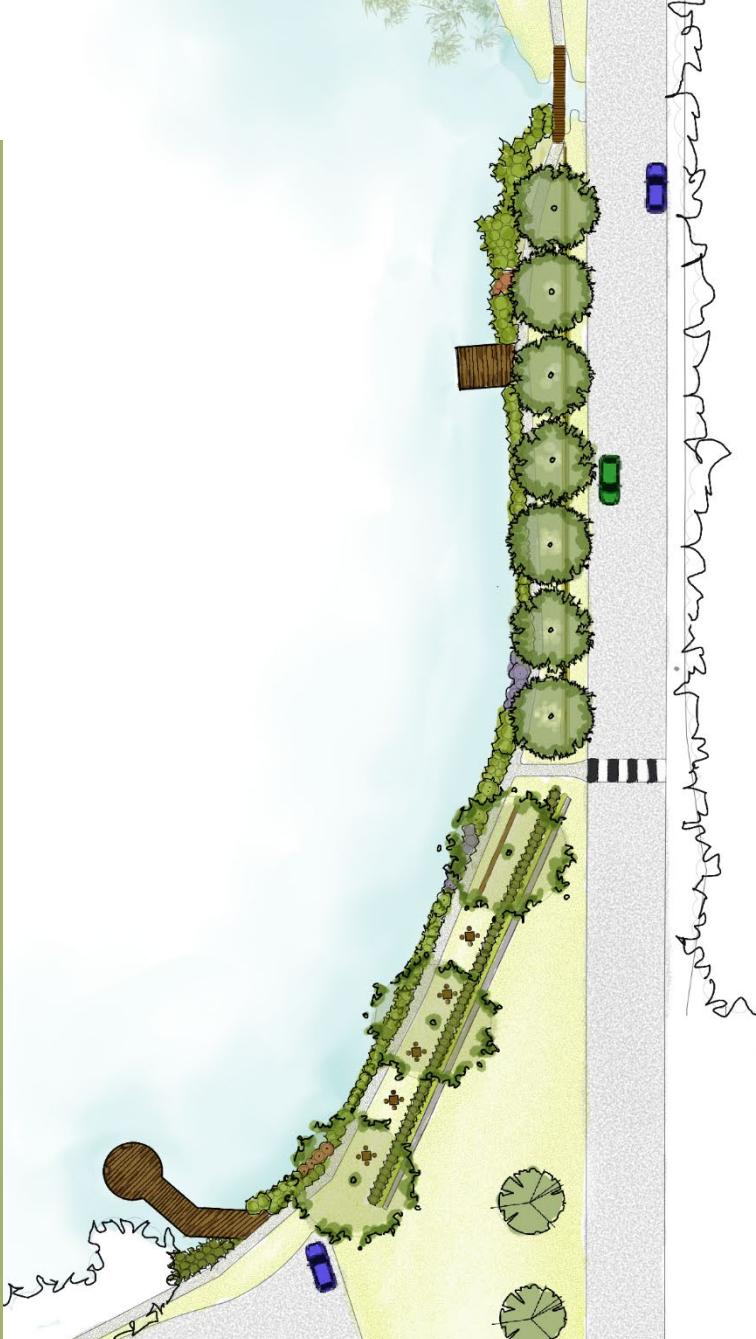


Rocky Brook Reservoir & Tri-Pond Park

Conceptual Site Master Plan

JULY 16

*Prepared for the town of South Kingstown Parks and
Recreation Department
by the URI Regenerative Community Design Lab*



Project funding provided in part by the Rhode Island Department of Environmental Management, Urban and Community Forestry Program, and a Coastal Fellowship through the University of Rhode Island College of Environment Life Sciences, in cooperation with the URI Regenerative Community Design Lab in the Department of Landscape Architecture Program.



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COLLEGE OF
THE ENVIRONMENT
AND LIFE SCIENCES

Project Team

The following team members were part of the URI Regenerative Community Design Lab (RCDL) that developed conceptual green space plans for several Rhode Island communities, aimed at conserving, enhancing, connecting, and protecting their community natural resources.

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Disclaimer: The drawings in this report are conceptual and were prepared to show approximate location and arrangement of site features. They are subject to change and are not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The URI RCDL is not responsible for the inappropriate use of these drawings.

Acknowledgements

The URI RCDL team would like to acknowledge the following individuals for their contributions and support throughout the project:

Rex Eberly | Parks Superintendent
South Kingstown, Rhode Island

John Biafor | Member
South Kingstown, Recreation Commission

Joanne Blessing | Member
South Kingstown, Recreation Commission

William Litvin | Vice Chairperson
South Kingstown, Recreation Commission

David Palazzetti | Chairperson
South Kingstown, Recreation Commission

Sean Johnson | Member
South Kingstown, Recreation Commission

And all those who volunteered their time for the betterment of the Town of South Kingstown.

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Part 1

Introduction and Background

Background

In 1969, the Wakefield Water Company donated an area known as Tri-Pond Park to the Town of South Kingstown. The park included three ponds (California Jims, Asa Pond and Rocky Brook) and a total of 99 acres. The deed required that the Town of South Kingston use the land for recreation and conservation.

In 1973 the town commissioned the development of a master plan for the park and in 1977 the Youth Conservation Corps started construction on the nature trails. In 1988 the South Kingstown Conservation Commission asked the Parks and Recreation Department to assume maintenance of the park. Currently, the Parks and Recreation Department maintains 1.5 acres of the 99-acre park.

Unfortunately, in 1988, Hurricane Bob devastated the trail system that had been constructed by the Youth Conservation Corps 10 years prior. Town residents Ed and Ruth Stewart led a group of volunteers to re-establish the trail systems in 1990 and most of the bridges were replaced in the 2001-2002 timeframe.

Project Description

Located along Kingston Road, which is the main thoroughfare into and out of Peace Dale, Rocky Brook Reservoir is the most visible of the three ponds. It is also bordered on the southeast by Dam Road. The Town of South Kingstown Parks and Recreation Department asked the team to focus on the Rocky Brook Pond and its surrounding area with particular attention to addressing:

- the existing parking area
- the connection between the existing parking area and the grassy area near Dam Street
- the grassy area itself and making it less of an eye sore

Design Summary

The URI RCDL team met with Rex Ebelry, Parks Superintendent for the town of South Kingstown on June 4, 2024, for the initial site visit. Mr. Ebelry conducted a tour of the site, providing his goals for the project and specific areas for the project focus. Mr. Ebelry also expressed one additional objective. He explained to the team that while the town had many parks and green spaces, the majority were located closer to the town center where housing prices tended to be higher. Directly across from Rocky Brook Reservoir is an affordable housing development. With these residents in mind, he cited the importance of investing in high quality green spaces throughout the town so that all areas and populations have access to beautiful places.

Thereafter the team conducted a comprehensive site analysis to understand the constraints and opportunities, the story of Rocky Brook and the surrounding area, as well as the plants and wildlife that call the site home.

Two preliminary conceptual designs for the Rocky Brook Reservoir were developed based on the input from Mr. Eberly, site photos, municipal GIS resources, Google Earth images, historic records and additional time spent by the team walking the trails of the Tri-Pond Park.

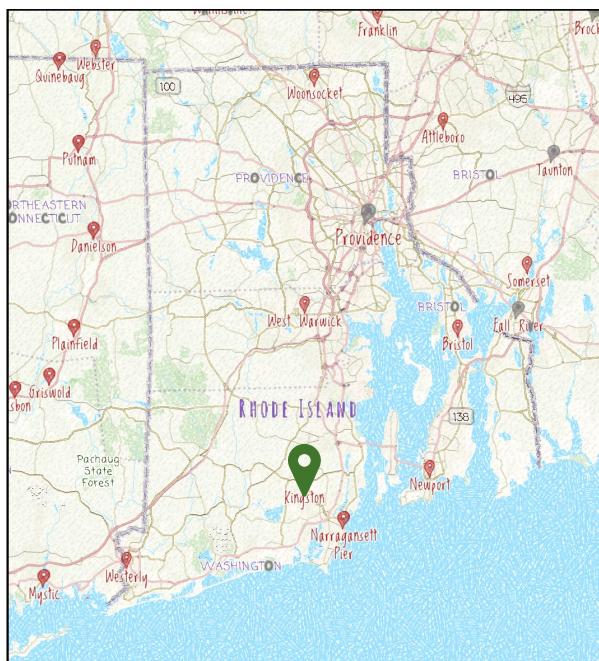
The RCDL team presented the two preliminary design concepts to the South Kingstown Recreation Commission at the South Kingstown Recreation Center on June 17, 2024, during their monthly meeting. During the presentation, the stakeholders provided feedback on the design elements they preferred in the two conceptual plans.

After receiving and analyzing their feedback, the URI RCDL spent the following weeks refining the final plan to incorporate the design elements preferred by the community stakeholders. The team also conducted research on the best plant species to include in the final planting plan and appropriate materials for use throughout the plan based on RIDEM preferences. Using this research and a review of precedence from other similar sites, the URI RCDL presented the final design concept to the South Kingstown Recreation Commission at the South Kingstown Recreation Center on July 15, 2024, during their monthly meeting. Each area of the plan was illustrated on individual 24 x 36 design boards, allowing the team to go into greater detail about each section of the plan. The team also delivered the final report to Mr. Eberly and left each commission member with hard copies of the plan and presentation boards.

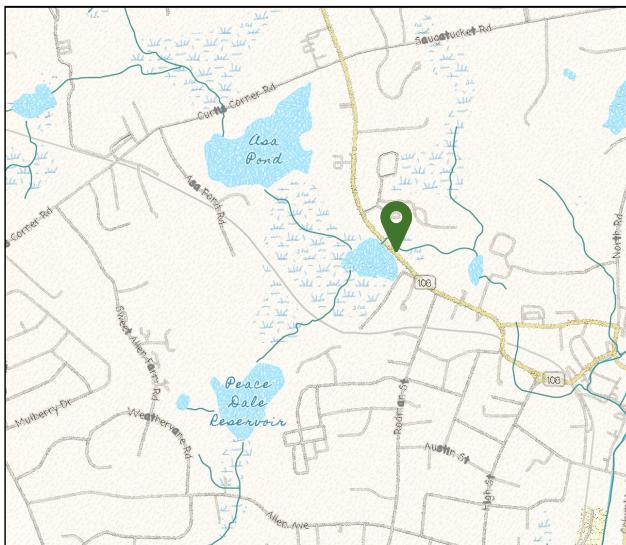
Meeting notes from the initial and final conceptual design presentations can be found in the appendix.

Project Location

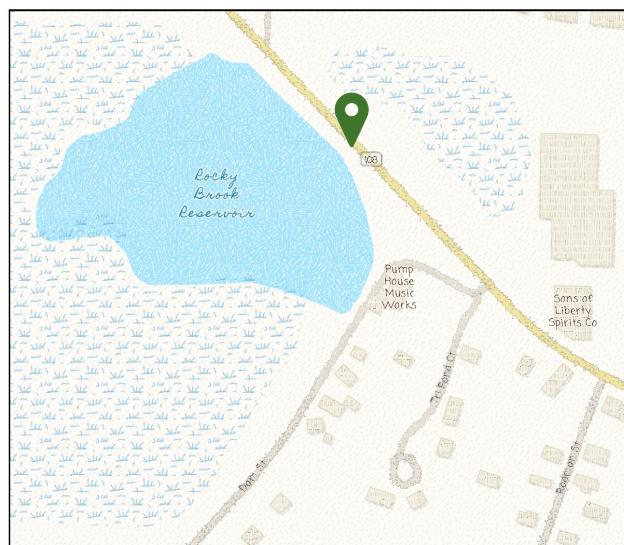
Rocky Brook Reservoir is located along Route 108 in the Town of South Kingstown Road Island.



South Kingstown, RI



Tri-Pond Park



Rocky Brook Reservoir

Part 2

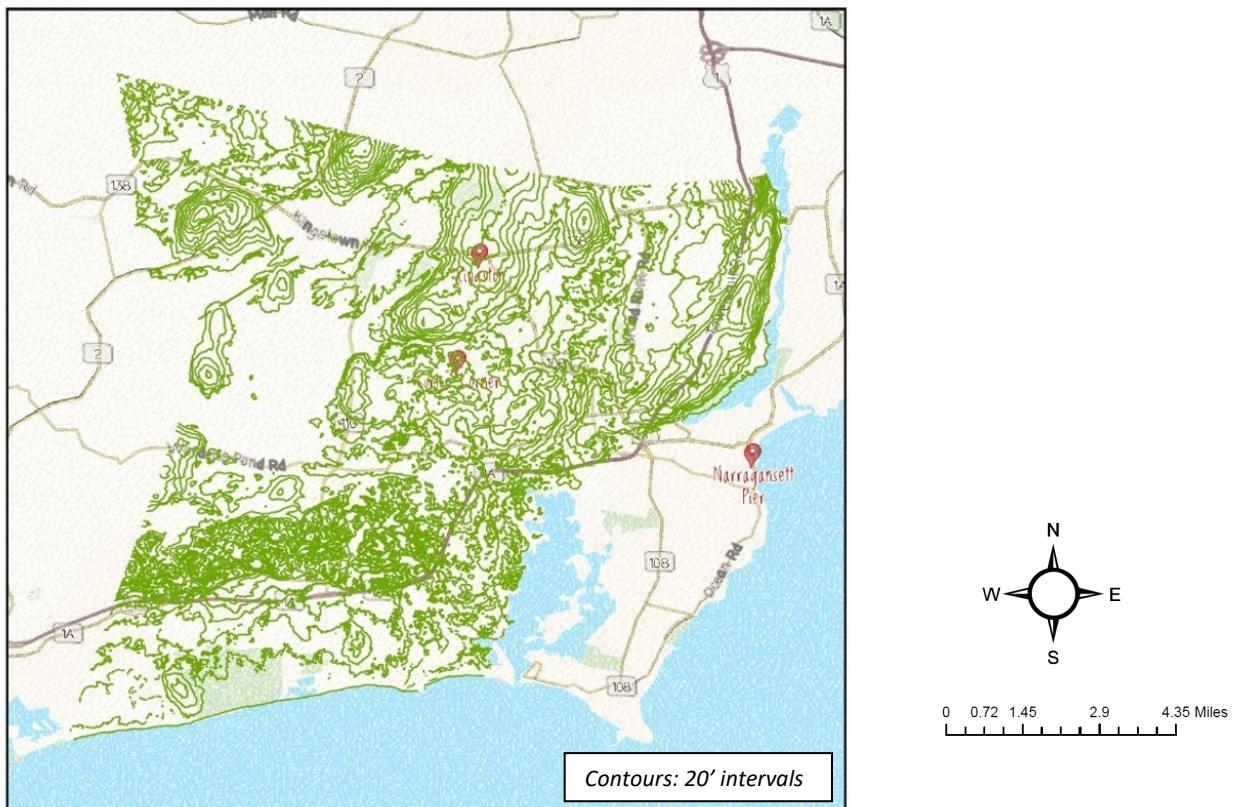
Inventory and Analysis

Site Inventory and Analysis

Prior to any design work, the URI RCDL team visited the site with Rex Eberly, Parks Superintendent for the town of South Kingstown, RI. Mr. Eberly showed the team around the site, providing his goals for the project and specific areas for the project focus. Thereafter the URI RCDL conducted a comprehensive site analysis to understand the constraints and opportunities, the story of Rocky Brook and the surrounding area, as well as the plants and wildlife that live within the area.

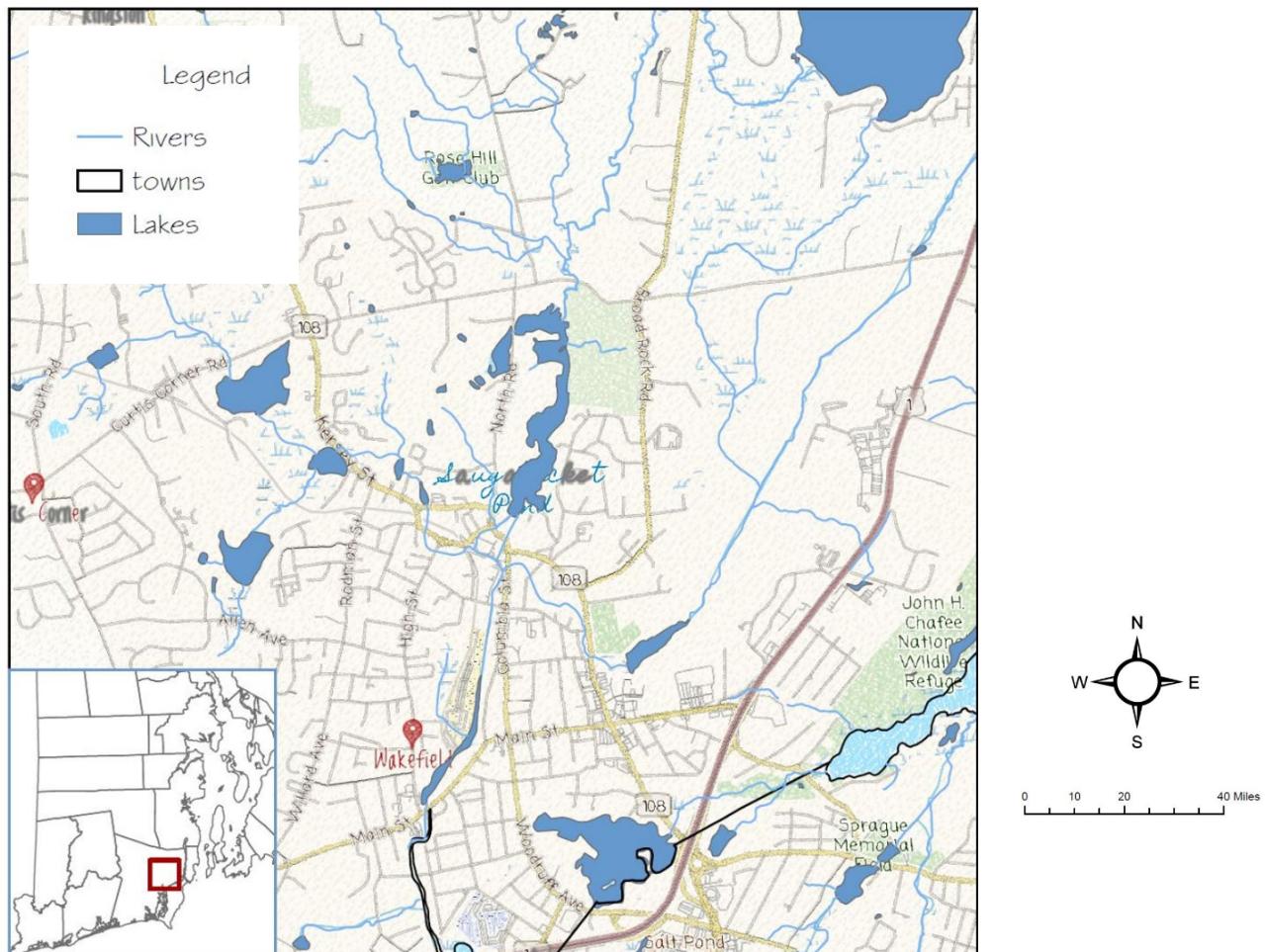
History

Rhode Island was formed thousands of years ago through major glacial activity. A large continental glacier left a trail of soil and rock as it moved southward. When the icesheet finally melted about 11,000 years ago, that trail of soil and rock remained and in geological terms is called a moraine. The Charlestown Moraine lies north of Route 1, and it defines the topography of this area.

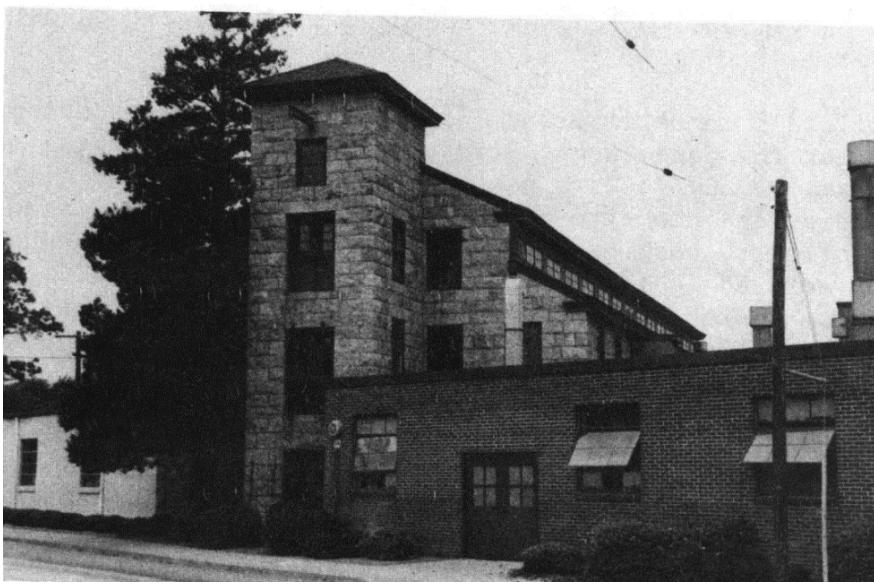


Contours in the South Kingstown area

What was also left after the glacial ice melted were irregular shaped depressions where large ice chunks used to be. In geological terms, those depressions are known as kettles. Kettle ponds dot the landscape throughout South Kingstown and helped to determine the settlement and use of the land. Because the waterways throughout the area were short in length, they weren't suitable for navigation, but they were perfect for harnessing power. Mill sites were developed along these ponds and communities grew.



Rivers and water features in South Kingstown



Rodman Mill (1847; 1853 et seq.): Kingstown Road, Rocky Brook Historic District

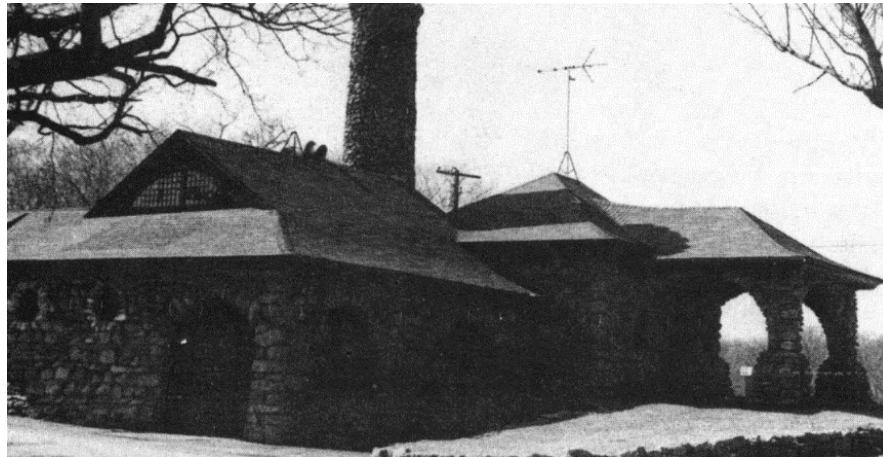
As a result of the landscape, there was considerable mill activity along Rocky Brook during the mid-19th century which offered settlers the potential to earn a decent living. Samuel Rodman was active during this time, starting his career managing several mills that were owned by the Hazard family, which was a major nineteenth-century mill-owning family in southern Rhode Island. Rodman purchased a 1,000-acre piece of the Hazard's ancestral

property which included Rocky Creek, a tributary of the Saugatucket River. Rodman built a masonry mill complex to include a 3-story, stone mill built in 1851 and a smaller mill built a short distance down Rocky Creek at the waterfall near Hopkins Lane in 1853.

Mill houses were also built in the village to support those settlers who worked at the mills and a church was erected in 1852. At the height of the mill's activity during the 1850's, Rocky Brook won praise in J. R. Cole's History of Washington County (1889) saying Samuel Rodman ...

"built pretty cottages for his operatives, made roads, set out trees and beautified the place until it became ... one of the thriftiest as well as one of the most picturesque villages in New England."

Unfortunately, the Rodman Mills fell on hard times with two of their mills being consumed by fire in the 1870's. By 1895, the remaining mill ceased operations and the millpond became a local reservoir with a cobblestone pumping station.



Pumping Station/The Pump House 1889: Kingstown Road, Rocky Brook Historic District

Plants and Wildlife

The front of the pond along Route 108 is planted with overgrown junipers. They are planted very close to the road and don't leave sufficient space for a pedestrian to walk from the parking turnoff, along the pond and over to Dam Street. The URI RCDL team was told that these plants could be removed in the final conceptual master plan. There are also many invasive plants that are growing in and around the pond, as well as throughout the trail system such as yellow iris, poison ivy and multiflora rose. There are other native plant species in the Tri-Pond Park including red maple, sweet pepperbush, goats' beard, sassafras, and various ferns.



Acer rubrum



Aruncus dioicus



Clethra alnifolia



*Iris pseudacorus -
(Invasive)*



Osmunda claytoniana



Sassafras albidum

In addition to a large variety of native plants, birders have also recorded over 100 bird species within the Tri-pond area to include, red winged blackbird, Canada goose, osprey, and mallard ducks. Currently, the pond does not provide adequate bird watching areas for visitors.



Agelaius phoeniceus



Branta Canadensis



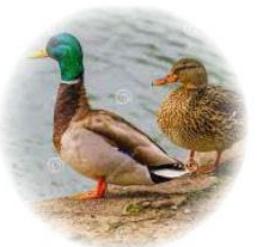
Viereo olivaceus



Melospiza melodia

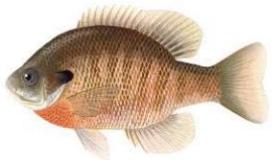


Pandion haliaetus



Anas platyrhynchos

The ponds are also home to a variety of fish as well. California Jim's Pond is stocked with rainbow trout and Asa Pond is a Department of Environmental Management designated fishing area.



Lepomis macrochirus



Salvelinus fontinalis



Oncorhynchus mykiss



Anisoptera



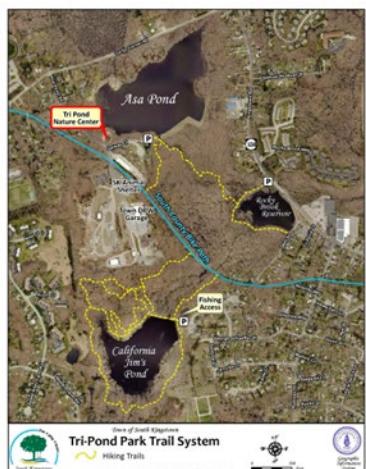
Esox



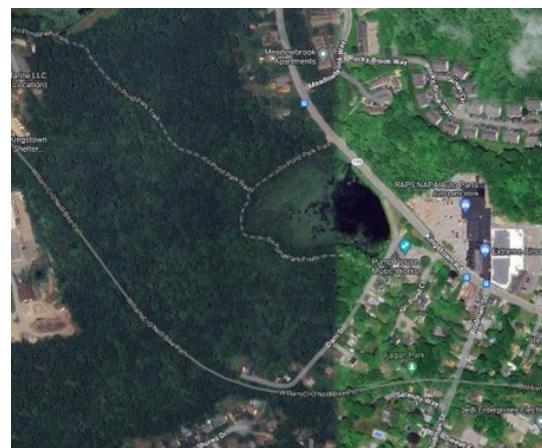
Zygoptera

Tri-Pond Park Trail System

The team spent time walking the trails throughout the Tri-Pond Park. Rocky Brook Reservoir is connected to Asa Pond via an existing trail and Asa Pond is connected to California Jim's Pond via a trail/bike path combination but there is no designated trail connection between Rocky Brook Reservoir and California Jim's Pond. The ponds are part of the larger Tri-Pond Park, yet the connection between the ponds is not well established nor well documented through appropriate signage and wayfinding. In addition, the park is located quite close to the William C. O'Neill Bike Path which is the state's fourth-longest bike path, stretching 7.8 miles from Kingston Station to Mumford Road in Narragansett. This provides an opportunity to expand access and awareness of the reservoir, as Dam Street extends to the bike path. With appropriate signage, bikers would be encouraged to detour off the bike path, along Dam Street and enjoy the reservoir and its amenities. Finally, the trails need maintenance and invasive plant removal.



Existing Trail System



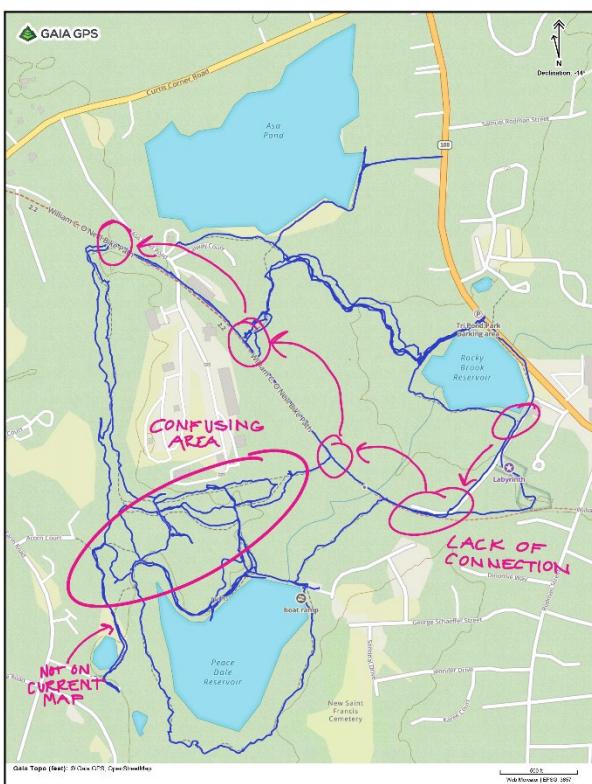
William C. O'Neill Bike Path

Signage and Wayfinding

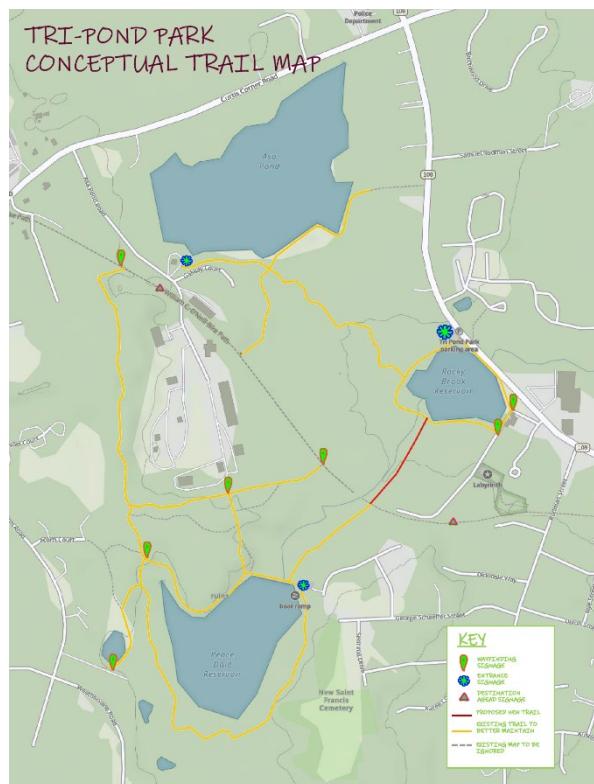


Existing condition of trail head signage.

In conducting the site analysis, the URI RDCL found that general signage, directing visitors to the trail heads and parking area, was lacking. In addition, there was a lack of adequate wayfinding signage throughout the park and along the trails. Beyond the initial site analysis, the team spent considerable time walking the trails to physically gather additional information that would inform the team's final recommendations. Below you will find a map that illustrates the team's hikes throughout the Tri-Pond trail system and where we identified areas of concern.



Actual hiking routes on the Tri-Pond trail system.



Recommended modifications to existing trail system and signage.

The map on the right provides some initial thinking on modifications that could be made to the existing trail system, as well as opportunities for increasing awareness through appropriately placed signage. The URL RCDL believes that any future enhancements to the Rocky Brook Reservoir should include appropriately placed signage that ensure visitors can find the park, navigate the trail system and educate visitors on the history of the ponds and the plants and wildlife that live there. Finally, URI RDCL strongly recommends trail maintenance throughout the park as well as better connection points between the three ponds that make up the Tri-Pond Park.

Existing Conditions Images



View of the overgrown vegetation along Route 108.



View of the overgrown vegetation along the edge of the pond which obstructs the view of the pond.



View of the overgrown vegetation along the pond/lack of a path.



Walking along the shoulder of Route 108 to get around the overgrown vegetation.



View of the Rocky Brook Reservoir parking area along Route 108.



Additional view of the parking area and limited signage.



View of the grassy area above the retaining wall looking toward Route 108.



View of the grassy area above the retaining wall and the vegetation growing near the pond.

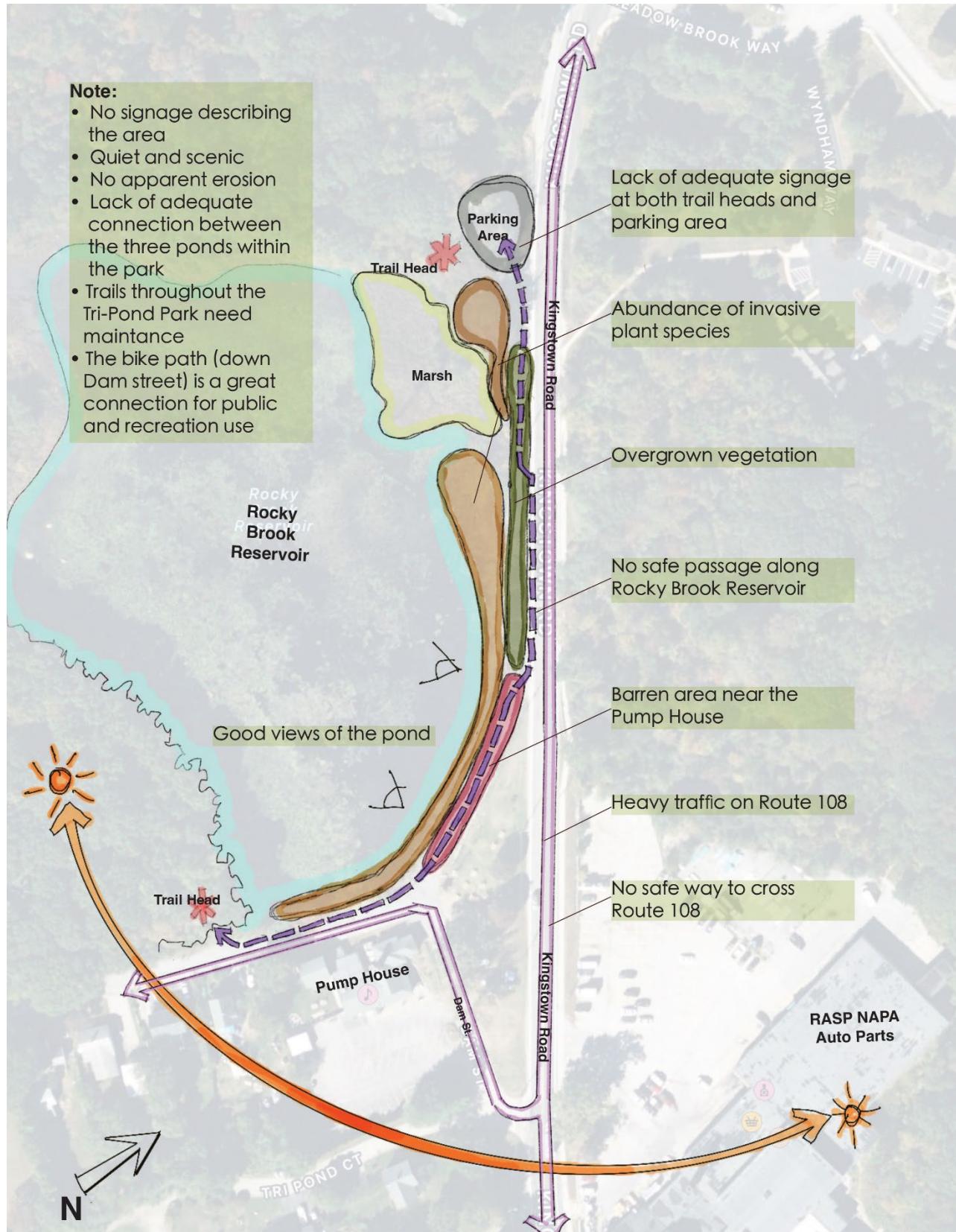


View of the pond from Dam Street.

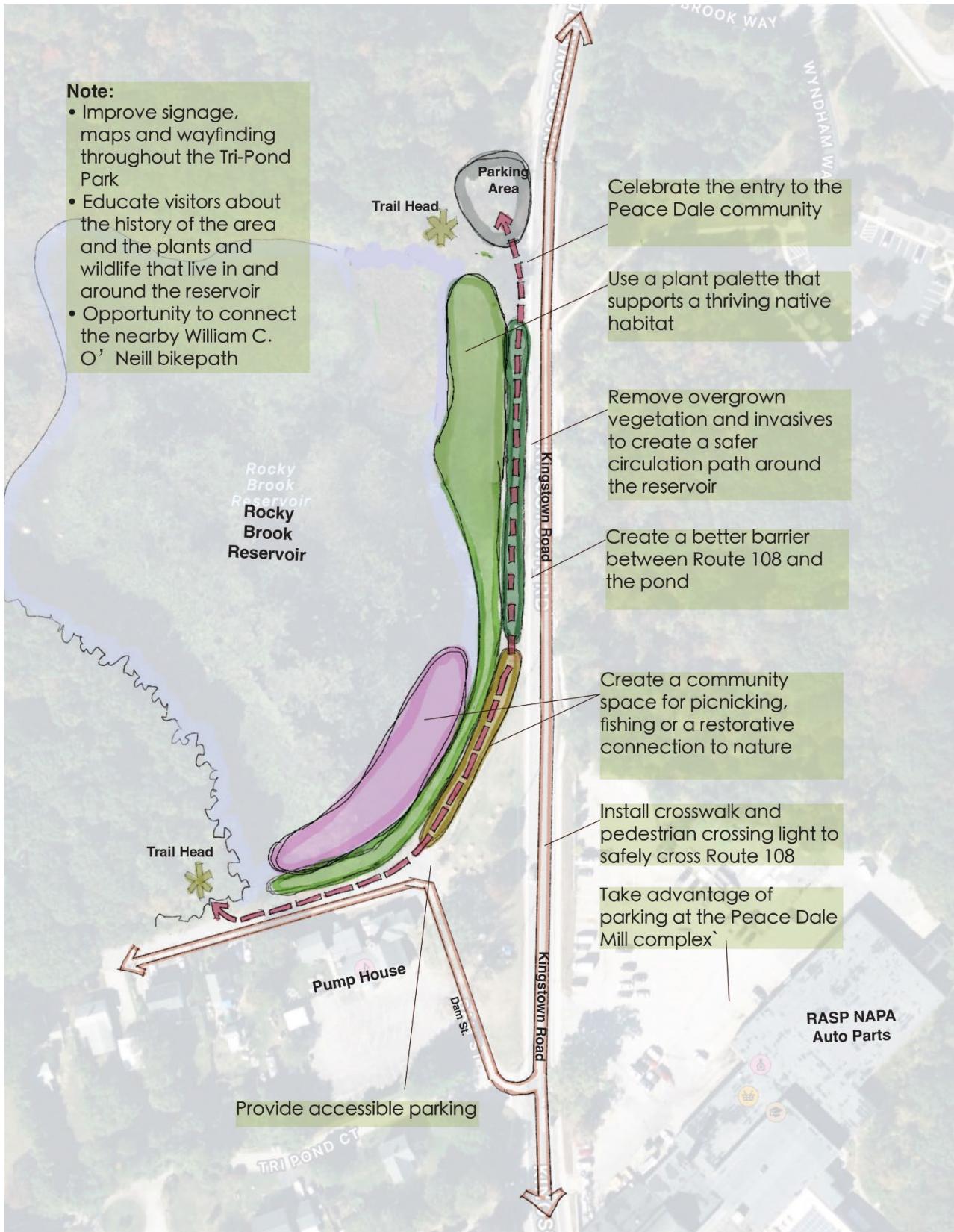


View of the grassy area and Route 108 from the Pump House parking area.

Site Inventory



Site Analysis



Site Analysis Summary

Considerations:

- Heavy traffic on Route 108
- Lack of adequate signage at both trail heads and parking area
- Lack of adequate connection between the three ponds within the park
- Overgrown vegetation
- Abundance of invasive plant species
- No safe passage along Rocky Brook Reservoir
- Barren area near the Pump House
- No safe way to cross Route 108
- Good views of the pond
- No signage describing the area
- Trails throughout the Tri-Pond Park need maintenance
- Existing natural beauty
- No apparent erosion

Opportunities To:

- Enhance the visibility and programmatic elements of a naturally beautiful area to provide a unique public space for community gathering and outdoor activities
- Create a better barrier between Route 108 and the pond
- Install crosswalk and pedestrian crossing light to safely cross Route 108
- Take advantage of parking at the Peace Dale Mill complex
- Improve signage, maps and wayfinding throughout the Tri-Pond Park
- Create a better connection to the bike path and increase awareness through appropriately placed signage
- Remove overgrown vegetation to create a safer circulation path around the pond
- Use a plant palette that supports a thriving native habitat
- Celebrate the entry to the Peace Dale community
- Educate visitors about the history of the area and the flora and fauna that live in the area

Part 3

Preliminary Design Concepts

Introduction

Per our charter with the RIDEM, the URI RCDL team created two preliminary concept plans which included illustrative conceptual master plans, sketches and perspective drawings. They were presented to the Town of South Kingstown Recreation Planning Board where the team gathered their feedback on both concepts. The Planning Board's feedback was used to create the final comprehensive master plan, planting and material plans, which will be described later in this report.

Preliminary Concept 1 – Boardwalk Along the Reservoir

The goal of this concept design would be to provide visitors with an immersive experience that would allow them to more closely connect with the Rocky Brook Reservoir, its surrounding wetlands and the plants and wildlife that inhabit the area. A secondary goal would be to create a beautiful entryway into the town of Peace Dale.

Design Description

Boardwalk

URI RDCL suggests building a raised boardwalk that would allow visitors to walk out over the beautiful shoreline and wetlands as they navigate from the parking lot, around the pond and to the trail head on Dam Street. To accomplish this, the existing junipers and plantings that have become overgrown would need to be removed.



Existing condition along pond.



Perspective of board walk along pond.

Circulation

Currently, the only way to move around the pond is to walk along the shoulder of Route 108 which is a busy road. The existing vegetation has taken over and does not allow room for visitors to walk safely around the pond. By eliminating the existing overgrown vegetation and junipers and adding the boardwalk, visitors would be able to enjoy the pond and walk safely from the parking area and trail head around the pond to the trail head on Dam Street.

Vegetation

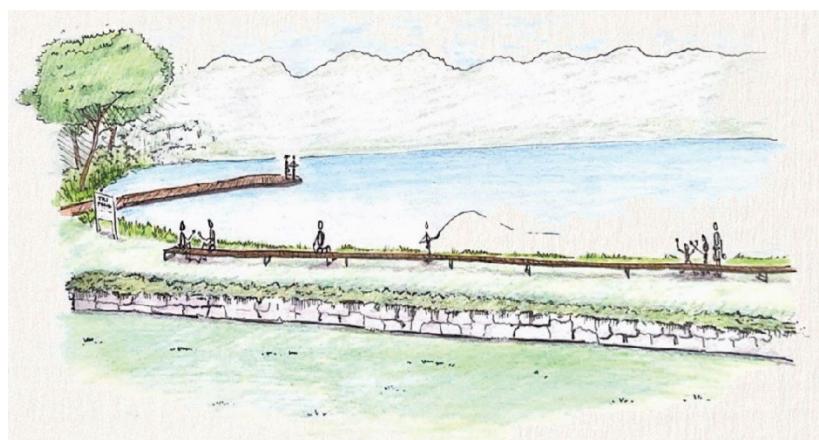
To create a sense of enclosure and to shield visitors from the busy road, the URI RDCL recommends planting an allée of *Cornus kousa*. This would not only enclose the boardwalk but would also create an entrance experience as people drive into Peace Dale. These trees provide three season interest and are also on the smaller side so as not to interfere with the overhead power lines. The URI RDCL also recommends adding a low-profile wooden fence directly below the trees which would be planted with native grasses and flowers. The fence provides additional separation from the road and provides a 6-foot mowing area for maintenance personnel.

Continuous Bench and Viewing Platform

For the grassy area above the retaining wall, the URI RCDL suggests adding a long continuous bench where visitors would be able to sit and enjoy the pond or where fishermen would sit and fish. Above the retaining wall, the team recommends planting *Juniperus conferta 'Golden Pacific'* which would cascade over the retaining wall. These plants would help to create a sense of enclosure for visitors on the bench. The bench and the plantings would also be visually appealing for people driving along Kingstown Road. The URI RCDL would also build a long, low profile viewing deck which would extend into the pond, allowing visitors to get a better view of the pond and local birds and wildlife.

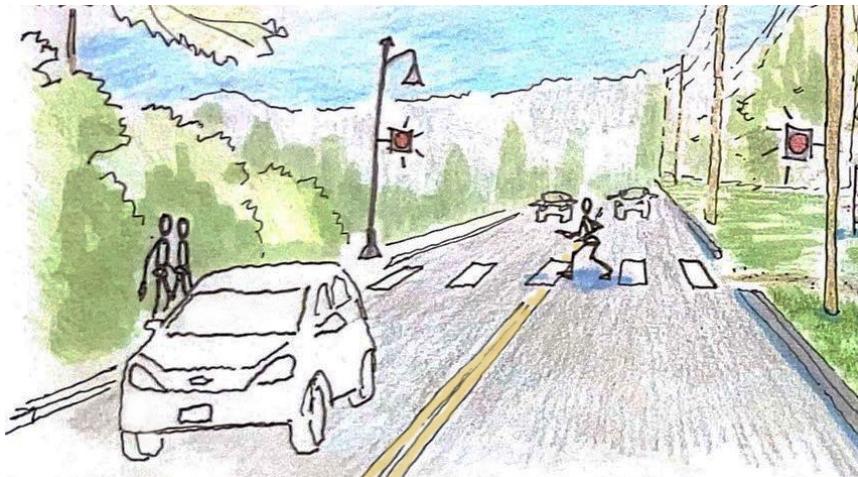


Existing condition of grassy area.



Perspective of continuous bench in grassy area and viewing platform.

Accessibility



Crosswalk and lighting and signage on Route 108.

The Town of South Kingstown has been taking additional steps to ensure pedestrian safety. The town has recently added bright orange pedestrian flags at the following intersections:

- Route 138 and South Road
- Kingstown Road at Old Mountain Field
- South Road and the South County Bike Path

The URI RCDL recommends adding a crosswalk and orange flags along Kingstown Road near the Rocky Brook Reservoir, so visitors can safely cross from the neighborhood across the street or from the parking lot at the mill. The team also recommends adding flashing lights to support pedestrian safety but also help to slow traffic along Route 108.

In addition to the crosswalk, the URI RCDL also recommends adding an accessible parking spot or two along Dam Street, so visitors with mobility challenges would be able to access the viewing dock or continuous bench.



Accessible parking spot along Dam Street near picnic area and viewing dock.

Both additions, along with the recommendations described above, can be seen on the illustrative conceptual master plan on the following page.

Complete Preliminary Concept 1



Concept 1 - Design Precedents



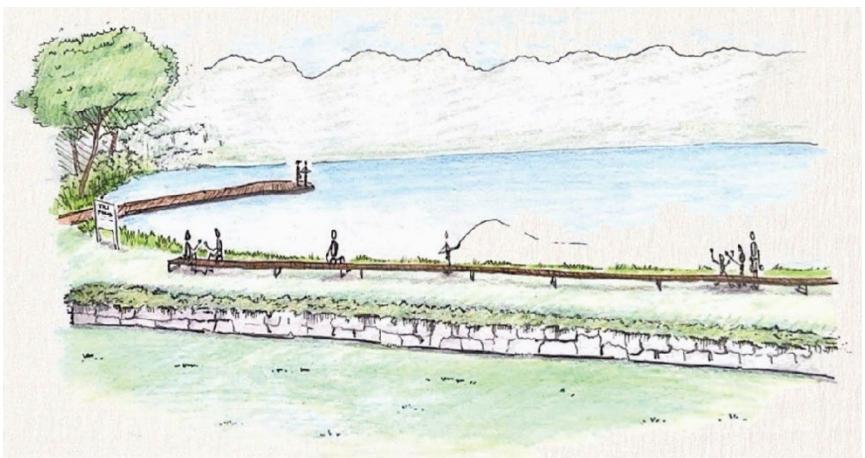
Perspective of boardwalk along Rocky Brook Reservoir.



Example of boardwalk along a pond or wetland area.



Example of bikers enjoying the view of a pond from a bench.



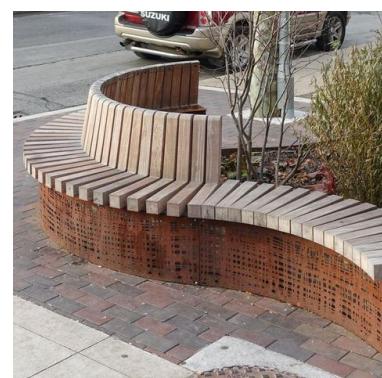
Perspective of continuous bench in grassy area and viewing dock.



Example of long continuous curved bench.



Another bench example.



Another bench example.

Preliminary Concept 2 – Pond Trail and Picnic Area

The goal of this conceptual design would be to take advantage of the existing plantings surrounding the Rocky Brook Reservoir to enhance the area between the Kingston Road trail head to the Dam Street trail head, with a particular emphasis on the large grassy area above the retaining wall.

Design Description

Pond Trail

To get from the parking lot to the trail head on Dam Street, the URI RCDL would take advantage of the existing plantings by trimming them back somewhat while also adding some additional trees tucked in along the road. The team would create a footpath along the pond, well away from the street.

The existing plantings and additional trees would help to buffer out the road noise and create a sense of enclosure for visitors. Along the path, the URI RCDL recommends adding a smaller platform which extends into the pond and provides a spot for fishing or bird watching.



Existing condition of the pond path



Perspective of reimaged pond path

Picnic Area and Viewing Platform

In the grassy area above the retaining wall, the URI RCDL would add picnic tables and seating as well as additional trees to provide shade. Similarly to concept 1, the team recommends planting Juniperus chinensis 'Sea Green' above the retaining wall and Juniperus conferta below them to trail down over the retaining wall. The main feature of this area would include a large viewing deck where visitors would get an up-close view of the plants and wildlife that live in and around the pond.



Existing condition of the grassy area above the retaining wall.

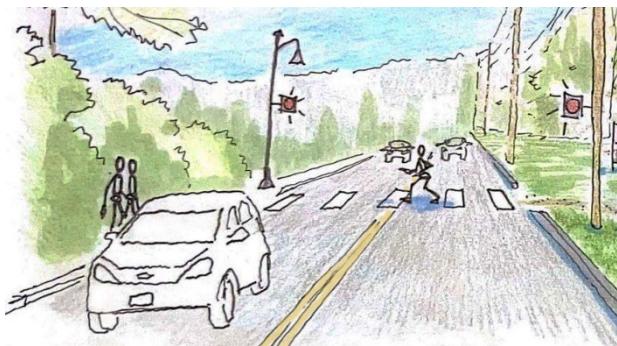


Perspective of picnic area and viewing platform.

Accessibility



As described in Concept 1, the URI RCDL would also recommend adding a crosswalk along Kingstown Road and an accessible parking spot or two along Dam Street, so visitors with mobility challenges could access the viewing dock or picnic area.



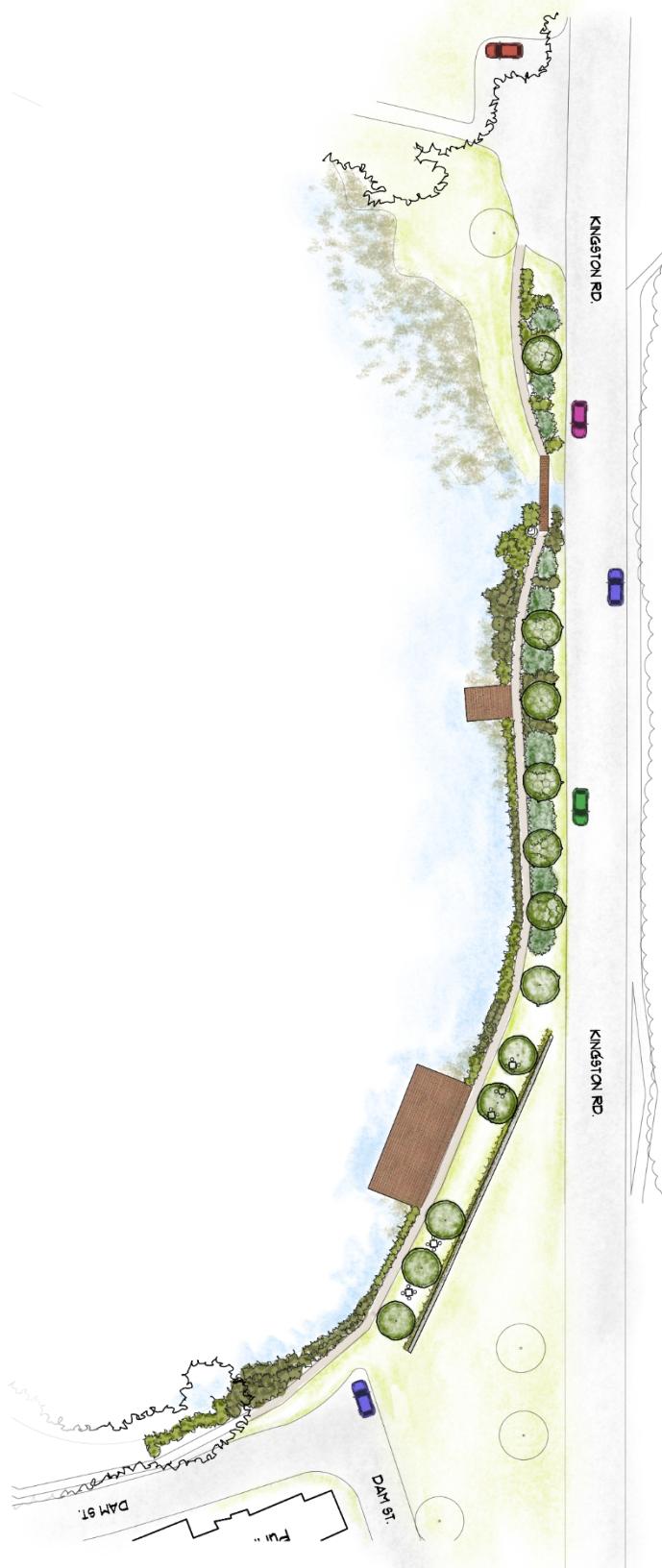
Perspective of crosswalk along Route 108.



Precedence image of a crosswalk near a park.

While not specifically shown on the illustrative conceptual master plan on the following page, the URI RCDL is recommending the inclusion of a crosswalk and accessible parking spots in any future design.

Complete Preliminary Concept 2



Concept 2 - Design Precedents



Perspective of path along reservoir.



Example of path along a pond.



Example of path near wetlands.



Perspective of viewing dock.

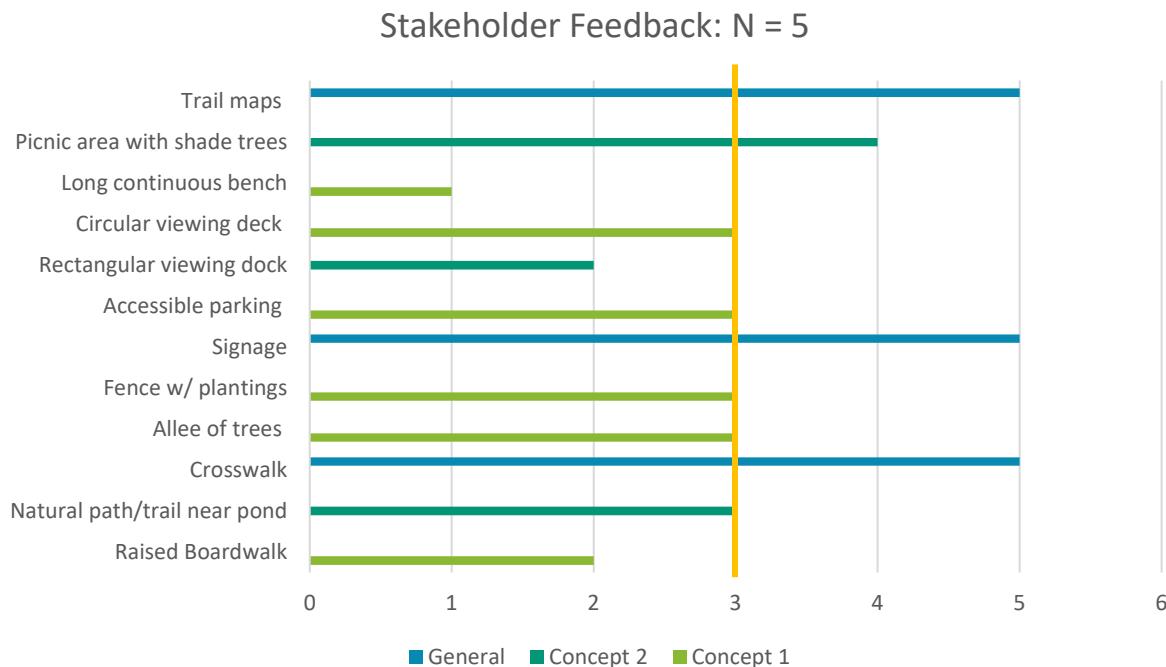


Examples of docks.

Stakeholder Feedback

On June 17, 2024, the URI RCDL presented both preliminary concepts to the Town of South Kingstown Recreation Commission along with the Parks Superintendent. During the presentation, the team conducted a question-and-answer session to gather feedback from the five members of the Recreation Commission on the elements of each concept that they thought would be most suitable for the site. The URI RCDL team integrated the preferences of the stakeholders to create the final conceptual master plan described in Part 4 of this report.

What They Liked



Additional Considerations

- Better, more obvious connection to the bike path
- Kayak launch
- Crosswalk flashing light
- Expanded parking
- Funding and/or sponsorships
- Permitting requirements
- Maintenance

Part 4

Final Conceptual Design

Final Design Concept

Using the feedback gathered from the Town of South Kingstown Recreation Commission and Parks Superintendent the URI RCDL created a final design concept for the Rocky Brook Reservoir. This report also includes additional recommendations for the broader Tri-Pond Park.

The final plan focused on three separate areas that make up the Rocky Brook Reservoir:

- Reservoir path and allée of trees along Route 108
- Picnic and seating area near the Pump House
- Large viewing deck extending into the pond along Dam Street

Design Description

Reservoir Path and Fishing Dock

A new trail and small fishing dock, tucked along the edge of the reservoir, will provide a safe passage for visitors between the Tri-Pond Park trail heads on Route 108 and Dam Street.



Final reservoir path and fishing dock.

The existing overgrown plantings will need to be removed to make room for the path, the allée of trees and the low fence. In accordance with the Chapter 6 (Bike Paths, Foot Paths, Trails and Boardwalks) of the [RIDE/M/Water Resources-Wetland BMP manual](#), the URI RCDL has the following recommendations for the installation of the path:

- Use existing natural land contours to avoid excessive fill
- Preserve the natural buffers within the wetlands

- The footpath should be no wider than three to five feet
- Use one of the following pervious surfaces:



Wood chips



Bark mulch



Processed gravel

The URI RCDL is proposing the installation of two docks within the reservoir. In accordance with the [RIDEM Fact Sheet for the Permitting of Docks and Floats](#), the Town of South Kingstown will be required to obtain a permit from the Department of Environmental Management. Permit applications can be completed online, require a brief report describing the project, and four copies of the site plans. The information contained in this report can be used to support a future application for permitting for the docks.

The fact sheet provides further guidelines on building a dock which should be considered when final construction plans are developed. Additionally, the RIDEM Wetlands Program does not require specific materials but does recommend against the use of creosote to treat wood that would be near a wetland. Therefore, the URI RCDL is providing two options for the dock decking.



Sustainable Composite Decking

There are many vendors that offer composite decking. If the Town of South Kingstown decides to use composition decking, the URI RCDL team recommends Trex composite decking which is sustainably made in the United States using 95% recycled plastic film and reclaimed sawdust. It's easy to install and very low maintenance as the composite decking will not warp, rot or splinter.

Accoya Sustainable Wood Decking

If the Town of South Kingstown decides to use wood decking, the URI RCDL recommends Accoya. Accoya is real hardwood and is 100% nontoxic, 100% recyclable and has the lowest carbon footprint of any decking material on the market. The decking resists cupping or splintering. It is also a low maintenance alternative as it doesn't require coating and is resistant to rot and insect attack.



Allée of Trees and Wooden Fence

An allée of trees will provide a warm welcome for visitors entering Peace Dale along Route 108. The allée and low fence planted with native plants will also provide separation from the street for visitors enjoying the reservoir path.



Entry to Peace Dale with allée of flowering trees and crosswalk.



When making a recommendation for the allée along Route 108, the URI RCDL referred to the [Rhode Island Guide for Developing Municipal Street Tree Ordinance](#), the [Providence Department of Public Parks Tree List](#) and Chapter 10 (Plantings) of the [RIDE/M/Water Resources-Wetland BMP manual](#). Since there are overhead power lines along Route 108, any tree considerations needed to be on the smaller side with a mature height of less than 35 feet tall. While it is not on the Providence Tree List, the URI RCDL is recommending an allée of *Cornus kousa* dogwoods for several reasons.

The Kousa dogwood is a small- to medium-sized tree, reaching a mature height of 30 feet. As the tree matures it takes on several different appearances starting out more upright and conical,

developing a vase-shape in its youth and finally maturing to a more rounded form with horizontal branching. The plant has a slow growth rate and prefers a sunny location but is tolerant of moderate shade. It does better in open areas.



The *Cornus kousa* truly is a tree for all seasons displaying showy, white to slightly yellowish-white bracts that measure 2 to 3 inches long. The tree blooms in late spring and the bracts can nearly cover the entire tree. In the autumn the tree has berries that resemble raspberry fruit

and the peeling bark on the mature tree trunks has an attractive mottled appearance. The fall leaf color is reddish-purple to scarlet and lasts for 3 to 5 weeks.

To determine which plants to use in and around the low fence below the *Cornus kousa*'s, the URI RCDL referred to the [RI Native Plant Guide](#) which was developed by the URI Cooperative Extension and the Rhode Island Natural History Survey. The team is recommending the following plants which are native, shade tolerant and low maintenance.



Aquilegia canadensis



Carex grayi



Geranium maculatum



Caltha palustris



Chelone glabra



Carex pensylvanica

Picnic and Seating Area



Picnic area, long continuous bench and plantings above the retaining wall

The team is aware of decades of scholarship regarding the benefits of nature and high-quality green spaces for human health, well-being and community resilience. While the grassy area above the retaining wall is currently stark and lacking in character, it offers an opportunity to create a memorable communal space, providing an accessible place for outdoor recreation and community gathering for the neighbors and town members.

Towards that goal, the URI RCDL recommends adding several trees to the grassy section above the retaining wall. These trees can provide cooling shade, create a sense of enclosure in this wide-open area, and heighten the enjoyment of being in this exceptional location. Referring to the Rhode Island Guide for Developing Municipal Street Tree Ordinances and the Providence Department of Public Parks Tree List, the team recommends the following trees:



Nyssa sylvatica



Quercus bicolor



Acer rubrum

Nyssa sylvatica or black tupelo is a native medium-sized, deciduous tree. The black tupelo is grown as an ornamental for its beautiful, scarlet red, fall color and for its shiny, dark green leaves in the summer. The black tupelo can reach a mature size of 40 to 70 feet tall in the wild but typically reaches 20 to 30 feet in cultivation. The tree prefers average, medium to wet soils in full sun.

Quercus bicolor or Swamp White Oak is a native to the Eastern and Central Midwest of the United States and portions of Canada. It is a medium-sized deciduous tree growing 50 to 60 feet tall and approximately 50 to 60 feet wide with a broad to oval crown and a short trunk. The leaves are two-toned in color. The upper half is glossy, medium green to dark green, and the undersides are silvery white. They also have rounded shallow lobes with coarse dentate teeth. This tree is also known for its bark which is thick and divided by furrows and ridges. Swamp White Oak prefers full sun, moist to wet acidic soil with a high mineral content, but it is adaptable to drier sites.

Acer rubrum or Red Maple is a native, deciduous tree that commonly grows to 40 to 70 feet high with a rounded crown and ascending branches that spread 30- to 50-foot. It makes an excellent lawn, park, or street tree as it's easy to grow in average, medium to wet, well-drained soil in full sun to partial shade. It also has some tolerance for air pollution and is one of the first trees to show color in the fall.

The URI RCDL believe this combination of native trees will make a beautiful display and offer a shady area for visitors to get out of the sun.

For the area above the retaining wall the URI RCDL recommends planting two types of low maintenance junipers:



*Juniperus chinensis
'Sea Green'*



*Juniperus conferta
'Golden Pacific'*

Juniperus chinensis 'Sea Green' grows as a compact spreader with fountain-like, arching branches. Its upright growth with arching branches is a very distinct trait of this variety. It grows to a height of 4-6 feet but can be pruned easily to maintain a specific height. Once established, these plants require

little maintenance. Its evergreen habit is quite striking in the landscape, and it grows best in full sun with sufficient water.

Juniperus conferta 'Golden Pacific' is a low growing, trailing, spreading, needled evergreen shrub that matures to a height of about 2 feet high. 'Golden Pacific' is a dwarf selection of Shore juniper with soft feathery yellow-green foliage. After 10 years, a mature specimen will measure 1 to 1.5 feet tall and 6 feet wide with an annual growth rate of 6 to 8 inches, significantly more outward than up. This plant prefers full sun and tolerates drought, shade, sandy soils, and salt. This plant is good in rock gardens, as ground cover, for mass plantings, and for erosion control.

To accommodate relaxing, wildlife viewing, and picnicking near the water's edge, the URI RCDL recommends incorporating picnic tables along one side of the grassy area and a long continuous bench on the other side. There are many options available for the picnic tables and bench, but the team was particularly inspired by the simplicity and good design of these DuMor outdoor furnishings.



Picnic Table and Chairs



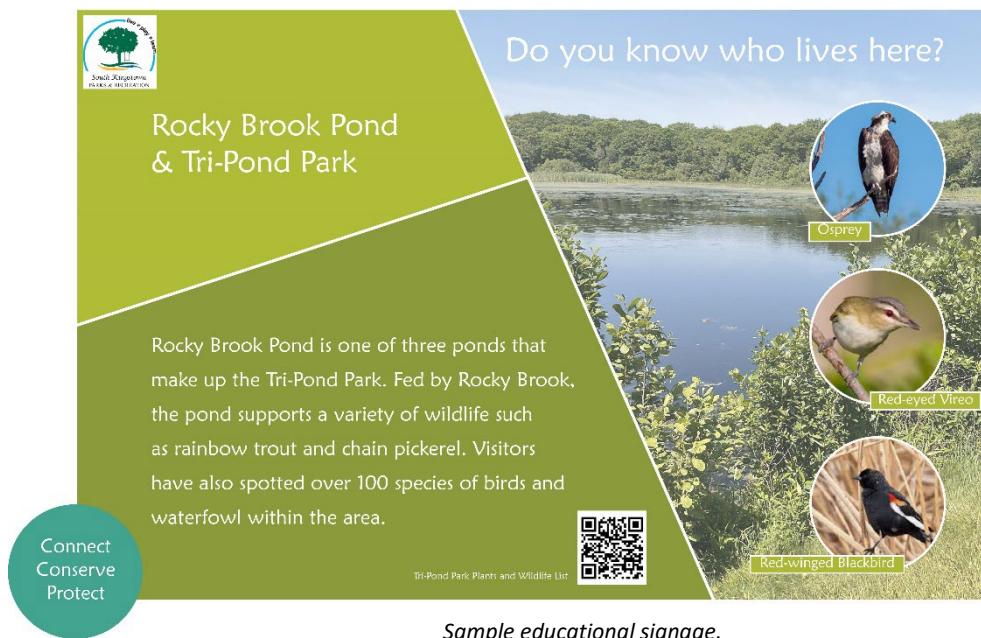
Continuous Bench

Viewing Dock



Viewing dock extending into the pond near Dam Street.

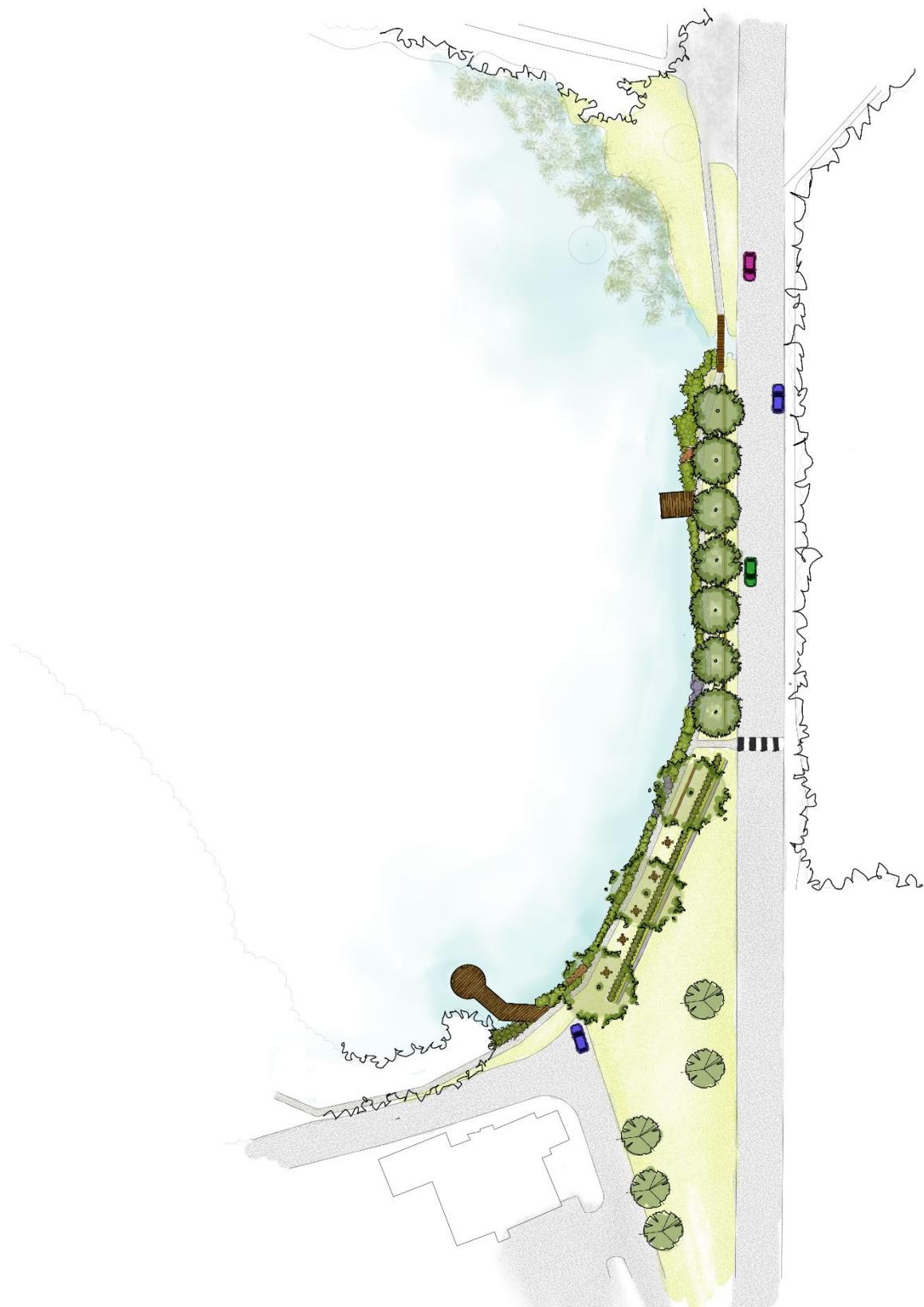
For the final area of the plan, the URI RCDL recommends adding a larger viewing dock which will extend into the pond and allow visitors to have a more intimate experience with the pond and wildlife.



The dock will also provide an opportunity, through signage, to educate visitors on the pond and the plants and wildlife that live in the area. These types of educational signs can also be placed strategically throughout the area, where there is an opportunity to educate visitors and ideally instill a desire to conserve this beautiful place.

As stated previously in this report, the Town of South Kingstown will be required to request a permit to install both docks. Additionally, the material suggestions for the smaller fishing dock should also apply to the larger dock. Whichever material is selected, it should be used for both docks to create a more cohesive experience.

Complete Final Conceptual Master Plan



Final Conceptual Design Precedents



Perspective of picnic area in grassy area.



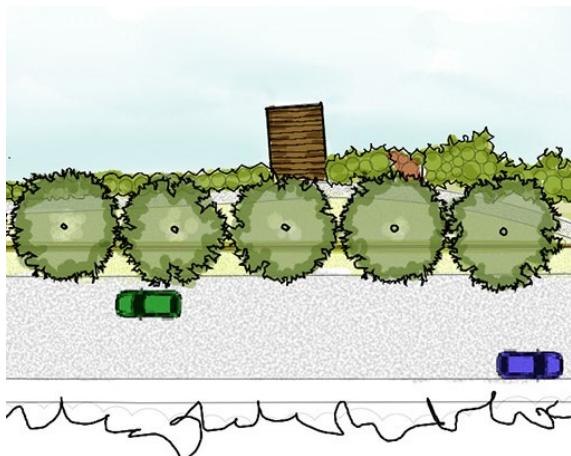
Example of picnic area with bikers.



Example of continuous bench around trees.



Perspective of continuous bench in grassy area.



Perspective of viewing/fishing dock along reservoir path.



Example of simple viewing/fishing dock.

Tri-Pond Park Signage



Park Entry Sign



Placed strategically at major park entry points and trail heads, these signs will welcome and educate visitors about the Tri-Pond Park, while also orienting them to the ponds and trail system.

The URI RCDL is also recommending the creation of a cohesively branded suite of signs to be placed throughout the park. The team designed the following signs which can be strategically placed throughout the park to improve awareness, educate visitors and help identify the trail heads and connection points between the three ponds.

Medium Wayfinding Sign



Placed along major trail intersections and less obvious entry points into the park, these signs will help guide visitors to the various features of the park, as well as trail head entry points.

Educational Sign



Placed in various locations throughout the park, these signs will educate visitors about the history of the area, and the park flora and fauna.

Multi-Directional Sign



Placed throughout the trail system, these signs will help visitors know their location within the trail system and navigate to their desired destination.

Appendix A

Meeting Notes

Initial Site Visit

The URI RCDL team met with Rex Ebelry, Parks Superintendent for the town of South Kingstown on June 4, 2024, for the initial site visit. Mr. Ebelry conducted a tour of the site, providing his goals for the project and specific areas for the project focus. Thereafter the team conducted a comprehensive site analysis, gathering the following constraints and opportunities:

- The site is situated around Rocky Brook Pond which is bordered by Route 108 and the Pump House Music Works.
- There is limited parking for the pond and one of the trail entrances off Route 108. It's more of a turnoff and can only accommodate 3 – 4 cars.
- The Pump House Music Works does have a parking lot, but it's not intended for park use. The Pump House Music Works also owns a triangle of land in front of the retaining wall near the pond. That section of grass is also plain and not maintained very well.
- Dam Street runs along the side of the pond and could potentially be used for limited parking. There is a metal rail along the side of the road in front of the pond.
- The front of the pond along Route 108 is overgrown with junipers and other invasives. The junipers are planted very close to the road and don't leave sufficient space for a pedestrian to walk from the parking turnoff, along the pond and over to Dam Street. The team was told that the overgrown plants could be removed.
- There is a grassy area above a retaining wall close to the pond but it's plain and not particularly appealing. It is, however, fairly flat and could be accessible to those with disabilities.
- There is insufficient signage to identify the park turnoff and trail head along Route 108. There is also insufficient signage to guide people to Dam Street and to an additional trail head along Dam Street.
- There are quite a few invasive plants that are growing in and around the pond. They are also growing along trails as well.
- There is a small wooden bridge near the parking turnoff that crosses a small offshoot of the pond near Route 108.
- There are lots of birds in and around the pond.
- The pond is available for fishing but there are no good access points for folks to fish along the pond edges. There are sections of the pond along Route 108 and along Dam Street that could lend themselves to some sort of dock.
- People can canoe or kayak in the pond but there is no place to put in.
- Route 108 is quite a busy road and there is no permanent separation between the road and the grassy edge of the pond. There are also no crosswalks along Route 108 that could safely take people from the other side of the street to the pond/park area.
- If you have your back to Route 108 the view is lovely, but the road is loud.
- When you are driving along Route 108 by the pond, it's nothing special. Since it's also the road leading into Peace Dale, there is an opportunity to create more of a special entrance to the town.
- The area is full of trails that are insufficiently marked.

- The William C. O'Neill Bike Path is close by but there is no signage that would let people know that.
- Only two of the three ponds are connected well via the trail system. California Jim's Pond is somewhat separate and disconnected from the other two ponds within Tri-Pond Park.
- Many of the trails are very narrow and crisscrossed with spiderwebs, many crossroads that do not appear on the map, it feels like they are not often used. Perhaps this is due to lack of awareness.

Initial Presentation

The RCDL team presented the two preliminary design concepts to the South Kingstown Recreation Commission at the South Kingstown Recreation Center on June 17, 2024, during their monthly meeting. The team described in detail the history of the area, the flora and fauna that live in the area and the two preliminary concepts. During the presentation, the stakeholders provided feedback on the design elements they preferred in the two conceptual plans.

The majority of the members responded favorably to the following design elements within the two concepts:

- Adding additional signage, trail maps and wayfinding throughout the Tri-Pond Park
- Creating a shaded picnic area above the retaining wall
- Adding viewing/fishing docks
- Adding accessible parking for visitors with mobility challenges
- Creating an allée of trees and low fence with native plantings to welcome visitors to the park and Peace Dale
- Creating a natural path near the pond for visitors to safely circulate around the pond
- Adding a crosswalk in an appropriate place along Route 108

The commission members expressed concerns over a raised boardwalk due to permitting issues. The same permitting issues could be a concern for a dock, but the members still believed a dock, or docks would be of value to the community.

The members also provided some additional items they wanted the URI RCDL to consider when developing the final plan.

- Better, more obvious connection to the bike path
- Kayak launch
- Crosswalk flashing light
- Expanded parking
- Funding and/or sponsorships
- Permitting requirements
- Maintenance requirements

Resources

RIDEM Water Resources – Wetland BMP Manual:

- Chapter 6 (Bike Paths, Foot Paths, Trails and Boardwalks) -
<https://dem.ri.gov/sites/g/files/xkgbur861/files/programs/benviron/water/permits/fresh/pdfs/bmpch6.pdf>
- Chapter 10 (Plantings) -
<https://dem.ri.gov/sites/g/files/xkgbur861/files/programs/benviron/water/permits/fresh/pdfs/bmpch10.pdf>

RIDEM Fact Sheet for the Permitting of Docks and Floats Fact Sheet -

<https://dem.ri.gov/sites/g/files/xkgbur861/files/programs/benviron/water/wetlands/pdfs/wfs13.pdf>

RIDEM Fact Sheet on Freshwater Aquatic Invasive Species in Rhode Island -

<https://dem.ri.gov/sites/g/files/xkgbur861/files/2024-04/aisridist.pdf>

Providence Department of Public Parks Trees List - https://www.providenceri.gov/wp-content/uploads/2017/05/Providence_Tree_List.pdf

RI Native Plant Guide - <https://web.uri.edu/rinativeplants/>

Rhode Island Guide for Developing Municipal Tree Ordinances -

<https://dem.ri.gov/sites/g/files/xkgbur861/files/programs/bnatesres/forest/pdf/urban/ri-street-tree-ordinance-guide.pdf>

Rhode Island Historical Preservation Commission: Historic and Architectural Resource of South Kingstown, Rhode Island: A Preliminary Report -

https://preservation.ri.gov/sites/g/files/xkgbur406/files/pdfs_zips_downloads/survey_pdfs/south_kingstown.pdf

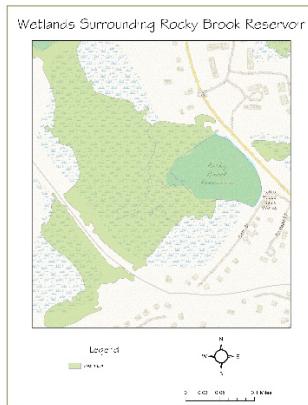
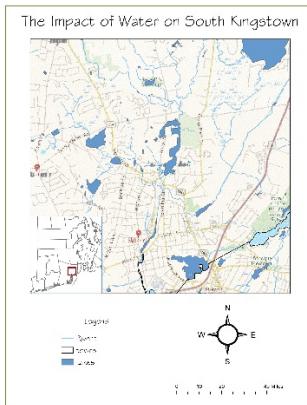
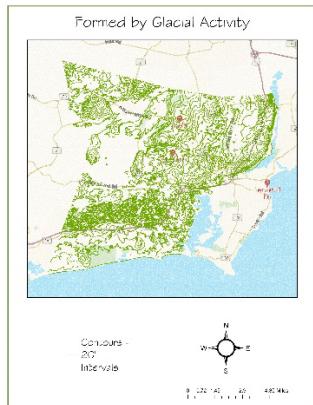
North Carolina State Extension Gardener Plant Toolbox - <https://plants.ces.ncsu.edu/>

Story of Place Boards



An Exploration of the Tri-Pond Park and South Kingstown

URI Regenerative Communities Design Lab | June 17, 2023



You can thank continental glaciers for the topographical variety of South Kingstown. The southward-moving ice mass carried large quantities of soil and rock which were deposited innumerable over the land when the ice sheet melted about 11,000 years ago. What was left behind is known as a moraine. Lying north of Route 1, the Chippington Moraine, which extends from Wakefield to Watch Hill, is an excellent example of this type of geological formation. Additionally, most of South Kingstown's interior is underlain by a medium-grained, pink granite which was quarried and used to build several buildings at URI.

When large glacial ice chunks melted they left behind irregular shaped depressions which geologists refer to as kettle holes as well as dozens of water spring, fountains and streams. These features provide insights into the town's sediment and how the land was used. Unfortunately, all of the town's waterways were relatively short in length and were unsuitable for navigation but, they were perfect for harnessing power. Miles along the town's smaller water ways were developed or dammed, in some places creating small communities. Rocky Brook was transformed into a prosperous mill village.

The Rocky Brook Reservoir is home to an extensive area of wetlands which create a biodiverse environment for a significant number of native plants and wildlife. Below are just a few of the native plants that call this area home.



Acer spicatum



Aruncus dioicus



Clethra alnifolia



Tri-Pond Park Species and Plant Suggestions

URI Regenerative Community Design Lab | June 21, 2023

Present species

Plants



Acer rubrum



Aruncus dioicus



Cladonia rangiferina

Birds



Agelaius phoeniceus



Branta canadensis



Vireo olivaceus

Fish & Insects



Lepomis macrochirus



Galaxias maculatus



Oncorhynchus mykiss



Anthonomus grandis



Esox



Zygoptera

Planting Suggestions

Trees for under power lines



Comptonia



Syringa oblata

Junipers



Juniperus communis

Kauka Grasses



Miscanthus sinensis

Low-Maintenance Pollinator-friendly Perennials



Heuchera sanguinea



Dichromanthus cinnabarinus



Lesqia glauca



Osmunda cinnamomea



Symphytum officinale

Sources: Native plant library, RI Wild Plant Society Tri-Pond Park Flora, Native Plant Network, RI DEM Invasion of Non-native and Invasive, RI Dept. of Transportation Roadside use of Native plants, Providence Tree Lot

RI Wild Plant Society Tri-Pond Park Flora



Preliminary Design Boards

TRIPOUND DESIGN PROJECT CONCEPT 1
DRAWS A.J., STEPHANIE N., KATHLEEN R. | JUNE 2024 | UNIVERSITY OF RHODE ISLAND

CONCEPT GOAL
The goal of this concept design is to provide visitors with an immersive experience that allows them to more closely connect with the Rocky Brook Reservoir, its surrounding wetlands and the plants and wildlife that inhabit the area. A secondary goal is to create a beautiful entryway into the town of Peace Dale.



Boardwalk & Viewing Platform
Creating a boardwalk along the reservoir's edge and quiet viewing deck allows visitors to have a more intimate connection with the pond and its wetlands.

Signage
Signage should be used strategically to make visitors aware of the park and trail system, to educate visitors about the history of the site, and also describe the plants and wildlife that live in and around the pond and wetlands.

KEY

- ① Signage
- ② Parking Area
- ③ Boardwalk
- ④ Proposed Allee of Trees
- ⑤ Low fence with Native Plantings
- ⑥ Crosswalk
- ⑦ Continuous Bench
- ⑧ Proposed Plantings over Retaining Wall
- ⑨ Accessible Parking Spot
- ⑩ Viewing Deck

Scale: 1" = 20' 

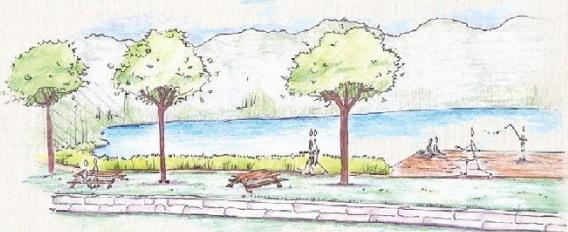


TRI-POND DESIGN PROJECT CONCEPT 2

DERSF, A.B., STEPHANIE N. KATHERINE R | JUNE 2024 | UNIVERSITY OF RHODE ISLAND

CONCEPT GOAL

The goal of this concept design is to take advantage of the existing plantings surrounding the Rocky Brook Reservoir to enhance the area between the Kingston Road trail head to the Dam Street trail head, with a particular emphasis on the large grassy area above the retaining wall.



Trail & Viewing Platforms

Creating a trail along the edge of the reservoir provides a safe passage for visitors between trail heads but also offers access to several viewing decks over the pond.

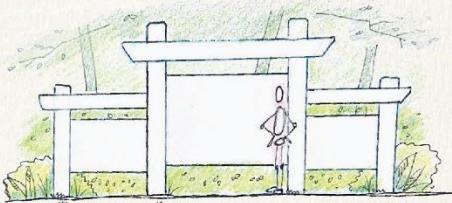


KEY

- ① Viewing Deck
- ② Outlook Platform
- ③ Picnic Area
- ④ Proposed Plantings
- ⑤ Existing Juniper
- ⑥ Existing Bridge
- ⑦ Marsh
- ⑧ Trail
- ⑨ Parking Lot

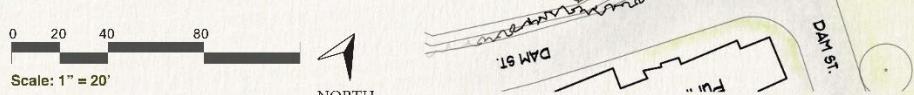
Signage

Signage should be used strategically to make visitors aware of the park and trail system, to educate visitors about the history of the site, and also describe the plants and wildlife that live in and around the pond and wetlands.



Scale: 1" = 20'
0 20 40 80

NORTH



DAM ST.
PARK

Final Design Boards

 **Tri-Pond Conceptual Master Plan**
URI Regenerative Community Design Lab | July 15, 2024

Illustrations in this conceptual plan are proposed to show opportunities, conditions and interpretations of the land area. It is subject to change due to any future site specific factors or changes in regulations. The City of South Kingstown is not responsible for the inappropriate use of this drawing.

Perspective
An allee of trees and low fence planted with native plants will provide a warm welcome for visitors entering Peace Dale along Route 10B.

Reservoir Path & Allee of Trees
A new trail and small fishing dock, tucked along the edge of the reservoir, will provide a safe passage for visitors between the Tri-Pond Park trail heads on Route 10B and Dam Street.

Picnic Area
Adding several trees to the grassy area above the retaining wall will create shade for a new picnic area and communal space for outdoor recreation and community gathering.

Viewing Deck
A large viewing dock which extends into the pond will allow visitors to have a more intimate experience with the pond and wildlife.

KEY

- ① Parking Area
- ② Boardwalk
- ③ Allee of Trees
- ④ Proposed Small Viewing Deck
- ⑤ Low fence with Native Plantings
- ⑥ Crosswalk
- ⑦ Continuous Bench
- ⑧ Picnic Tables
- ⑨ Proposed Plantings over Retaining Wall
- ⑩ Viewing Deck
- ⑪ Accessible Parking Spot





Tri-Pond Conceptual Master Plan

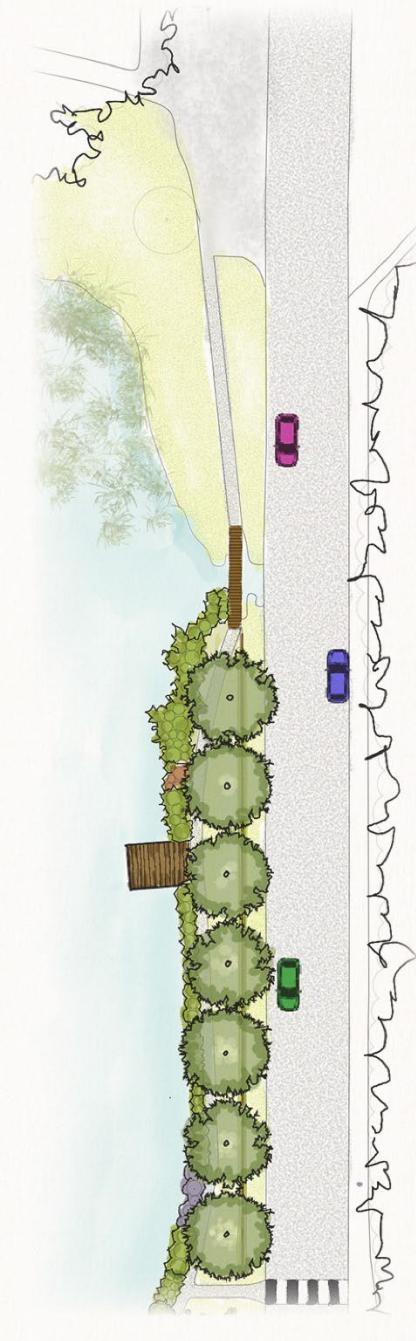
URI Regenerative Community Design Lab | July 15, 2024



THINK BIG WE DO

Reservoir Path and Allee of Trees

An allee of trees will welcome visitors to the Town of Peace Dale and a new trail and small viewing deck, tucked along the edge of the reservoir, provide a safe passage for visitors between the trail heads on Route 108 and Dam Street.



Perspective of path and parking area along the reservoir.

Planting Suggestions - Allee and Fence



Cornus kousa



Aquilegia canadensis



Carex grayi



Geranium maculatum

Material Suggestions - Viewing Deck and Path



Sustainable composite decking



Wood chips



Bark mulch



Processed gravel

The Problems:

- Lack of visual appeal from Route 108
- Overgrown vegetation
- No safe passage between trail heads
- Lack of access to the pond
- No safe way to cross Route 108

The Benefits:

- Enhance the aesthetics of the area
- Create a safe passage between trail heads
- Provide better access to the pond
- Create a safe passage across Route 108

The Solutions:

- Remove existing vegetation
- Add an allee of trees
- Add a new path along the pond's edge
- Add a cross walk, signage and lighting



Perspective of crosswalk and light on Route 108.



Tri-Pond Conceptual Master Plan

URI Regenerative Community Design Lab | July 15, 2024

Disclaimer: This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The URI RCDL is not responsible for the inappropriate use of this drawing.



Picnic and Seating Area

Trees will be added to the grassy section above the retaining wall in order to create shade for a picnic area or for visitors enjoying the long bench for fishing or viewing the wildlife within the Rocky Brook Reservoir.



Perspective of the picnic area and continuous bench in the grassy area above the retaining wall.

The Problems:

- Lack of visual appeal from Route 108
- Ineffective use of the space
- Site is not accessible to all visitors
- No signage

The Solutions:

- Incorporate trees and plantings with intentionality
- Add picnic benches and seating so the community can take advantage of the proximity to the water
- Add accessible parking spots along Dam Street

The Benefits:

- Enhance the aesthetics of the area
- Provide more space for the community to connect with the beauty of Rocky Brook Reservoir
- Through signage, create opportunities for community education and awareness
- Provide space for visitors who are interested in fishing
- Provide opportunities for visitors with mobility challenges to enjoy the reservoir

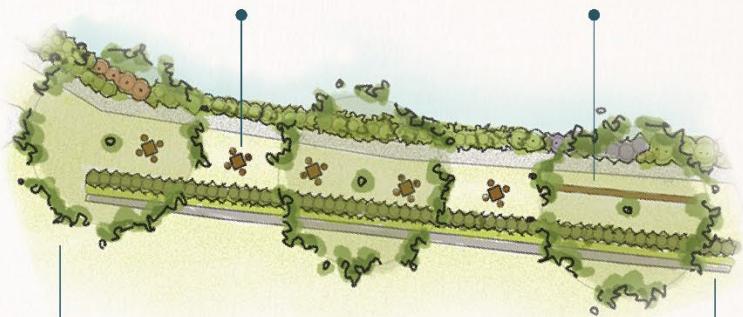
Material Suggestions



Picnic Table and Chairs



Continuous Bench



Planting Suggestions



Nyssa sylvatica



Quercus bicolor



Acer rubrum



Juniperus chinensis
'Sea Green'



Juniperus conferta
'Golden Pacific'



Tri-Pond Conceptual Master Plan

URI Regenerative Community Design Lab | July 15, 2024

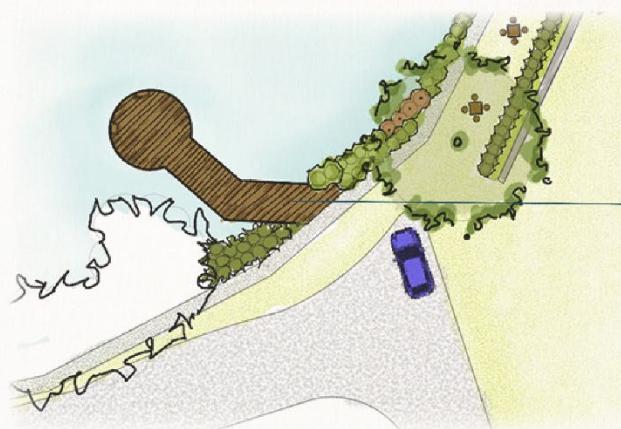


Viewing Deck

A long viewing deck will extend into the pond, providing visitors with an opportunity to more closely connect with the plants, wildlife and birds that live within the reservoir. Educational signage will be placed along the deck railing.



Perspective of the viewing dock extending into the pond near Barr Street.



Material Suggestions



Sustainable composite decking



Accoya - Sustainable wood decking

Invasive Plant Removal Suggestions



Iris pseudacorus



Artemisia vulgaris



Celastrus orbiculatus



Toxicodendron radicans

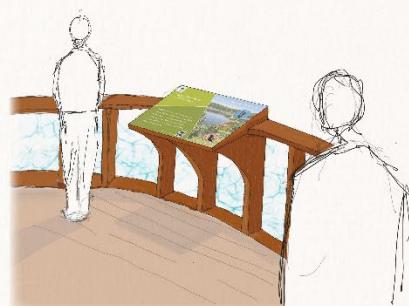


Rosa multiflora



Egeria densa

Educational Signage on Deck



View from the dock, showing educational signage that will be added along the railing, designed to inform visitors as to the plants, birds and wildlife that live within the area.



Tri-Pond Conceptual Master Plan

URI Regenerative Community Design Lab | July 15, 2024

Disclaimer: This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction drawings. The client should consult appropriate professionals before any construction or site work is undertaken. The URI RCD is not responsible for the inappropriate use of this drawing.



PARK ENTRY SIGN

Placed strategically at major park entry points and trail heads, these signs will welcome visitors and educate them about the Tri-Pond Park, while also orienting them to the ponds and trail system.



MEDIUM WAY-FINDING SIGN

Placed along major trail intersections and less obvious entry points into the park, these signs will help guide visitors to the various features of the park, as well as trail head entry points.



MULTIPLE DIRECTION WAY-FINDING

Placed throughout the trail system, these signs will help visitors know their location within the trail system and also keep them on the right path.



EDUCATIONAL BOARD

Placed in various locations throughout the park, these signs will educate visitors about the history of the area, the plants that can be found throughout the park, as well as the birds and wildlife that call the park home.

