



MASSACHUSETTS DEPARTMENT OF
CONSERVATION AND RECREATION

Wompatuck State Park

Circulation Master Plan

Draft Final Plan

June 26, 2024



Commonwealth of Massachusetts

Governor

Maura Healey

Lieutenant Governor

Kim Driscoll

Energy and Environmental Secretary

Rebecca Tepper

Department of Conservation and Recreation Commissioner

Brian Arrigo

A scenic view of a river flowing through a lush green forest. The river is calm, reflecting the surrounding greenery. In the background, a stone bridge with a curved arch is visible, partially obscured by the dense foliage. The foreground is filled with vibrant green leaves and branches, creating a sense of being deep within the woods.

DCR MISSION

To protect, promote and enhance our
common wealth of natural, cultural
and recreational resources
for the well-being of all.

Meeting Logistics

- Please provide feedback after the presentation
 - You will find information on how to give feedback at the end of the presentation
- Q&A function is open for comments during the presentation
- Cameras + microphones
 - You can turn your camera on/off
 - Your microphone is off by default. Please hold until after the presentation to enable microphone when it is your turn to speak.

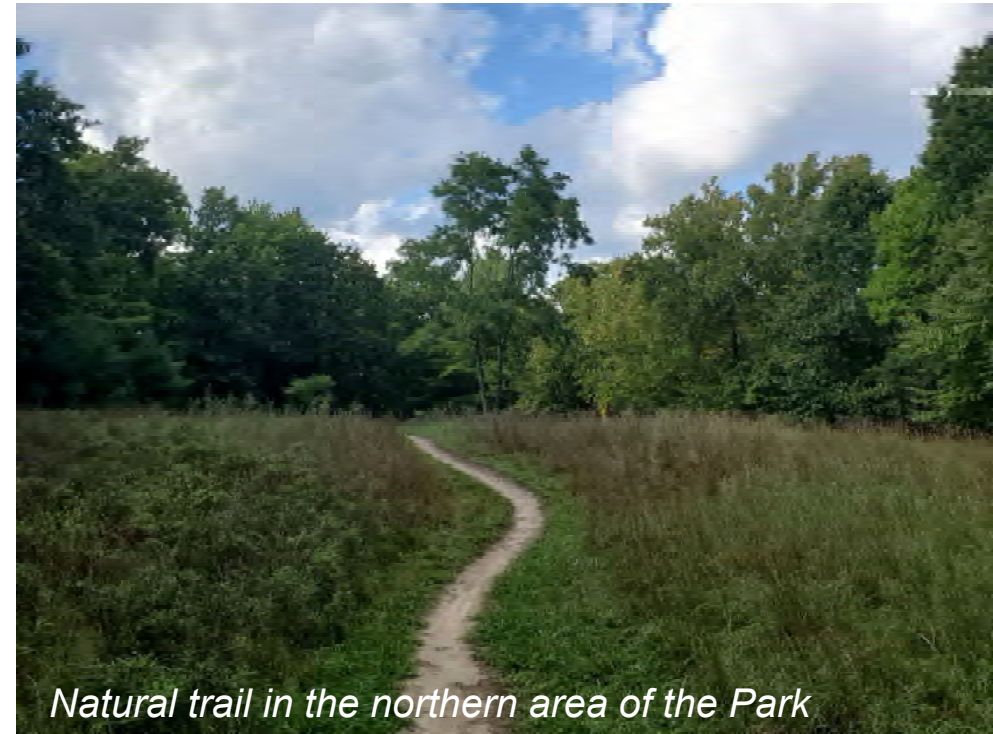
Meeting Agenda

- Introductions
- Project Summary
- Brief Summary of Inventory and Framework
- Trail Typology
- Draft Master Plan
- Actions and Implementation
- Open Discussion



Project Team

- DCR: **Cass Chroust – PM**
Ruth Helfeld
- Consultant Team:
Toole Design
Karen Fitzgerald – PIC
Kathleen Fasser – PM
Krithika Mohan – LA
LEC - Environmental Assessment
PAL - Archeological and Cultural Assessment

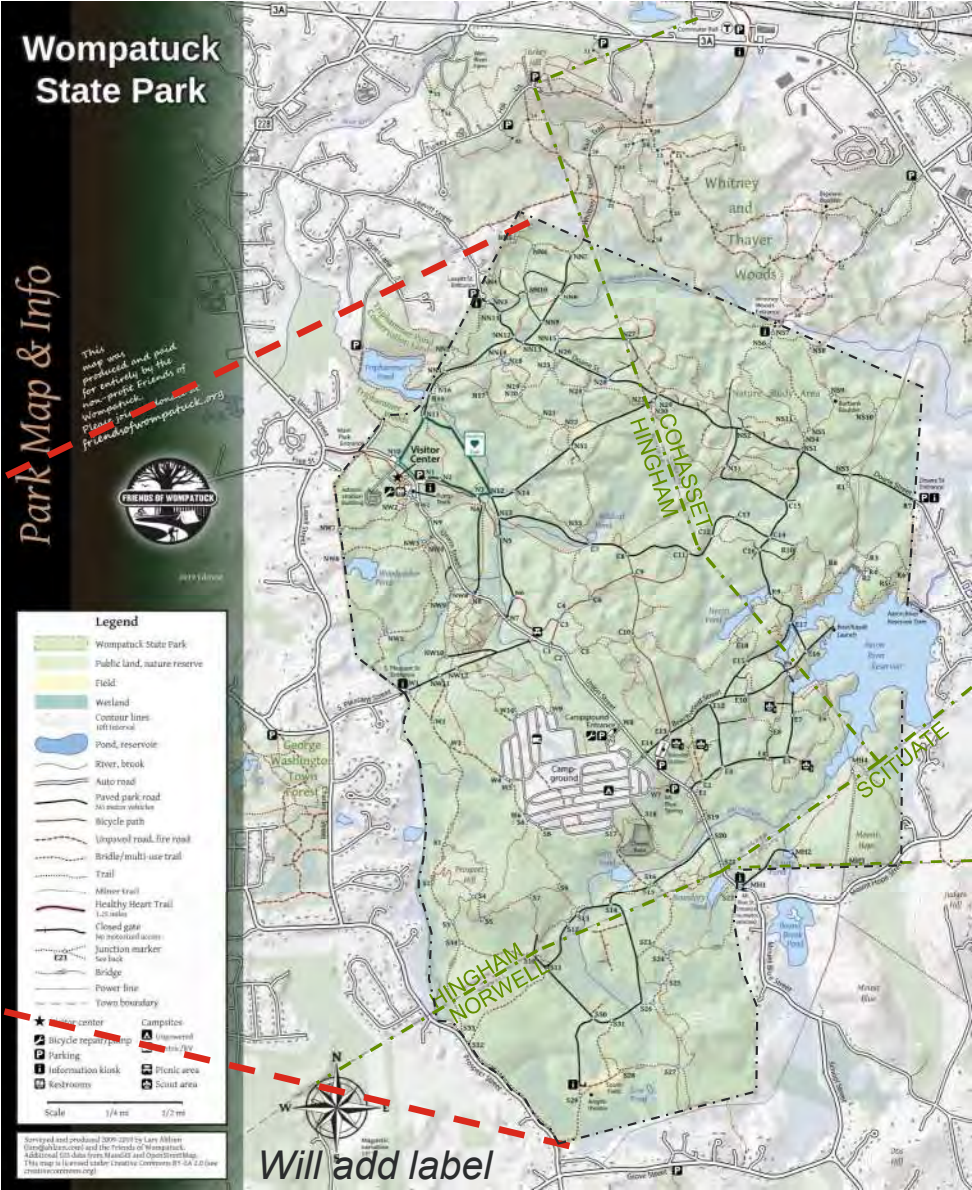
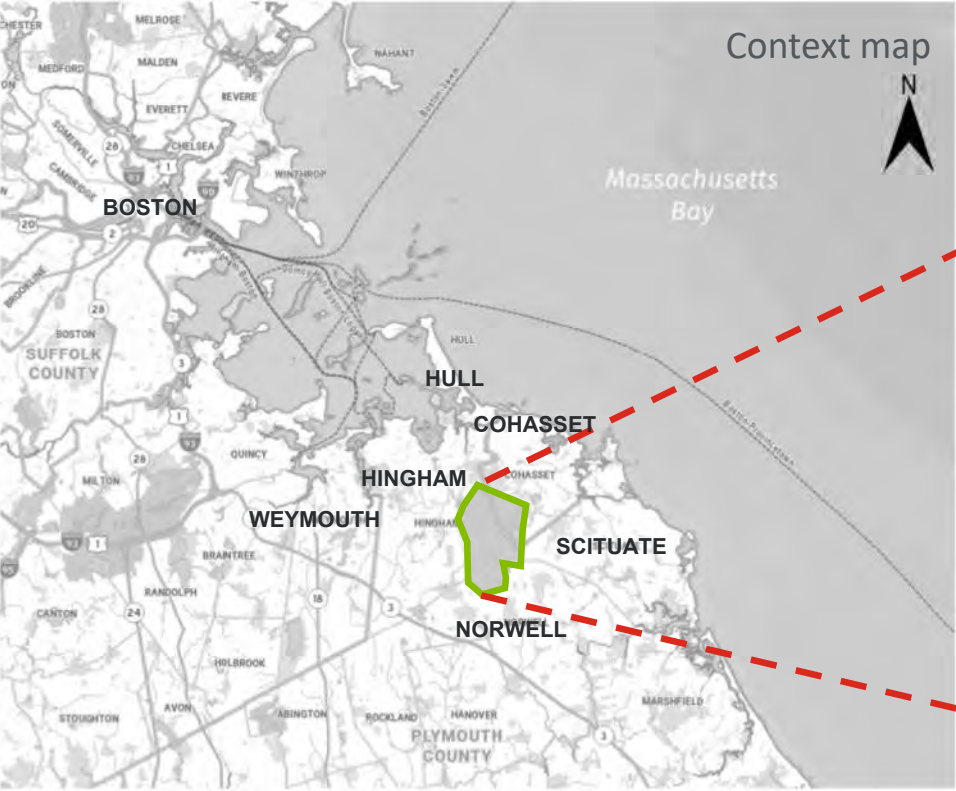


Natural trail in the northern area of the Park



PROJECT SUMMARY

Project Location



Will add label

Vision for Wompatuck

The Wompatuck State Park circulation design is an organized system of a wide variety of trekking experiences, each uniquely composed to capture the full range of natural and human-made landscapes and encourage the discovery of the diverse environmental and cultural resources in the park.

Vision for Wompatuck State Park Trail Circulation

GOALS:

- Highlight ecological, scenic, and cultural features
- Provide specific, enjoyable recreational experiences
- Connect important destination inside and outside the park

Objectives:

- Avoid and protect sensitive areas (environmental and cultural)
- Meet expectations of users
- Minimize ecological impacts
- Minimize maintenance requirements
- Be physically, ecologically, and economically sustainable
- Enhance climate resiliency

Project Scope

Circulation Master Plan

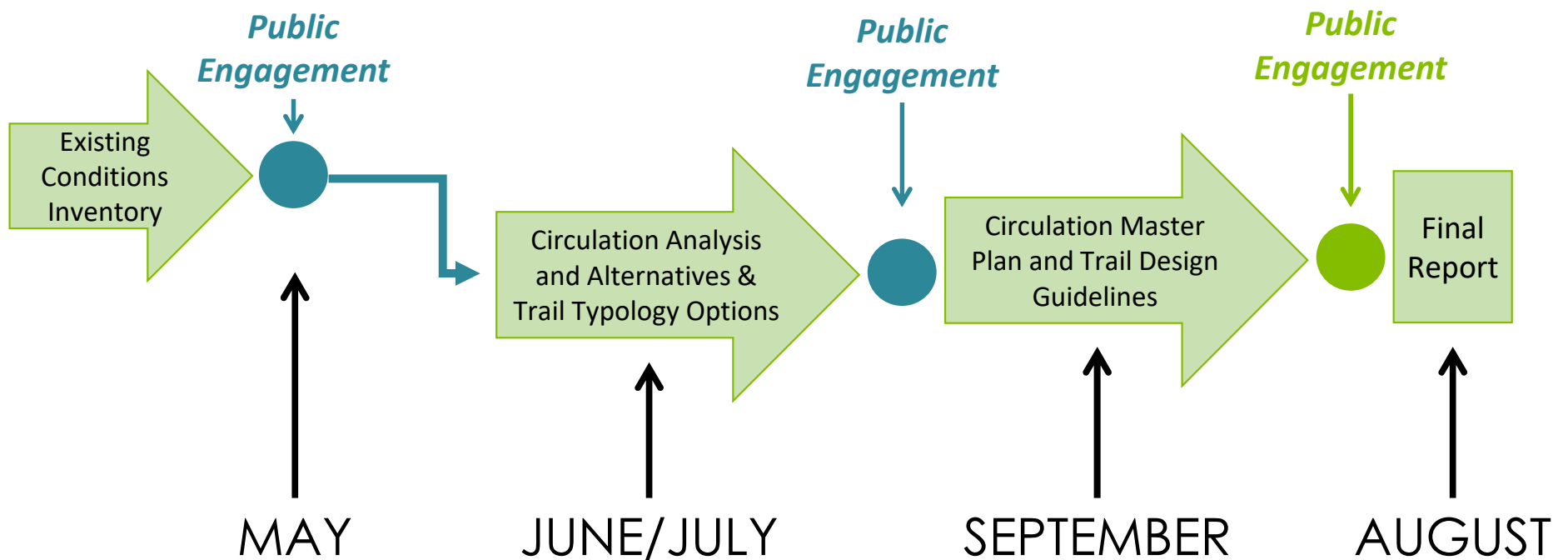
- Identify and evaluate trails, connections and environmentally & culturally sensitive areas
- Develop a hierarchical trail network master plan
- Develop new trail typology
- Recommend wayfinding changes to improve visitor orientation



Project Goal

Develop a comprehensive park guide with long-term and short-term trail circulation recommendations that will balance these recreational opportunities with the natural and cultural environment

Project Timeline



Draft Master Plan

Typology





BRIEF SUMMARY ASSESSMENT & FRAMEWORK

Existing Conditions

Wompatuck State Park

- 3,526 acres
- >80 miles of trails
- 175 feet of elevation change
- 30% of park is in low-lying areas

Inventory Process

- Desktop document review
- GID Data Gathering
- DCR Trail Guidelines and Best Practice Manual
 - Used for Assessment Factors
- Fieldwork (Toole Design, LEC, PAL) Documented *OBSERVATIONS* & photographed conditions
- Mapped fieldwork data



Wompatuck State Park
Circulation Master Plan

Inventory

Assessment Factors

- Trail Network
- Interconnectivity
- Trail Design and Condition
- Geophysical (slope, environmental, etc.)
- Safety and Security

Environmental Sensitivity



NHESP BioMap2

Cultural Sensitivity



Framework for Trail Typology and Trail System Design

REFERENCES

1. MA Department of Conservation and Recreation (DCR) Trail Guidelines and Best Practices Manual, 2019
2. US Forest Service Trail Fundamentals and Trail Management Objectives (FSTFM), 2011
3. US Forest Service Trail Accessibility Guidelines (FSTAG), 2013 Update
4. Minnesota Department of Natural Resources Trail and Waterways Trail Planning, Design and Development Guidelines (MN), 2007

And other references



Natural trail through southern field

Trail System Design Framework

Trail Typology

- Trail Type
- Trail Design Parameters
- User Groups

Trail System Design

- Sustainability
- Planning Considerations
- Recommended Actions

Sustainability

- Physical
- Economic
- Engender Stewardship
- Ecological

Planning Considerations

- Who will it serve?
- What does it connect to?
- Significance, need or value
- Environmental and Cultural resources/impacts

Recommended Actions (upcoming slides)



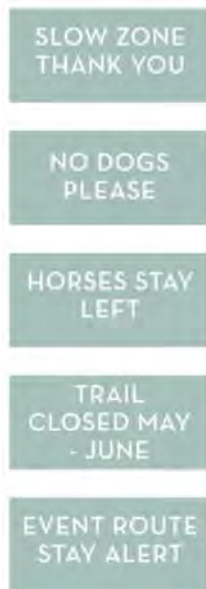
Trail System Design Framework

Approach

- Use existing trail facilities – good framework to build on
- Does not exclude any user type
- Does curate experiences for specific users

Trail Management

*All Master Plan
recommendation
s are based on
GIS-level data.



Consider for All Person Trails

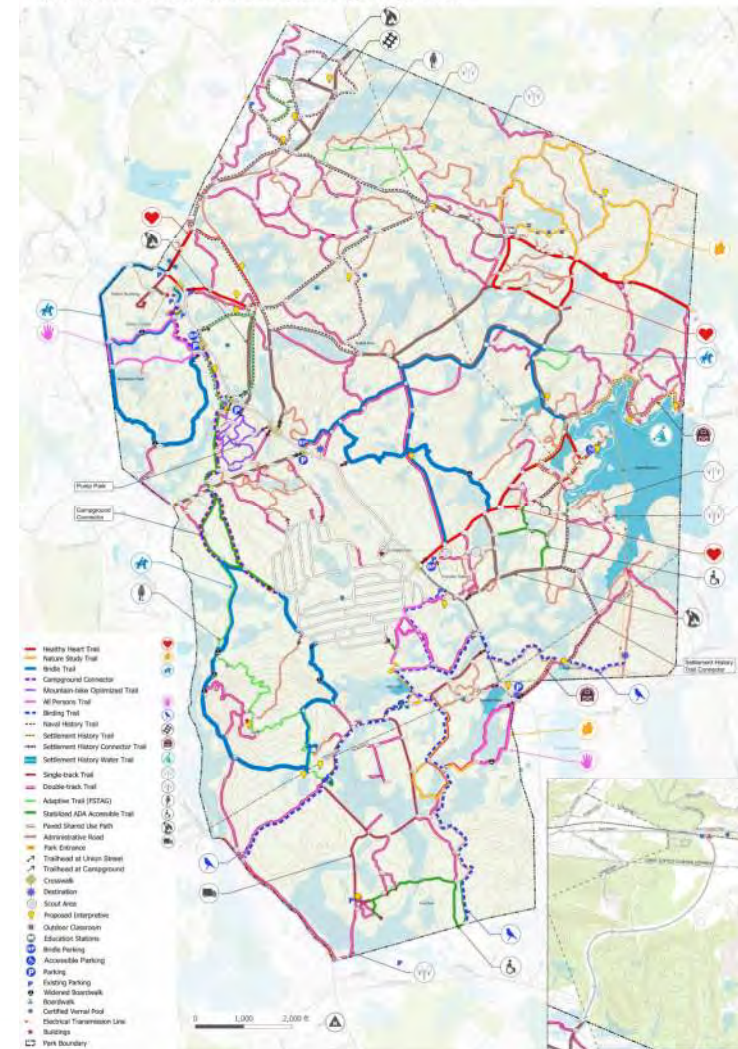
Consider for Birding Trails

Separation of User Groups

Seasonal Closures

Special Events: 5k, Winterfest
and Landmine Classic

WOMPATUCK CIRCULATION MASTERPLAN





TRAIL TYPOLOGY

S25

Trail Typology Framework

Trail Types

- Standard Natural Surface Trails:
 - Narrow Multipurpose Trail
 - Wide Multipurpose Trail
 - FSTAG Adaptive Trail
 - Mountain-bike Optimized Trail
 - Bridle Trails
- Paved / Stabilized Surface Trails (these may overlap):
 - Shared Use Path
 - ADA Accessible Trail
 - Administrative and Emergency Road

Trail Design Parameters

- Tread Width
- Surface Material
- Running Grade
- Cross-Slope
- Other (if applicable)

User Groups

- Hikers/Walkers
- Cyclists
- Mountain Bikers
- Equestrians (Pack and Saddle)
- Cross-country skiers and snowshoers
- Persons with Disabilities
- Persons using Adaptive Equipment

Draft Trail Typology

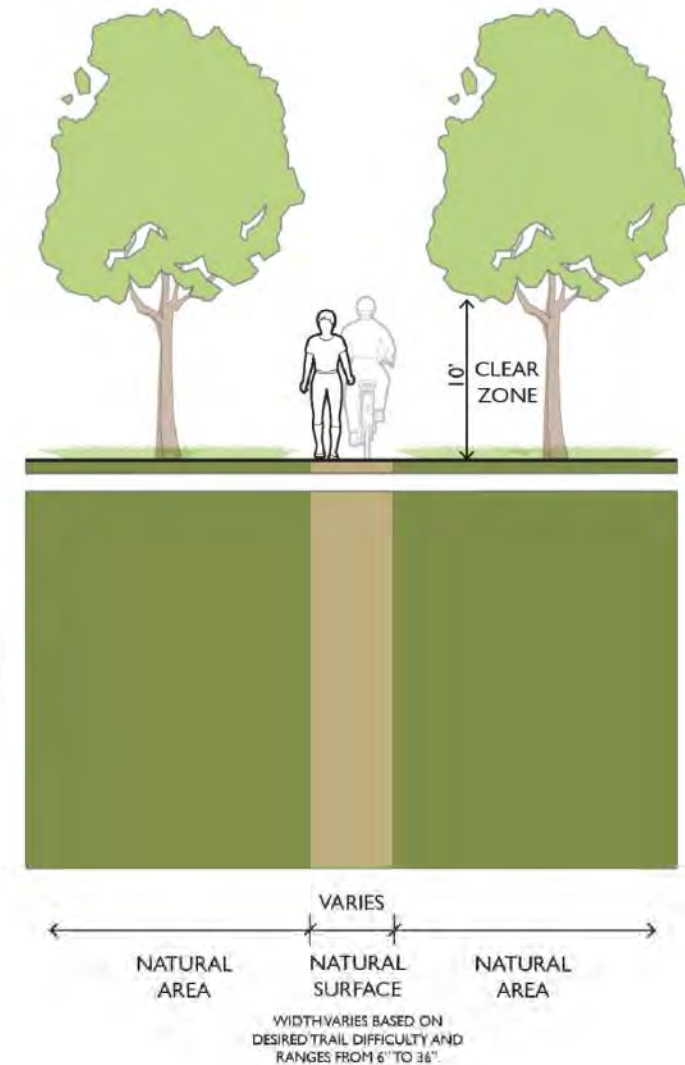
Natural Surface - Narrow Multipurpose Trail

- Single-track, one user at a time, single-file
- Also refer to FSTAG Adaptive Trail

DESIGN PARAMETERS

Tread Width	Between 6"-36"
Surface Material	Natural surface
Running Grade	<ul style="list-style-type: none">• Target range of less than 18%• Can be routed with steeper running slopes to less than 25% (depending on local soil conditions)
Cross-slope	Between 2-20%
Rating	Hiking: Easy, Moderate, Difficult Mountain Biking: Easier, more difficult, very difficult, extremely difficult

User Groups





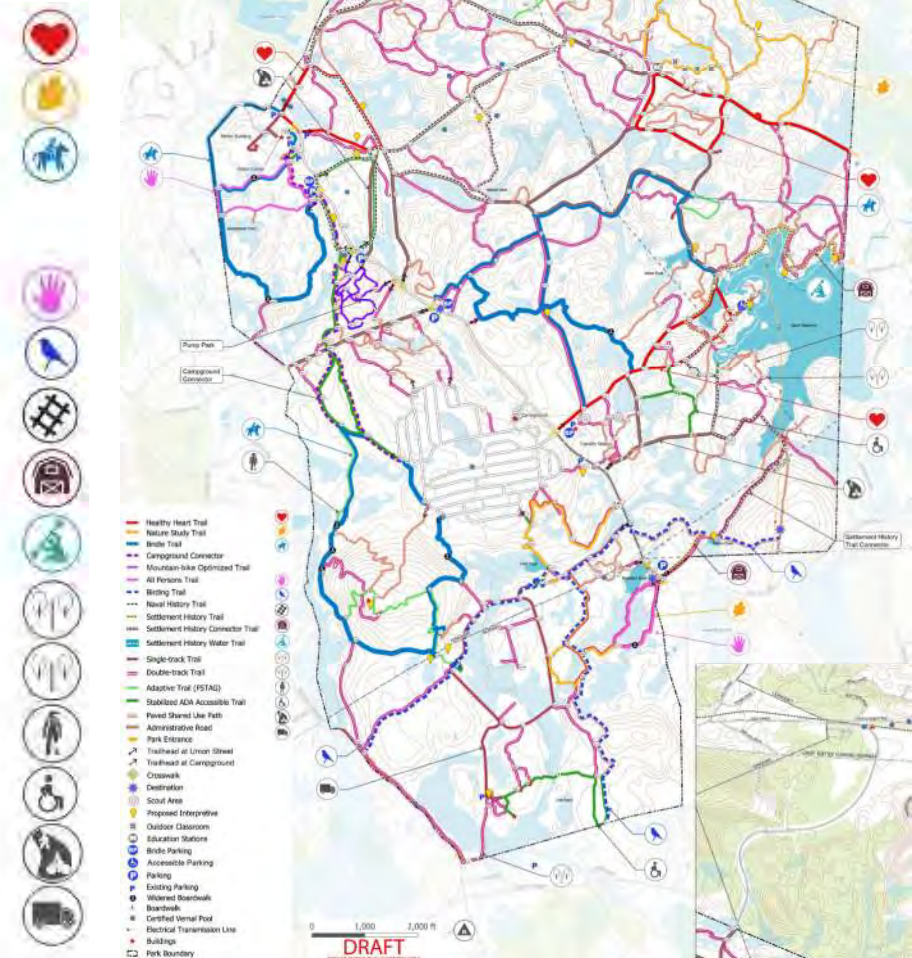
DRAFT MASTER PLAN

Wompatuck State Park
Circulation Master Plan

Draft Master Plan

- | | | | |
|--|------------------------------|--|------------------------------------|
| | Park Entrance | | Healthy Heart Trail |
| | Trailhead at Union Street | | Nature Study Trail |
| | Trailhead at Campground | | Bridle Trail |
| | Crosswalk | | Campground Connector |
| | Destination | | Mountain-bike Optimized Trail |
| | Scout Area | | All Persons Trail |
| | Proposed Interpretive | | Birding Trail |
| | Outdoor Classroom | | Naval History Trail |
| | Education Stations | | Settlement History Trail |
| | Bridle Parking | | Settlement History Connector Trail |
| | Accessible Parking | | Settlement History Water Trail |
| | Parking | | Single-track Trail |
| | Existing Parking | | Double-track Trail |
| | Widened Boardwalk | | Adaptive Trail (FSTAG) |
| | Boardwalk | | Stabilized ADA Accessible Trail |
| | Certified Vernal Pool | | Paved Shared Use Path |
| | Electrical Transmission Line | | Administrative Road |
| | Buildings | | Park Entrance |
| | Park Boundary | | |

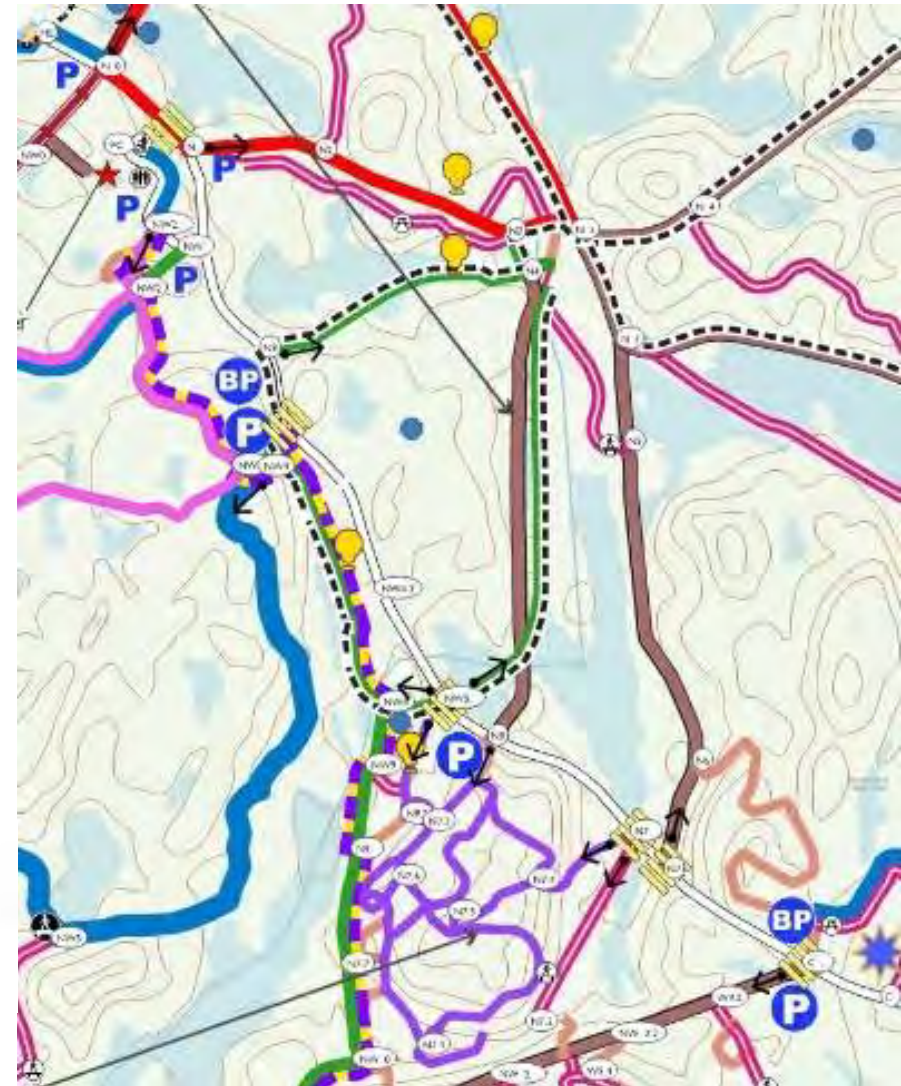
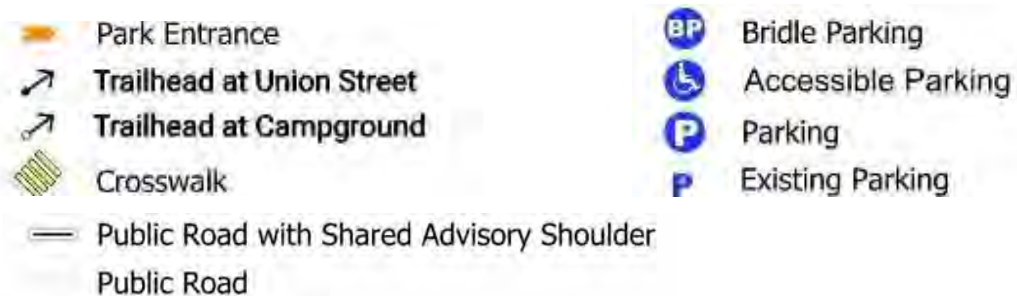
WOMPATUCK CIRCULATION MASTERPLAN



Primary Recommendations

Circulation Framework

- Park Entrances
- Parking
- Union Street
 - Trail Access Points
 - Advisory Shoulder
 - Crosswalks



Primary Recommendations

Circulation Framework








Mount Blue Street Entrance

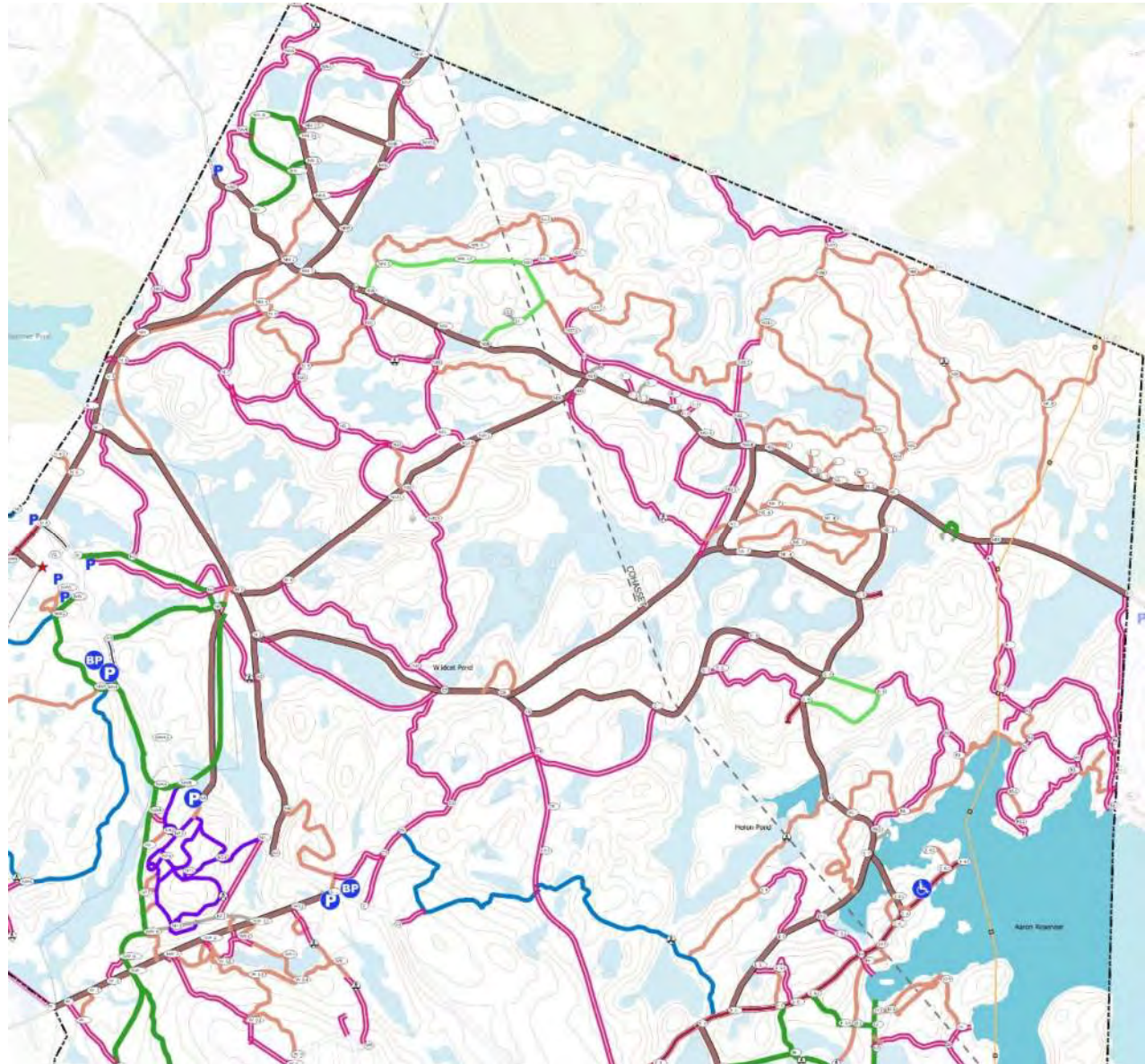
- | | | | |
|--|---|--|--------------------|
| | Park Entrance | | Bridle Parking |
| | Trailhead at Union Street | | Accessible Parking |
| | Trailhead at Campground | | Parking |
| | Crosswalk | | Existing Parking |
| | Public Road with Shared Advisory Shoulder | | |
| | Public Road | | |



Primary Recommendations

Maintenance and Emergency Access

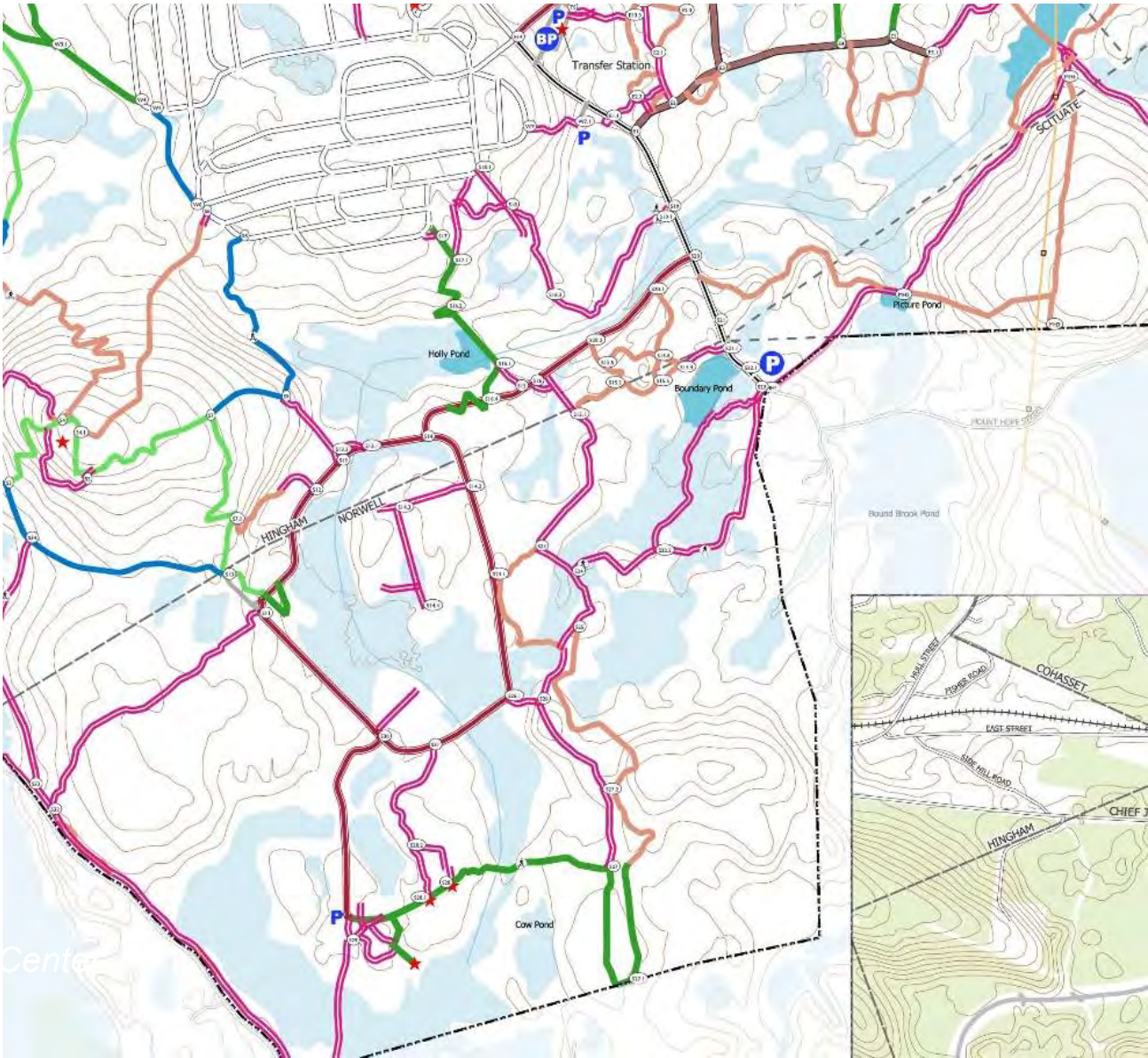
-  Paved Shared Use Path
-  Administrative Road
-  Public Road with Shared Advisory Shoulder
-  Public Road
-  Existing Trail



Primary Recommendations

Maintenance and Emergency Access

- Paved Shared Use Path
- Administrative Road
- Public Road with Shared Advisory Shoulder
- Public Road
- Existing Trail

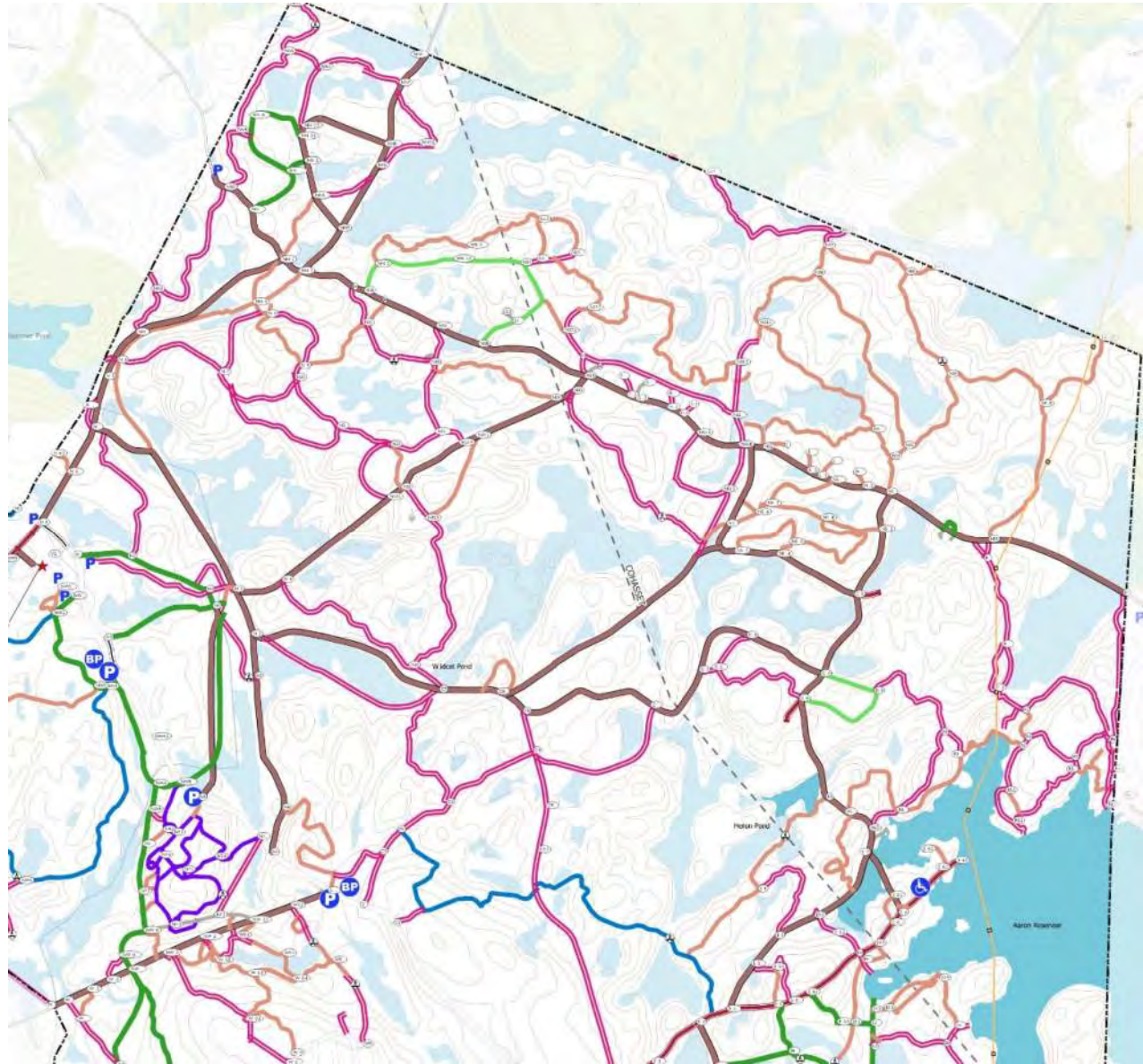


Wompatuck State Park
Circulation Master Plan

Primary Recommendations

Increased Accessibility

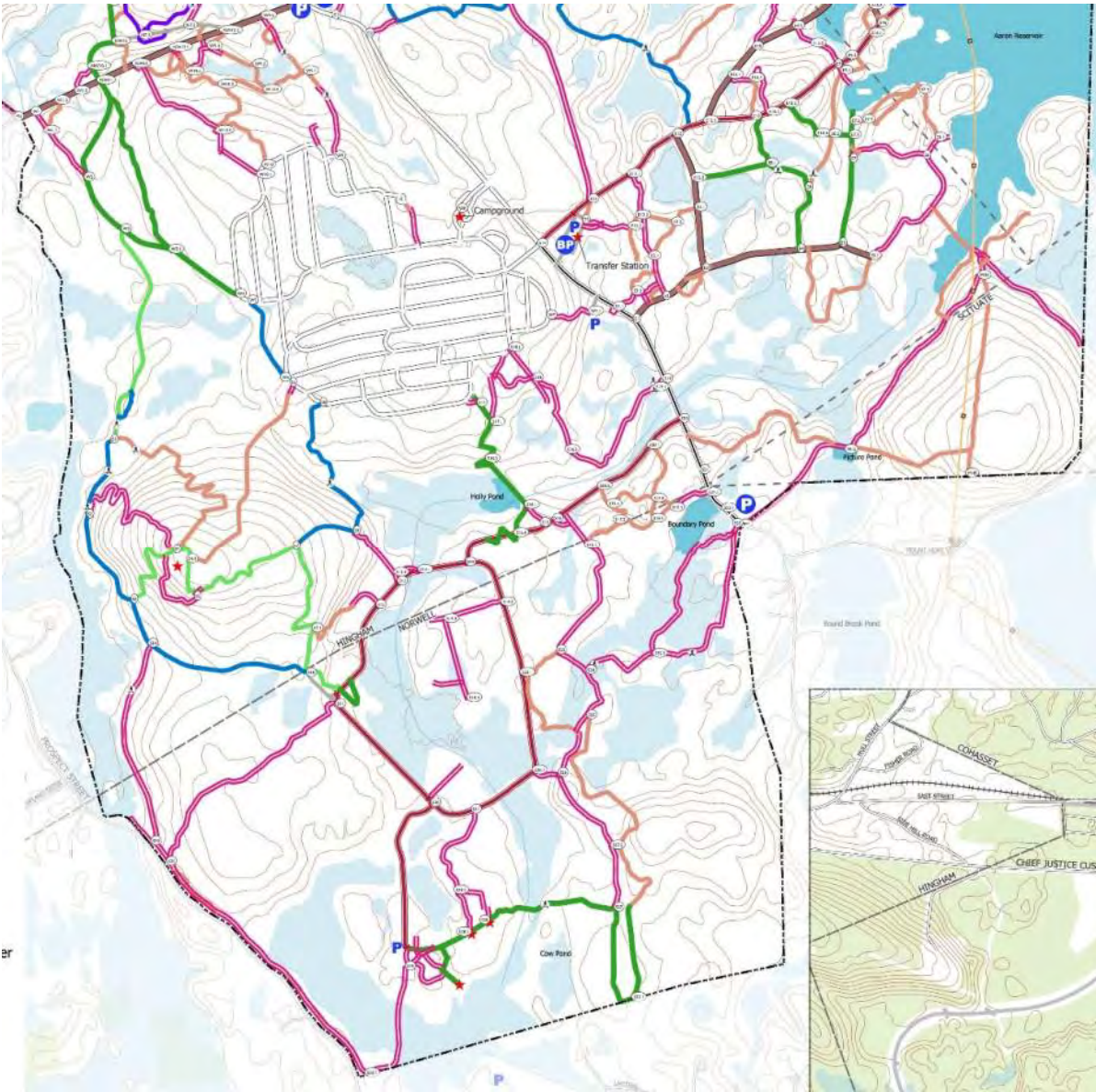
- Adaptive Trail (FSTAG)
- Stabilized ADA Accessible Trail
- Paved Shared Use Path
- Administrative Road
- Public Road with Shared Advisory Shoulder
- Public Road
- Existing Trail



Primary Recommendations

Increased Accessibility

- Adaptive Trail (FSTAG)
- Stabilized ADA Accessible Trail
- Paved Shared Use Path
- Administrative Road
- Public Road with Shared Advisory Shoulder
- Public Road
- Existing Trail



Primary Recommendations

Environmental

- All work within sensitive areas = analysis of permitting requirements
- May be most cost effective to permit several projects at one time
- Temporary closure of trail during spring migration of vernal pool species
- Restoration or rehabilitation of impacted areas

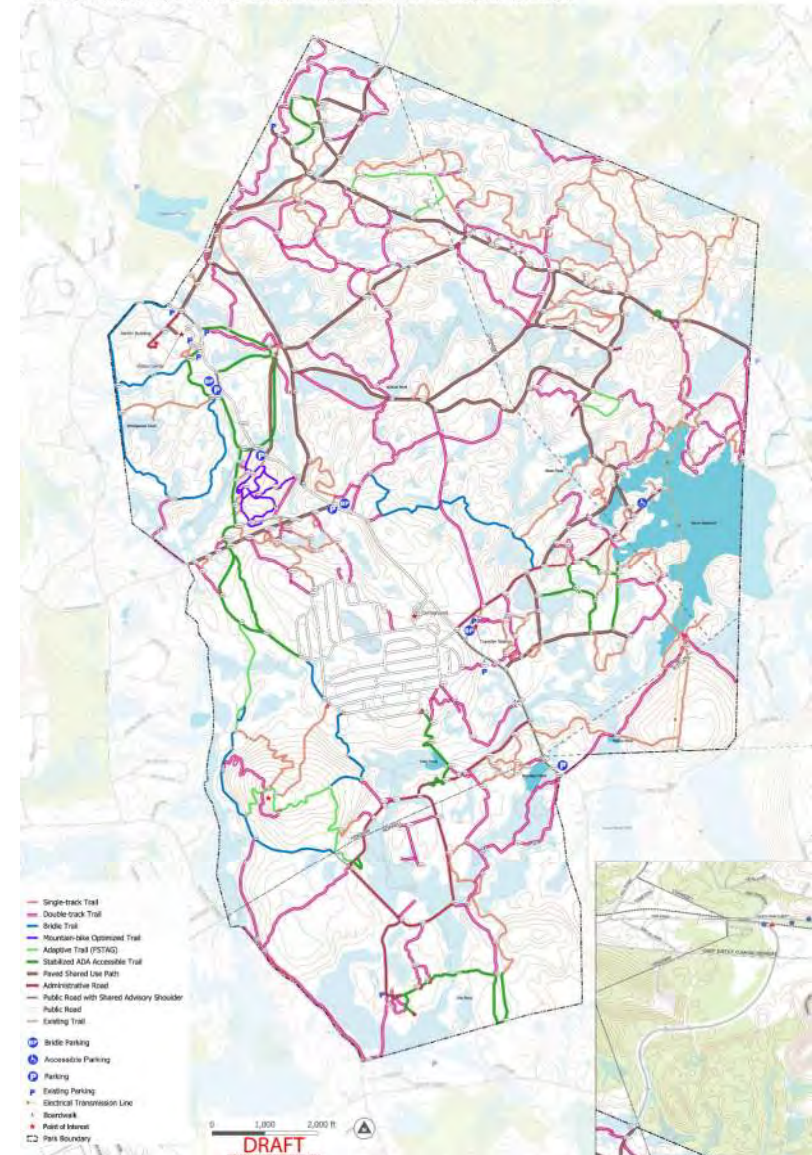
Cultural

- Preliminary sensitivity assigned to 3,500+ acres
- Comprehensive historic architectural and archaeological reconnaissance survey of Park land
- Tribal consultations
- Coordination with DCR's Office of Cultural Resources
- Minimally activities that disturb soil OR funded by state or federal = review by Mass Historic Commission and Project Notification Form

Proposed Trail Typology

-  Single-track Trail
-  Double-track Trail
-  Bridle Trail
-  Mountain-bike Optimized Trail
-  Adaptive Trail (FSTAG)
-  Stabilized ADA Accessible Trail
-  Paved Shared Use Path
-  Administrative Road
-  Public Road with Shared Advisory Shoulder
-  Public Road
-  Existing Trail

WOMPATUCK PROPOSED TRAIL TYPOLOGY PLAN



Curated Experiences

Curated Trails

Healthy Heart Trail

Nature Study Trail

Bridle Trail

Campground Connector

Mountain-bike Optimized Trail

All Persons Trail

Birding Trail

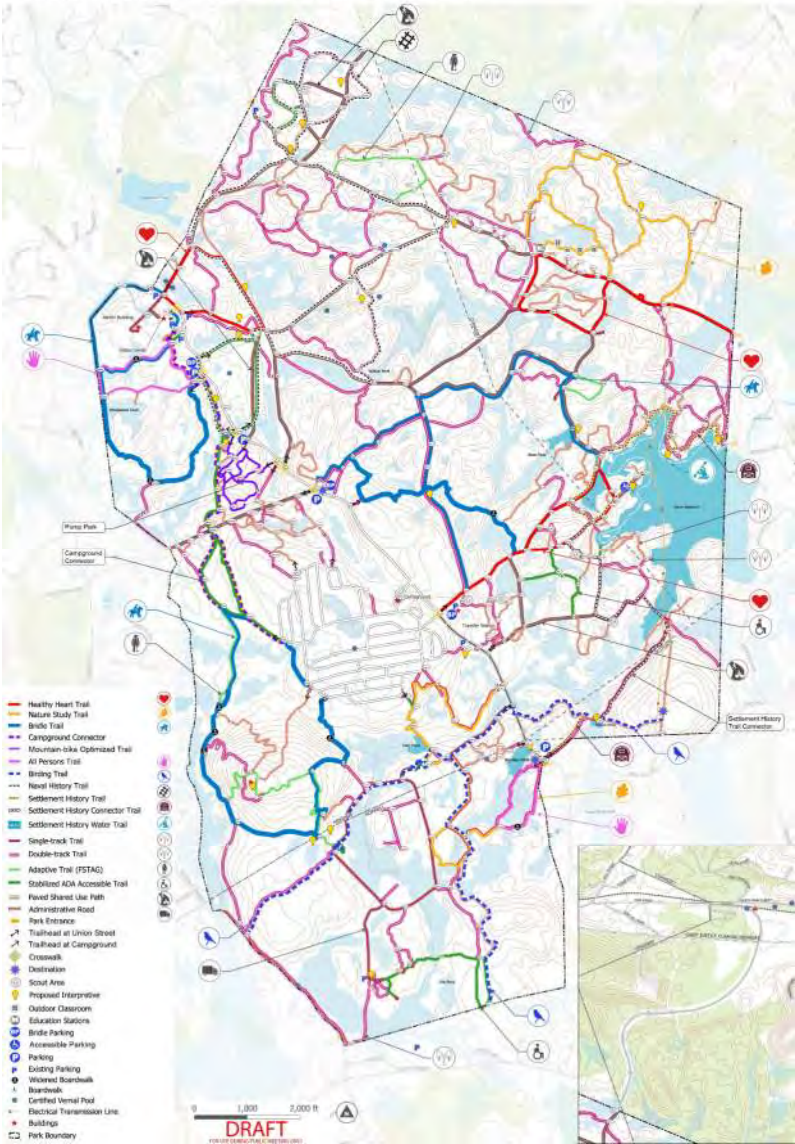
Naval History Trail

Settlement History Trail

Settlement History Connector Trail


Settlement History Water Trail

WOMPATUCK CIRCULATION MASTERPLAN



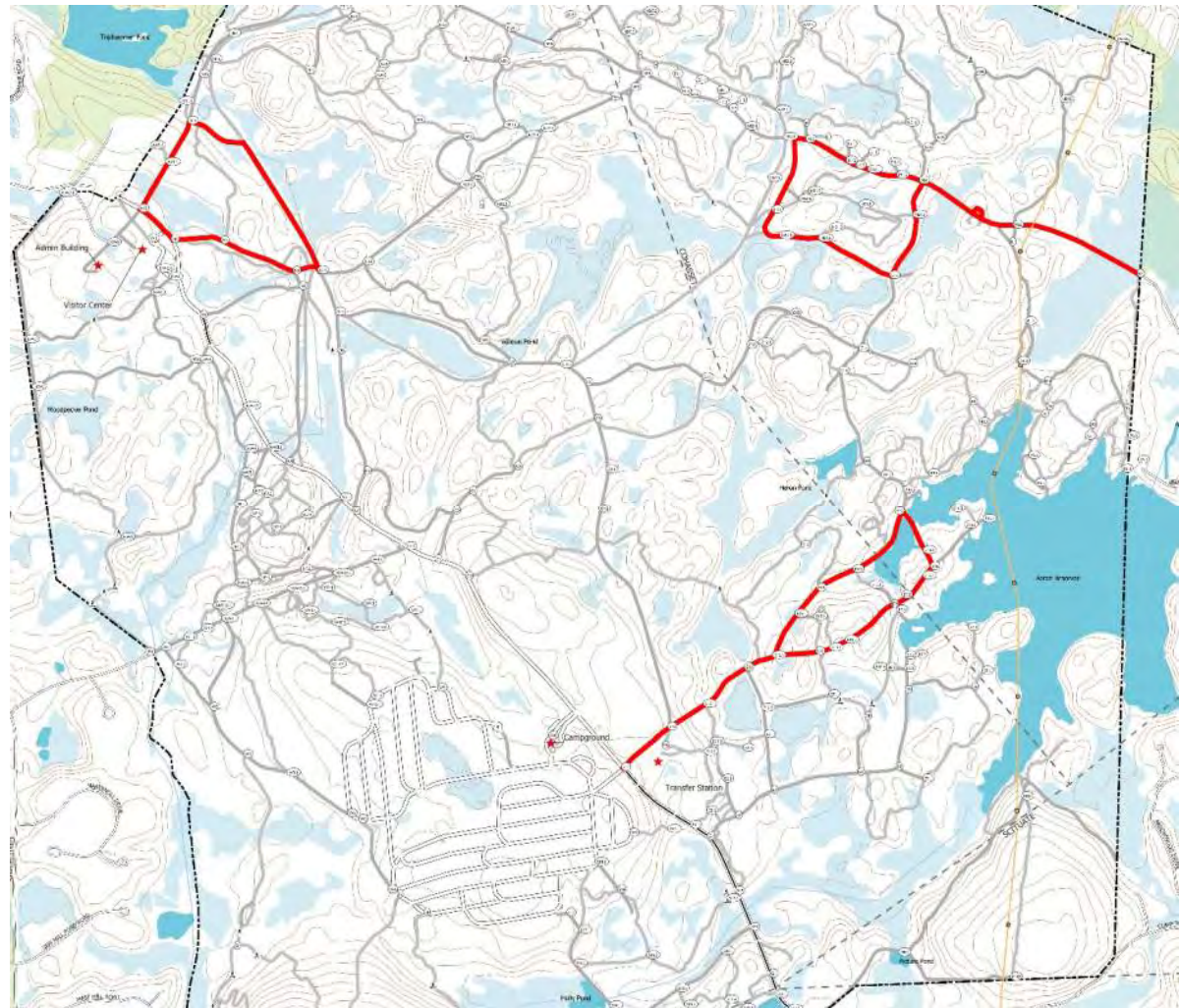
Curated Experiences

Curated Trails

 Healthy Heart Trail

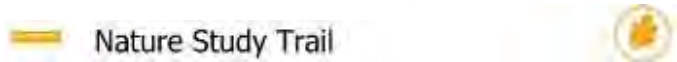


- Experience focused on exercise
- Typically 1-2 miles
- Typical speed of 1-3 miles/hour



Curated Experiences

Curated Trails



- Experience focused on nature
- Located in areas of Core Habitats
- Single Track, to reduce impervious surfaces
- Engender stewardship



Primary Recommendations

Curated Trails

Bridle Trail



- Loops from 2 to 4 miles
- With bridle trailer parking
- Must have water source nearby

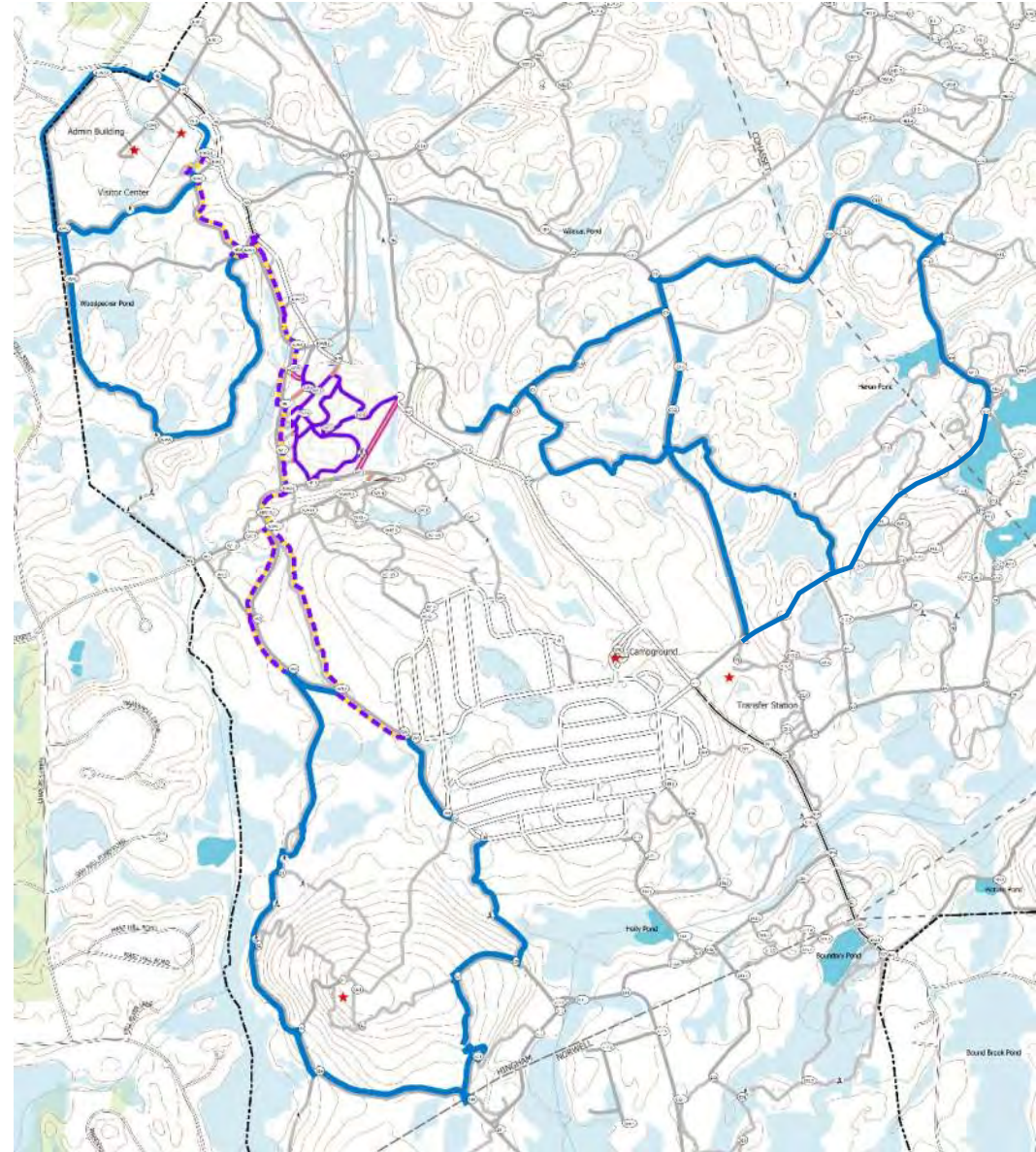
*Bridle trail connection to the campground to be coordinated with campground management

Campground Connector

- Links campground and Visitors Center
- Meet ADA design parameters

Mountain-bike Optimized Trail

- Enhance the mountain bike experience
- Varying in difficulty



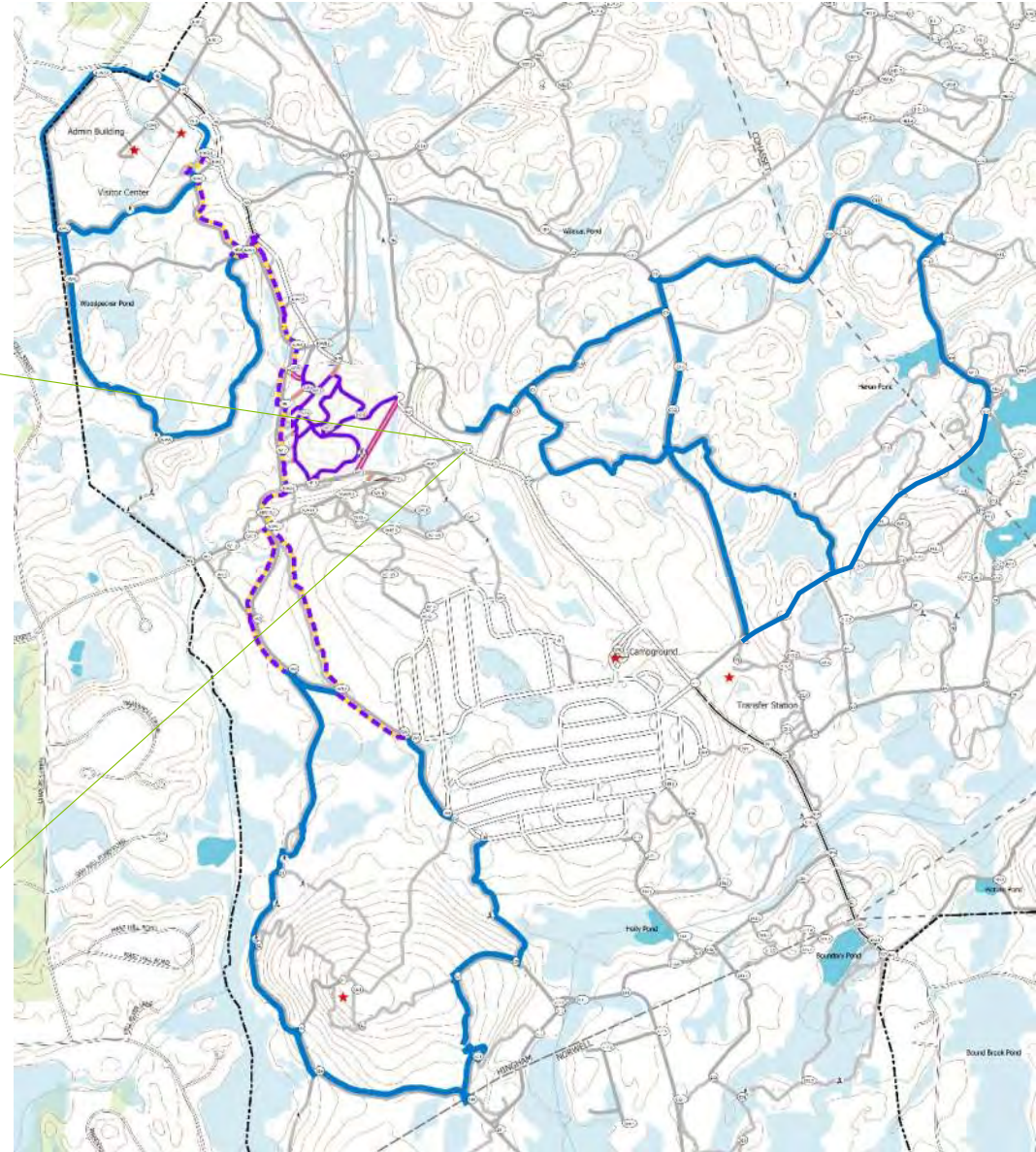
Wompatuck State Park
Circulation Master Plan

Primary Recommendations

Curated Trails



Orchard Picnic Area



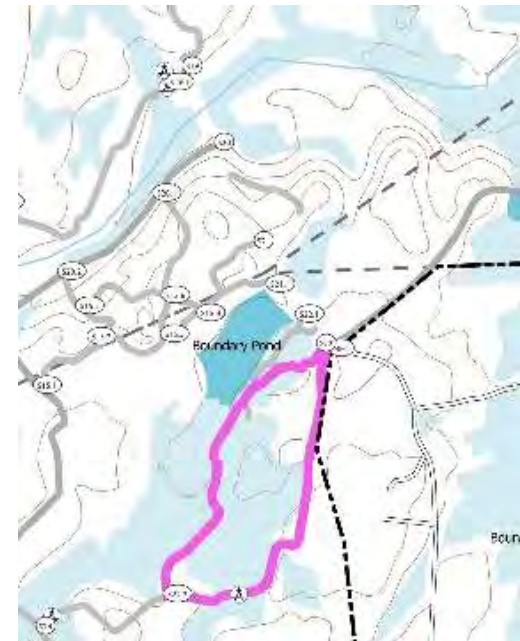
Curated Experiences

Curated Trails



- Rewarding experiences that can be comfortably and safely navigated
- All visitors include people with mobility, vision or other physical, sensory or brain-based functional limitations
- Frequent seating opportunities
- Universally accessible and tactical interpretive features

*Reference: Mass Audubon (with DCR) “All Persons Trails: A Manual of Guidelines and Best Practices for Developing and Operating Universally Design Interpretive Trail Experiences”

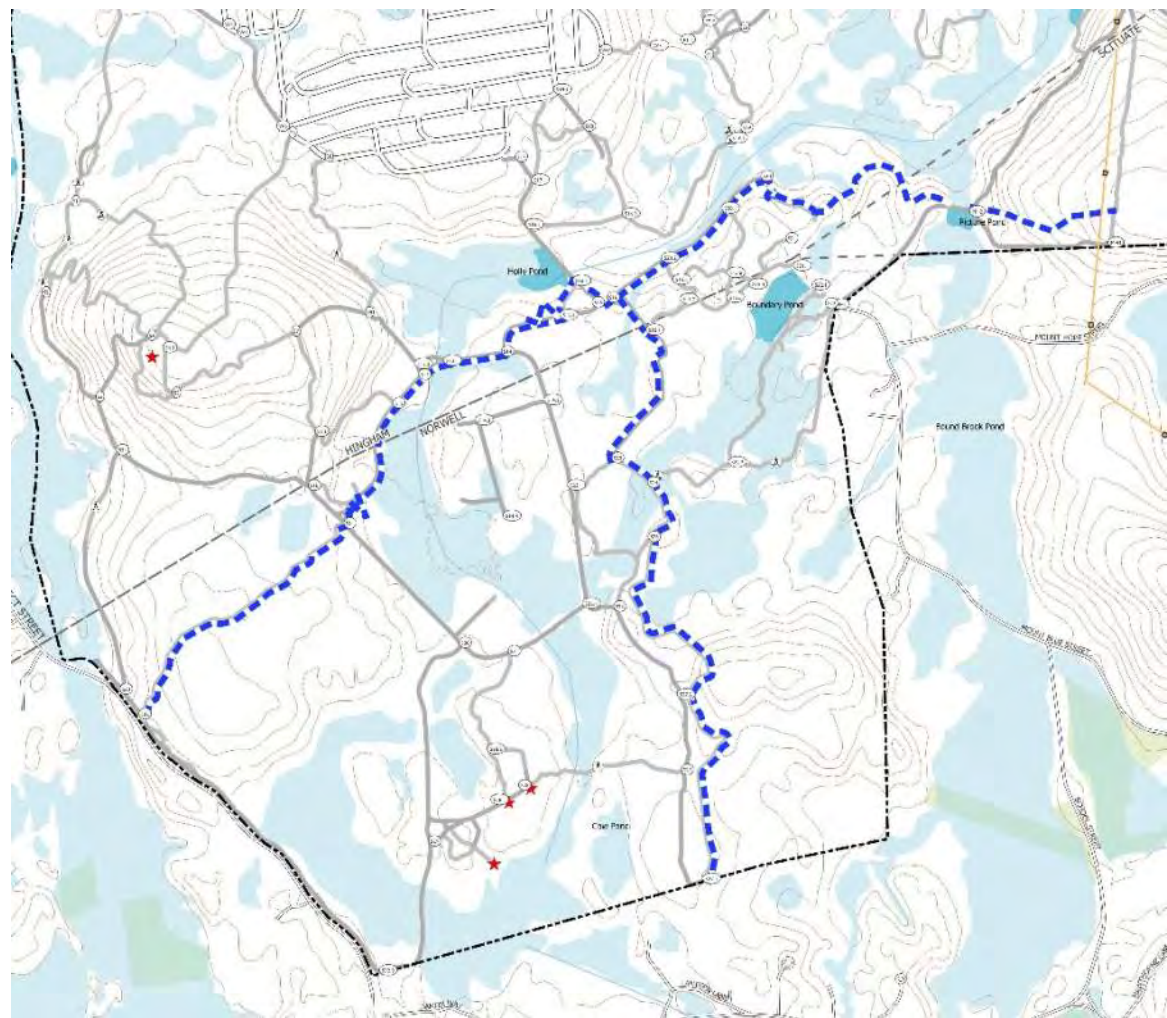


Curated Experiences

Curated Trails

Birding Trail

- Ornithologically significant trails
- Interpretive signage
- Bird-watching blinds



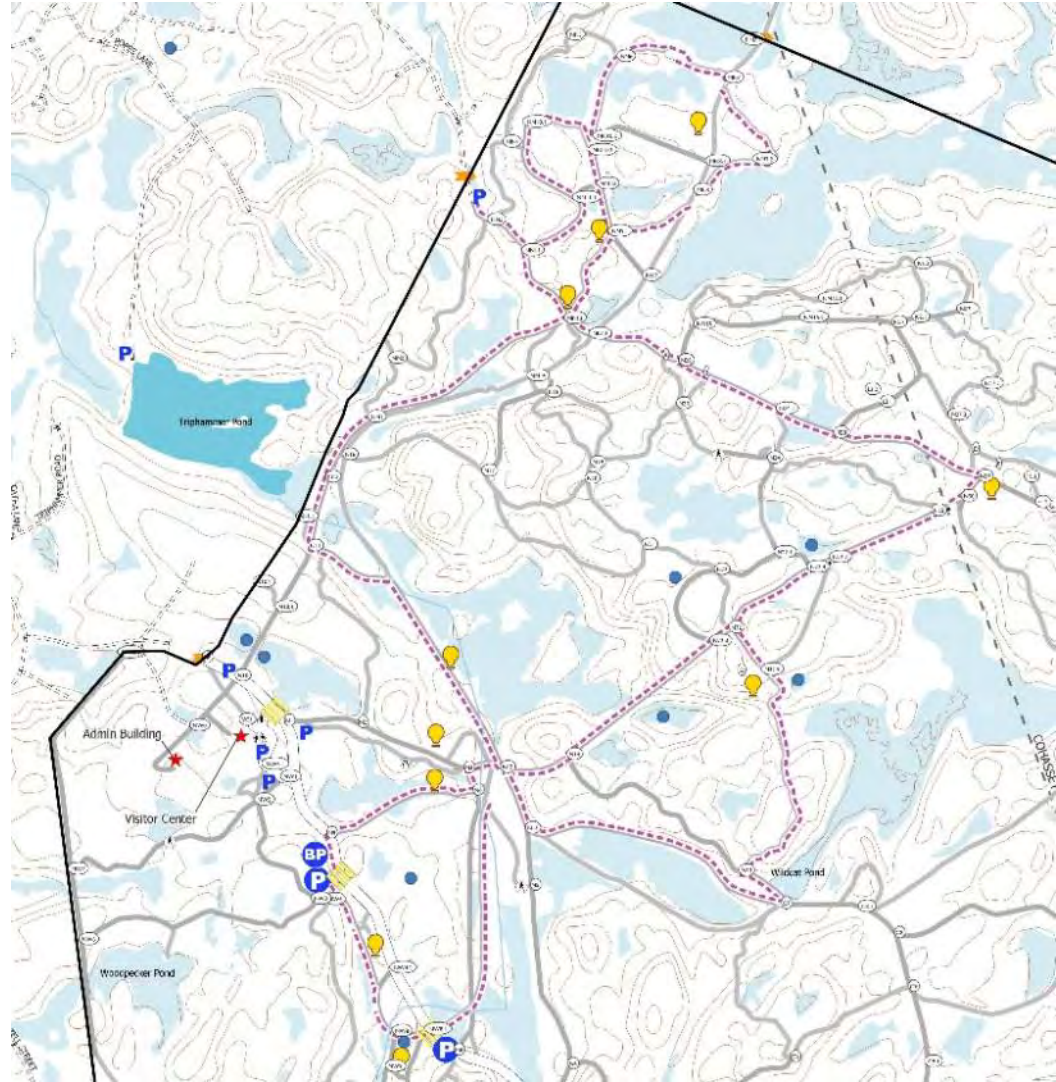
Curated Experiences

Curated Trails

--- Naval History Trail

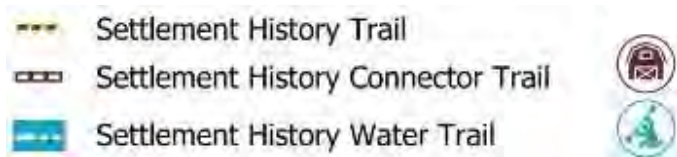


- Based on 1941 US Naval expansion of the Hingham Naval Ammunitions Depot
- Loops to view culturally significant elements on the land
- Interpretive signage

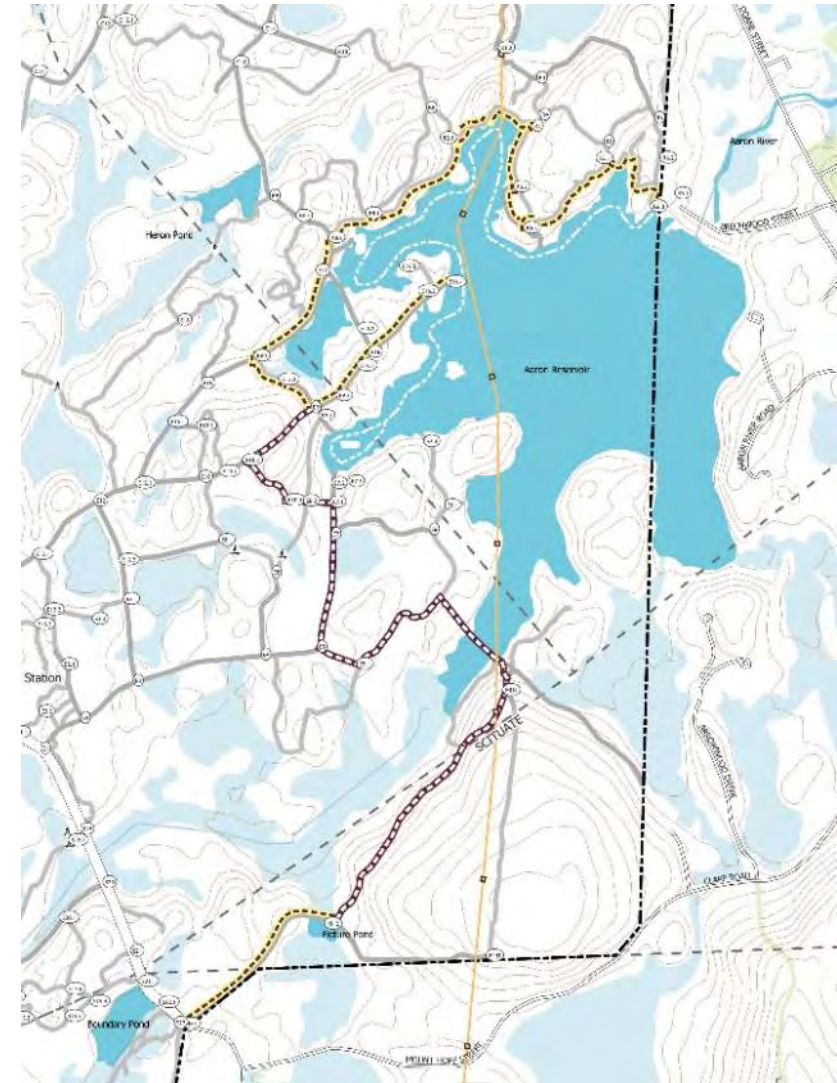


Curated Experiences

Curated Trails



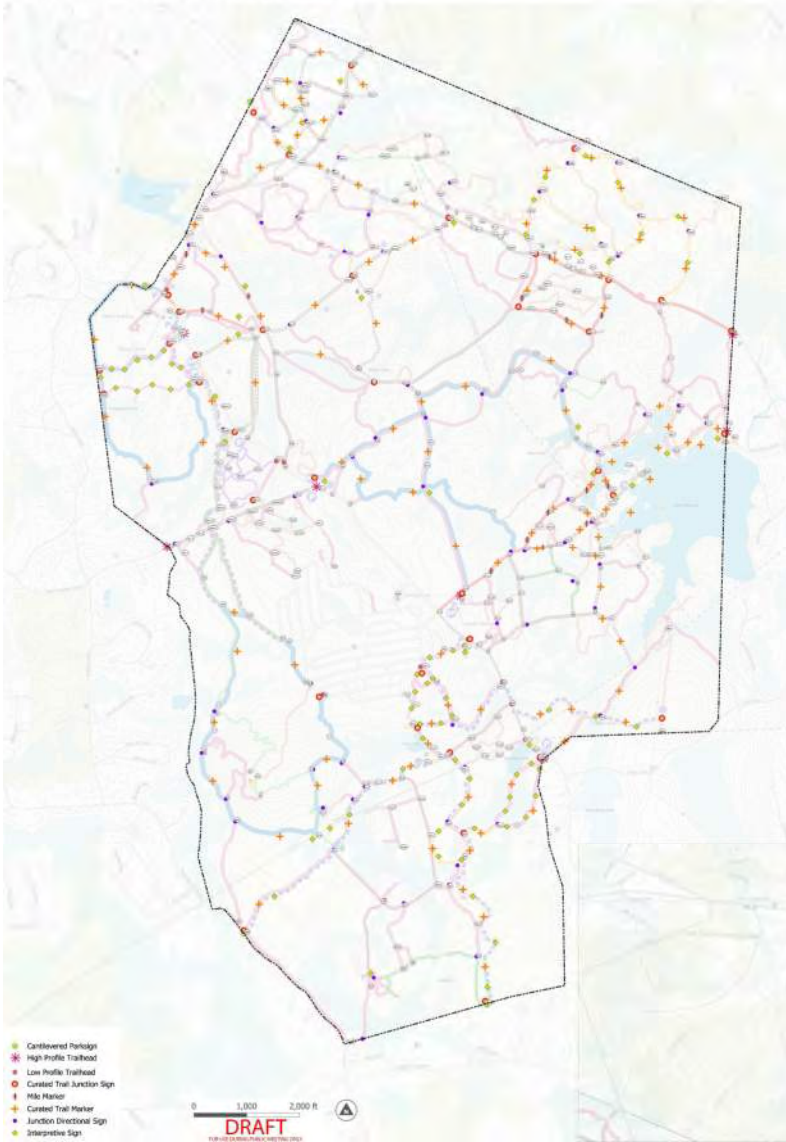
- Routes along historic settlement features or sites
- Interpretive signage
- Water trail include new canoe launch and is supported with mapping and interpretives



Proposed Signage

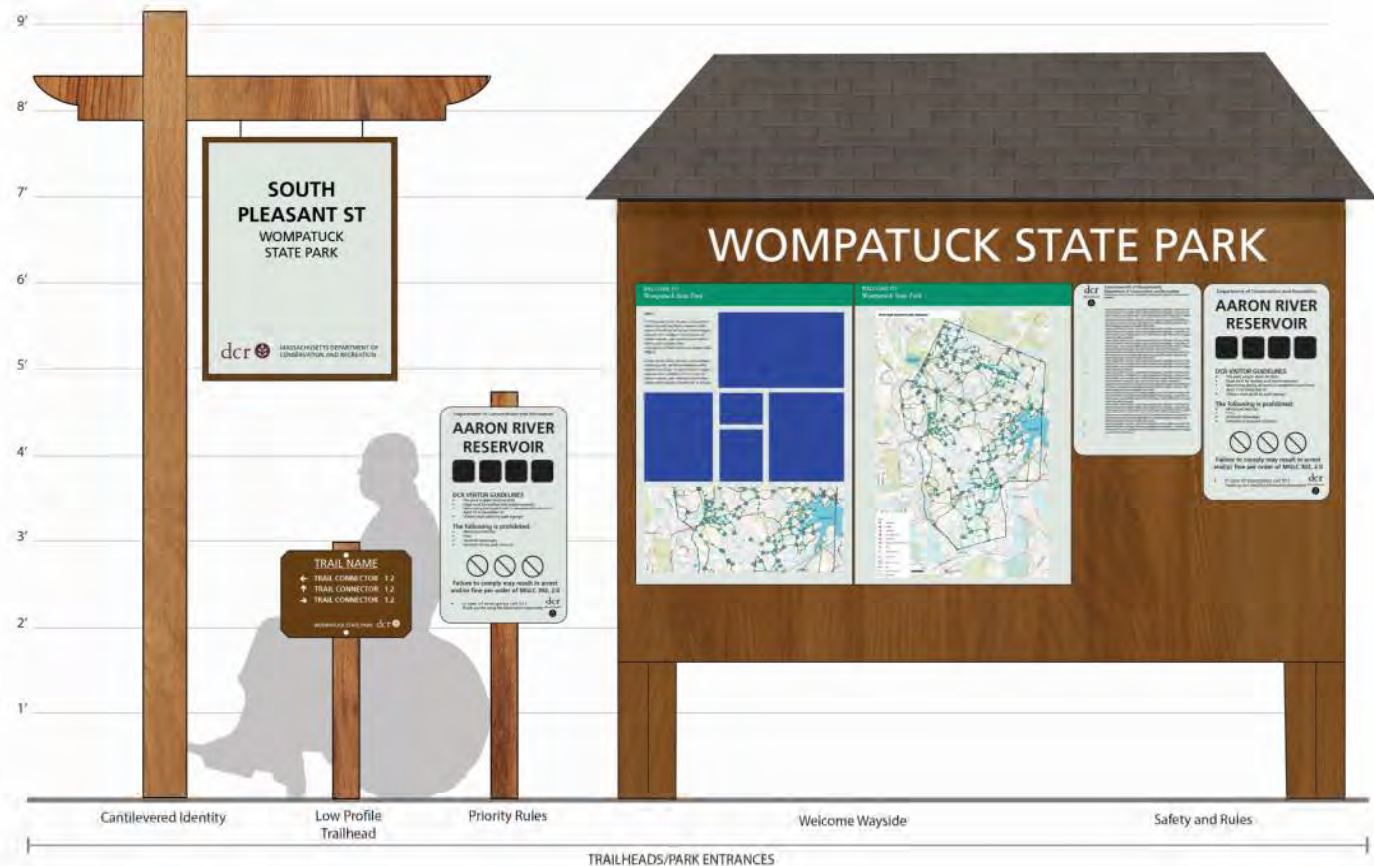
- Cantilevered Parksign
- High Profile Trailhead
- Low Profile Trailhead
- Curated Trail Junction Sign
- Mile Marker
- Curated Trail Marker
- Junction Directional Sign
- Interpretive Sign

WOMPATUCK SIGNAGE PLAN



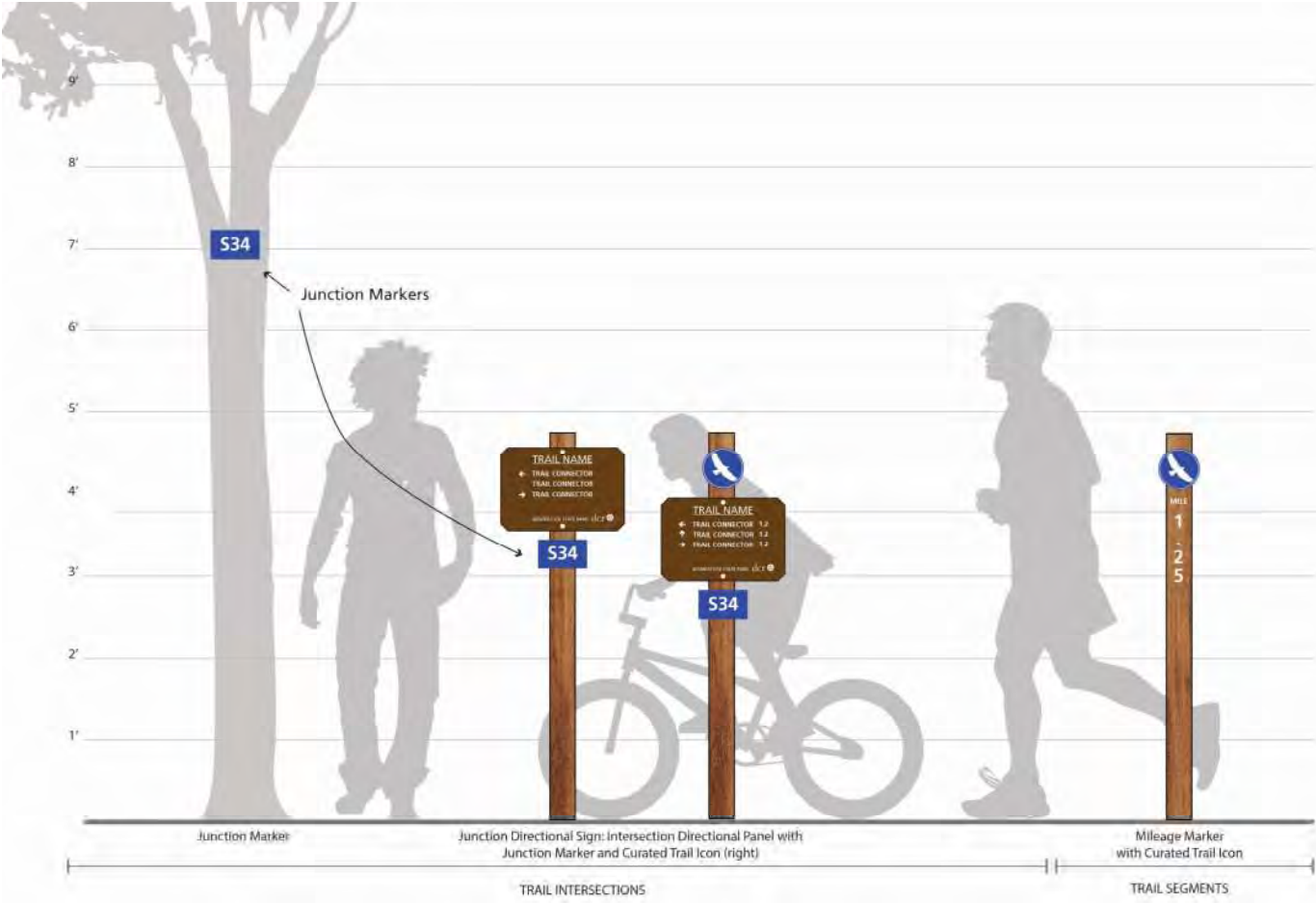
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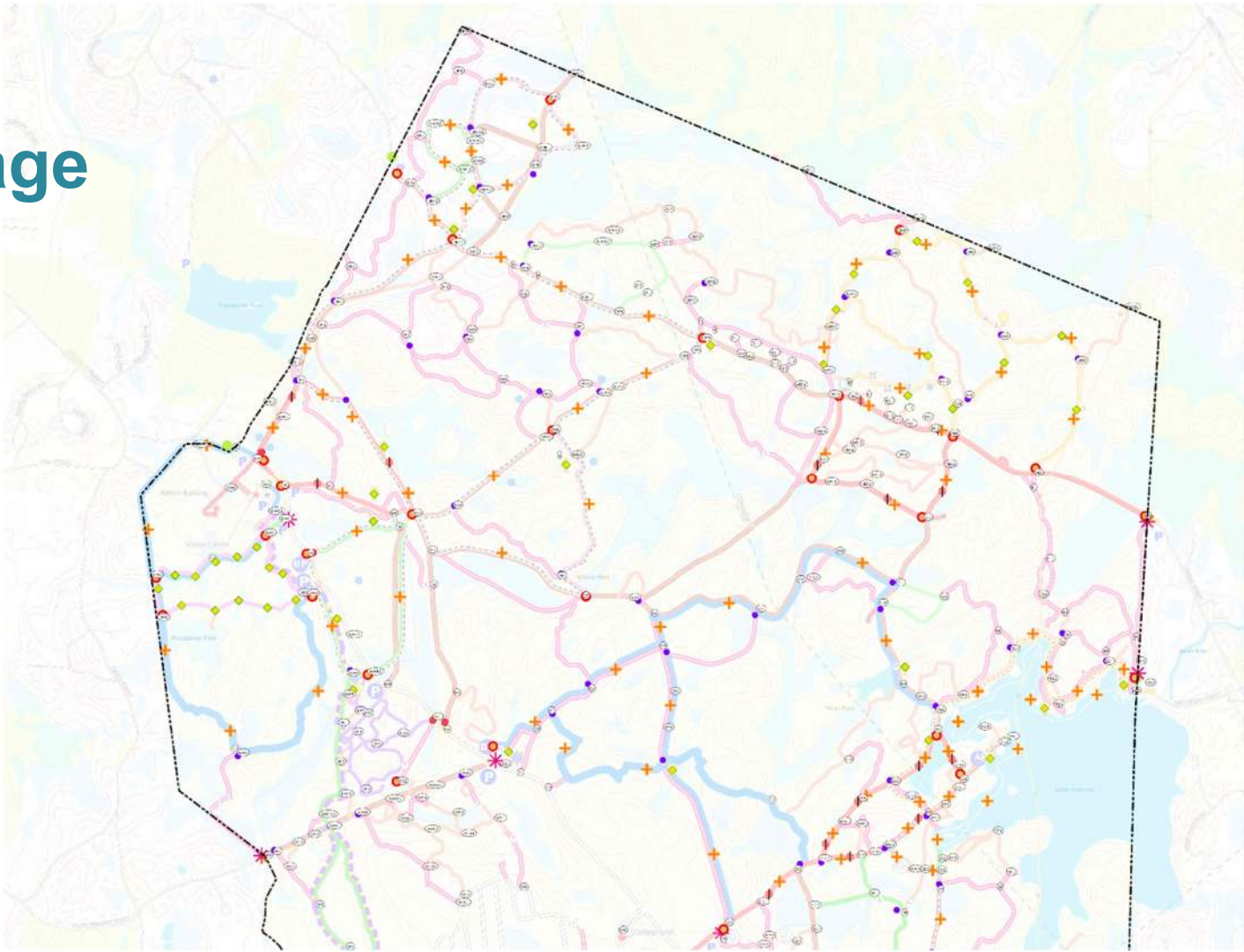
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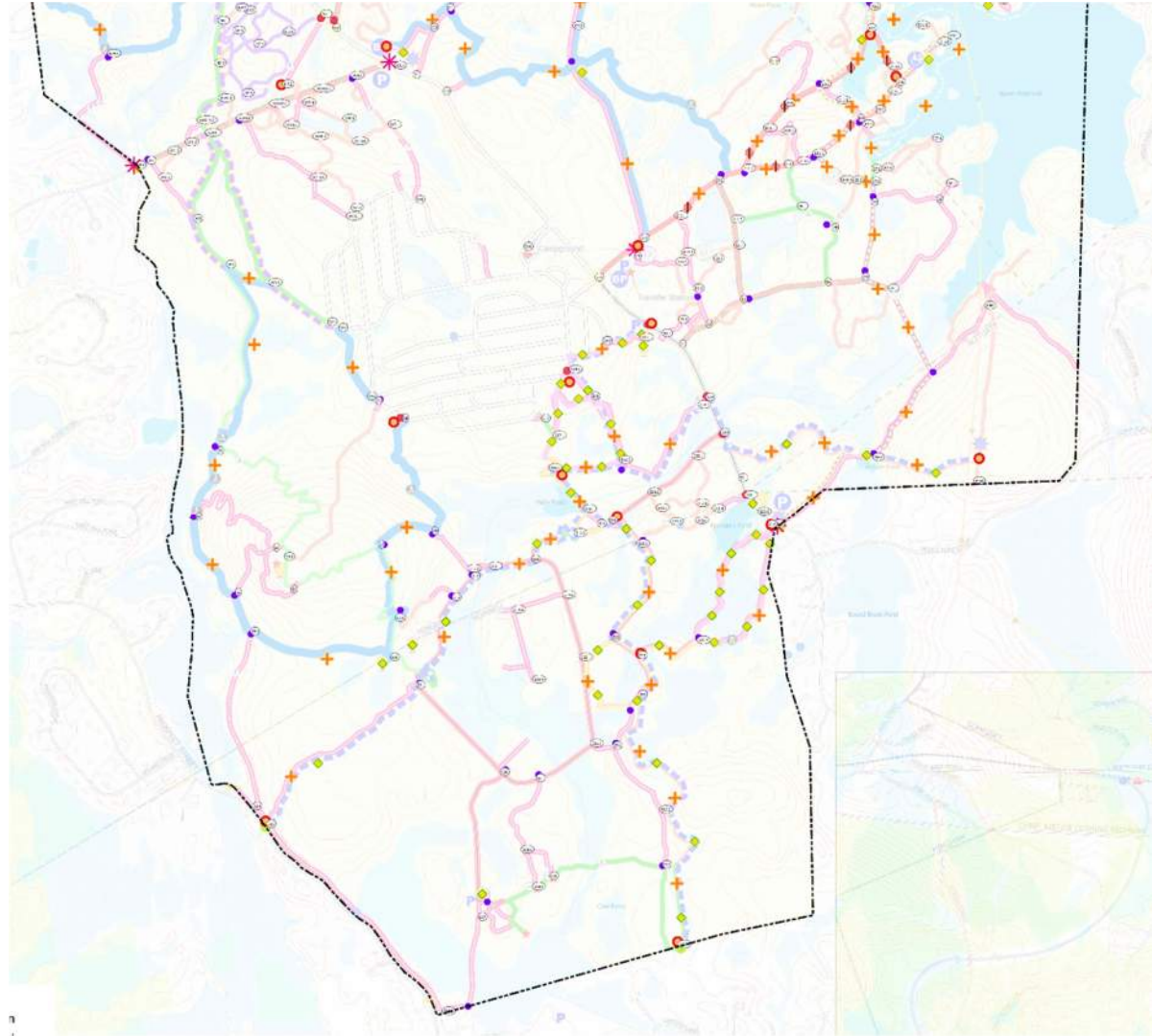
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Proposed Signage

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ACTIONS AND IMPLEMENTATION

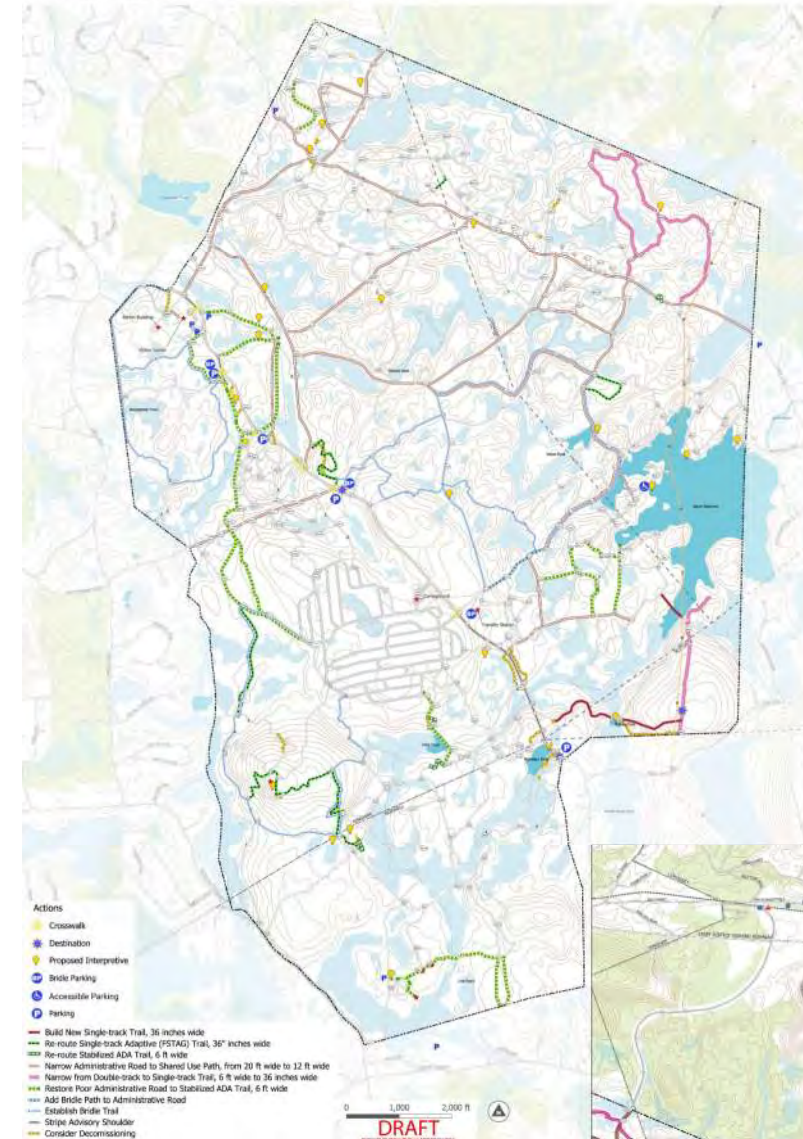
Actions and Implementation

PRIMARY TRAIL ACTIONS

CURATED EXPERIENCES AND SPECIAL SPACES

10-acre
reduction in
impervious
surface

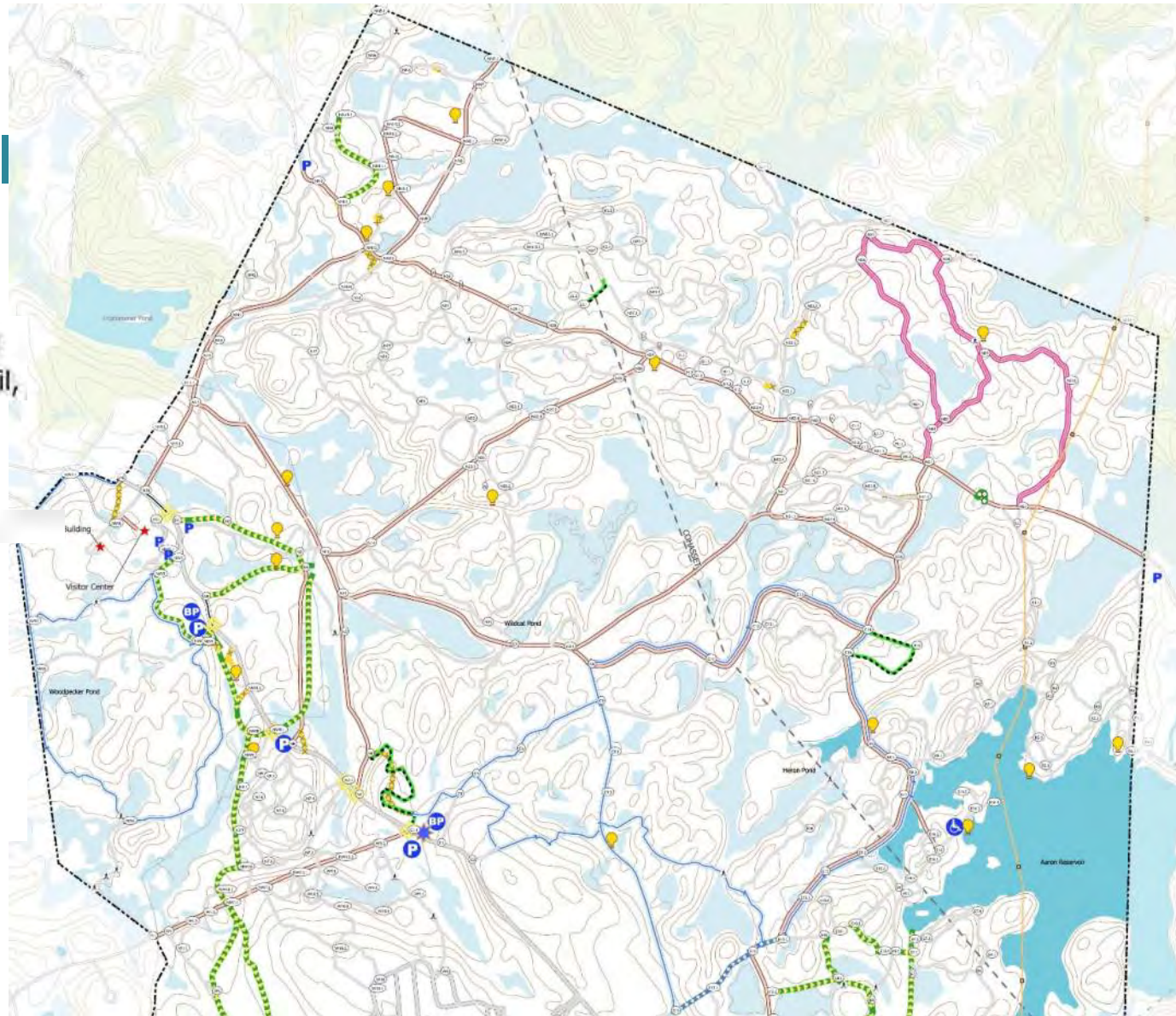
WOMPATUCK PROPOSED ACTION PLAN



Actions and Impl

PRIMARY TRAIL ACTIONS

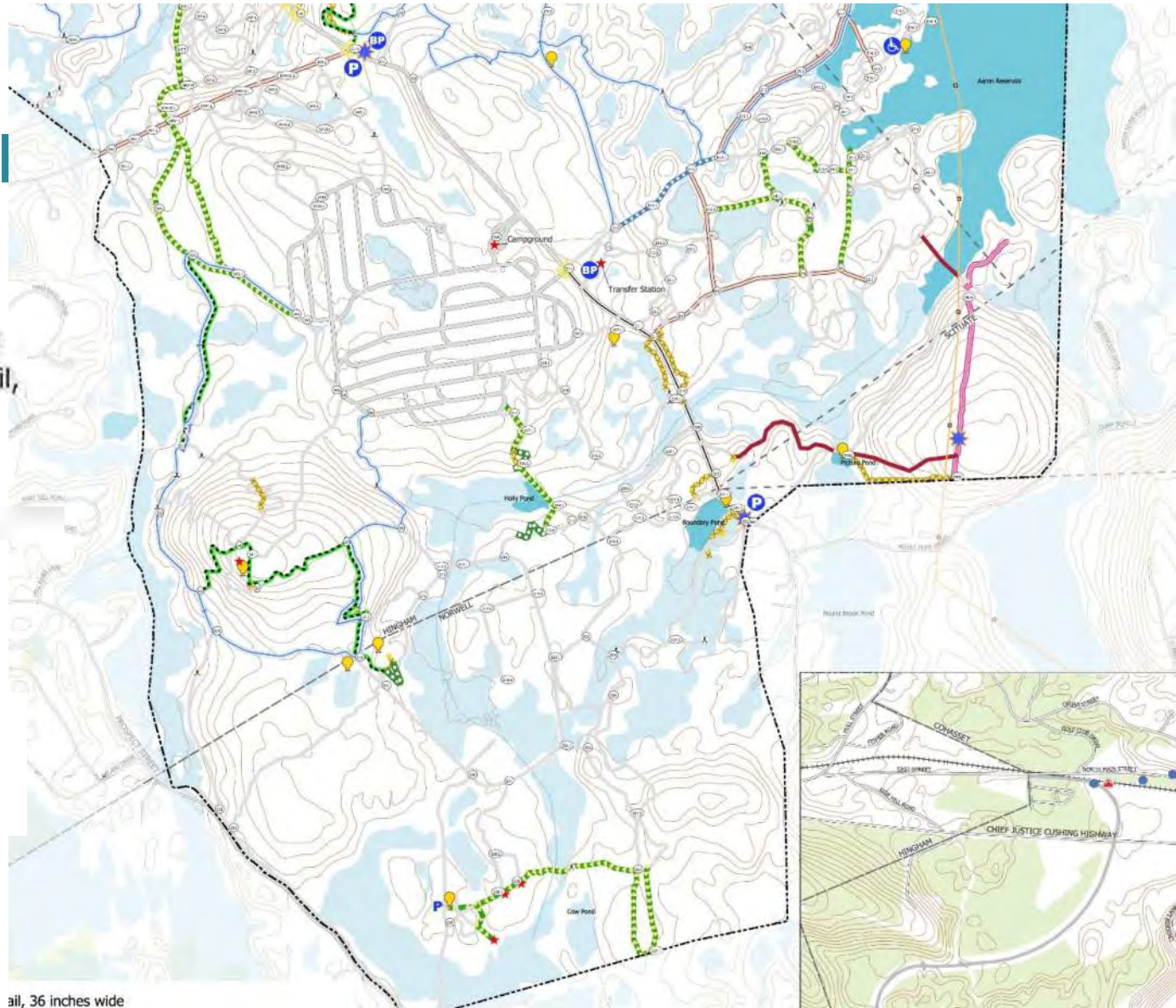
- Build New Single-track Trail, 36 inches wide
- Re-route Single-track Adaptive (FSTAG) Trail, 36" inches wide
- Re-route Stabilized ADA Trail, 6 ft wide
- Narrow Administrative Road to Shared Use Path, from 20 ft wide to 12 ft wide
- Narrow from Double-track to Single-track Trail, 6 ft wide to 36 inches wide
- Restore Poor Administrative Road to Stabilized ADA Trail, 6 ft wide
- Add Bridle Path to Administrative Road
- Establish Bridle Trail
- Stripe Advisory Shoulder
- Consider Decommissioning



Actions and Impl

PRIMARY TRAIL ACTIONS

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Actions and Implementation

Proposed Phasing

- Priority Work / easy to implement
 - Safety and Accessibility
- Short Term (1-3 years)
- Medium Term (3-6 years)
- Long Term (6+ years)
- Actions through Ongoing Maintenance

*Costs are not additive. Curated trail costs are an aggregate of all costs associated with that trail.

Item/Remarks	ROUNDED TOTAL COST	Increased Safety	Greater Accessibility	Enhanced Recreational Experience	Maintain Maintenance and Emergency Access	Protect/Promote Environmentally Sensitive Areas	Protect/Promote Culturally Sensitive Areas	Clarified Trail Circulation	Mitigate Climate Change	Foster Stewardship
1 Build New Single-track Trail, 36" wide	\$ 71,000		X	X						
2 Re-route Single-track Adaptive (FSTAG) Trail, 36" wide	\$ 528,700	X	X			X				
3 Build New or Re-route Stabilized ADA Trail, 6' wide	\$ 564,700	X	X			X				
4 Narrow Administrative Road to Shared Use Path, from 20' wide to 12' wide	\$ 9,003,800				X	X			X	X
5 Narrow from Double-track to Single-track Trail, 6' wide to 36" wide	\$ 365,000					X				X
6 Restore Poor Administrative Road to Stabilized ADA Trail, 6' wide	\$ 3,481,500		X			X			X	
7 Establish Bridle Trail	\$ 1,344,800		X	X				X		
8 Stripe Advisory Shoulder	\$ 2,400	X						X		
9 Decommission Trail	\$ 339,900	X				X		X	X	X
10 Mount Blue Entrance Improvements	\$ 100,200	X	X	X	X			X		
11 Orchard Picnic Area Enhancements	\$ 117,400	X	X	X			X	X		X
12 High Profile Trailhead with no new parking	\$ 20,600			X				X		X
13 High Profile Trailhead with new designated HC parking	\$ 22,800		X	X				X		X
14 Low Profile Trailheads with no designated parking	\$ 2,700			X				X		X
15 Low Profile Trailheads with designated parking	\$ 7,900		X	X				X		X
16 Healthy Heart Trail: North	\$ 335,200			X				X		
17 Healthy Heart Trail: Nature Study Area	\$ 2,706,200			X				X		
18 Healthy Heart Trail: East	\$ 841,000			X				X		
19 Nature Trail: Nature Study Area	\$ 971,600		X	X		X		X	X	X
20 Nature Trail: South	\$ 652,500		X	X		X		X	X	X
21 All Persons Trail: North-West	\$ 861,500	X	X	X		X	X	X	X	X
22 All Persons Trail: Blue Spring	\$ 841,400	X	X	X		X	X	X	X	X
23 All Persons Trail: South	\$ 485,300	X	X	X		X	X	X	X	X
24 Birding Trail: Blue Spring	\$ 80,800			X		X				X
25 Birding Trail: Mount Blue	\$ 293,200			X		X				X
26 Birding Trail: Prescott Street	\$ 265,900			X		X				X
27 Birding Trail: South	\$ 242,400			X		X				X
28 Naval History: Railroad Trail	\$ 810,400			X			X			X
29 Naval History: Cohasset Annex Trail	\$ 2,874,000			X			X			X
30 Naval History: Bunker Trail	\$ 1,994,000			X			X			X
31 Settlement History: Mill Trail	\$ 23,300			X			X			X
32 Settlement History: Homestead Trail	\$ 321,400			X			X			X
33 Settlement History Trails Connector	\$ 582,700			X			X			X
34 Settlement History: Water Trail	\$ 49,500			X			X			X
35 Crosswalks	\$ 1,500	X	X					X		

Welcome & Introduction

OPEN DISCUSSION

Open Discussion



- We will take comments in the order hands are raised
 - If calling in, dial *9 to raise your hand and *6 to unmute
- Additional comments can be made using the Q+A function and/or the chat function
- In order to allow everyone to speak, please try to limit your time to 1 minute
- Approximately every 15 minutes, we will provide responses to Q/A and chat
- The meeting is scheduled to end at 7:30 PM



CLOSING AND NEXT STEPS

Additional Information

- Recording and slide deck will be available at:
 - <https://www.mass.gov/dcr/past-public-meetings>
- If you have comments on this project, please use the link below. The public comment period will end on (three weeks from Public Mtg) TBD:
 - Submit online: www.mass.gov/dcr/public-comment

Please note: the contents of comments submitted to DCR, including your name, town and zip code, will be posted on DCR's website. Additional contact information provided, notably email address, will only be used for outreach on future updates to the subject project or property.

- If you wish to subscribe to a DCR general information or project-related listserv: contact DCR's Office of Community Relations via email at mass.parks@mass.gov

Next Steps

- Final Master Plan
- Final Report

Thank you!

