



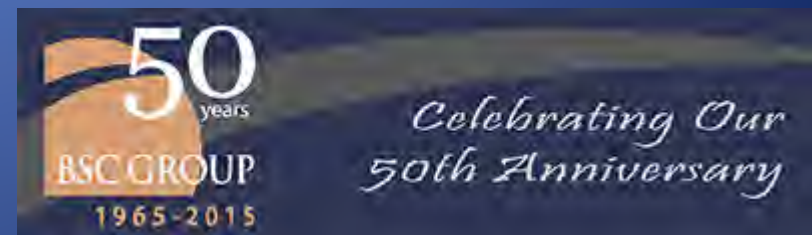
Trails Planning and Permitting “The Nitty Gritty”

Alexandra (Ale) Echandi, Ecological Scientist
Jef Fasser, Director of Landscape Architecture

November 14, 2015

Introduction

- BSC Group, Inc.
- Jef
- Ale



Presentation Overview

- Selected 6 projects to highlight the knitty gritty of the trail planning and implementation process
- Each project slide includes:
 - Project description, goals and issue
 - Regulatory Considerations
 - Partnerships/Funding
 - Special Accommodations/Features



Regulatory Backdrop (Federal)

- **Endangered Species Act (ESA)**

- “No species present” letter

<http://www.fws.gov/newengland/pdfs/2014%20no%20species%20present%20ltr.pdf>

- **Section 404 Clean Water Act**

- Implemented by US Army Corps of Engineers
 - Archeological/ Tribal Reviews
 - Federal Register for Historic Sites

Regulatory Backdrop (State)

- **Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program**
 - Massachusetts Endangered Species Act (MESA)
- **Department of Environmental Protection (MassDEP) Wetlands and Waterways**
 - Massachusetts Chapter 91: Tidelands, Great Ponds, Navigable Rivers and Streams
 - Federal Clean Water Act Section 401
 - 401 Water Quality Certification
 - Notice of Intent (Implemented by Municipality unless appealed)
 - Wetland Mitigation/Replication

Regulatory Backdrop (State continued)

- **Massachusetts Environmental Protection Act (MEPA)**
- **Department of Conservation and Recreation (DCR)
Rules and Regulations**
 - Office of Dam Safety
 - Office of Cultural Resources
 - Bureau of Forestry
 - Other
 - DCR BMPs
 - New Trail Proposal Form
 - Volunteer/Stewardship Agreement Form

Regulatory Backdrop (Municipal)

- **Local/ Municipal**

- Local Zoning and other Bylaws
 - Architectural Board/Building Code
 - Planning Board
 - Conservation Commission/Wetland Bylaws

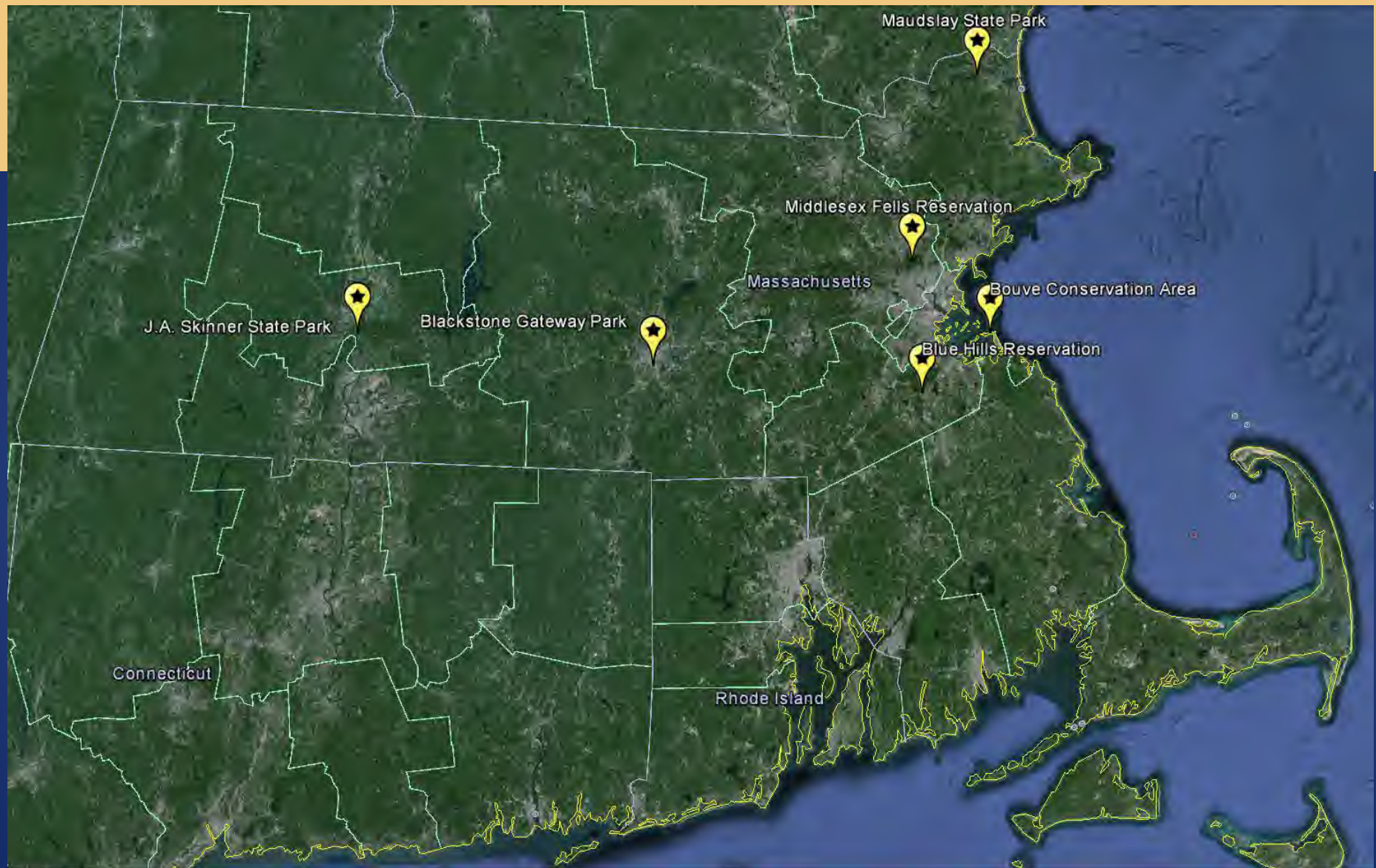
- **Other**

- Dig Safe
- American with Disabilities Act (ADA)

Regulatory Backdrop (Other Considerations)

- **Property Boundaries**
- **Property Deeds and Additional Restrictions**
 - Conservation Restrictions
 - Other Easements (e.g. Utilities)
 - Chapter 61 (e.g. agricultural lands)





New England Trail: J.A. Skinner State Park Trail Relocation

■ Project Goals

- Protect endangered species and their habitat
- Continue to provide positive recreational opportunities
- Meet recommendations provided in the Holyoke Range Resource Management Plan
- Meet the National BMPs/Guidelines for the NET trail
- DCR staff request

New England Trail: J.A. Skinner State Park Trail Relocation

■ Permits and Reviews:

- DCR
 - New Trail Form
 - PNF/MHC
- MESA
 - Habitat Management Exemption
 - Full time NHESP approved monitor required
- Wetlands (Potential)
 - Conversation with Conservation Commission



New England Trail: J.A. Skinner State Park Trail Relocation



- **Partners:** SCA Crew, Friends of Mt. Holyoke Range, AMC
- **Special features:**
 - Maintain character of the NET
 - Provide for vistas/resting areas
 - Enhance habitat
 - Trail Closure



Rock Circuit Trail: Middlesex Fells Reservation Trail Relocation

■ Project Goals

- Meet recommendations provided by the Middlesex Fells Reservation Resource Management Plan
- Reduce wetland impacts
- Reroute unsustainable trail
- Provide for better multiuse opportunities
- Reduce long term trail maintenance costs



Rock Circuit Trail: Middlesex Fells Reservation Trail Relocation



- **Permits and Reviews**
 - DCR
 - New Trail Form
 - PNF/MHC
 - Wetlands
 - RDA Conservation Commission

Rock Circuit Trail: Middlesex Fells Reservation Trail Relocation



- **Partners:** NEMBA, SCA
- **Special Features:**
 - Historic Culvert: Dated coin
 - Proximity to PVP/forested swamp
 - Sustainable multiuse trail
 - Trail closure, wetland restoration

[illegible]

- GPS and assess the condition of all existing trails on Hingham Open Space parcels
- Provide recommendations for existing trail improvements and on going maintenance
- Assess connectivity between open space parcels and communities, schools and commercial areas and prioritize future links
- Public participation via public meetings and online surveys



Hingham Comprehensive Trails Plan

Fall 2015 (Deliverables)

- Trail maps with park information
- Funding opportunities
- Trail building contractor and expert volunteer groups
- Best Management Guidelines for Trail Maintenance, Creation of New Natural Surface Trails, Trail Tools and Working with Volunteers
- Trail Kiosk and blaze design with maps for recommended kiosk locations
- Design scopes for boardwalks, trestle bridge and natural surface multiuse/ADA trails

Hingham Comprehensive Trails Plan

Fall 2015

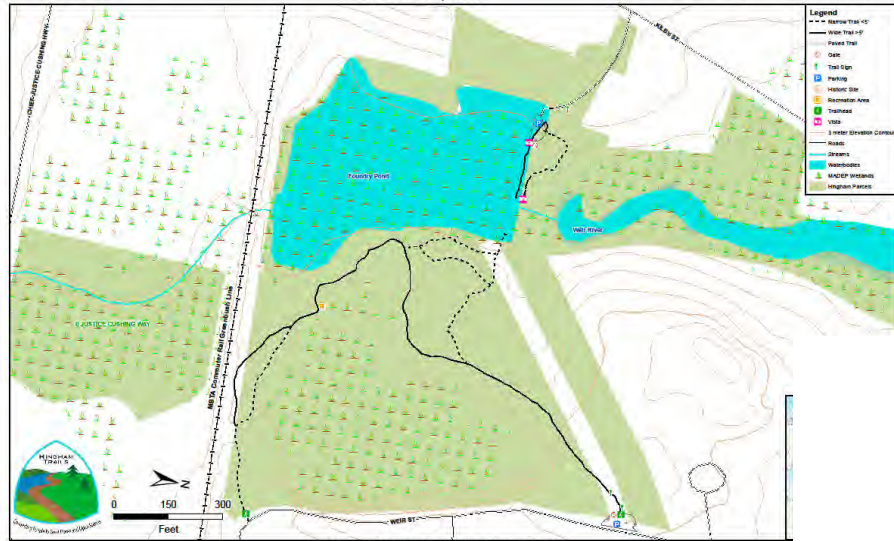


FOUNDRY POND

Open Dusk to Dawn
Hingham Conservation Commission
Contact: (781) 741-1445

Approx 0.77 miles
Weir & 108 Kilby Street

Deer hunting is allowed on this property between
October 19 and November 28. Special permit by
the Conservation Commission is required for this activity.



Foundry Pond

Kilby and Weir Streets
Hingham, MA

The pond was created by damming the Weir River, in the late 18th Century. It was used sequentially by two ironworks and a wool scouring plant, all of which burned. The Sportsman's Club eventually acquired it for fishing and later sold it to the town. The 32 acre parcel includes the salt marsh below the recently reconstructed dam an abandoned quarry. Across Rockland Street, Amonte Meadows (CPA Funded acquisition of 3.3 acres in 2009) has grassy areas, wetlands, and a stand of tupelo trees adjoining the Weir River.

Foundry pond is located at the lower end of Weir River between an old Colony railroad grade and the Foundry Pond Dam. Points of entry can be found on Weir Street and by the Log Road on Kilby Street. Special sights to see include the Foundry Pond Dam, the Fish Ladder, an abandoned quarry, and other activities such as hiking, nature study, fishing, birding, and scenic enjoyment of the waterfall at the spillway. The pond functioned as a power source for accommodated the 1840 Hingham Malleable Iron Company which burned in 1876, and then Colonel Weston's wool processing factory which burned in 1888.



Parking	Trailhead	Paved Trail	Single Track Trail	Wide Forest Trails	Benches	Scenic/View	Cultural Sites	Picnic Area	Interpretative Signs	Fishing Access	Postage Area	Connection to Other Open Space	Connection to Commercial / Transportation Areas
X	X		X	X		X	X			X			

Bouve Trail: Bouve Conservation Area Trailhead Relocation

■ Project Goals

- Reconnect park to abutting communities
- Provide for safe access to park trails
- Ensure abutter privacy and remove encroachments onto private property
- Phased connection with ADA opportunities and water access



Bouve Trail: Bouve Conservation Area Trailhead Relocation

■ Permits and Reviews

— Wetlands

- NOI: Coastal Resources
- Chapter 91 Tidelands
- ACOE/ Tribal Review
- Bureau of Underwater Archeology/MHC

— Wildlife:

- Shellfish Survey: Hingham Shellfish Warden and MA Division of Marine Fisheries



Bouve Trail: Bouve Conservation Area Trailhead Relocation

- **Partners:** Hingham Trail Committee, Town Planner
- **Special Considerations:**
 - Prior agreement with development
 - Climate Change/Sea Level Rise
 - Storm surge
 - Accessibility
 - Minimize maintenance (plantings and trail)
 - Minimize environmental impacts
 - Funding: Combination with CPC



Bouve Trail: Bouve Conservation Area Trailhead Relocation



TOWN OF HINGHAM, MA
BOUVE CONSERVATION AREA, HINGHAM, MA

Concept 1: CONNECT

■ Permits and Reviews

— Other:

- Hingham Architectural Board
- Hingham Open Space Committee



TOWN OF HINGHAM, MA
BOUVE CONSERVATION AREA, HINGHAM, MA

Concept 3: ALTERNATIVE CONNECTION

8/17/2015

10.000.000
10.000.000
10.000.000

BSC GROUP



BSC GROUP



Bouve Trail: Bouve Conservation Area Trailhead Relocation



River Trail: Blackstone Gateway Park

New Trail

- **Project goals**

- Accessible trail along the Middle River connecting the proposed DCR visitor's center to Holy Cross
- Minimize impacts to the wetland resources
- Provide educational opportunities for historic interpretation and environmental stewardship
- Low maintenance

River Trail: Blackstone Gateway Park New Trail

■ Permits and Reviews

— Wetlands

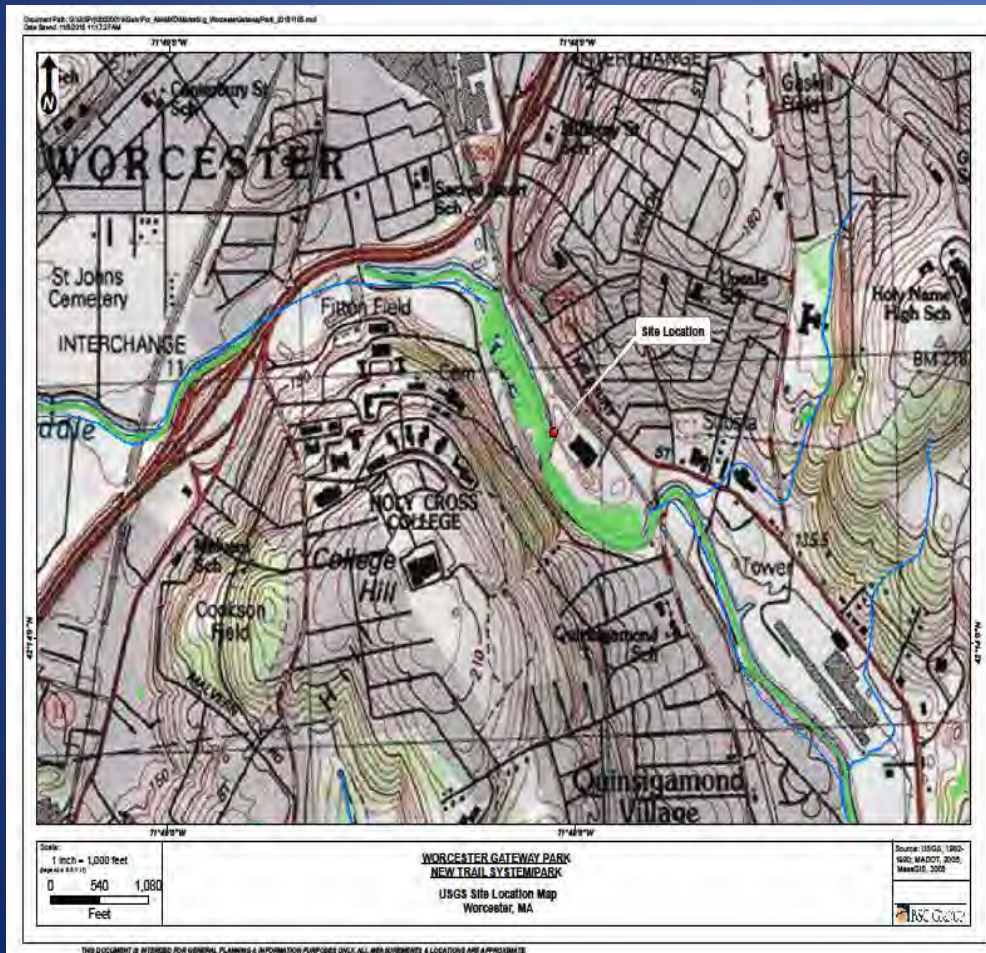
- Notice of Intent
DEP/Conservation
Commission
- Chapter 91: navigable waters,
water dependent use

— MDAR/USDA

- Worcester ALB Quarantine

— MEPA

- DCR Office of Dam Safety

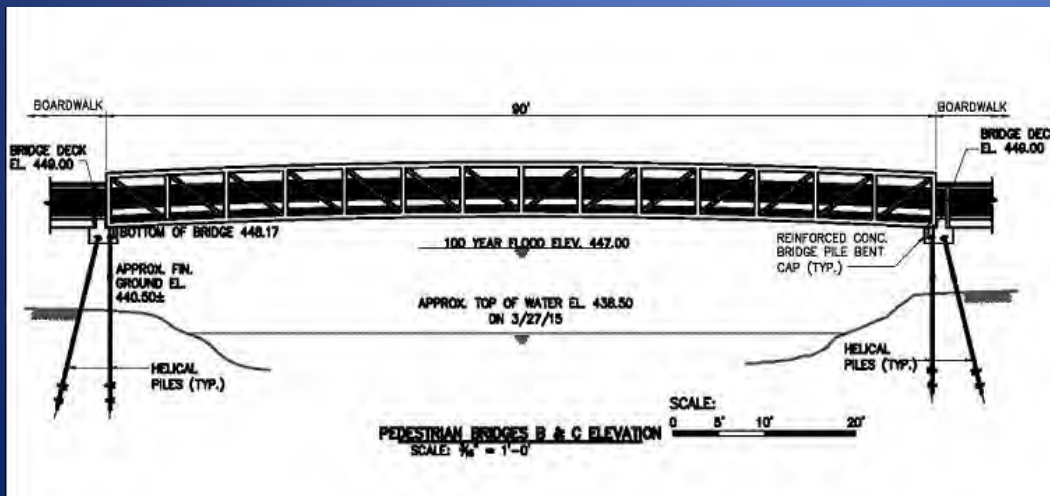


River Trail: Blackstone Gateway Park

New Trail



- **Partners:** Holy Cross, DCR, Abutters
- **Special Considerations**
 - Public Safety
 - Utility easements
 - ADA accessibility
 - Ease of maintenance
 - Reduce wetland impacts
 - Invasive species mitigation
 - Wetland replication





River Trail: Blackstone Gateway Park

New Trail



**NO. 2 VIEW OF SOUTH ABUTMENT
SHOWING ABANDONED INTAKE STRUCTURE**



VIEW FROM SOUTH ABUTMENT

River Trail: Blackstone Gateway Park

New Trail



Merrimack River Trail: Maudslay State Park Historic Bridge Abutments/ Reopening Trail



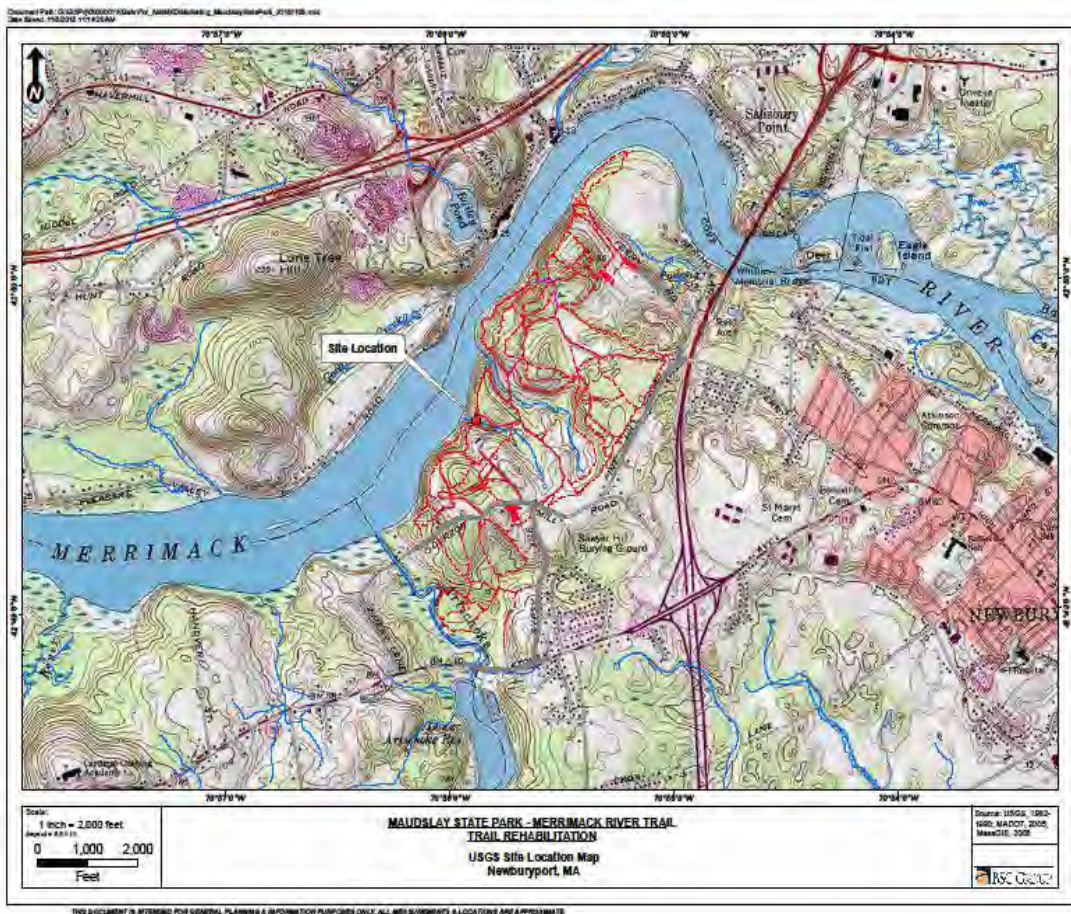
■ Project Goals:

- Mitigate erosion into the wetland
- Provide safe access so that trail could be reopened
- Ensure future sustainability of trail and bridge abutments
- Secure permission to maintain historic vista

Merrimack River Trail: Maudslay State Park Historic Bridge Abutments/ Reopening Trail

■ Permits and Reviews

- DCR
 - PNF/MHC
- Wetlands
 - Bundled RDA
- ESA/MESA
 - NHESP Review



Merrimack River Trail: Maudslay State Park Historic Bridge Abutments/ Reopening Trail

■ Partners: SCA



■ Special considerations:

- Low flow/ No flow
- Sediment controls
- Black Locust
- Railing
- Eliminate the source of erosion



Blue Hills Reservation

Trail Maintenance, Volunteers

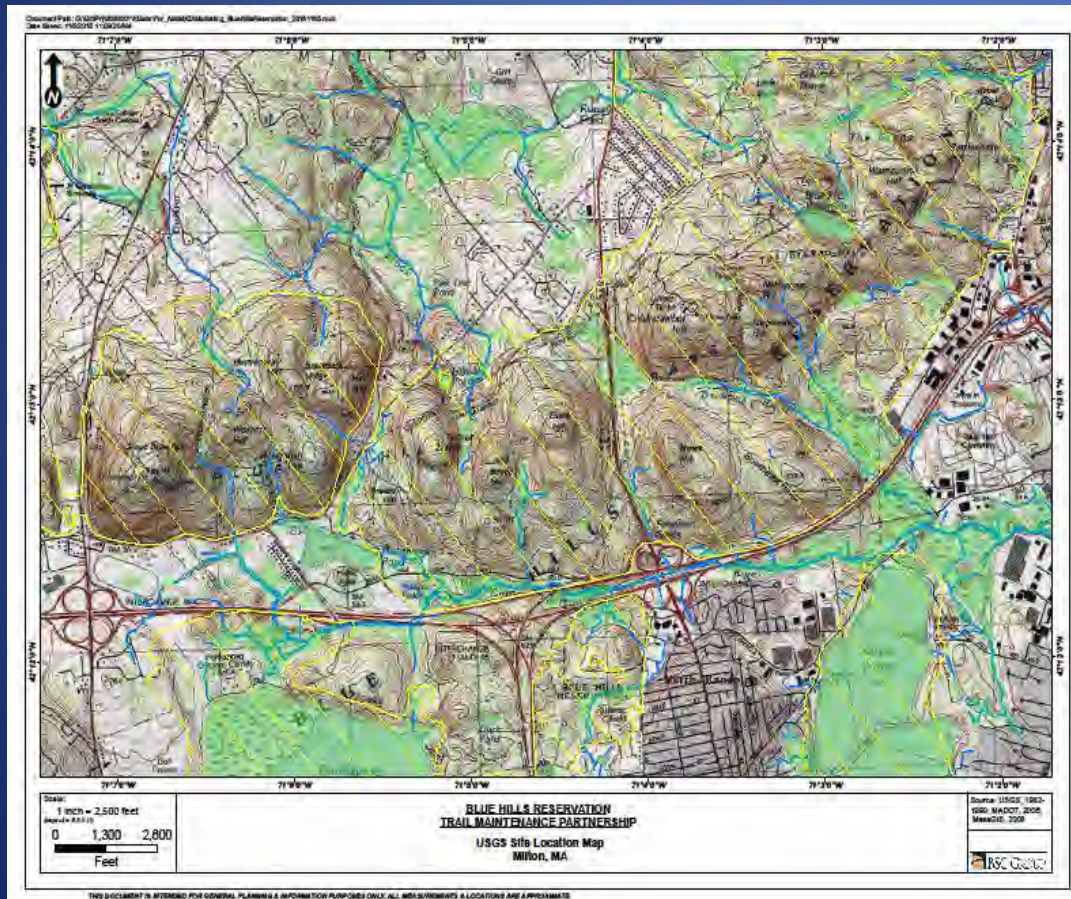
■ Project Goals

- Provide for increased safety and improved conditions on park trails
- Provide rewarding volunteer opportunities
- Ensure compliance with regulatory requirements
- Ensure compliance with DCR best management practices
- Streamline review for trail maintenance activities in the park

Blue Hills Reservation Trail Maintenance, Volunteers

■ Permits and Reviews

- DCR
 - VSA/MOA
 - BMPs
 - MHC/PNF
- Wetlands
 - Local Conservation Commissions
- MESA
 - Habitat Management Plans
 - Individual project reviews
- MEPA: ACEC



Blue Hills Reservation

Trail Maintenance, Volunteers



- **Partners:** FBH, AMC, SCA, NEMBA, Corporations, NepRWA
- **Special Considerations**
 - Volunteer Stewardship Agreement
 - DCR reviews: MHC, Wetlands, Rare Species
 - Habitat Management Plan NHESP (portions of park)
 - Time of year limitations of maintenance activities
 - NHESP Monitor Requirements

Q/A

Ale Echandi

aechandi@bscgroup.com

617-896-4512

Jef Fasser

jfasser@bscgroup.com

617-896-4335

BSC Group, Inc.

33 Waldo Street

Worcester, MA 01608

