

Mass Audubon



Mission

To protect the nature of Massachusetts for people and for wildlife.

Vision

A Massachusetts in which nature—whether found in a city park or deep inside the forests of western Massachusetts or within an urban greenway, or along the 1,500 miles of Massachusetts coastline—is valued as essential to quality of life in the Commonwealth, and people live with appreciation and respect for the complex ecological systems that sustain life on Earth, working together to ensure that they are protected.

The Origins of Mass Audubon:



“She’s wearing a dead bird on her head.”



“The Feather Trade”



The Founding Mothers:

The Massachusetts Audubon Society was founded in 1896 by Harriet Hemenway & Minna Hall

Mass Audubon's Sanctuary Network



Here's A Little History





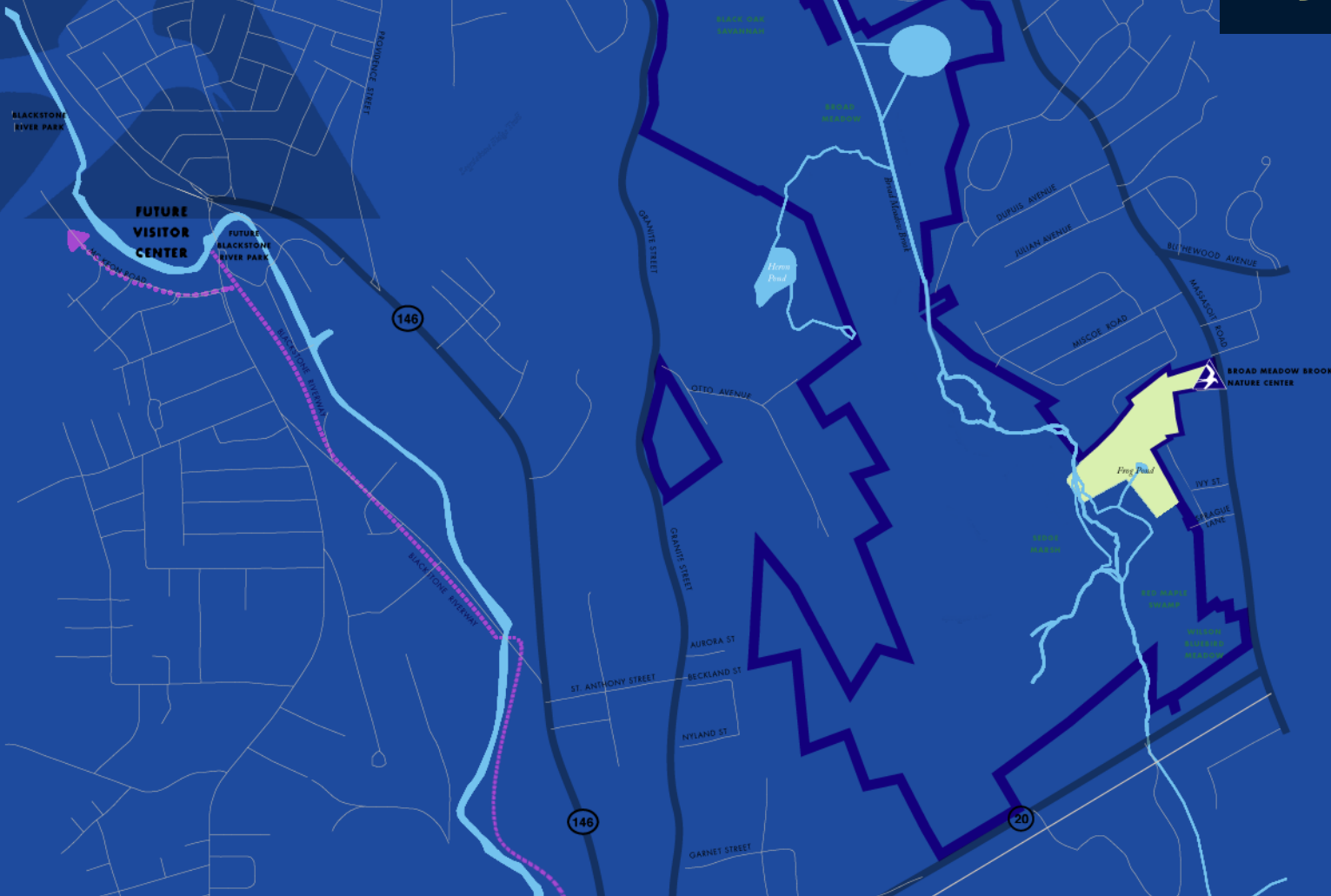
- Opened to the public in 1991
- Largest urban sanctuary in New England
- 435 acres and miles of well-marked trails (some accessible)
- Nature Play Area

Your Sanctuary in the City



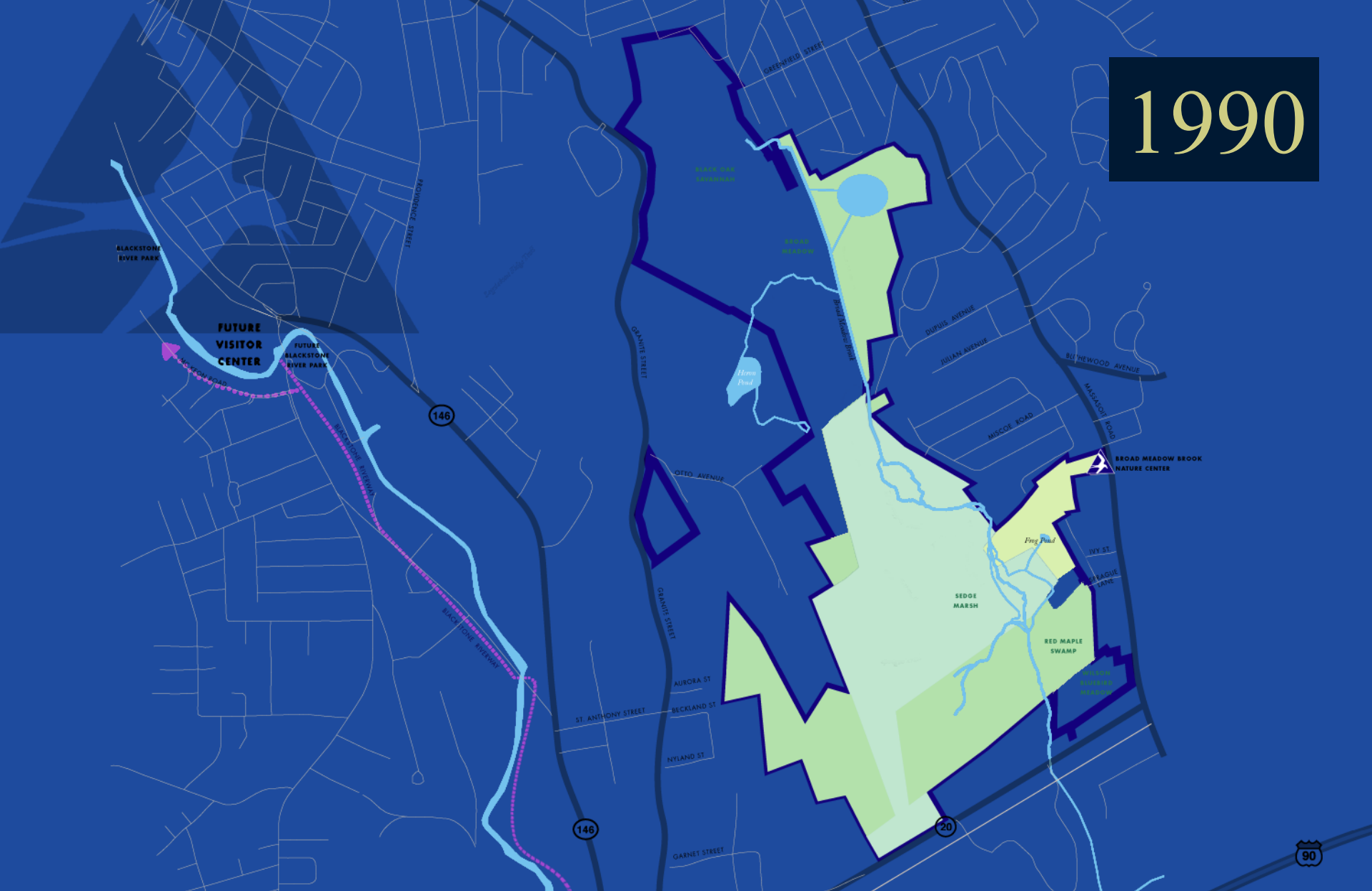
Broad Meadow Brook was established in 1990, made possible by a collaboration of public, private, and non profit interests

1989



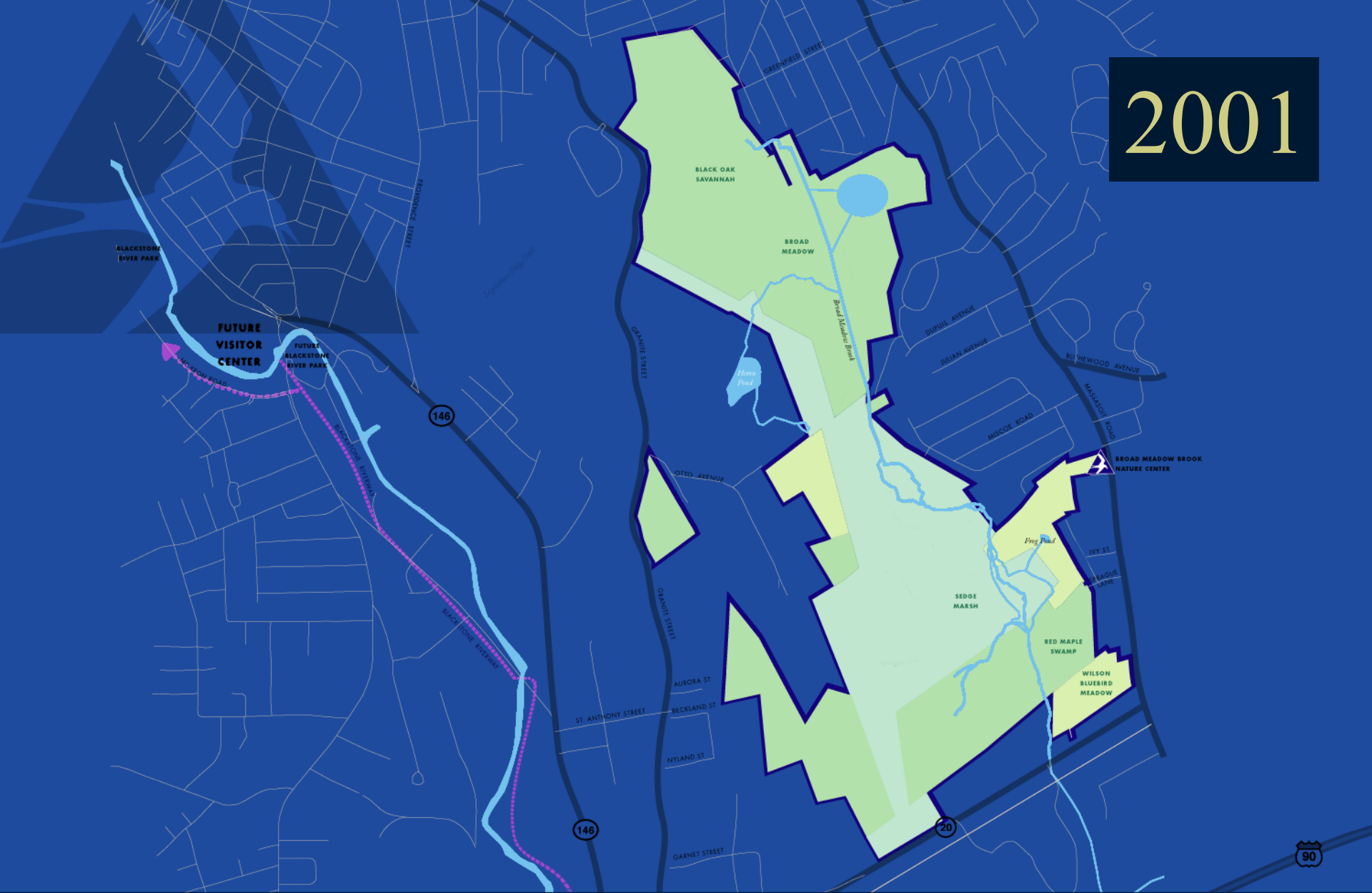
Broad Meadow Brook

1990



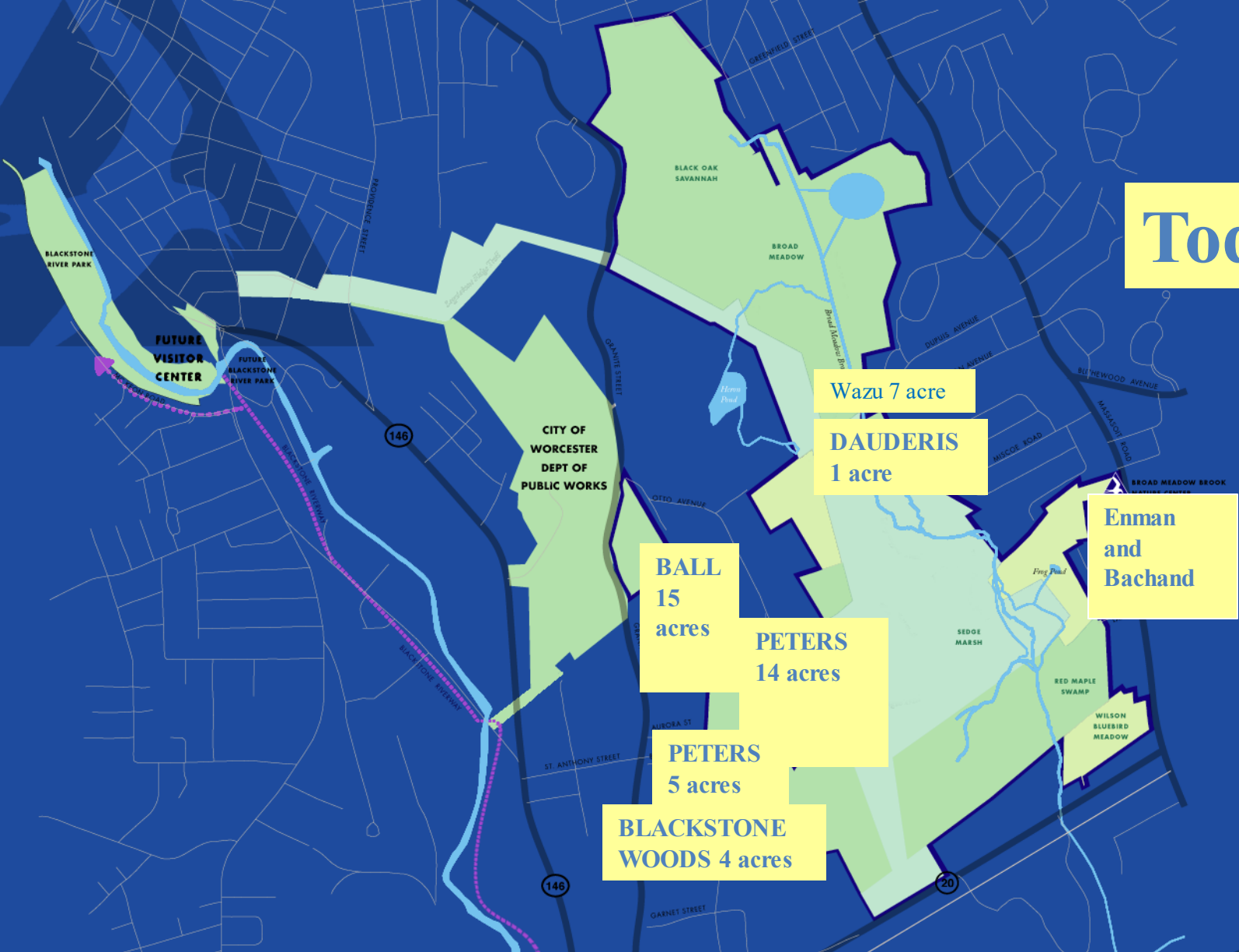
Broad Meadow Brook

2001

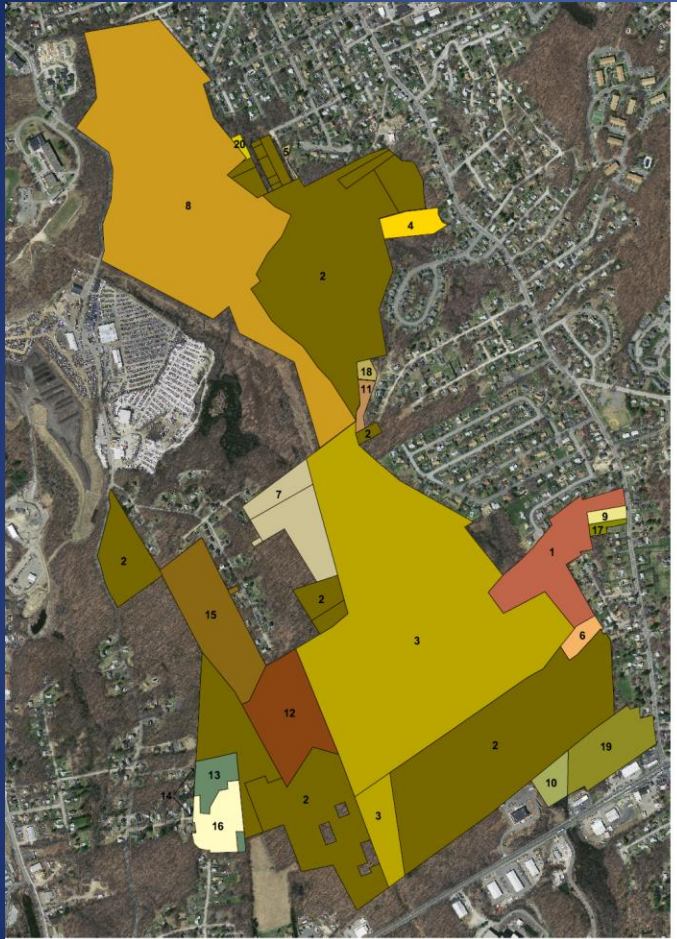


Broad Meadow Brook

Today



Broad Meadow Brook



**Broad Meadow Brook
Wildlife Sanctuary
Land Acquisition History**

A 430-acre urban sanctuary managed through cooperative agreements with the City of Worcester, National Grid, and Greater Worcester Land Trust



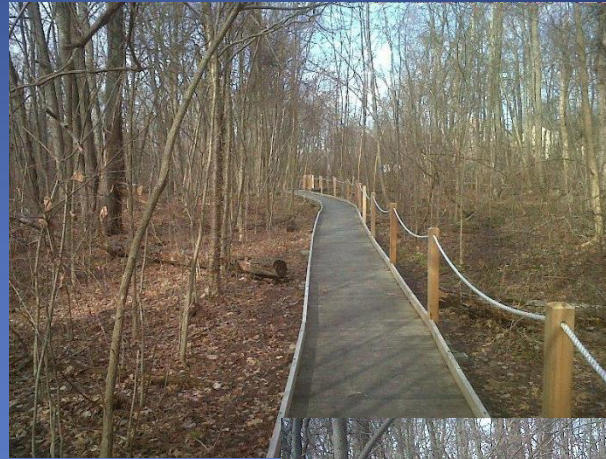
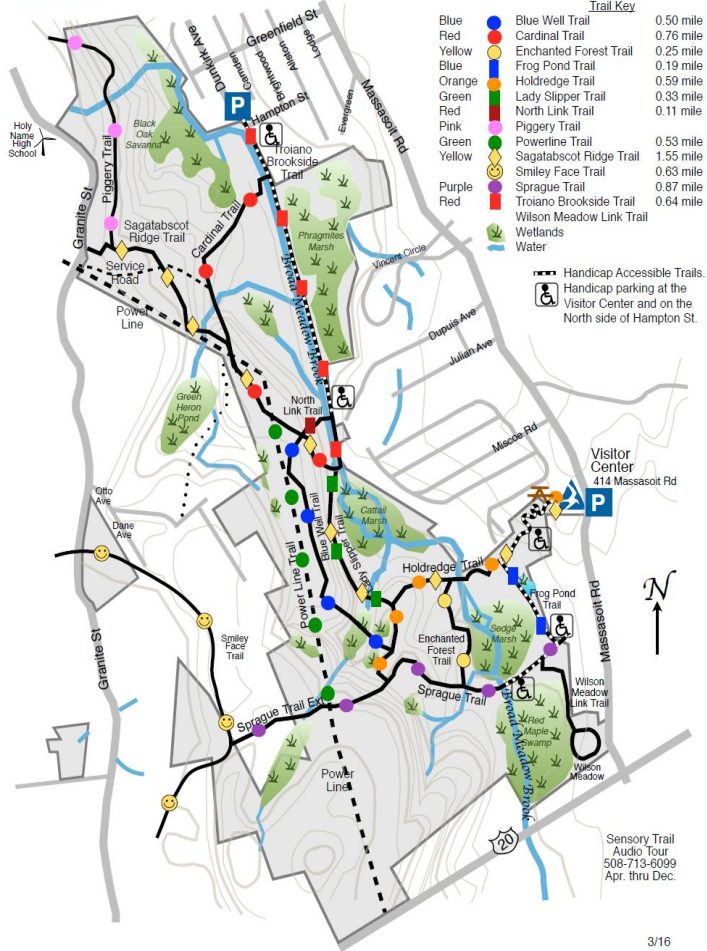
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| <p>Acquired by Mass Audubon by purchase</p> <ul style="list-style-type: none"> 1990 Hollister (1) 1999 McCabe (6) 2000 Quill (7) 2002 Erman (9) 2004 Shelter Island (2) 2005 SIF First Lst (14) 2005 Shelter Island (13) 2008 Bachard (17) | <p>Acquired by Mass Audubon by donation</p> <ul style="list-style-type: none"> 1995 Hahnemann Family (5) Cornie Katsopoulos Jane Pellegrino Georgia Theobald 1998 Howarth (3) 2002 Kessel (10) 2004 Shuster (11) 2011 Waza Realty Trust (18) 2013 Dury (20) 2013 Wilson (19) | <p>Sanctuary lands managed by Mass Audubon for Partners</p> <ul style="list-style-type: none"> New England Power (3) Worcester CC (2) <p>Parcels owned by City, CDR held by MMS or MMS/GWLT</p> <ul style="list-style-type: none"> 2002 Galvin-Charlton (8) 2007 Ball (15) 2009 Shelter Island (16) |
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Prepared by Mass Audubon March 2014.
Parcels: 1=141414; 2=141414; 3=141414





Broad Meadow Brook Wildlife Sanctuary Worcester, MA





What We Do



Education

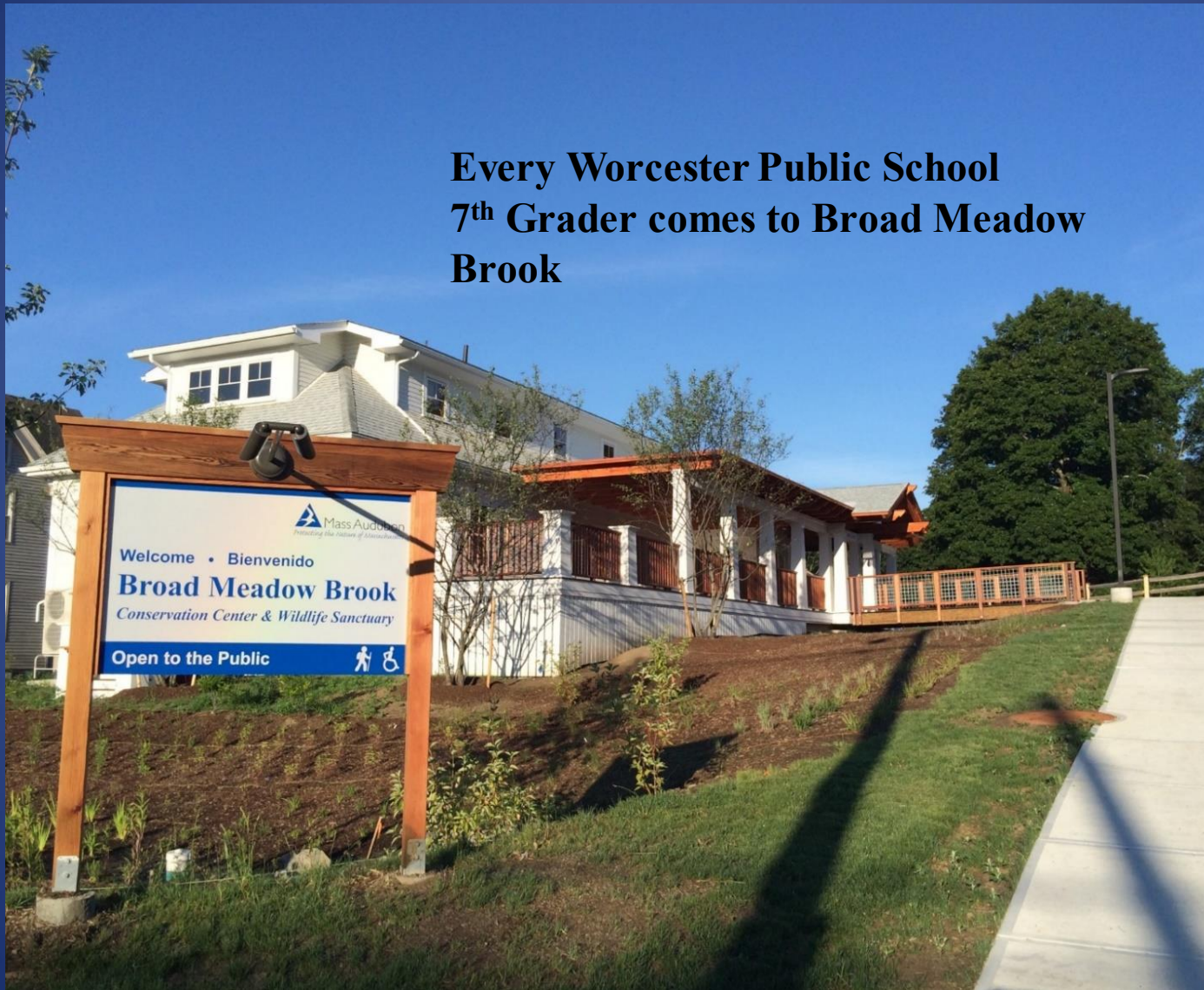


Advocacy



Land/Habitat
Protection

**Every Worcester Public School
7th Grader comes to Broad Meadow
Brook**





An example of one of many afterschool programs to explore and learn about the outdoors especially in and around the City of Worcester.



Worcester East
Middle
School



Scouting Programs



- Business organizations
- Youth organizations
- Conservation groups
- Cultural institutions
- Colleges and schools
- City departments
- State agencies



Collaboration

Conferences, Meetings and Special Events



SPECIAL EVENTS

BOO MEADOW
BROOK



Many volunteers
help out at
at Broad Meadow
Brook

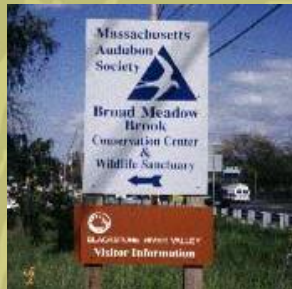
Pumpkin Carving

Thank You South High School!





Broad Meadow Brook *For Everyone*



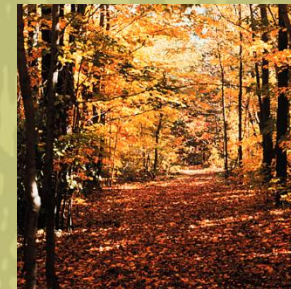
Increase
Public Access



Engage
and Educate
Visitors



Connect to the
Blackstone
Riverway



Preserve and
Expand the
Sanctuary

Worcester to Providence





Visitor
Center



Troiano
Brookside Trail



To Cardinal Trail
and
Lady Slipper Trails





Holdredge Trail ↗
↖ Frog Pond Trail

Visitor
Center
→

A topographic map of the Blackstone River watershed area, showing the river and its tributaries in blue. The map is overlaid with a grid of watershed and subbasin boundaries in black. Various geographical features are marked with small icons: a deer in the upper right, a bear in the lower right, a bird in the upper center, and a house in the lower left. The title 'Blackstone River Watersheds Tributary Subbasins' is printed in blue text on the right side of the map.

**Blackstone River
Watersheds
Tributary Subbasins**



Gail's Butterfly Garden



Common Checkerspot



Painted Lady

Our beloved monarchs, Gulf Fries, Trochilids, Swallows and painted flies (needed to attract butterflies). A species of milkweed, known as Butterfly Milkweed, is the source of milkweed toxin which is essential for the butterfly!



Queen Doveswing

Robert Frost called butterflies "flowers that fly"

Did you know... Monarch Chrysalis was a passionate butterfly gardener!



Common Checkerspot



Painted Lady

A successful butterfly garden needs at least 4 ingredients:



Butterfly Milkweed

Water (a water feature like a birdbath)

Shelter (The plants provide cover, shelter and butterflies love to rest.)



Queen Doveswing



Common Checkerspot

Food! Most monarch butterflies feed on milkweed. Painted Ladies, Gulf Fries, Swallows, Queen Doveswings and Butterfly Milkweed.



Queen Doveswing

Most monarch butterflies have only one season. At that time, they reproduce and lay eggs on specific plants, so if the conditions are not ideal, they may not survive.

INTERPRETIVE SIGNS ON TROIANO BROOKSIDE TRAIL



Heron Pond Protection Project



Why This Matters

This is an incredible opportunity to protect a large, undeveloped parcel in an otherwise urban setting. Doing so will not only conserve important natural resources, but will also improve climate resilience in Worcester while increasing access to nature for the community.

OPPORTUNITY KNOCKS





**The Enman house is preparing to move!!
Making way for needed parking**

Tuesday, December 22, 2009

A win-win swap

AUDUBON MOVING HOUSE TO MAKE ROOM



A two-and-a-half-story house on the Broad Meadow Brook Conservation Center and Wildlife Sanctuary on Massasoit Road is being moved a couple of lots down from Broad Meadow Brook. (T&G Staff / TOM RETTIG)



The Great House Move !

Making room for more schools, camp, and parking! Come see! It worked!

RECYCLING !!!!!



We were able to expand the entrance and exit with better sightlines



Have more outside play and group program space



And increase areas for parking and for school bus and camp drop off!



Welcome • Bienvenido

Broad Meadow Brook

Conservation Center & Wildlife Sanctuary

Open to the Public



**Many “green” features- Rain Gardens
to manage stormwater**





 Mass Audubon

GOING GREEN: STORM WATER

Our Demonstration Rain Garden



This rain garden is designed to collect storm water from the roof and infiltrate it into the ground. Its native plants tolerate both wet and very dry conditions, and attract wildlife. A rain barrel also collects storm water that we use for irrigation.

Without them, storm water would flow onto the road, down the storm drain, and into Broad Meadow Brook, bringing with it pollutants and causing flooding.

Features

- A shallow basin with gentle slopes
- Soil that allows infiltration
- Moisture-tolerant plants with deep roots to trap sediment
- Attractive to butterflies and birds

Benefits

- Reduces the volume of storm water and pollution entering streams
- Creates a source of water for your yard between rainfalls
- Saves money on your water and sewer bills
- Keeps water in the ground, where it belongs
- Adds an attractive and interesting new landscape element to your home
- Provides opportunities for observing wildlife

The Problem with Storm Water

As land becomes more developed, impervious surfaces like roads, driveways and rooftops generate more storm water runoff. With fewer vegetated areas, there is less infiltration of rainwater to groundwater. The result is both greater flooding in wet weather and dryer streams in dry weather.

In densely developed areas like Worcester, homeowners can help reduce storm water impacts by building their own rain garden. Learn how to create your own at

www.massaudubon.org/raingarden

This project is part of the Campaign for a Fishable/Swimmable Blackstone River by 2015



Many thanks to the following for helping support the installation of this rain garden:
Tight & Bond, Bigelow Nurseries, Blackstone River Coalition, BSC Group, Camosse Masonry Supply, Cook Company, Inc., French Foundation, Mrs. Howard Booth, Nathaniel Wheeler Trust, Precision Scapes, Inc.

Rain Garden





Welcome to the
Solar Pavilion
(donated by St. Gobain)



See energy producing
solar panels located
on south facing roof.



but despite progress to date on broader scale- we face significant challenges:

- Loss of biodiversity
- Inequitable access to nature
- Climate change



Time for a new Action Agenda... Jenn Madson, Regional Director



GO WILD

Mass Audubon's Action Agenda

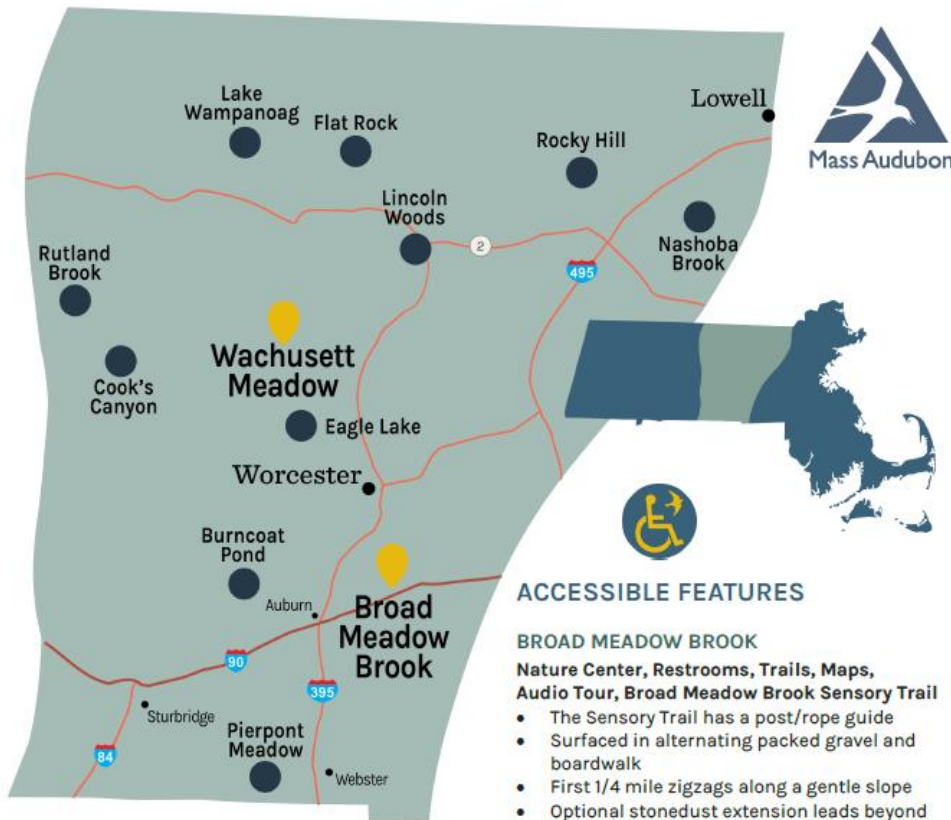
2021-2026



Mass Audubon
Protecting the nature of *Massachusetts*

Mass Audubon's Sanctuary Network





ABOUT MASS AUDUBON

With more than 135,000 members and supporters, Mass Audubon protects more than 38,000 acres of land throughout Massachusetts, saving birds and other wildlife, and making nature accessible to all. We welcome you to explore a nearby sanctuary, find inspiration, and get involved. Learn how at massaudubon.org.

ACCESSIBLE FEATURES

BROAD MEADOW BROOK

Nature Center, Restrooms, Trails, Maps, Audio Tour, Broad Meadow Brook Sensory Trail

- The Sensory Trail has a post/rope guide
- Surfaced in alternating packed gravel and boardwalk
- First 1/4 mile zigzags along a gentle slope
- Optional stonedust extension leads beyond the post/rope guide to the brook
- Audio tour
- Braille signs and tactile maps

WACHUSETT MEADOW

Nature Center, Restrooms, Mary E. Nagle Pavilion Trails:

- South Meadow Trail Spur (to the big oak tree overlooking the Beaver Wetland)
- Trail to the Nagle Pavilion



Wildlife Sanctuaries of Central Massachusetts



Mass Audubon's Action Agenda 2021-2026



Goal 1: Protect and Steward Resilient Landscapes

Protect + Steward

- Protect 30% of Massachusetts by 2026 through a public/private coalition
- Increase the pace of Mass Audubon's land protection fourfold (10,000 new acres)
- Enhance the management of 200,000 acres of forestlands for wildlife and climate resilience, while meeting the economic needs of landowners
- Restore, protect, and manage 2,500 coastal acres



Goal 2: Advance Inclusive and Equitable Access to Nature

Listen + Engage

- 20 new urban green spaces and sanctuaries by 2026
- Increase participation of children from low-income families and communities of color in educational programs (35,000 to 90,000)
- Double the total number of children who benefit from our programs (150,000 to 300,000)
- Grow scholarship funding for these programs to \$2 million annually



Summer Camp - 721 campers in 2022 all enjoying nature right here in the City of Worcester !



Every Worcester Public School 7th Grader comes to Broad Meadow Brook



FREE
ADMISSION

Worcester Residents , Mass Audubon Members,
and Members of Greater Worcester Land Trust



Broad Meadow Brook

Conservation Center & Wildlife Sanctuary



The Place to Walk in Worcester!

Over 430 acres and five miles of marked trails to enjoy!
Located on Massasoit Road off Grafton Street in the southwest
part of Worcester, 3/4 mile north of Route 20.
Conveniently accessible via WRTA Route 5.

\$4 Adults | \$3 Children (2-12) & Seniors (65+)



Broad Meadow Brook Conservation Center & Wildlife Sanctuary
414 Massasoit Road • Worcester, MA 01604
508.753.6087 • email bmbrook@massaudubon.org
massaudubon.org/broadmeadowbrook

Broad Meadow Brook

What's there to do?

- Listen to the sounds of nature
- Enjoy walking 15 marked trails 
- Have a break in our picnic area
- Discover over 700 plant species 
- Explore our natural play area
- Explore a diversity of wildlife habitats 
- Learn how to protect our planet in the visitor center 
- Get inspired! 

ADMISSION

\$4 Adults
\$3 Children (2-12)
& Seniors (65+)

VISITOR CENTER HOURS

Monday: closed
Tuesday-Sunday
12:00 to 4 pm
Trails open daily from
dawn to dusk

414 Massasoit Road
Worcester, MA 01604
508-753-6087
massaudubon.org

Broad Meadow Brook stop
on WRTA Route 5.



FREE ADMISSION for Worcester Residents , Mass Audubon Members,
and Members of Greater Worcester Land Trust



Goal 3: Mobilize to Fight Climate Change

Mobilize + Advocate

- Help the state achieve net zero carbon emissions goals for 2030 and 2050
- Engage our 135,000 members to advance climate policies and solutions
- Train more than 1,000 climate and conservation advocates

Jenn Madson introduces Martha Gach,
Education Manager and Conservation Coordinator
to talk about our Youth Climate Action Program, and to highlight a
specific habitat enhancement project

Wetlands Restoration Project at BMB

- 2016 – Worcester upgraded sewer system
- Goal: self-sustaining, dynamic wetland ecosystem that
 - functions naturally, cleans & stores water
 - accessible to neighbors, residents, and visitors
 - supports wildlife
- Partners: Mass Audubon, City of Worcester, Massachusetts Division of Ecological Restoration, Clark University





BMB Wetlands Restoration Objectives:

- **Restore the Broad Meadow Brook wetland complex:** improve streamflow & native habitat value for wildlife, increase flood storage capacity & improve water quality
- **Improve climate resilience & reduce flooding issues** for neighbors.
- **Improve water quality/quantity** in upper Broad Meadow Brook. Alleviate development impairments.
- **Re-naturalize thousands of linear feet of stream channel**, improving habitat, fish & wildlife connectivity, floodplain function, and ‘dynamic’ stream system.
- **Enhance the Sanctuary visitor experience** with improved trails & wildlife viewing opportunities.
- **Inspire stewardship** and future restoration projects through education & outreach activities.



Start of the Brook

Storm drains
2 square miles
Urbanized landscape





Midrea

- Public Trail
- Sanitary Sewer
- (separate) Stormwater System



Water leveler, aka 'beaver
deceiver'



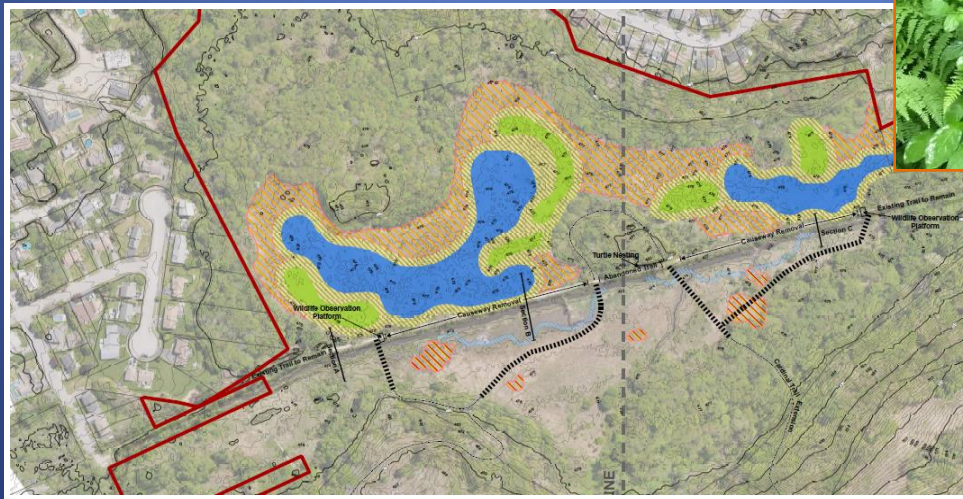




Southern Section

- Channel culverted
- 500 feet
- Secondary forest cover

- Current work: survey, hydrology & hydraulic modeling, community engagement



Stream after
July 2021
hurricane

Back to Deb to talk about Worcester Green Plan initiatives

Worcester's Green Initiatives Mass Audubon supports:

Declaration of Climate Emergency adopted by Worcester City Council in Sept 2019- *a step in the right direction but more to do- Doherty High – Net Zero plus, Solar Farm on Greenwood St Landfill, etc.*

Green Worcester Plan- Adopted by City Council Spring 2021 *now time to implement!*
Support the new Dept. of Sustainability and Resiliency

Important Goals:

**Worcester will be powered by 100% clean and affordable energy- by 2030 all municipal facilities, by 2035:100%renewable electricity citywide, by 2045: 100% renewable energy that includes heating and transportation*

**Maintain, improve , connect and expand quality natural systems in a linked network of parks, open spaces, and waterways, including street trees and public spaces*

**Resident and visitors will have numerous sustainable transportation and mobility choices*

**water and related infrastructure systems will be managed as one system to enhance sustainability and resilience*

Community Preservation Act – *provides matching funds from the state to cities and towns for historic preservation projects, affordable housing, and open space and park projects- growing support to get on the ballot for citizens to vote*

Support Worcester's New Transportation Department-
More than cars- bike lanes, walkable and safe streets for pedestrians, increased public transit services

Fare Free Bus Service with the Worcester Regional Transit Authority- WRTA
Advisory Board just voted to extend FARE FREE through June 30 2023.
ZERO FARE COALITION is active in Worcester with support from the Worcester Area Chamber of Commerce, the Worcester Municipal Research Bureau, Senator Chandler and many more- Let's Get everyone on the Bus!!!! Try Transit!!!

Worcester Tree Initiative with Tower Hill- *continued effort to influence and support expanded tree planting and stronger regulatory requirements for tree replacement associated with new development*

Support Urban Forestry Master Plan Completion and Implementation and active and forceful Worcester Tree Commission

Re-Open and support the Blackstone (Visitor) Center near Rt !46 – *soon to be under team management with the Dept. of Conservation and Recreation (DCR) and the City and the Blackstone Heritage Corridor Inc. ??? (Donna Williams, can you update us?)*

Complete and Keep Updated City's Open Space and Recreation Plan in order to maintain eligibility for state and federal funding for park improvements, open space acquisitions and recreation projects. For Example:

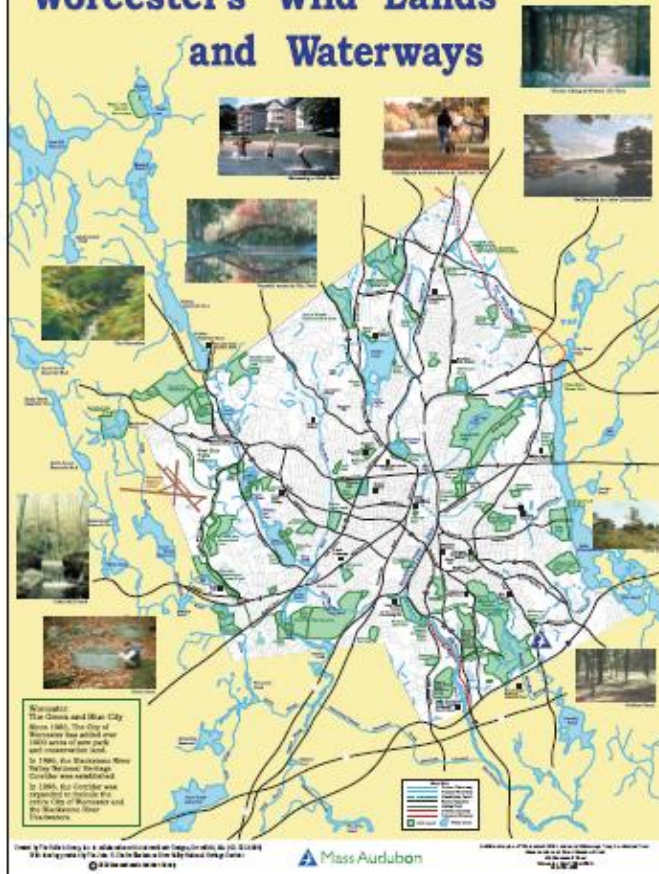
***Coal Mine Brook Park Development-** a new park now under construction on land between Plantation Street and North Lake Ave

***New idea: Extending the Blackstone Gateway Park and Boardwalk to include the Riley Stoker Property-** *a new project promoted by the Greater Worcester Land Trust*



This parking area could provide access to the boardwalks
Both current and expanded, plus the former building
could become need municipal recreational fields- stay
tuned!! 😊

Worcester's Wild Lands and Waterways



WORCESTER IS FULL OF PARKS, PONDS AND PLACES TO ENJOY!!!!!!

And it is thanks to local collaborations and partnerships with neighborhood groups and city officials, conservation groups, state support, Worcester is blessed with natural resources to celebrate and steward.

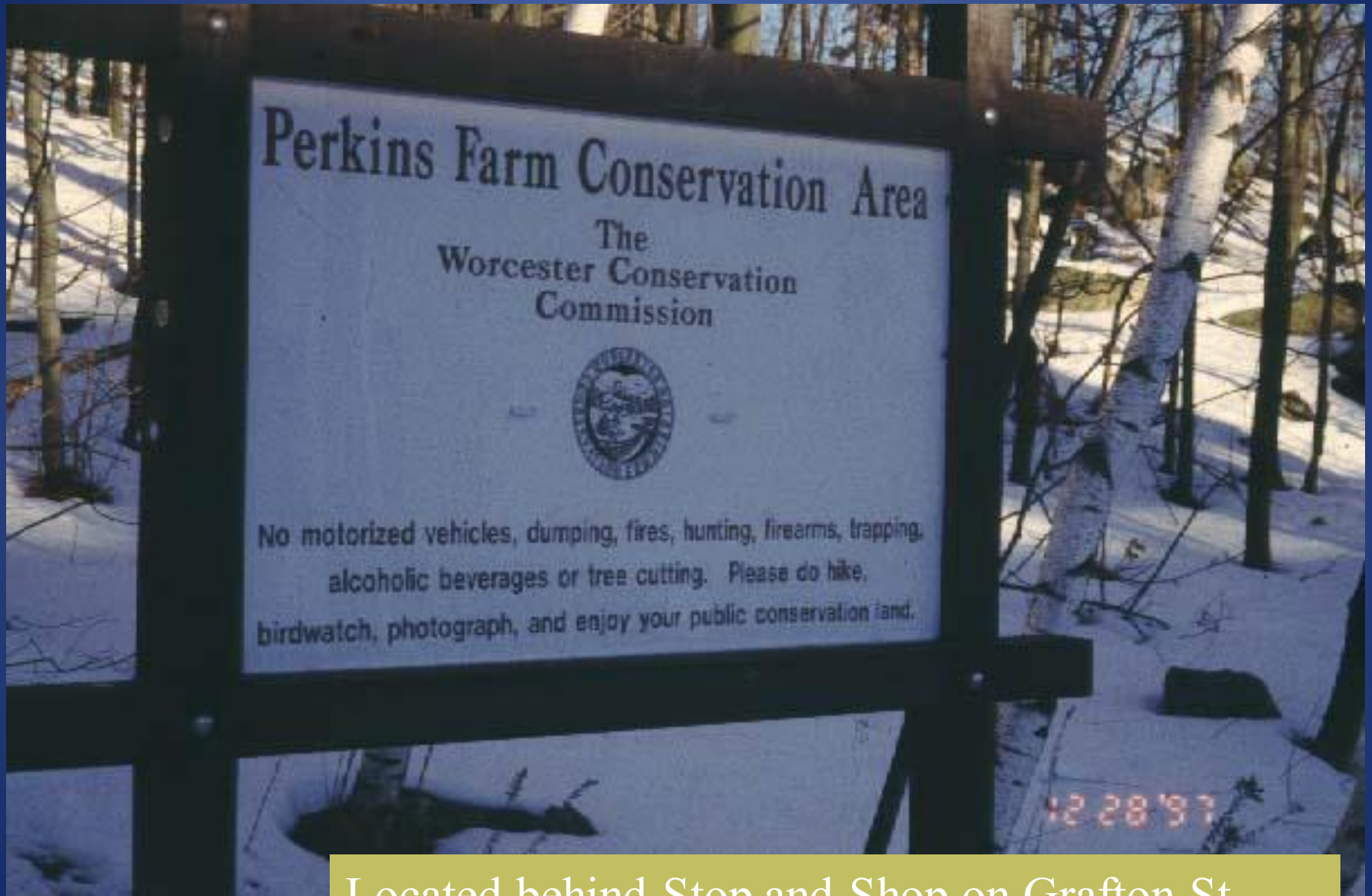


But we need to take better care of them! Fund the Park System!!!



God's Acre- one of the first conservation areas up by the airport





Located behind Stop and Shop on Grafton St



Vernal Pools- An early spring
Discovery...



Crow Hill Conservation Area – new trail head with parking across from EcoTarium.



ELM PARK





Bancroft Tower at Salisbury Park



CASCADES PARK
WORCESTER MA







Massachusetts Vietnam Veterans Memorial

Worcester, MA



GREEN HILL



ay. The farm is open year round and is located

Jump To... ▾





LAKE QUINSIGAMOND



Regatta Point Community Boating



COES POND BEACH



**NEW PLAYGROUND AT COES POND
AND NEW HOME FOR
HISTORIC STEARNS TAVERN- *SOON TO OPEN AS
CAFÉ AND COMMUNITY CENTER***



Indian Lake

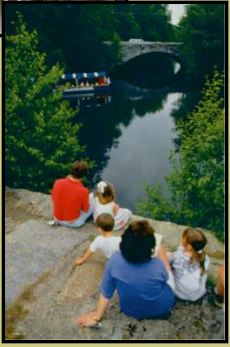
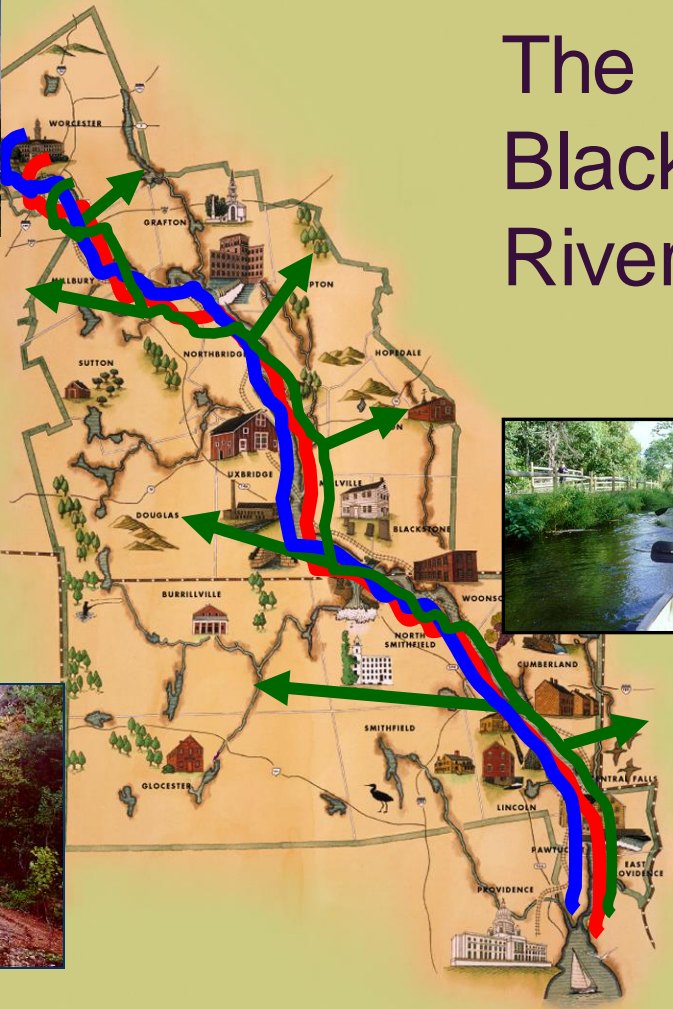


The Blackstone Riverway

Blueway

Bikeway

Greenway

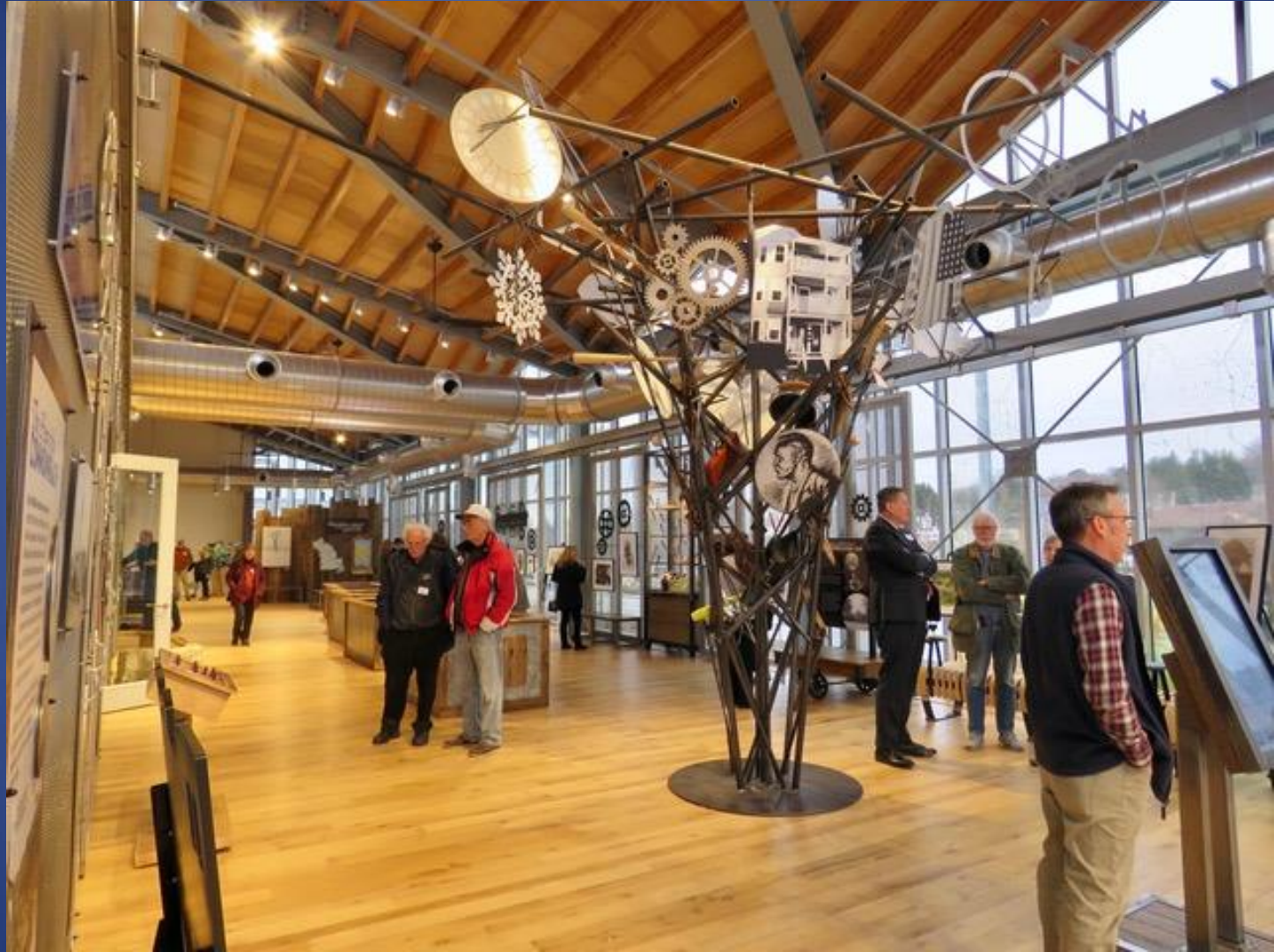


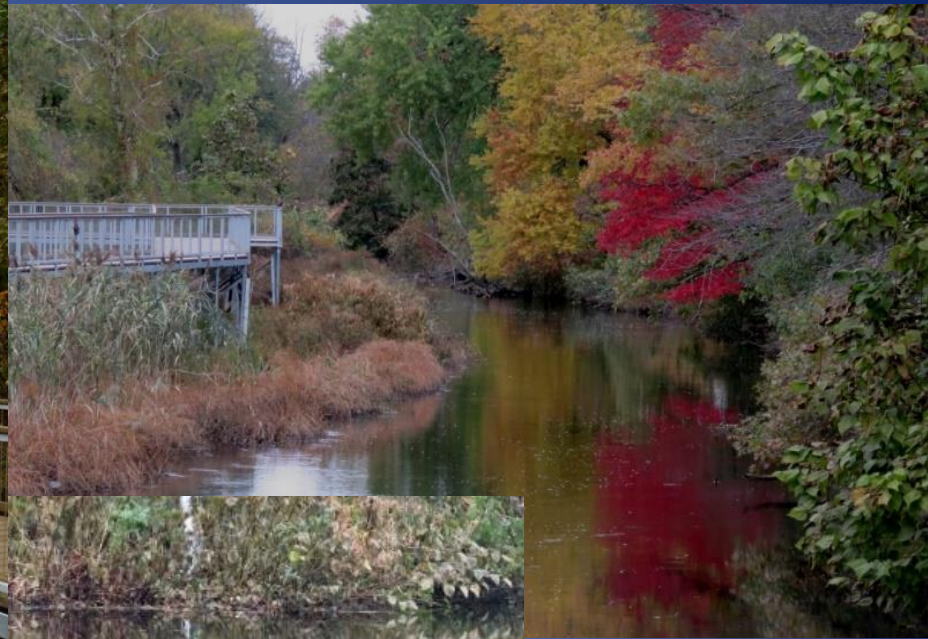


Opening of the New Blackstone River Heritage Corridor Visitor Center in Worcester

October 2018







City of Worcester's New Blackstone River Gateway Park

*(located off McKeon Rd- entrances are
across from Holy Cross
Playing Fields and at intersection of
Blackstone River Rd
and near new Blackstone River Heritage
Corridor Visitor Center)*





TREE IDENTIFICATION

Look For These Trees Along The River

AUDIO 

Black Locust
Robinia pseudo-acacia



The most decay-resistant North American hardwood with green-veined white flowers in spring.

Gray Birch
Betula populifolia



This glomer species helps break down toxic contaminants like polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs).

Red Maple
Acer rubrum



This wetland cousin of the sugar maple is also a source of maple syrup.

Black Cherry
Prairies ichotinus



Scratch and sniff the twigs of this fragrant fruit tree.

As in most of New England, the dominant living organisms of this park are trees. At the river's edge are species tolerant of wet soils and occasional flooding, like red maple, black tupelo and alder. Species such as black oak, black locust and gray birch can be found on drier parts of the park. While we often take them for granted, trees provide numerous benefits by taking up carbon dioxide and other pollutants, releasing oxygen, providing wildlife habitat, and creating visual and sound buffers.

Black Tupelo
Nyssa sylvatica



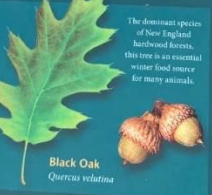
Supporting pollinators, this tree is prized for the quality of honey it produces.

Cottonwood
Populus alabamica



Watch in late spring for floating tufts of cotton as this tree spreads its seeds.

Black Oak
Quercus velutina



The dominant species of New England hardwood forests, this tree is an essential winter food source for many animals.

Alder
Alnus incana



This fast-growing wetland tree produces dense thickets for bird habitat.



The Making of Worcester PASSIONATE PEOPLE

Throughout its history, Worcester has been the home of many passionate people and the movements they championed. Worcester's position as a center for education, innovation, and diversity made it an incubator for some of the biggest reforms in our nation's history.



Paulina Kellogg Wright Davis, c. 1850. Davis presided over the 1st National Women's Rights Convention. In her opening address, she called for "the emancipation of half the world."

Women's rights

On October 23 and 24, 1850, over one thousand women and men gathered at Brinley Hall in Worcester for the first National Women's Rights Convention in the United States. Here, the objective of the women's rights movement was laid out: "to secure for [woman] political, legal, and social equality with man."

Abolitionism

By the 1850s, a few vocal residents of Worcester recognized that its many industries were complicit in, and even reliant on, the practice of human slavery on plantations in the southern states. In 1853 and 1854, Worcester City Hall hosted lectures from anti-slavery activists. At one of these lectures, Worcester's Abby Kelley Foster joined Frederick Douglass at the podium.



Frederick Douglass, c. 1852. A headliner, Douglass actively advocated for abolition and women's rights.



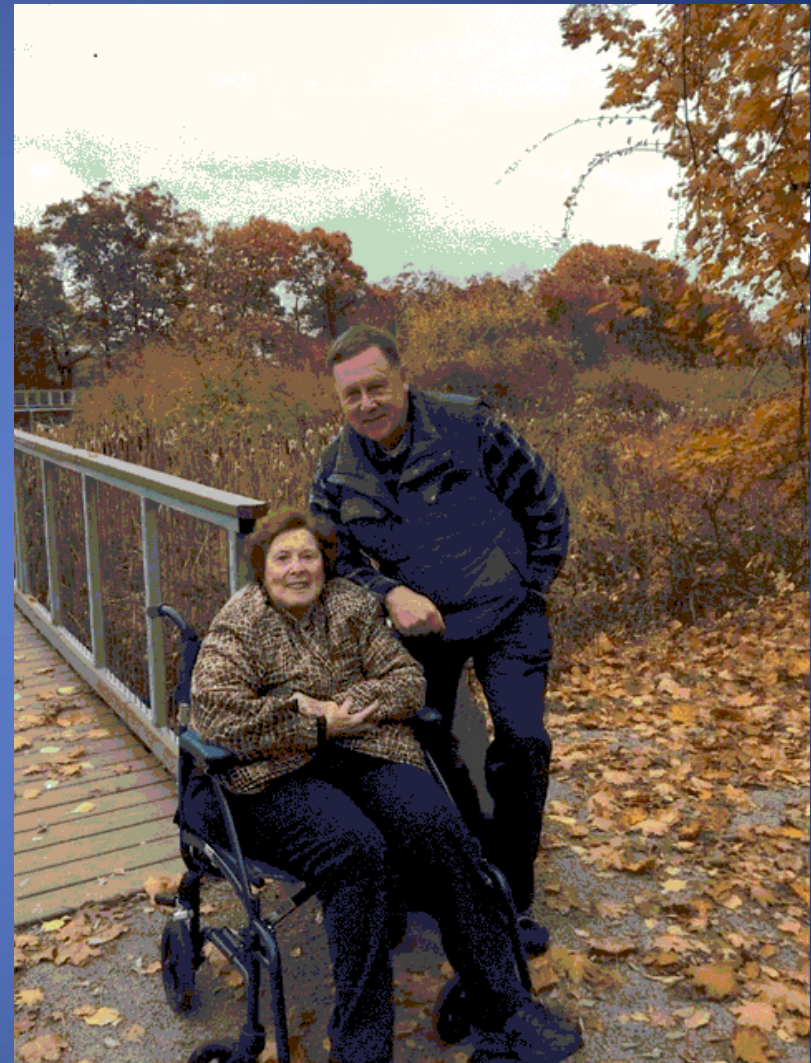
Abby Kelley Foster, c. 1870. A prominent orator, Foster was active in the suffrage and abolitionist movements of the mid-1800s.



Pauline Weston Benson, circa 1880. In 1880, with the New Bedford LCC chapter president, she was instrumental in securing the location for the Worcester State Normal School, which opened in 1882.

Workers' rights

Worcester factory and mill workers mostly stayed out of the workers' rights movement until 1915, when wartime profits made wealthy factory owners even wealthier. That year, workers at some of Worcester's biggest factories went on strike, demanding higher wages and an 8-hour workday.



Evelyn Silver and Dennis Ducsik
Regional Environmental Council
(Celebrating 50th Anniversary this year)

Onwards and Upwards!





Thanks for all you involved with
the Green City plan are doing for
Worcester *(and please come visit Broad Meadow Brook!!)*